

PHILOSOPHICAL TRANSACTIONS.

I. *Catalogue of Nebulæ and Clusters of Stars.*

By Sir JOHN FREDERICK WILLIAM HERSCHEL, Bart., F.R.S.

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Introduction.

THE study of the Nebulæ has, within the last quarter of a century, attracted much more of the attention of observers than heretofore—as well on account of the singularity of the phenomena presented by many of these objects, as in consequence of the increased optical power of the telescopes which the skill and industry of modern inventors and artists have placed within their reach. The brighter nebulæ cannot be viewed to any advantage, and the fainter cannot be seen at all, except by the aid of telescopes of large aperture; and, thanks to the exertions of Lord ROSSE, Mr. LASSELL, Messrs. NASMYTH and DE LA RUE in England, and Messrs. STEINHEIL, FOUCAULT, and PORRO in Germany and France, as regards reflecting telescopes, and to those of FRAUNHOFER, MERZ, CAUCHOIX, CLARKE, COOK, SECRETAN, ROSS, and DALLMEYER as regards refractors; instruments of abundantly sufficient optical capacity not only to repeat and verify the earlier observations, but to disclose new and more interesting features in many cases, have now come into the hands of many observers, both professional astronomers and amateurs, and may be had by any one who is willing to incur a cost which may be considered moderate when it is remembered that instruments of similar dimensions and goodness could not be obtained fifty years ago at any price. In consequence we find a continually increasing attention directed to this department of astronomy. Not to insist on the observations of the Earl of ROSSE and Mr. LASSELL with their transcendent reflectors, we find a systematic examination and review of them undertaken by M. D'ARREST in the year 1855, by the aid of a refractor of 6-feet focal length and $4\frac{1}{2}$ inches aperture in the Leipzig Observatory, whose results, consisting in the carefully determined places, by repeated observations, of about 230 nebulæ, were published in 1856, in a work entitled “*Resultate aus Beobachtungen der Nebelflecken und Sternhaufen*” (Erste Reihe, Leipzig). This review has since been carried on by the same excellent astronomer, with the great refractor by MERZ of 11 inches in aperture and 16-feet focus, erected in the year 1861 at the Royal Observa-

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tory of Copenhagen. Again, from the Observatory of the Collegio Romano, under the direction of Signor SECCHI, have emanated many valuable observations, and from that at Harvard College, Cambridge, U.S., under the late and present Professors BOND, some of the most striking pictorial representations of particular nebulae which we possess. Neither ought a short but very valuable memoir by the late E. MASON, printed in the 7th volume of the Memoirs of the American Academy of Arts and Sciences, to be passed in silence; containing as it does a very elaborate and minute examination, and some excellent delineations of several highly interesting nebulae, particularly those in the great nebulous region of Cygnus. To M. AUWERS also we owe many accurate and valuable observations, besides a Catalogue comprising the whole series of Sir WILLIAM HERSCHEL'S nebulae arranged in order of right ascension and reduced to a common epoch, of which more hereafter. Should the efforts which are now making to procure for the University of Melbourne in Australia a reflector of the first magnitude prove, as is to be hoped, successful, it is understood that one of the principal uses to which it will be devoted will be the examination and exact delineation of the numerous and wonderful objects of this class which the southern hemisphere presents.

These circumstances, but more especially the last-mentioned, render it extremely desirable to have presented in one work, without the necessity of turning over many volumes, a general catalogue of all the nebulae and clusters of stars actually known, both northern and southern, arranged in order of right ascension and reduced to a common and sufficiently advanced epoch which may serve as a general index to them, and enable an observer at once to turn his instrument on any one of them, as well as to put it in his power immediately to ascertain whether any object of this nature which he may encounter in his observations is new, or should be set down as one previously observed. For want of such a general catalogue, in fact, a great many nebulae have been, from time to time, in the 'Astronomische Nachrichten' and elsewhere, introduced to the world as new discoveries, which have since been identified with nebulae already described and well known. Many a supposed comet, too, would have been recognized at once as a nebula, had such a general catalogue been at hand, and much valuable time been thus saved to their observers in looking out for them again.

Besides these there are other considerations which have weighed with me in undertaking the task of compiling such a general catalogue. Having, in the course of my own observations, received the greatest possible assistance from the possession of a Manuscript Catalogue of all the nebulae and clusters discovered by my Father, brought to the common epoch 1800.0, and arranged in zones of 1° in breadth in polar distance, by his sister the late Miss CAROLINA L. HERSCHEL, it seemed to me nothing less than a debt of gratitude, not merely to acknowledge that assistance, but to avail myself still further of it to complete the list of his nebulae by supplying from that catalogue the places of all those nebulae among them which had escaped my own observation (a very numerous list), and by inserting from it all those places of nebulae observed by myself which were deficient in either element (of R.A. or P.D.), or in which I had reason to apprehend

greater errors than those which probably affected her results. This I have accordingly done. But to do it effectually, and at the same time to effect a thoroughly correct identification of the objects in my catalogues with those of the older series, involved, as a necessary preliminary step, the reduction to 1830·0 of the whole of her catalogue, an operation in which I received the assistance of my sons; the computations being executed for each nebula in duplicate and checked by myself, and which, taken leisurely, zone by zone, as time and circumstance permitted, proved less onerous and wearisome than might have been expected. The Catalogue thus reduced to the same epoch as my own, afforded the means of detecting and rectifying a great many errors of nomenclature in the latter. And it was in the course of this part of the inquiry, in which many cases of considerable intricacy and difficulty occurred (as will be evident on a perusal of the notes appended to this Catalogue), and in which it became necessary to recur both to the original sweeps and to a series of registered extracts from them (the nature of which will be more distinctly stated hereafter), that I learned fully to appreciate the skill, diligence, and accuracy which that indefatigable lady brought to bear on a task which only the most boundless devotion could have induced her to undertake or enabled her to accomplish.

Arrived at this stage—that is to say, the mean results of all the observations in my own Catalogues taken, and all the deficient or imperfectly observed nebulae in my Father's list supplied, as above stated, and the whole arranged, not in zones, but in general order of right ascension,—it then became necessary, in order to produce a work available for future observation, to bring the whole up to a still more advanced epoch. The work required for this purpose, calling no longer for any discussion, or collation of the original observations or registers, but being one of simple arithmetical computation from a definite formula—the Royal Society, at my application, very liberally undertook to supply, from the funds at their annual disposal, the amount necessary to procure its execution by an experienced computer (Mr. KERSCHNER, one of the occasional computists for the Royal Observatory of Greenwich). This work the Astronomer Royal most obligingly offered to superintend, affording at the same time his advice as to the general principle on which the computation should be conducted. The plan suggested by him and adopted in effect was this. Each object in the Catalogue was first roughly brought up to the year 1880 by the application of approximate precessions in R.A. and P.D. The places so obtained were then employed to compute the exact precessions in both by the usual formulæ, with coefficients for the year 1880·0, viz.

$$\text{Precession in R.A.} = 3^{\circ} \cdot 072 + 1^{\circ} \cdot 337 \cdot \sin \text{R.A.} \cotan \text{P.D.}$$

$$\text{Precession in P.D.} = -20'' \cdot 06 \cos \text{R.A.}$$

And the precessions, so calculated, were then used to bring up the places from 1830 to 1860, the epoch of the Catalogue; so that, the places being given for 1860 and the precessions for twenty years in advance, the application of those precessions to those places shall give dependable places for any year up to the year 1930, at which time the small error in excess or defect of the true precession consequent on using the fifty years'

antecedent place of the object will be exactly compensated by the further change of place in the same direction in the *subsequent* fifty. Two cases of excessive proximity to the poles, northern and southern, viz. those of the nebulæ Nos. 2043 and 1652 of the present Catalogue, are excepted, the precessions changing so rapidly, and with so much deviation from uniformity, that a rigorous computation, at least in R.A., will always be necessary. In the case of No. 2043, the effect of precession in the thirty years from 1830 to 1860 has been to change the R.A. from $2^h 32^m$ to $10^h 8^m$.

This computation was completed, and a fair copy of the resulting places, arranged *de novo* in their order of R.A. for 1860, forwarded to me on the 6th of February last (1863). The nomenclature of the objects having in the interim been settled satisfactorily by myself, and a description of each nebula, from a careful comparison of all the descriptions given, prepared, it remained only to fill in the columns left blank for these and the other necessary particulars, and to complete the Catalogue by the insertion in their proper places of the places and descriptions of all such other nebulæ, non-observed by either my Father or myself, similarly reduced, of which I could gather any accounts. These will be found enumerated further on in the "Explanation and arrangement of the Catalogue."

On the 23rd of February last, while engaged in this work, I received, by the kindness of the Astronomer Royal, a copy of the important work of M. AUWERS before alluded to, entitled "WILLIAM HERSCHEL'S Verzeichniss von Nebelflecken und Sternhaufen, bearbeitet von ARTHUR AUWERS. Königsberg, 1862," of whose existence this was my first notice. It contains a complete and most elaborate reduction to 1830, from the observed differences in R.A. and P.D. with known stars, recorded in the Philosophical Transactions, of all the nebulæ and clusters in my Father's three Catalogues; together with a separate catalogue of all those collected by MESSIER from his own observations, or those of MECHAIN and others (101 in number), similarly reduced; another of LACAILLE's southern nebulæ, and one of 50 "new nebulæ," comprising nearly all those observed by other astronomers (Lord ROSSE excepted) in this hemisphere—all brought up to the same epoch.

It may be readily supposed that I lost no time in comparing my own previous work with this of M. AUWERS; the places of which having been obtained by the aid of far better and more dependable catalogues of stars, to give the true positions of the zero-points or determining stars in the differential observations, as well as of more exact precessions, and doubtless, a much more systematic process of treatment, would be entitled, *observation for observation*, to be considered as representing the original sweeps more faithfully than could be expected from my own preparatory catalogue. On the other hand, however, the Zone Catalogue from which that was derived possessed the advantage of having been deduced, not from a single difference of R.A. and P.D. between each nebula and a single determining star, but from *all* the observations of each nebula; often in many different sweeps, and in the same sweep often from more than one star; thus eliminating, no doubt, a great deal of casual error. In that catalogue, too, as in my own catalogues of 1833 and that of the southern nebulæ, the individual results of each observation, or, to speak more exactly, of each differential comparison, is separately

recorded, so that any suspiciously large deviation from the mean of all may be at once noticed and traced to its origin in the sweeping books. My reduction was of course based on the means of all these (rejecting such as were obviously and grossly faulty), and might therefore, *pro tanto*, be regarded as of superior authority. This consideration, joined to that before adduced, decided me to retain those places in the present Catalogue which had been derived from this source, except in a few instances (specified in the notes) when it proved, by careful examination of the causes of discordance, that actual mistakes had been committed. And I must not omit to add that the comparison so instituted with M. AUWERS'S results has led me to the detection of several grave errors in my own work which would certainly have otherwise escaped notice (and in some cases have caused the loss of future observations by missetting the telescope), and whose rectification has added materially to its value. On the other hand, as no human work is perfect, I have been led to notice some errors in M. AUWERS'S work itself, which are set down in a list of *errata* and *corrigenda* at the end of this Catalogue; and besides, a good many cases in which, owing to mistakes in the printed catalogue in the volumes of the Philosophical Transactions (many of which stood corrected in MS. in the margin of the copy of those Transactions in my possession, and many more have been silently detected and rectified by Miss C. H. in her subsequent computations), his calculations have been founded on erroneous data, and have therefore led him to assign erroneous places to the objects so affected. Thus on every account the result has been what may be considered a complete expurgation of both our catalogues.

It remains for me to say a few words on the way in which the reduction to 1860 and the calculation of the precessions have been performed by Mr. KERSCHNER, the computist employed by the Astronomer Royal for that purpose. The whole work has been executed on printed forms, which being preserved may at any time be referred to. Since error in computation, however practised the computer, and however checked, is always possible, and occasional error of copying, especially when the order of the entries has to be rearranged, is absolutely unavoidable, I considered it incumbent on me to recalculate, *seriatim* from my original MS. Catalogue for 1830, and taking for granted the precessions set down in the fair copy, for 1880, the places both in R.A. and P.D. of every object included in the Catalogue; keeping an eye meanwhile to the precessions themselves, and their signs, to seize the least indication of error in that quarter. It would have been too laborious to recompute these. As for the precessions in P.D., their regular progression of itself ensures their correctness, as far at least as the integer seconds and the first decimal place. A pretty considerable number of errors (most of them of little moment) was thus detected and corrected—not more, however, than might reasonably be expected in the work of the most expert computist in so extensive a work, consisting of between nine and ten thousand computed entries (taking both elements), and traceable moreover in many instances to obvious misreading, and in some to actual misentry on my part, of figures in the original MS., which but for this further examination would also have escaped notice altogether.

The correction of these and the other errors already spoken of necessitated, in a great

many instances, a change in the order of R.A., and a consequent erasure and interlineation in the MS. The introduction, too, of the other nebulæ (those of M. AUWERS'S catalogue of "novæ," those communicated to me for insertion by M. D'ARREST, and those noticed by Lord ROSSE in his memoir of 1861, amounting altogether to 433 objects) necessitated many more interlineations, often occurring very inconveniently, two or three together, in a way to disfigure the MS. considerably. Unfortunately, too, in the MS. itself the column headed "No. in the Catalogue," which I had intended to have been left blank till all the rest of the work was completed, had been filled in by the transcriber with a series of numbers in regular progression, from 1 to 4629, the actual number of lines of which it then consisted. This made it necessary to renumber the whole *ab initio* in red ink, striking out the former numbers, and thus producing a still more unsightly appearance. Under these circumstances, I debated whether or not to recopy the whole. But, to say nothing of the sacrifice of time (since I could have entrusted it to no other hand), I believe it impossible to copy so voluminous a mass of figures and abbreviated writing without numerous errors. And being satisfied, from the repeated and careful revision it has undergone, of its present correctness, and equally so that with ordinary care on the part of the compositor (should the Council of the Royal Society decide on printing it) no *mistake* can arise from any of the alterations and interlineations it contains, I have decided in favour of presenting it as it stands, with the exception of two sheets which it was absolutely necessary to recopy owing to the extreme closeness of the interlineations, the smallness of the writing, and the transpositions needed. These have each been twice carefully read with the original.

In presenting to the Royal Society this Catalogue, it will be accompanied by the following series of records and documents which it may become desirable hereafter to refer to in elucidation of any point which may arise respecting the history or reduction of such of the objects as occur in my Father's classes and numbers printed in the Philosophical Transactions, viz.—

1st. A series of "*register sheets*," in which are entered up *all* the observations of *each* nebula or cluster copied verbatim from the sweeps, the nebulæ, &c. being arranged in the order of their dates of discovery. These are the "register sheets" referred to in the notes on this Catalogue, and cited by their *general (i. e. current) number*, as H, 1; H, 2; ... H, 2508.

2nd. A similar set of register sheets of all the observations of each of MESSIER'S nebulæ, arranged according to MESSIER'S numbers.

3rd. A general index of the 2508 nebulæ in classes and numbers, to find the "general number" of each to facilitate reference to the register sheets. (This index was drawn up by myself.)

4th. An index list of the same nebulæ, &c. arranged according to the "general number," to find the class and number of each.

5th. A more complete ditto ditto, containing also the rough approximate R.A. and P.D. of each object for 1800, and the determining stars as in the Philosophical Transactions.

6th. A catalogue in zones of P.D. of all the said nebulæ and clusters arranged in each

zone in order of R.A., and reduced to the year 1800 by Miss C. L. HERSHEY, exhibiting the reduced result of each separate observation of each nebula; together with the determining star or stars in each case, and the differences of R.A. and P.D. from such star, with references to the current number of the sweep in which the observation is contained.

7th. The original sweeps with the 20-feet reflector at Slough in which the nebulae were observed, contained in three small quarto and four folio volumes of MS.

All these manuscripts, with exception of the index No. 3, are in the original writings of my Father and his Sister, in most cases easily distinguishable, in some others not so readily. The Zone Catalogue No. 6 is entirely the autograph of the latter.

Explanation and arrangement of the Catalogue.

The Catalogue is arranged in twelve columns, of which the first contains the general or current number in order from 1 up to 5063, the total number of objects comprised, including six supplementary ones, whose insertion in their proper order in R.A. would have involved altering all the numbering both of the catalogue and the annotations, &c., and would have proved a source of confusion and unavoidable error. Nevertheless, to prevent their being overlooked by any observer who may consult the catalogue for the purpose of a general review of the nebulae, or for the verification of a new one, their numbers are interpolated into the general series so as to catch the eye, and a reference made to the supplementary catalogue in each case in the column of descriptions.

Column 2 contains the numbers of those nebulae of which observations are given in my two former catalogues, and those of the two nubeculae; the numbers from 1 to 2307 inclusive being from that in Philosophical Transactions 1833, and from 2308 to 4021 from my Cape observations. Where a number in this column is enclosed in hooks thus [], it is taken from the Catalogue of Objects in the Nubecula minor in pp. 153 to 155 of that work. Where in parentheses thus (), from those in the Nubecula major, pp. 156 to 163.

Column 3 contains the classes and numbers of nebulae as given by my Father in his three Catalogues in the Philosophical Transactions for 1786, 1789, and 1802. One only is omitted, viz. V. 35. It is an immense diffused nebosity, extending from $5^h 27^m$ to $5^h 42^m$ in R.A., and from $98^\circ 6'$ to $87^\circ 43'$ in P.D. A special list of these great diffusions of nebula is given by M. AUWERS in p. 42 of the work above cited.

Column 4 contains references to other authorities, and gives either the name of the first discoverer of the nebula, or a reference to the particular list or catalogue of nebulae which has been taken as the authority for the place set down. The principal of these are—1st. The list of “new nebulae” (Verzeichniss neuer Nebelflecke), in pp. 73 to 76 of the work of M. AUWERS already cited. These are referred to in the following form:—Auw. N. 1, Auw. N. 2, &c. 2ndly. Under the form D’Arr. 1, 2, &c., are given a series of objects contained in a MS. list of 125 nebulae, kindly communicated to me by their discoverer, M. D’ARREST, Director of the Royal Observatory of Copenhagen, and reduced by him to the epoch (1860.0) of this Catalogue, with their precessions for 1880. 3rdly. A great number of nebulae cited under the form “R. novæ,” whose places have been approxi-

mately obtained from the diagrams accompanied by micrometrical measures of position and distance, or from more loose and general indications contained in Lord Rosse's paper in the Philosophical Transactions for 1861, the comparisons being in all cases made with those nebulae in my Catalogue of 1833 whose numbers stand annexed to them in column 2, with an italic letter appended, thus:—

322, *a* R. nova; 319, *a* R. 3 novæ.

In cases of which latter kind it is intended to express merely that nebulae to the number indicated, not otherwise identifiable, will be found on due search in the immediate neighbourhood of the place approximately set down. Lastly. The names of Professor G. P. BOND, Mr. S. COOLIDGE, and Mr. J. T. SAFFORD in this column of the supplementary list of nebulae refer to the places of nebulae and clusters in a list of objects of that description discovered at the Observatory of Harvard College, obligingly communicated to me by Professor BOND, Director of that establishment, too late for their introduction into the body of the Catalogue.

Besides these references, in which the places set down have been adopted from the catalogues above mentioned, column 4 also contains synonyms or identifications of objects observed by myself with those contained in MESSIER's lists communicated to the French Academy, or to the Connaissance des Temps for 1783 and 1784. These are cited by the number they bear in MESSIER's own list, thus, M. 1, M. 2, &c. They have, with very few exceptions, been observed and described by myself or my Father, and their places here set down are given as results from our observations. In the few excepted cases they are taken from M. AUWERS's catalogue already spoken of. The nebulae also whose identity has been (sometimes satisfactorily, but for the most part very doubtfully) made out with objects in Mr. DUNLOP's Catalogue of Southern Nebulae, are indicated by the letter Δ , thus, Δ . 169, &c. In a few cases, chiefly those of nebulous stars, planetary nebulae, or very star-like objects, which have been set down as stars in catalogues of authority; these are also referred to by name and number in column 4.

Many of Mr. DUNLOP's nebulae are contained in LACAILLE's catalogue, as also some of MESSIER's, but of that catalogue two objects only, not so identifiable, viz. Nos. 38 and 40 of M. AUWERS's catalogue of LACAILLE's nebulae, have been considered as definitely enough described (*nébuleuses sans étoiles*) by that astronomer to be included in the present Catalogue.

Column 5 contains the Right Ascension in time for 1860.0 of each object in the Catalogue. When this is given to decimals of seconds, it is to be understood as having been brought up from the mean of the observations given in my former Catalogues, or from the mean of those (where not observed by myself) in Miss C. HERSCHEL's Zone Catalogue above mentioned*. When the R.A. is given only to the nearest minute or degree, it will of course be understood that the place is too loosely determined to render

* In some cases a careful subsequent revision of the catalogued observations *seriatim* has necessitated altering these R.A.'s by a few decimals of a second (seldom more) *after the process of reduction to 1860*. In all such cases the alteration has been applied *as a correction* to Mr. KERSCHNER's figures, so as not to disturb the amounts of precession allowed—a procedure perfectly legitimate and productive of no error. The same remark applies to col. 8.

further precision of statement other than illusory. This is the case with the greater part of those set down as “R. novæ.”

Column 6 contains the precession, in seconds and decimals, in R.A. for 1880·0.

Column 7 contains the number of observations in R.A. which have been actually used in concluding the R.A. for 1830, from which that for 1860 has been computed. In all cases (unless where the contrary is especially indicated in a note, or otherwise as by the letters B.A.C. or A.S.C., Au., &c. inserted in place of a number in the column itself—which indicate that the R.A. is that of a star in one of those catalogues, or rests upon that other authority), the observations used for all objects included in my former catalogues are brought up from the data there registered, to the exclusion of all others; and in such cases (the vast majority) no parenthesis or other distinctive mark is applied. When, however, no satisfactory R.A. is there recorded, or when the R.A. is there expressly stated to have been set down from the “working list,” the R.A. adopted is that brought up from the Zone Catalogue of C.H., and in such cases the number of observations used is enclosed in parentheses (). Dots attached (·) indicate some uncertainty in the R.A.; (::) a very considerable doubt, extending, perhaps, to a whole minute; ? and ?? express still wider limits of uncertainty. In those nebulae of my Father’s catalogues which have no number corresponding in column 2 (indicating the absence of any observations of my own), the places set down both in R.A. and Declination are those brought up from the Zone Catalogue of Miss C. H., and the numbers of observations on which they rely are set down in the appropriate column without any parenthesis or distinctive marks, the absence of any number in column 2 being a sufficient indication. In the case of M. D’ARREST’S nebulae, the numbers in column 6 enclosed thus [] indicate the number of his observations of the nebula employed by himself to give the place.

Columns 8, 9, and 10 contain, in like manner, the North Polar Distance for 1860, the precessions for 1880, and the numbers of observations used for P.D. in the case of each object; and the same remarks apply to these as to columns 5, 6, and 7.

In column 11 is given a short description of the nebula or cluster in abbreviated words, made out from an assemblage and comparison of *all* the descriptions of each object given in my Father’s *and* my own observations. As regards the former, recourse was had, not to the printed account in the Philosophical Transactions (which gives only a single description), but to a series of manuscript sheets in the nature of a REGISTER (and *as such cited* in the notes which follow this Catalogue), into which have been transcribed, *verbatim*, from the original sweeps, all the descriptive parts of each and every observation of each cluster or nebula in the order of their dates, and the data for computing their places, derived from the sweeps by applying the index and clock corrections pertaining to each. In this Register the nebulae are entered, each with its class and number, and each on a separate sheet; the whole series being arranged, however, not in the order of their classes and numbers, but in the order of the dates of their discovery, from No. 1, corresponding to October 28, 1783, to No. 2508, corresponding to September 30, 1802. Of these, the first 2500 only are included in the catalogues com-

municated to the Royal Society; the other 8 are printed in the form of an Appendix to my Cape Catalogue, in p. 128 of the "Results of Observations," &c. A similar and separate Register in sheets has been kept for my Father's observations of MESSIER'S nebulae, and these have in like manner been collated with my own observations of the same objects in framing the ultimate, or, as it may be termed, the average description of each.

In making out these descriptions, it was found to a certain degree practicable, in the particulars of brightness, size, and extension, to make a kind of arithmetical approximation to a mean conclusion, by arranging the degrees of brightness, &c. in a progressive upward scale from 1 to 10, and taking a mean of these numbers in each case, as indicating the designating words to be finally adopted. Thus, taking the extreme degree of faintness when a nebula was declared to be "excessively faint," or "barely visible," or "hardly more than suspected" for 1, and "extremely" or "excessively bright" for 10, the intermediate degrees, such as *very faint*, *faint*, *considerably faint*, *pretty faint*, *pretty bright*, *considerably bright*, *Bright*, *very bright*, were denoted by the intermediate numbers 2, 3, 4, 5, 6, 7, 8, 9; and similarly for the scale of sizes, exchanging the words Small and Large for Faint and Bright. In the case of extension, the scale 1 to 10 was supposed arranged in the order, *Round*, *very little extended*, *elliptic* or *oval*, *considerably extended*, *pretty much extended*, *much extended*, *very much extended*, *extremely extended*, or *a long ray*. It is obvious that the qualifying words, such as "pretty" and "considerably," admit of a good deal of latitude of interpretation, and that, in reference to brightness or faintness, greatness or smallness, their meaning is rather relative than absolute; and especially, that as between *bright* or *faint*, and "considerably bright" or "considerably faint," for instance, there is so little real distinction of an absolute kind, that it is impossible to say which is to be accepted as indicating the superior degree. In the case of extension there is the same indistinctness as to precedence between the qualifying phrases "considerably" and "pretty much." Nicety, however, in this respect would be misplaced, when it is considered that when several descriptions of the same nebula, observed at different times, come to be compared, they can hardly ever be reconciled except by allowing to each qualification a latitude of meaning extending over several degrees of our arbitrary scale. In many instances, indeed, the discordance, or rather contradiction is so great, as to authorize a strong suspicion of variability in the object itself. In a few cases where, from the low altitude of the object in England, coupled with corresponding discordances of description, it was evident that it must have been seen to much greater advantage from the Cape station (as, for example, in that of h. 3375 = H. III. 754), additional weight has been attributed to the Cape observations.

In the descriptions, I have found it absolutely necessary to abstain from any specification of the estimated sizes of nebulae or clusters in angular measure. In comparing estimations of this kind I find the discordance so great, and (to speak only of my own practice) so little evidence of adherence to any definite standard of estimation, that nothing but confusion would have arisen from introducing such estimates. Nevertheless, as in the use of such a catalogue as the present some guide is necessary for the

observer, to advertise him of what sort of object he may expect to see, the following scale may be taken as conveying a general idea of the magnitudes intended by the conventional words used. Thus, a round nebula of 3" or 4" in diameter would be called *extremely small*;

one of 10" or 12", *very small*;
 20" or 30", *small*, or *considerably small*;
 50" or 60", *pretty small*, or *pretty large*;
 3' or 4', *considerably large*, or *large*;
 8' or 10', *very large*;
 20' and upwards, *extremely large*.

In estimating clusters of stars (that is to say, of well separated and scattered stars) a wider acceptation must be understood, so that, for instance, a cluster of only 1' in extent would be considered *extremely* or *very small*; one of 15' or 20' *large*, and one of 30' or 40' *very large*. This amplification of scale, however, must not be held applicable to those resolved or resolvable clusters of a "globular" character marked in the descriptions as \oplus , which must be understood as belonging to "nebulae" and not to "clusters," so far as the conventional terms used in the descriptions are concerned. I should observe also, that when in making out the average appropriate phrase in size I have found any extravagant discordance between the estimate in words and that in figures, as, for instance, where a nebula has been described in words as *very large*, and the diameter then set down as 2', a compromise has usually been made, and the word modified, as, for instance, to *large* or *considerably large*.

The abbreviations employed in the column of descriptions and elsewhere, in the notes, &c., are as follows:—

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| ab. | about. | ch. | chevelure. |
| alm. | almost. | com. | cometic. |
| am. | among. | cont. | in contact. |
| app. | appended. | C. | Compressed. |
| att. | attached. | Cl. | cluster. |
| Auw. | Auwers. | C.G.H. | "Results of observations, &c. at the Cape of Good Hope." |
| A.S.C. | Astronomical Society's Catalogue. | C.H. | Miss Carolina Herschel. When it occurs in column 4 it indicates that the object was discovered by her. |
| b. | brighter. | d. | diameter. |
| bet. | between. | dist. | distance. |
| biN. | binuclear. | | distant. |
| bn. | brightest towards the north side. | dif. | diffused. |
| bs. | brightest towards the south side. | diffic. | difficult. |
| bp. | brightest towards the preceding side. | D. | double. |
| bf. | brightest towards the following side. | D'Arr. | D'Arrest. |
| B. | Bright. | Δ. | Dunlop. |
| Br. | Brisbane (Sir T.'s) Catalogue of Stars. | def. | defined. |
| Bo. | Bode. | e. | extremely. |
| B.A.C. | British Association Catalogue. | | |
| c. | considerably. | | |
| co. | coarse, coarsely. | | |

| | | | |
|--------|--|--|---|
| ee. | excessively. | rr. | partially resolved—some stars visible. |
| er. | easily resolvable. | rrr. | well resolved—clearly seen to consist of stars. |
| exc. | excentric. | R. | round. |
| E. | extended. | RR. | exactly round. |
| f. | following. | R. nova. | New nebula discovered by Lord Rosse. |
| F. | faint. | R. MS. | Manuscript notes furnished by His Lordship. |
| g. | gradually. | Ri. | Rich. |
| gr. | group. | R. | The Earl of Rosse. |
| H. | Sir William Herschel. | s. | suddenly. |
| h. | Sir John Herschel. | s. | south. |
| h.o.n. | list of omitted nebulae in C.G.H. | sp. | south preceding. |
| i. | irregular. | sf. | south following. |
| inv. | involved. | sc. | scattered. |
| | involving. | st. | stars. |
| iF. | irregular figure. | sev. | several |
| l. | little (adv.). | susp. | suspected. |
| | long (adj.). | sh. | shaped. |
| L. | Large. | stell. | stellar. |
| Lac. | Lacaille. | S. | small. |
| Lal. | Lalande. | sm. | smaller. |
| Lass. | Lassell. | sw. | sweep. |
| m. | much. | Σ. | Struve. |
| mm. | mixed magnitudes. | tri-N. | tri-nuclear. |
| mn. | milky nebulosity. | trap. | trapezium. |
| mon. | monograph. | v. | very. |
| M. | Middle, or in the middle. | vv. | an intensive of v. |
| M. | (in col. 3) Messier. | var. | variable. |
| Mess. | Messier. | W. H. | Sir W. Herschel. |
| n. | north. | <p>Besides these abbreviations of words, the following arbitrary signs are used.</p> <p>* a star; *10 a star of the 10th magnitude.</p> <p>** a double star; *** a triple star.</p> <p>! a remarkable object; !! very much so; !!! a magnificent or otherwise exceedingly interesting object.</p> <p>? doubtful; ?? very doubtful, either as to accuracy of place or reality of existence, according to the column in which it occurs.</p> <p>: , :: , see explanations already given.</p> <p>△ a triangle. Forms a triangle with.</p> <p>⊕ a globular cluster of stars.</p> <p>○ a planetary nebula.</p> <p>⊙ an annular nebula.</p> <p>st. 9 Stars from the ninth (or other) magnitude downwards.</p> <p>st. 9 13 Stars from the ninth down to the 13th magnitude.</p> | |
| neb. | nebula. | | |
| np. | north preceding. | | |
| nf. | north following. | | |
| nr. | near. | | |
| N. | nucleus, or to a nucleus. | | |
| o. | omitted. | | |
| ON. | omitted nebula. | | |
| p. | preceding. | | |
| p. | pretty (before F, B, L, S, &c.). | | |
| pg. | pretty gradually. | | |
| pm. | pretty much. | | |
| ps. | pretty suddenly. | | |
| P. | poor. | | |
| Pi. | Piazzi. | | |
| P.T. | Philosophical Transactions. | | |
| quad. | quadrilateral. | | |
| quar. | quartile. | | |
| r. | resolvable, barely (mottled as if with stars). | | |

As examples of the interpretation and expansion of these abbreviations some examples are subjoined.

Ex. 1. pB; vL; vg, vsmbMN 15"; pmE 162°·3; "pretty Bright; very Large; at first very gradually, then very suddenly much brighter in the middle to a nucleus 15" in diameter; pretty much extended—the position of the longer dimension micrometrically measured 162°·3 (*i. e.* reckoned from the north round to 162°·3 in the direction nfsp)."

The angles of position in all cases are to be understood as so reckoned. When decimals of degrees are annexed (or if integer, written decimally thus 151°·0), they have been micrometrically measured. If thus, E 0° or E 45°, E 90°, they mean only in or near the meridian, or parallel or oblique to the meridian from nf to sp, &c., as the case may be. If with a \pm annexed, the position is from a more or less careful estimation.

Ex. 2. R; psbM ill def O; pB*10 125°·4, 70"; "Round, pretty suddenly brighter in the middle to an ill-defined planetary disc; has a pretty Bright star of the 10th magnitude, whose position measured *from* the centre of the nebula is 125°·4, and whose distance also from the centre is 70" by estimation."

The relative situations of neighbouring stars or nebulae are *invariably* to be understood as thus reckoned, *i. e.* taking the centre of the nebula or other object described as a starting-point or origin of angle or distance. Thus S*s will mean that a small star is south of the nebula, *np nr that a star is *near the nebula* in a north preceding direction from it; *4^sf, 3'n, that a double star follows the centre of the nebula 4 seconds of time, and is 3' to the north of it.

Ex. 3. Cl; pRi; pmC; L; st6, 10 ... 15. "A cluster; pretty rich; pretty much compressed; Large; consisting of stars one of which is of the 6th, and the rest from the 10th to the 15th magnitudes."

Attached or vicinary stars or small nebulae are always placed at the ends of the descriptions. Thus \oplus sf means that the nebula described "has a globular cluster following and to the southward of it." When, however, the description of a cluster ends abruptly thus, *_{*}, it is to be understood that "the place taken is that of a conspicuous double star."

The 12th column of the Catalogue contains the number of times that each nebula has been observed by both my Father and myself, whether its place were taken or not, comprising all the cases in which the object has been seen, and whether described or not. Since attention has been drawn to the real or supposed variability of nebulae, and since it can hardly be doubted that comets have occasionally been observed as nebulae, this enumeration is not without its importance. In this column the abbreviation "mon" occasionally occurs. In such cases the nebulae have been so often and diligently observed for the purpose of exact delineation or "monographing," that a special enumeration of the observations would be impossible or useless.

Finally, at the end of the line allotted to each nebula occur occasionally one or both of the marks * and †. The former refers to the notes appended to the Catalogue, the latter to the list of figured nebulae in which the publications wherein are contained figures of the nebulae are referred to by plate and figure—those at least which seem entitled, in the present state of astronomical instrument-making and pictorial representation, to be pointed out to the observer as conveying any idea of their appearance.

Notes on the Catalogue.

No.

- 12 h. 5. D'Arrest says, "h. II. positio certe erronea," but gives no indication of the correction required in R.A. or P.D.
- 29 h. 13; II. 241=II. 243. In P.T. the determining * is omitted, and in the statement of the places of these nebulae, as well as of II. 239, 240, 242, and III. 199, there is much confusion, for the correction of which see the list of errata subjoined. Auwers has threaded the intricacies of this maze with singular felicity, but has been misled in the case of II. 243 into assigning to it a totally erroneous place ($22^{\text{h}} 48^{\text{m}}$ R.A., $73^{\circ} 37'$ P.D. 1830), and, in consequence, has not perceived its identity with II. 241.
- 78 II. 3. Auwers makes the P.D. of this neb. (1830)= $99^{\circ} 32'$, from P.T., which places it $2^{\circ} \pm n$ of 17 Ceti. C.H. makes it $1^{\circ} 51' n$ of the same star, or for 1830, $99^{\circ} 42'$. In fact H. has two observations of it, neither of them more than eye-drafts with neighbouring stars, and the P.D. is concluded graphically by C.H. from these diagrams.
- 88 III. 876. The P.D. of Auwers ($81^{\circ} 16'$) is 1° wrong. The place given in P.T. is $1^{\circ} 43' n$ of 51 Piscium; so also in Register (H. 2296).
- 119 Auw. N. 4=D'Arr. 6. The place given is that brought up from D'Arrest's observations, the R.A. being set down only roughly in Auw.
- 132 h. 57=V. 20. Once looked for by Lord Rosse and not seen. Having been observed both by H. and h., there can be no doubt of its existence.
- 138 h. 61=h. 2345=V. 1. In h.'s sweep 733 the position reading is set down as $324^{\circ} 5$. This is in contradiction with a diagram made at the time, and is an obvious mistake for $234^{\circ} 5$, which $=180^{\circ} + 54^{\circ} 5$, agreeing well with the diagram and with 2 obs. of W.H., in both of which it is described as "*nf* to *sp*." There is also an erratum in the C.G.H. Catal., *for* $143^{\circ} 8$ *read* $144^{\circ} 5$, since $324 \cdot 5 - 180 = 144 \cdot 5$.
- 145 h. 64=II. 621=II. 703. Auwers remarks that A Ceti, the determining star of W.H., does not exist; but C.H. has perceived this, and by using another determining star (13 Ceti, sw. 756, W.H.), has fixed the place of the nebula II. 703 for 1800 at R.A. $0^{\text{h}} 37^{\text{m}} 47^{\text{s}}$, P.D. $93^{\circ} 53'$ ($=93^{\circ} 43'$, 1830), thereby identifying it with II. 621. Auwers, using a conjectural star, sets down the P.D. erroneously as $92^{\circ} 52'$ (1830).
- 165 h. 2356. This is the main body of the nubecula minor.
- 169 h. 2359. A complex object with several nuclei. There is an erratum in the R.A. set down in C.G.H. as resulting from sw. 488, *for* $46^{\text{m}} 12^{\text{s}} \cdot 1$ *read* $47^{\text{m}} 12^{\text{s}} \cdot 1$.
- 177 79, *a*, *b*. In Lord Rosse's diagram, α =h. 79, β =h. 78, γ =nova, accidentally omitted in the body of the Catalogue, but inserted as No. 5058 at the end. The whole Catalogue having been finally numbered before the omission was detected, it could not be inserted in its place. δ is a star; ϵ =h. 79, *a*.

- No.
 178 } h. 4007, 4008, 4012. In the Catalogue of C.G.H. these nebulae are placed
 179 } erroneously in the 23^h of R.A., owing to a mistake of a whole hour in
 196 } reducing.
 202 }
 203 } These constitute the group laid down by Lord Rosse as seen in and about the
 205 } places of h. 84, 85, 86, viz. his α , β , γ , γ' , δ , ϵ , ζ , θ . Of these, α is No. 202=h. 84;
 206 } β =No. 203=h. 85; γ =No. 206=h. 86; γ' =No. 205=86, a ; δ =No. 209=86, b ;
 207 } ϵ =No. 208=D'Arrest No. 10; ζ =No. 207=D'Arr. 9, and θ =86, c . In the MS.
 208 } notes furnished me by Lord R. it is stated that α =h. 84, β =h. 85, and θ =h. 86.
 209 } The latter identification, however, is incorrect.
 210 }
 214 h. 88=I. 54. This is *not* the I. 54 of the P.T., which proved to be one of
 Messier's nebulae, but another subsequently inserted by W.H., so as not to
 break the order of the numbers, as appears from a MS. correction in P.T., and
 from Register (H. 570).
 275 } These constitute Lord Rosse's group seen in or near the place of h. 103, and
 276 } marked in his diagram as A, β , δ , ϵ , and another unlettered (which call γ).
 277 } These I identify as follows:—A=No. 276=h. 103; β =No. 277=103, b ;
 280 } γ =No. 275=103, a ; δ =No. 280=103, c ; and ϵ =No. 290=103, d .
 290 }
 297 } In reference to M. Auwers's remark on the nebulae 170, 171, as also 167, 168
 311 } (H. class III.), after very careful examination of all the data, I can arrive at no
 317 } other conclusion than that embodied in the present Catalogue under these Nos.:
 319 } h. 118 is certainly not III. 171, neither is h. 120. Both places and descriptions
 325 } disagree.
 313 } h. 119 was taken for III. 556, but no R.A. was obtained, that set down being the
 314 } R.A. brought up from C.H. The descriptions differ so materially, especially in
 the particular of extension, that they are most probably distinct nebulae.
 330 h. 124=VII. 48. Auwers remarks in his 'Verbesserungen zu *h*,' that this cluster,
 h. 124, is not nova, but VII. 48. This is correct. Re-examining sweep 216, I
 find an error of 1° committed in reducing the P.D.
 358 This is not in M. D'Arrest's final list, communicated to me in MS.; but being set
 down by M. Auwers as No. 15 in his 'Verzeichniss neuer Nebelflecke,' I felt
 bound to retain it.
 418 h. 160=h. 2442=I. 62. This nebula, though set down by W.H. as of the 1st
 class (*i. e.* as a bright nebula), could not be seen by D'Arrest with the Leipzig
 Fraunhofer of 6-feet focus and 4½ inches aperture. It is marked in this Cata-
 logue, however, by a mean of 4 observations, only as "F."
 428 55 Andromedæ. Although this star has been eight times examined by Lord Rosse
 without perceiving any nebulous atmosphere, yet as my observation is corrobora-

No.

rative of Piazzì's designation of it as "Nebulosa," it is retained for occasional future examination.

442) h. 169, II. 221. The places agree almost exactly, but the descriptions are irre-
 444) concileable. One makes the nebula round, the other much extended. They
 are therefore almost certainly distinct nebulae, and there is therefore probably
 some error in the R.A. of II. 221. The neighbourhood is rich in nebulae (see
 the next note, however).

442) }
 444 } In Lord Rosse's diagram of the group about h. 169, assuming α to be h. 169
 445 } =No. 444, the others will be β =No. 445=169, α ; γ =No. 446=169, b ;
 446 } δ =No. 447=169, c ; and ϵ =II. 221.
 447 }

462 h. 179=50 Cassiopeiæ. Retained in the Catalogue for future occasional obser-
 vation. Nothing can be more difficult than to verify or disprove the nebulosity
 of a considerable star under ordinary atmospheric circumstances.

472 h. 184=III. 583. Though Lord Rosse on one occasion did not find this nebula,
 its existence cannot be doubted, having been found by h. nearly in the place
 assigned by C.H.

487 h. 193=I. 152. M. D'Arrest found this nebula too faint for observation with the
 Leipzig refractor, though placed by W.H. in Class I., and standing in this Cata-
 logue (from a mean of 3 observations) as a "bright" nebula.

501 h. 204=III. 604. C.H. and Auwers make the R.A. 1^m less. Both H. and h. rely
 on single observations. Sweep 188 h. examined and reduction found correct.

510 h. 206=III. 457. Not found by Lord Rosse; once looked for. See notes on
 Nos. 472 and 132.

516 h. 210=II. 246. Singularly enough, h. and H. are at issue about the two adja-
 cent stars. h. makes the stars south of the nebula; H., on the contrary, places
 the nebula south of the stars, and says expressly that both this nebula and
 III. 201, observed just previously, were similarly situated with regard to their
 attendant stars. Now in h.'s obs. of III. 201 (No. 513) the attendant star *is*
 stated to be *sf* the nebula, and in that of II. 246 the larger of the two stars is
 south and only a very few degrees preceding. I believe the error to lie on the
 side of the older observations, as I have a diagram of the small star nearer to
 II. 246, *sf*, which shows that I made no mistake of *n* and *s*.

536 I. 153. Auwers makes the R.A. for 1830 $1^h 28^m 45^s$, whereas C.H. makes it
 $2^h 15^m 13^s$. The cause of the discordance lies in an erratum in P.T. (see list
 of errata). In C.H.'s reductions the error is corrected, and I find the correc-
 tion verified on reference both to the Register (H. 1488) and the original sweep
 (sw. 596). The nebula *follows* (not precedes) the determining star.

549 h. 226=I. 154. Auwers makes the R.A. of this for 1830, $2^h 23^m 8^s$; C.H.

No.

- 2^h 20^m 57^s.8, by the observations in different sweeps differing only 18^s in R.A. The latter is the more correct; so that M. Auwers's remarks on this nebula are not confirmed. The cause of the disagreement lies in a misprint in P.T. (See List of Errata.)
- 557 } In Lord Rosse's description of this group, α =No. 557=h. 231; β =No. 563=h. 234;
 558 } γ =No. 558=231, α ; δ =No. 559=231, δ . The other nebula, "about 12' south
 559 } following," is probably No. 563=h. 234. No. 561=h. 233 seems to have escaped
 561 } notice.
 563 }
- 571 h. 240=II. 238=III. 198. C.H. has overlooked or omitted an obs. of W.H. of III. 198 in sw. 574, which, referred to, confirms Mr. Marth's surmise that the nebulae are identical.
- 573 II. 6. This was probably really a comet, as indicated by its description, having been subsequently looked for and not found.
- 574 h. 244=I. 102. M. D'Arrest found this nebula, when observed with the Leipzig refractor of 4½ inches aperture, inferior to a 1st class nebula. In this Catalogue, from a mean of 5 observations, it ranks as "considerably bright."
- 591 h. 258=I. 1. M. D'Arrest found this nebula, when examined with the Leipzig refractor, not entitled to rank above the 2nd class. With this our present Catalogue agrees, it being set down from a mean of 8 observations as "pretty faint."
- 614 This nebula of Bessel was also looked for and not found by D'Arrest, who therefore supposes it to have been a comet.
- 636 h. 280=II. 502. II. 502 is described by H. as eS; F; stellar. Either then the identity is doubtful, or some change must be suspected. The place, however, agrees well.
- 639 h. 281=IV. 43. Once looked for by Lord Rosse, but not found. (See notes on 134, 472, 510.)
- 646 h. 284=III. 578. The same remark. Twice looked for unsuccessfully by Lord Rosse. On one occasion clouds were passing.
- 654 } In Lord Rosse's diagram of this pair and the neighbouring stars γ and δ , the figure
 655 } is in contradiction with the measures. The position of $\alpha\gamma$, instead of 2°, should, I presume, have been stated thus, $\gamma\alpha=178^\circ$, or, which comes to the same thing, $\alpha\gamma=-2^\circ$. This has been assumed in deducing the place of No. 655=289, α from No. 654=h. 289.
- 656 h. 291=III. 591. H. makes this nebula to be the nf of two, but both those of h. the sf.
- 674 h. 293=II. 603. H.'s description is pB; stellar; a pc* with eS, vF chevelure. The place, however, agrees well with that of h. 293.
- 684 III. 195. Auwers makes the R.A. (1830)=3^h 11^m 50^s and C.H. 3^h 10^m 13^s; but

No.

a misprint in P.T. (see List of Errata) accounts for the difference of the minute at least.

708 } III. 959; I. 60. The catalogued places contradict the described position sf and
709 } np; but this is owing to the error in R.A. of I. 60, which D'Arrest makes less by 40^s, which would place I. 60 at 3^h 19^m 35^s (1860).

710 Au. N. 17. The discovery of this nebula is attributed by Au. to Schönfeld in 1858, but it seems to be identical with that described by Tuttle (*Astronom. Notices*, xix. p. 224). Auwers's place is preferred, Tuttle's being only approximate.

768 Au. N. 18. The celebrated variable nebula of Tempel, discovered Oct. 19, 1859.

774 II. 594. Auwers considers this as identical with II. 548, with 1° mistaken in P.D.

778 h. 309=I. 155. Auwers makes the R.A. of I. 155 for 1830=3^h 53^m 33^s, destroying the identity of these two nebulae. But his place is deduced from an erroneous entry in P.T. (see List of Errata). C.H., by 2 observations in sweeps 608, 638 agreeing to 3^s in R.A. and 2' in P.D., gives a place which, brought up to 1830, gives R.A. 3^h 37^m 58^s; P.D. 94° 29' 7".

810. h. 311=IV. 69. M. D'Arrest found the nebulous atmosphere around the central star of this nebula very conspicuous with the Leipzig 4½-inch refractor.

826 h. 2618=IV. 26. D'Arrest's R.A. is preferred, that of h. 2618 being clearly shown to be erroneous.

836 II. 464. The P.D. is given by W.H. as the same with that of 44 Eridani. C.H., using an erroneous place of this star, makes the P.D. 5' too small. This is here corrected, and the result agrees with Auwers.

839 Auw. N. 20. This is the remarkable variable nebula discovered by Mr. Hind on Oct. 11, 1852. M. D'Arrest testifies to its complete disappearance on the 3rd and 4th of Oct. 1861, "Hujus nebulae ne umbram quidem detegere valeo." —"Caelo serenissimo regionem summâ curâ perlustravi adjuvante Dr. Schjellerup. *Nebula reverâ* deest." (In 1855 and 1856 it was found by M. D'Arrest within 2' of Mr. Hind's original place.) On Dec. 29, 1861, it was seen by M. Otto Struve with the great Pulkowa refractor, but so excessively faint as to be barely within the power of that instrument. On March 22, 1862, with the same telescope, it was again seen, but considerably brighter, so as to bear a faint illumination of the wires.

851 h. 314=III. 587. Not seen by Lord Rosse, once looked for, clouds passing. See notes on Nos. 639, 646, &c.

880 h. 322. The bright star preceding is ν Eridani.

908 h. 333=II. 547. Not seen by Lord Rosse, once looked for. See notes 132, 472, &c.

926 h. 335. Erroneously identified in my Catalogue of 1833 with III. 453 (No. 981). See the note on that nebula.

- No.
- 953 h. 341=D'Arrest 48. Observed by him as "nova," but since recognized as unquestionably =h. 341.
- 970 VIII. 43. Auwers makes the P.D. of this cluster for 1830 = $66^{\circ} 25'$, which is incorrect. The determining star is 109, *n*, Tauri, the cluster being $1^{\circ} 29'$ north of the star. This would give $66^{\circ} 39'$ for the P.D. for 1800, agreeing with C.H., and $66^{\circ} 36'$ for 1830.
- 975 h. 343. A very large diffused nebulosity, distributed in zigzags. This has been looked for seven times by Lord Rosse and not found. Its existence is therefore very doubtful.
- 979 h. 2709. The place graphically determined by measurement of a diagram, as compared with h. 2710.
- 981 III. 453. This was erroneously identified with h. 335 in my Catalogue of 1833. By an unlucky coincidence, its place per working list, roughly brought up from C.H., agreed so well with the latter nebula as taken in sw. 322 (h.), that it was unhesitatingly assumed to be the same. It appears, however, that in C.H.'s reduction an error of 10^m in R.A. has been committed, the star of comparison being 10 Orionis, and the nebula *following* the star by $5^m 7^s$ (as ascertained by reference both to the register sheet (H.1160) and the original sweep (sw. 462, H.)). M. Auwers, misled by my erroneous identification, has assumed that the nebula must have *preceded* the star, which would (nearly) account for the difference, and in consequence, his R.A. of this nebula is 10^m too small. C.H.'s error probably arose from misapplying in like manner the sign of the Δ . R.A.
- 998 III. 268. Auwers's R.A. ($4^h 57^m 23^s$, 1830) is adopted in preference to $5^h 0^m 28^s$, that brought up from C.H. to the same epoch. In the sweep 367 (H.) three stars of comparison are given, 58 Eridani, α Leporis, and 19 Leporis. The Δ . R.A. of α and 19 comes out correct, but that of 58 from each is wrong by $3^m 5^s$, so that the star must have been mistaken. C.H. has used 58 and α , and has rightly brought out the place of the nebula by the former (the wrong star), and wrongly by the right one; and by an odd coincidence the two results agree well, though both wrong.
- 1030 h. 349=VII. 4. Described by D'Arrest as "Ein Ausserordentlich reicher Hauf," an extraordinarily rich cluster.
- 1133 h. 356. Looked for four times by Lord Rosse, in two of which the sky was fancied to have a milky appearance.
- 1138 } h. 2841. Double nebula. In my Cape Catalogue, sweep 538, for "first" and
1139 } "second" read "larger" and "smaller." The smaller is sp. The position
260° is right. It is very remarkable that in sweeps 508, 522, 658, and 761 the smaller of the two was not noticed. Is it variable?
- 1167 III. 747. Auwers makes the P.D. $8' 20''$ greater. It is difficult to identify the determining star used by C.H.

- No.
- 1165 } h. 2866, 2867, 2868, 2869. $16^s.2$ added to all the R.A.'s of these nebulae in the
 1168 } Cape Catalogue to compensate an error detected in sw. 538. The correction is
 1171 } deduced from a comparison of the diagram fig. 20, Pl. VI. C.G.H. with the
 1174 } place of No. 1171.
- 1179 h. 360. $3^s.3$ added to h.'s P.D. to bring it to the place in B.A.C.
- 1180 V. 30. The place of V. 30 corrected by $+3^s.2$ in R.A. and $+25' 45''.4$ in P.D. to bring it to the place of $\epsilon' 42$ Orionis in the B.A.C.
- 1183 h. 361=V. 31. h.'s place corrected by $+0^s.4$ in R.A. and $-0' 27''.2$ in P.D. to bring it to that of $\epsilon' 44$ Orionis in B.A.C.
- 1185 III. 1. ?? There are two observations by H. of III. 1, but they differ enormously. One agrees with M. 43. The place of M. 43 is corrected to agree with its place in the Catalogue of Stars, &c. in the great nebula in Orion, C.G.H. p. 28.
- 1191 Chacornac's recently discovered nebula. Place from Moigno's "les Mondes," No. 9, p. 241.
- 1196 III. 269. Auwers gives as the R.A. of this nebula for 1830 $6^h 27^m 57^s$, which is mistaken by 1^h . The Philosophical Transactions says that it precedes 19 Leporis by $32^m 23^s$, and that this is no misprint appears from C.H.'s reductions.
- 1226 IV. 24. Annular according to Lord Rosse.
- 1287 III. 270. Auwers places this nebula in R.A. $6^h 40^m 20^s$, or an hour too late. Its place is very distinctly settled by two determining stars, α Leporis and 19 Leporis, the former of which it followed by $15^m 4^s$, and preceded the latter by $20^m 0^s$.
- 1425 h. 393=IV. 3. Lord Rosse's account of this nebula is extremely remarkable. "This h. 393," he says, "is an enormous nebulosity which I have traced f and n of it to a great distance—*some degrees*. It narrows at times to a band across the finding eyepiece about $6'$ or $8'$."
- 1440 h. 401=V. 27=VIII. 5. Retained as a cluster, though but a poor one. Nine times examined by Lord Rosse for nebulosity, but none seen.
- 1452 III. 271. Auwers places this nebula in R.A. $8^h 3^m 35^s$, P.D. $76^\circ 21'$ (1830). There has been some mistake. III. 271 is stated to follow 8 (ν 3) Canis, $8^m 0^s$, and to be $4'$ n of that star, which gives a place agreeing with C.H. and with the present Catalogue.
- 1454 h. 441=M. 41. This nebula was also observed by Flamsteed.
- 1455 } In Lord Rosse's diagram of this group, α is No. 1457=h. 410; β =No. 1455=410, α ;
 1456 } γ =No. 1456=410, b ; δ =No. 1458=h. 409; and ϵ =No. 1460=410, c . But
 1457 } some suspicion seems to have arisen that the principal nebulae observed were
 1458 } not really h. 409, 410, but h. 406, 407. In that case the identification will
 1460 } stand as follows:—
- α =No. 1448=h. 406.
 β =h. 406— $5^s.2$ in R.A., and $-1' 25''$ in P.D.
 γ =No. 1449=h. 407.

No.

 $\delta = \text{h. } 406 + 1^{\text{s}}.6$ in R.A., and $-5' 6''$ in P.D. $\epsilon = \text{h. } 406 + 14^{\text{s}}.7$ in R.A., and $-5' 2''$ in P.D.

1480 h. 423. This nebula is entered by C.H. as VIII. 1. B, with a remark "not in print."

1508 h. 439=VI. 6. The R.A. is nearly 2^{m} in excess of C.H. and of Auwers. Examined sweep (h.) 393 in which it was observed. Found all clear and correctly reduced.

1527 } Compared with Lord Rosse's two diagrams of the nebulae composing this group.
 1528 } None of them are "novæ." $\alpha = \text{h. } 449$; $\beta = \text{h. } 448$; $\gamma = \text{h. } 447$; $\delta = \beta$; $\epsilon = \gamma$;
 1530 } $\zeta = \text{h. } 446$.
 1531 }

1533 VIII. 44. Auwers's P.D. is 84° , instead of 82° , owing to an erratum in P.T. (See List of Errata.)

1578 h. 468=III. 479. No nebulosity seen by Lord Rosse in 5 observations. In H.'s single observation the nebula is "suspected," and in those of h. it is not positively ascertained. The object seems therefore to be merely a small resolved cluster of vFst.

1594. M. 47. Auwers assigns a R.A. greater by 4^{m} . The cluster has not since been observed. It is probably a very loose and poor one.1611 h. 480=VI. 37. h.'s P.D. corrected by $-10'$ as the presumed error of reading in the single observation obtained. Harding in 1827 (it appears) observed its P.D.= $100^{\circ} 10'$ (for 1830), and W.H.'s place for that epoch is $100^{\circ} 12'$, that of h. being $100^{\circ} 19' 4''$.

1615 } In Lord Rosse's diagram, $\alpha = \text{No. } 1617 = \text{h. } 483$; $\beta = \text{No. } 1616 = \text{D'Arr. } 51$;
 1616 } $\gamma = \text{No. } 1615 = 483$, α . D'Arrest's place for β is preferred to that which results
 1617 } from comparison with the diagram. h. 284 could not have been in the field,
 being almost a degree distant.

1633 h. 493=II. 719. h.'s R.A. in P.T. diminished by 1^{m} for an error of 1^{m} detected in the reduction of the observation. This brings it nearer to Auwers.1652 h. 3176. *Polarissima Australis*. This nebula is so near the south pole that its precession in R.A. varies from year to year with great rapidity, so that its R.A. cannot be computed correctly by the ordinary approximate method.

1666 } The four nebulae h. 508, 510; 510, α ; 510, b evidently include among them that
 1667 } third nebula referred to by Lord Rosse as the accompanying "nova" "forming
 1668 } a triangle with h. 507, 508—of the last degree of faintness." h. 507, however,
 is 30° distant in P.D., so that in the observation of Feb. 9, 1850, the P.D. of h. 507 must doubtless have been read as 36° instead of 66° , giving rise to a mistaken identity with one of the *two* really new nebulae at that time in view.

1696 III. 50. I find a memorandum to the effect that this nebula is lost, and was probably a comet; but I cannot recover my authority for the statement. It is described by H. as "of the last degree of faintness," and it is therefore no way

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surprising that it should not have been again perceived without some time and trouble bestowed, and in clear weather.

- 1707 h. 527=II. 48. M. Auwers, owing to an erratum in P.T. (see List of Errata), makes the R.A. of II. 48 two minutes too great, and is thus led to doubt its identity with h. 527. There still remains the rather considerable disagreement of 5' in P.D. D'Arrest found neither of these nebulae; but there can be no doubt of the existence of one at least, in or near the place here given. This is *not* the nebula seen by Lord Rosse "nearly in contact with h. 526." This latter (described already by h. as "bi-nuclear") was seen by R. as distinctly double.
- 1712 h. 531=M. 67. Discovered by Oriani.
- 1720 h. 535=II. 823. W.H. describes this nebula as "Round;" h. as "much extended," while Lord Rosse saw it as bi-nuclear, or a double nebula joined by faint nebulosity. Is it separating into two, like Biela's comet?
- 1735 } h. 542 and II. 557. The descriptions are irreconcilable, and they must be two
1736 } distinct nebulae. The R.A. of h. 542 was *not* observed, and its P.D. is set down as "hardly more than conjectural," having been looked for by working list as II. 557 and set down as such.
- 1742 h. 545=II. 834. Misprinted II. 844 by Auwers in the Catalogue, but the number is correct in his general list of the nebulae by numbers and classes.
- 1743 h. 546. Not seen by Lord Rosse in one observation. Examined sweep 21 (h.) and found all right.
- 1756 III. 291=D'Arr. 60. These are assuredly one and the same nebula. Auwers's declination of III. 291 ($+27^{\circ} 7'$) should be $+26^{\circ} 7'$.
- 1773 h. 565=III. 61. The P.D. according to H. is 70° .
- 1788 II. 708. Owing to an erratum in the determining star in Phil. Trans. (see List of Errata), Auwers has given the place of this nebula for 1830 R.A. $9^{\text{h}} 12^{\text{m}} 39^{\text{s}}$; P.D. $39^{\circ} 17'$, instead of $9^{\text{h}} 6^{\text{m}} 29^{\text{s}}$; $47^{\circ} 20'$.
- 1791 }
1794 } h. 577; h. 578. Not seen by Lord Rosse in one observation. (See next note.)
- 1792 D'Arrest 62. This nebula must surely be variable, as it is inconceivable else that it should not have been seen by h., when h. 578, to which it is almost close, was observed and its place taken. D'Arrest says, "Fugerat Herschelium necnon me anno 1862." Neither of the three (Nos. 1791, 1792, 1794) were seen by Lord Rosse. Sweep 59 (h.) and the reductions re-examined. Found all clearly written and all correct.
- 1804 } h. 581, 582; 581, *a, b, c, d*, 582, *a, b, c, d, e, f, g*; D'Arr. 63. Of this very complex
to } group of 15 nebulae or "knots" (as they are called by Lord Rosse), six have
1815 } been determined from his diagram, and six more by the aid of notes subse-
1817 } quently furnished me from the records of the observatory at Birr Castle, con-
1818 } taining differences of R.A. and P.D. from one or other of the former. These
1821 }

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are indicated by the letters MS. attached in the column of descriptions. The others I identify as follows:—

| | | | |
|---------------------------------|---|---|-----------------------------|
| α (in Lord R.'s diagram) | | | is No. 1813=582, <i>c</i> . |
| β | " | " | 1812=582, <i>b</i> . |
| γ | " | " | 1811=h. 582. |
| δ | " | " | 1806=h. 581. |
| ε | " | " | 1815=582, <i>e</i> . |
| ζ | " | " | 1821=582, <i>g</i> . |

One of those for which no data are given must have been D'Arr. 63, and the two remaining ones are included under the entries Nos. 1817, 1818 as 582, *f*.

- 1832 h. 590. Not seen by Lord Rosse; once looked for. Re-examined the sweep and reductions. Found all correct.
- 1868 h. 3171. In the omitted observations of nebulae in the last page of the C.G.H. observations, *for* h. 3170 *read* h. 3171; and this observation, combined with the two in the body of the work, gives the mean result for 1830 employed to deduce the place in the present Catalogue.
- 1911 h. 3185=III. 289. In consequence of a misprint in P.T. (see List of Errata), the P.D. of Auwers is 5' too small. Corrected by this, his place agrees well with my observation.
- 1953 M. 81?? A nebula observed by W.H. as described, but differing most materially in place from M. 81. It would certainly be very extraordinary should *three* nebulae so extremely remarkable as M. 81 and 82 and this be found to lie so near together.
- 1959 } h. 3198, 3202 are distinct nebulae, and were observed consecutively in one and
1962 } the same sweep—sw. 561 (h.).
- 1960 } h. 3199 and 3201 are also distinct nebulae, and were observed consecutively in
1961 } sweep 562 (h.).
- 1974 III. 293. M. Auwers makes the place of this nebula $9^h 24^m 4^s$; $66^\circ 30'$ (1830), instead of $9^h 48^m 48^s$; $60^\circ 13'$. The cause of the error is an erratum (see List) in P.T., where the determining star is set down as 23 Leonis instead of 23 Leonis Minoris, another of the instances of confusion arising from the use of this silly and barbarous nomenclature.
- 2014 h. 669=III. 65. Not seen by Lord Rosse in one observation. It was found by h. in its place *per* working list.
- 2019 h. 672. Not seen by Lord Rosse in one observation. Examined the sweep and reductions, and found all correct.
- 2043 h. 250. This nebula is so very close to the North Pole, that its place cannot be calculated by a precession proportional to the time in the usual approximate mode, the R.A. changing from year to year with extreme rapidity.

- No.
 2054 }
 2055 } In Lord Rosse's diagram, α =No. 2058=h. 692=II. 44; β =No. 2061=h. 693
 2057 } =II. 45; γ =No. 2055=692, *b*; δ =No. 2054=D'Arr. 61; ϵ =No. 2057=692, *c*,
 2058 } not lettered in the diagram.
 2061 }
- 2088 } II. 28, 29. Both D'Arrest and Secchi agree in placing this double nebula more
 2089 } to the south than W.H. by $15' \pm$, and D'Arrest supposes the P.D. to have been
 misread to that extent. As so great a proper motion is most improbable, and
 the identity is indisputable, I have adopted this supposition and made the neces-
 sary correction.
- 2094 h. 706. Not seen by Lord Rosse in 6 observations. Re-examined the record of
 the original obs. Sweep 115 (h.), No. 68, and the reductions. The entries are
 all clear and perfectly legible. Reduction in P.D. correct; reduction in R.A.
 erroneous by $-0^m 26^s.6$. This, however, could not have caused its non-observ-
 ation by R. This then was a comet, or is a lost nebula. The error of reduction
 is corrected in the present Catalogue.
- 2111 III. 316. C.H.'s reduction of this nebula being affected with a considerable error,
 Auwers's R.A. is adopted, after verification.
- 2144 h. 3276. Place approximate, by equatoreal zone review.
- 2189 h. 745=V. 52. Not seen by Lord Rosse when once looked for (see note on
 No. 132, &c.).
- 2192 h. 3294. The minute in R.A. doubtful.
- 2197 h. 3295. The great nebula about η Argus. According to a letter from Mr. Eyre
 B. Powell of Madras, a most extraordinary change has taken place in this nebula
 since my figure of it was delineated. He states that the southern end of the
 curious oval vacuity close to the great star, which was *decidedly closed* when I
 depicted it, is now *decidedly open*. Should this be established, it will be the
 most extraordinary fact that has yet appeared in the history of a nebula.
- 2201 h. 754=II. 99. M. D'Arrest found this nebula in the Leipzig refractor, bright
 enough to be ranked in the first class. And it is marked as "very bright" in
 this Catalogue by a mean of 5 observations. It must have been ill seen in the
 earlier observation when classed as II.
- 2231 } IV. 6=II. 131 and h. 777=III. 88. I adopt, on due consideration, the opinion
 2234 } of Auwers, that III. 88 and II. 131 are not the same. Their having been
 successively observed in the same sweep is decisive. Also, that IV. 6 is not
 III. 88, but in reality identical with II. 131. The descriptions are made out
 in conformity with this.
- 2233 } I. 118 and h. 779. The degree of P.D. is probably mistaken in I. 118. Marth,
 2236 } according to Auw., suggests that the determining star 46 Ursæ (which though

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not so called in B.A.C., is doubtless No. 3741 of that catalogue) was mistaken, and should have been called 46 Leonis minoris. Consulting the original sweep (sw. 487, H.), I find this surmise *not* corroborated; for the nebula, when reduced by the star next preceding it (37 Leonis minoris), gives the same Polar distance, and, within a few seconds, the same R.A. But there is some faint indication of the figure 6 in the reading of the Polar distance piece $56^{\circ} 55'$ having been written over a 7, which would have thrown the nebula somewhat below the southern limit of the sweep, and might have caused a suspicion of error at the time. I found no nebula in the catalogued place in my sweep No. 337 (h.), so that the probability of an erroneous degree is strengthened. At the same time, it is not impossible that this nebula may be identical with No. 2236=h. 779, the mistake in the degree lying the other way.

2238 h. 780=I. 172. h., in Ph.Tr., suggests that this nebula may have moved. There is, however, no ground for this supposition, as its place agrees quite remarkably with that brought up from C.H. But query if the double star have not moved, since one of the observations places it "in the middle," and a subsequent one makes the southern extremity of the nebula touch the large star of the double star.

2276 h. 806=II. 101. Found to rank as a first-class nebula by M. D'Arrest with the $4\frac{1}{2}$ -in. Leipzig refractor. In this Catalogue it stands described as "very Bright," by a mean of 4 observations. See remark in note 2201.

2310 h. 823=III. 111. There is a strange amount of discordance between the observed and reduced places of this nebula. Auwers makes the P.D. for 1830= $84^{\circ} 29'$. C.H. has reduced the single observation of W.H. by two stars 84, τ Leonis and 349 Bode Leonis, and her results differ by $10'$; τ , which gives the greater, being stated to be "too far distant in P.D." The several results stand thus:—

| | |
|-------------------------------------|----------------------------|
| P.D. 1830, by Auwers | $84^{\circ} 29'$ |
| „ by τ Leonis (C.H.) | $84^{\circ} 20'$ |
| „ by h. obs. | $84^{\circ} 15'$ |
| „ by 349 B. Leonis (C.H.) | $84^{\circ} 9\frac{1}{2}'$ |

My observed P.D. is nearly a mean between those of C.H.

2315 h. 828=II. 42. Not seen by Lord Rosse when once looked for (see notes on No. 132, &c.).

2319 h. 829=III. 351. The observations of this nebula, which are numerous, disagree so very remarkably in the particular of brightness, that a considerable suspicion of variability exists.

2373 h. 854=M. 65. There is a misprint, 45° for 75° np to sf, in the position of extension in my Catalogue of 1833. The diagram in the original sweep also corroborates this, as does also the figure (fig. 53) accompanying that Catalogue.

No.

- W.H. twice says mE in merid. (180°)—h.'s position 75° np to sf= 165° ; a mean of those of Winnecke and Auwers = 172° .
- 2377 h. 857, h. 875; M. 66. No doubt these are the same. fig. 54 P.T. 1833 corroborates their identity. The accompanying stars and their positions agree entirely. The R.A. of h. 875, however, requires to be corrected by -3^m , allowing the seconds and the P.D. observed in that observation their weight.
- 2382 II. 30. Auwers deduces his R.A. for 1830 ($11^h 12^m 21^s$) from the statement in P.T. "following 68, δ Leonis, $6^m 30^s$." C.H. from the same data concludes R.A. $11^h 11^m 31^s$ (also for 1830). The latter is (within 2^s) the correct result.
- 2388 h. 867=h. 861? These are very probably the same. But as, after all, the difference of the observed R.A.'s is sufficient to have allowed one to escape while observing the other, so that they *may* be different, and as moreover one is described as "Round," and the other as "extended," both are retained.
- 2405 h. 882=I. 20. This nebula would seem to have decreased in brightness. The bright * is 1341. A.S.C.
- 2411 h. 886=I. 131. Ranked by M. D'Arrest in the second class with the $4\frac{1}{2}$ -inch Leipzig telescope. In this Catalogue it stands as "pretty Bright" from a mean of three observations.
- 2417 III. 112. Auwers has reduced this nebula by the star given in P.T. ϕ , 74 Leonis. But I find a MS. note that this star was not dependable, and that Mayer's No. 510 is the proper determining star. The nebula was subsequently looked for and found, not in the place given by ϕ , but $8'$ from the P.D. concluded from Mayer 510. A mean of these two determinations is therefore used in this Catalogue.
- 2440 h. 907=III. 353. Auwers doubts the identity of these nebulae. But this is in consequence of a misprint in P.T. (see List of Errata), 53^m for 43^m . The error is found also in the Register Sheet (H. 937), but C.H. has avoided it and used 43^m in her reduction so as to give a R.A. agreeing within 35^s with that of h. 907.
- 2461 h. 918=II. 784. Lord Rosse, in his observation of this nebula, mentions "another brush-like, $20'$ np." This was no doubt II. 783=No. 2454.
- 2501 h. 945=I. 94. W.H. makes this nebula by one observation extended, n to s, by another nf to sp, while h. has two observations agreeing in making it extended in the parallel. Surely it does not rotate?
- 2540 h. 967. 1^m added to the R.A. It is evidently the first of the group of 4.
- 2577 III. 113. This nebula is reduced also in Auwers's catalogue by ϕ Leonis, the star set down in P.T. But C.H. remarks that ϕ was above the sweep, and otherwise observed under unfavourable circumstances, and Mayer's 510 zod. star. s. $0^\circ 31'$ is preferred, which gives a result differing by $+24'$ in P.D. and -48^s in R.A. The place adopted in the present Catalogue is in conformity with this remark. (See note on No. 2417.)

No.

- 2591 h. 1000=III. 616. The star 6m, 5' n only noticed by W.H. The other 7m, f in the parallel only by h. Are there really two stars? and are they both variable?
- 2597 h. 1002=I. 203. Auwers, in consequence of an erratum in P.T. (see List of Errata), makes the R.A. of this nebula 7^m too small. The error is corrected in the Register (H. 1889) and in C.H.'s reduction.
- 2604 h. 1009=I. 202. The same misprint in P.T. mentioned in the last note on h. 2597 has also vitiated M. Auwers's R.A. of this nebula. It is corrected in the Register Sheet (H. 1886) and in C.H.
- 2608 h. 1013=III. 381. I adopt Mr. Marth's identification of these nebulae. The place of III. 381 in the catalogue of C.H., from which my working lists were made out, is vitiated by some great mistake. The P.D. is supposed to be derived from 1 Comæ, the neb. being 1° 12' south of the star. This, however, would give 68° 9' 29" for 1830 instead of 65° 45' 0", that brought up from C.H.
- 2650 h. 1039. This cannot be identical with h. 1036, and its brightness precludes its being accepted as III. 354. But there is extreme uncertainty as to its P.D. The degree may even be wrong.
- 2652 h. 1041=II. 733. According to W.H. the position of extension is "near the meridian." If *meridian* be not a mistake for *parallel* it has changed. h. has a measure 62° 3, and an estimation 65° in another observation.
- 2653 h. 1042. This cannot be III. 3, as C.H. has reduced two obs. of this latter well agreeing, and giving a R.A. 2^m exceeding that of h. 1042, which also rests on 2 obs. of h.
- 2668 h. 1050=I. 253. The difference of descriptions is extraordinary, so that they seem hardly to pertain to the same object; but the places agree.
- 2683
2684
2685
2686
2689 } h. 1062, 3, 4, 5, 7, 8, 1070, 1, 3, 5, III. 391, 2, 3, 4, 5, 6. The places set down
2690 } for the nebulae of this extensive group are made out by a most careful consider-
2693 } ation of all the observations and records in the sweeping books which seem
2694 } irreconcilable with a group of six nebulae only. The group, however, needs a
2697 } thorough re-examination.
2699
2701
2702
- 2730 II. 14. Owing to an erratum in P.T. (see List of Errata) Auwers gives quite an erroneous place for this nebula (11^h 39^m 27^s R.A., 81° 9' P.D. 1830).
- 2747 h. 1103=III. 814. Auwers suspects some error of the press, since his P.D. for 1830 comes out 36° 58', while that of h. 1103 is 35° 56'. There is, however,

No.

no error, either of printing, registry, or reduction in any part of the older work. The determining star is rightly set down as 5 Canum, whose P.D. for 1800 (the epoch of C.H.'s catalogue) is $37^{\circ} 19' 42''$, and III. 814 is declared to be $1^{\circ} 32'$ north of it, so that $35^{\circ} 48'$, the P.D. of C.H., is correct, and reduced to 1830 ($=35^{\circ} 58'$) agrees with my place within $2'$. Neither is there any error of the press or of reduction, or any apparent mistake of a clerical nature in all the process of h. 1103, and the nebula observed is set down *in* the sweeping book (of course from the working list) *as* III. 814. I consider their identity therefore as fully established.

2771 } h. 1211=II. 372. H. says, the most northerly of the pair II. 372, III. 360 the
2773 } largest: h., "by diagram," makes the following nebula, III. 360=No. 2773,
the larger of the two.

2814 II. 109. The reductions of the sweep 187 (H.) in which this occurs are somewhat precarious, and in C.H.'s revision of the sweep the Δ . P.D. from 6 Comæ is set down at $1^{\circ} 50'$, that in the P.T. at $1^{\circ} 54'$ (these changes are never made without good reason), and this accounts for $4'$ out of the $5'$ difference between her P.D. and that of M. Auwers.

2846 III. 535. In a sweep two years subsequent to the obs. of this nebula by H. it was looked for again but not found. ? if a comet.

2849 D'Arr. 89. M. D'Arrest makes mention in a letter which he has done me the honour to address to me, of a nebula having the same R.A. as this, but a P.D. (1860)= $83^{\circ} 46' 42''$. He does not include it in his final list. It should, however, be looked for.

2852 } h. 1183, 7, 9, 1190, 4; II. 568, 9, 570, 1, 2, 3. There cannot be a doubt that
2856 } II. 568, 569, 570, 571, are in 82° P.D., and II. 572, 3, in 83° . It is equally
2857 } certain that h. 1183, 1189, 1190, 1194 are in 83° . They were observed in two
2862 } distinct sweeps (sw. 111 and 238); I observed also II. 572 in sw. 238, and III.
2865 } 573 in sw. 250. There must be a set of nebulae, at least 8 in number, hereabouts.
2869 } N.B. W.H. makes II. 568, 569, 570, 571, $34'$ n. of 11 Virginis. If n. be a
mistake for s, these agree with h. 1187, 1189, 1190, 1194.

2855 h. 1186=I. 90=II. 322. Marth's conjecture is right (see Auwers's note on I. 90) as regards II. 322, but not so his conclusion that II. 322=II. 377.

2878 h. 1202=I. 139=M. 61. Discovered by Oriani. N.B. The first discoverers of the nebulae in Messier's list, when not Messier himself, are mentioned by M. Auwers in his catalogue of those nebulae (pp. 66-71), except in the cases of Oriani's nebulae, M. 14?, 18?, 35?, 61, 67.

2884 1202, *a*. Under h. 1196 and 1202, two nebulae, unidentifiable, are described as companions, but there must be some great error in Lord Rosse's account of them, as the place of one is referred to a scarlet star " $10'$ south of a scarlet star R.A. $12^h 25'$." Now h. 1202 is in R.A. $12^h 14^m$. To afford a fair chance

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- of reobserving them, the companion 10' nf h. 1202 is entered here as 1202, *a*, and that south of the scarlet star, under No. 3060 as 1196, *a*.
- 2892 D'Arr. 90. "Reperta a me Mart. 4, 1862. Eandem reperit Schönfeldus, April 1, 1862. Vide Comptes Rendus, &c."
- 2951 II. 87. This *may* be h. 1240, but 7' in P.D. is a large error.
- 2961 h. 1253=M. 86. The nebula of Lord Rosse 14' sp this is no doubt II. 168.
- 2976 h. 1261=III. 492. III. 492 was looked for April 11, 1787, by W.H. in the place assigned to it, but was not seen. Auwers, however, makes it identical with h. 1261. Yet the descriptions are radically different, and after all there may be another nebula, the real III. 492, in the neighbourhood.
- 2992) R. novæ. 1274, *a*; 1275, *a*. Of the eleven "knots" seen by Lord Rosse in this
2995) place these two are the only really "novæ." The other 9 were h. 1237, 1244, 1250 (1 & 2), 1253, 1259, 1274, 1275, and Auw. N. 30, numbered in this Catalogue 2931, 2949, 2955, 2956, 2961, 2965, 2974, 2991, 2994. h. 1203, numbered by Lord Rosse as one of the group, seems too far remote in R.A. to have been seen on that occasion.
- 2999 h. 1279=II. 156. H. says "F;" h. "vB." The latter preferred, since F might arise from fog or haze.
- 3003 h. 1282. II. 56 and II. 90. Both II. 56 and II. 90 were seen in one sweep, March 1, 1784, at 1^m interval of time (by the same star, 25 Comæ), II. 56 being 1' more north, and II. 90 3' more south than the star. This is a case of positive disappearance, for in sweep 334 (h.) the neighbourhood was carefully examined and only one nebula found.
- 3008 I. 23. By ϵ Virginis, sw. 174; n. 1° 31'; \therefore P.D. (1830) 77° 18' 29". By 34 Virginis in sw. 199, s. 0° 19', whence P.D.=77° 25' 33", mean 77° 22'. Auwers makes it 77° 16'. This nebula is placed in the 2nd class by M. D'Arrest as seen with the Leipzig refractor. In this Catalogue it is set down from a mean of two observations, as "pretty bright."
- 3011 h. 1289=II. 212=II. 750. The two nebulae so designated were not observed by H. in one sweep, and are, no doubt, identical.
- 3013 h. 1290=II. 122=II. 174. These two nebulae of the 2nd class were also not observed by H. in the same sweep, and are presumed to be identical, as the places agree.
- 3021 h. 1294=M. 49. Discovered by Oriani in 1771.
- 3026 h. 1295=II. 117=II. 629. The same remark applies as in the notes on Nos. 3011, 3013.
- 3029 II. 116. Not seen by D'Arrest.
- 3043 h. 1307=I. 83. Not found by Lord Rosse when once looked for. There can be no doubt, however, of its existence in or near this place.
- 3060 1196, *a*=R. nova. See note on No. 2884.

No.

- 3075 h. 1329=I. 31=I. 38. H. describes I. 31 as "between two bright stars." The places differ 15' in P.D.; h. describes I. 38 (the place well agreeing with that of H.) in one observation as having a large star f, and in two others as having a star 9m, p; that is, in effect, as lying between two bright stars. N.B. The star used for I. 31 is 31 *d* 1 Virginis, and for I. 38, 32 *d* 2 Virginis. The declination of 31 *d* 1 is 30' wrong in A.S.C. (No. 1469). In B.A.C. it is right. The P.D.'s of the two nebulae of H. differ, as already remarked, by 15'. The R.A.'s agree. They must be identical with a mistake of 15' in I. 31. D'Arrest says he is sure there are not two nebulae here.
- 3078 III. 26. Place as per C.H., 12^h 25^m 32^s, 68° 32' for 1830; as per Auwers, 12^h 25^m 40^s, 68° 47' (see List of Errata). The correction of the place in P.T. is not, properly speaking, an erratum, but the substitution of a good observation for a bad one. In the obs. sw. 177 (H.), where 20 Comæ was used as the determining star, the place is given only by description. In a sweep long subsequent (sw. 944) it was compared with 26 Comæ in the regular form of observation, and this is of course to be preferred. Auwers's place is deduced from the earlier, and that of C.H. from the later observation, rejecting the other.
- 3079 h. 1322=8 Canum. This very remarkable object occurs among the list of those observed by Lord Rosse in his paper in P.T. 1861, but without a word of remark or description; and it does *not* occur among his list of nebulosities looked for but not perceived. Surely it might be inferred from this that the nebulosity surrounding the star *was* seen, or its absence would have been noticed, as in the instance of 55 Andromedæ. Yet Mr. Lassell saw no nebulosity about 8 Canum.
- 3097 h. 1348=M. 89. Lord Rosse has h. 1343 and 1348, and in his account of them says, "two others, about 20' s. of 1348;" one of these must have been h. 1343, and the other h. 1349.
- 3103 h. 1353=I. 119. This nebula was barely perceptible, with straining the attention, by M. D'Arrest with the 4½-inch Leipzig refractor. It is described in this Catalogue as "considerably bright" by two observations.
- 3108 } h. 1358, 1359, 1363=IV. 8, 9. The obs. of 1363 in my Catalogue of 1833, in
3109 } which the R.A. is uncertain, undoubtedly refers to the same very remarkable double nebula, IV. 8, 9. D'Arrest is sure that there is no other double nebula in this neighbourhood.
- 3111 M. 90. The place is from two observations by W.H., as also the description.
- 3127 h. 1374=I. 273. The descriptions of H. differ so much that it is not impossible there may be another bright nebula near this place.
- 3138 h. 1379=II. 577. Two diagrams by h. in sweeps 141, 143, agreeing, represent this nebula as making a considerably acute-angled, nearly isosceles triangle with

No.

two following stars. H. says, "Between two Bright stars, making a triangle with them." No one now, looking at those diagrams, would call the situation of the nebula between the stars. A suspicion of proper motion arises in such a case.

3148 h. 1384=II. 148. In my Catalogue of 1833 this nebula is identified with II. 20, and in the Register Sheets (H. 320), under the head of II. 148, there is a memorandum, "Probably the same as II. 20 (H. 47)." But on examining all the observations of both nebulae, I arrive at the conclusion that they are different, II. 20 being nearly 2^m later in R.A.

3170 h. 1401. Query if not =II. 38, with one degree mistaken in P.D.

3174 See note on 3148, above.

3177 } h. 1406, 1407=II. 794 (1 & 2), III. 778; h. 1428, 1435=II. 795, 796. Auwers
3179 } remarks, and justly, on the great apparent discordance of the observations of h.
3206 } and his places of II. 794, 5, 6, and those of W.H. The fact is that the places
3216 } of these in the P.T. all rest on comparisons with ϵ Ursæ in sweeps 921 and
3224 } 1001 (H.); and the observation of that star has been erroneous or mistaken in
sw. 921 by about 11' in P.D., as appears from an obs. of 73 Ursæ in the same
sweep. The nebulae affected by this error are those here enumerated, and it
requires very careful consideration to disentangle all the observations of each
nebula by both stars, and to decide on their identities. My final conclusions
are,—1st, that in these sweeps two distinct nebulae, II. 794, 1 and II. 794, 2,
were observed, and confounded together under one number (=H. 2079 register).
These are my h. 1406, 1407. 2ndly, that h. 1407 and III. 778, II. 795, 796
are correctly determined in sw. 1001 (H.). 3rdly, that in sw. 921 (H.) the
nebula set down as II. 794 was not the same as that called II. 794 in the
reduction of sw. 1001; *i. e.* that it was in fact h. 1406, and that in this obser-
vation there is also an error of 6' in P.D., or that, if not, there must be still
another nebula in P.D. 33° 54' (1860). Finally, that the place of III. 778
given in Phil. Tr., which is affected by the same *general* cause of error, requires
a correction of +9' in P.D.

3180 h. 1405=III. 44. This is the companion of M. 60, and is placed by M. D'Arrest in the first class, even with the 4½-inch Leipzig refractor. Perhaps the very superior light of M. 60 may have led both H. and h. to under-estimate that of its, anyhow, much fainter companion.

3189 } h. 1414, 1415=I. 176, 177. These two, according to Lord Rosse, are connected
3190 } by faint nebulousity.

3206 III. 778. See note on 3174.

3214 h. 1426=II. 181. Auwers points out a discordance of 19' in P.D. between my observation and that of II. 181. This is owing mainly, however, to a misprint in Phil. Trans. (See List of Errata.)

No.

3216 }
 3224 } II. 795, 796. See note on 3174.

3228 I. 8=III. 6. The later of these nebulae is expressly stated in the register (H. 38) to be of the 1st class, though set down (it does not appear why) in the 3rd.

3254 h. 1452=I. 41. The case of this nebula is a very odd one. H. has two observations of it. One on April 5, 1784, where it is described as a "L; B; r neb; sbM; iR Fig; Class I." Another on March 3, 1789, calls it "pB; cL; i Fig; er. Many of the st. visible." So that it may be called a cluster. Both the places of H. and that of h. agree so well, that the object in all must have been the same. Here seems evidence of change.

3256 h. 1453=II. 73. Contradictory descriptions, and possibly two nebulae differing 1^m in R.A.

3311 h. 1480=I. 141. Query if not changed. h.'s observations are positive as to the clearness of the sky. But query as to the state of the speculum.

3319 h. 1485=II. 384. Not seen by Lord Rosse in two observations (hazy).

3337 h. 1497=I. 68; II. 299; h. 1511=I. 69; h. 1536=II. 301; h. 1574=III. 382.

3338 } Auwers finds 5' Δ .P.D. between H. I. 68 and h. 1497. His place is from P.T.

3358 } 53 Virginis n. 1° 4', whereas C.H. in her reductions uses n. 1° 11', and my

3420 } observations of this and the other nebulae in this list justify the departure. I

3483 } subjoin her note on this nebula (in zone 103° C.H.):—

"I. 68, I. 69, III. 282 are each 7' more north than they are given in the "printed Catalogue. The disagreement is the result of the recalculation, and "is probably owing to my attempting more accuracy in valuing the 'numbers "to a degree,' &c. &c." (*i. e.* in the index reductions of the Polar distance readings which were parts of an arbitrary scale). And in the next zone (104° C.H.) occurs,

"II. 299 and II. 301 require the same memorandum." In point of fact, comparing my own observations with those reduced by M. Auwers, the differences, as stated by him, run thus:

| | | | |
|----------|-----------|---------------------|-----|
| I. 68 | . . . | Δ .P.D. H—h= | +5' |
| I. 69 | | | +7' |
| III. 282 | | | +7' |
| II. 299 | | | — |
| II. 301 | | | +6' |

so that in each case, where I have observed the object, the alteration is justified. This is only one out of the innumerable instances of painstaking and laborious scrutiny bestowed by her upon these reductions which have occurred to me in the collation of her zone catalogue with the original observations and with my own results.

3356 h. 1509=I. 143. Auwers places this nebula 1° 13' too much to the south in consequence of an erratum in P.T. (see List of Errata).

No.

3358 See note on 3337.

3363 V. 3. Auwers makes the R.A. of this neb. for 1830 $13^h 2^m 31^s$, which is 10^m too great. The P.T., which in this instance is correct, makes it follow 75 Leonis $1^h 44^m$.

3393 h. 1527. This is not impossibly III. 937, but as both R.A.'s and P.D.'s differ very much, they *may* be different, and are therefore separately stated.

3415 h. 1535. Not seen by Lord Rosse in one observation; clouds passing. h. has two observations, both agreeing well.

3420 See note on No. 3337.

3421 II. 185. Auwers, misled by an error in P.T. (see List of Errata), makes the R.A. of this neb. too small by 10^m .

3426 Auw. N. 31. Not visible in the Königsberg Heliometer.

3483 See note on No. 3337.

3506 II. 22. P.D. extremely doubtful.

3512 II. 826. Place re-reduced by the star used by H. and A.S.C.

3527 h. 1597=II. 314. Auwers makes Δ .R.A. H.—h.= $+107^s$, and remarks that there is perhaps some error in P.T. This is the case (see List of Errata), and with the correction there indicated the agreement is satisfactory.

3550 D'Arr. 94. D'Arrest says "not found again, Feb. 19, 1863. Sky perfectly clear. Perhaps a comet."

3588 h. 1633=III. 926. H. says it is sp a considerable star. h. has "a $*9^m$ with a very dilute nebulous atmosphere." Has the star or the nebula moved?

3650 III. 946. Auwers makes the declination $+89^\circ 17'$, a misprint for $+80^\circ 17'$.

3662 h. 1674=I. 255. Evidently ill seen by h. The description of H. preferred.

3664 } h. 1676, 1679=III. 422, 423. Auwers makes the P.D. $12'$ too great by reason
3668 } of an erratum in P.T. (see List of Errata).

3728 h. 1720=III. 666. Auwers finding Δ .R.A. H.—h.= $+52^s$, supposes a mistake of 1^m . Examined sweep 146 (h.), and found all clearly written and right reduced.

3750 } h. 1734, 1735=II. 309, 310. H. says the second is the larger, h. the smaller of
3751 } the two.

3760

3762

3763 h. 1744=M. 101, and its attendants in more or less intimate nebulous connexion.

3764 Of those in Lord Rosse's woodcut, P.T. 1861, p. 729, N, the principal nucleus,
3766 is No. 3770=h. 1774; n_1 =No. 3774=1744, i; n_2 No. 3773=1744, h. The
3767 others are not lettered, and are made out from the joint evidence of this dia-
3770 gram and the measures of position and distance of the stars compared with the
3771 copper plate, fig. 35.—1744, α is not improbably=III. 787.

3773

3774

No.

- 3820 h. 1763=III. 804=III. 835. The identity of these nebulae rests on a memorandum in MS. in my copy of Ph. Tr., supported by the reductions of all the obs. by C.H. in 3 sweeps, each with two determining stars. Auwers makes them differ by 14' in P.D.
- 3836 III. 551. Place concluded from h. 1772=III. 552 from H.'s description, viz. that it precedes that nebula by 3' or 4' (3' 30'')=14^s of time.
- 3844 h. 1777=III. 347. Auwers makes Δ .P.D.=−59', but observes that there must be some misprint. Examining all, I find that such is the case (see List of Errata), which recognized, shows that 1° has been mistaken, and the identity is therefore proved.
- 3846 h. 1779=I. 144. Auwers makes the P.D. (1830)=86° 30', and H.—h.=1° 14'. The cause of the discordance is a misprint in P.T. (see List of Errata), in consequence of which the nebula is 1° 13' north of its printed place.
- 3858 } h. 1789, 1788, 1791=III. 416, 417. Lord Rosse says that of these three only
3859 } two were found. The obs. in sw. 28 re-examined—1789 and 1791 were both
3860 } observed. Moreover, in sw. 337, III. 417=h. 1791 and h. 1788 were both
observed, and 1791 is expressly stated to have been the sf of two seen in moonlight. Now the np of these could not be h. 1789, which is eF and not north, but south preceding, whereas h. 1788 by its place in sw. 338 is np. All three, therefore, really *existed* at the date of these observations. It was h. 1789 (eF) which escaped Lord Rosse's notice, though looked for with greater instrumental power. Perhaps it may have changed.
- 3863 III. 135. Auwers's P.D. for 1830 is 63° 0'. C.H. reduced to 1830 gives 62° 50' 20". Auwers has used (P.T.) 1° 5' n. of *d*, 12 Bootis; C.H. 1° 16' n. of the same *. C.H. is to be preferred on every account to P.T. Her Δ .P.D.'s are grounded on a most complete and searching re-examination and recomputation (*according to the then existing star catalogues*) of all the data (in the earlier sweeps most obscure—*foliis sibyllinis obscuriora*) for determining the degrees and minutes of P.D. from the index numbers. In almost every case I find her corrections (or rather interpretations) to be justified; and I have no doubt that in this particular instance such will prove the case, though *here* I confess myself, after consulting the original sweep, unable to perceive the reason for the deviation.
- 3888 III. 319. Auwers, following P.T., which places the nebula 2° 26' north of β Ursæ min., makes the P.D. 1830 =12° 46', and so it stands in the Register sheet (H. 864). But it should be 2° 26' *south*. So C.H. has used it, and so it proves to be on reference to the original sweep, sw. 391 (H.), giving for the P.D. 17° 36' 12".
- 3920 h. 1832=II. 695. Not seen by Lord Rosse in one observation. See note on No. 132.
- 3922 h. 3573= Δ . 342. In Auwers's list of Lacaille's nebulae, he sets down for the

No.

declination of this $-55^{\circ} 58'.8$. For $58'.8$ read $48'.8$, if it be the same object, but of that some doubt remains.

3967 VI. 8. Auwers, using χ Virginis, the determining star in P.T., places this cluster in R.A. $14^h 53^m 37^s$ (1830), $99^{\circ} 55'$ P.D. This, however, is declared by a subsequent MS. note to be a mistake for Mayer's 577 zod. star, whence the place in this Catalogue is accordingly derived. But this star, too, must have been mistaken, and on consulting the original sweep (sw. 209, H.) I find no star in the sweep whose identity can be satisfactorily ascertained. All that can be certainly affirmed is that, within a degree one way or the other in P.D., and from 5 to 10 minutes of time in R.A. of the place set down, there exists a fine cluster of the 6th class which should be looked for. Fortunately it is the only nebula observed in the sweep, a very short one.

3977 h. 1866=I. 184. Some suspicion of variability, inasmuch as one description calls it R, another E, and another mE, besides other indications in respect of brightness.

3998 III. 373. C.H., by three distinct observations in three different sweeps (400, 730, 917, H.) from the same determining star 11 Libræ (s. $0^{\circ} 13'$, s. $0^{\circ} 14'$, and s. $0^{\circ} 15'$), deduces a P.D., which reduced to 1830= $91^{\circ} 49' 39''$. Auwers, using the same star, s. $0^{\circ} 12'$ as *per* P.T., places it in P.D. $91^{\circ} 17'$, which, however, is probably a misprint for $91^{\circ} 47'$. Two of H.'s observations place the small star *south*, and one *north* of the nebula.

3999 h. 1881=II. 576. The binuclear character verified by R, who says that it is a close double nebula.

4016 h. 1892=III. 131. Query if not variable in brightness. H. in two observations calls it F and cB; h., in two others, vF and eF.

4025} II. 756=h. 1898?. In the two observations by H. of II. 756 it is described as

4029} cF; pL; iF; r;
pB; s; E;

and no mention is made of a double star near it, so that though the places agree within the *possible* limits of discordance, they are most probably two distinct nebulae.

4043} 1901, a. Two of six seen by Lord Rosse. The others must have been h. 1901,
4044} h. 1902, II. 541 and III. 511.

4048} III. 886, 887. Auwers has made an error of $-12'$ in the declination, or $+12'$ in
4049} the P.D. of this double nebula as determined from P.T. ($20'$ n. of 7 Serpentis). The P.D. here set down is that correctly reduced, C.H. having on her part committed an error of $+2'$ in P.D.

4051 h. 1905=II. 751. In Auwers's declination, for $+20^{\circ} 44'$ read $+20^{\circ} 14'$, an evident misprint.

4065 II. 818. Owing to an erroneous designation of the determining star in P.T. (see

No.

List of Errata), Auwers has given the place of this nebula (1830) as R.A. $14^h 41^m 3^s$; Decl. $+60^\circ 5'$.

- 4124 h. 1934, &c. In Lord Rosse's diagram of the group h. 1934, A, the most conspicuous, would naturally be selected as identical with that nebula, but in that case II. 766 would not be included in the group. On the other hand, if B be taken for h. 1934, the identifications will stand as follows:—A=No. 4131=II. 766; B=No. 4128=h. 1934; C=No. 4127=1934, *b*; D=No. 4124=1934, *a*. This, however, supposes an error of 45^s of R.A. in H.'s place of II. 766, which is not probable, while on the other hand it is difficult to account otherwise for its not having been noticed at all. All things considered, I have thought it best to enter A as a new nebula, No. 4133=1934, *c*, leaving 766 untouched.
- 4167 h. 1948=III. 74. Not seen by Lord Rosse, once looked for (see note on No. 132).
- 4173 h. 3624=M. 80. This is Pogson's globular cluster, with a variable star in the centre, for whose most singular history see the Monthly Notices of the R. Ast. Soc. xxi. pp. 32, 33, by Mr. Pogson. Mr. P. in that statement says that Sir J. Herschel (among others mentioned) had described it as either "cometary" or "nebulous." This is incorrect. In both my observations of this object it stands described as a globular cluster, *all completely resolved into stars*. (See C.G.H. h. 3624.)
- 4234 h. 1970= Σ . 5. D'Arrest calls this planetary nebula *blue*. The place used is a mean of his observations, that of h. (Catal. of 1833) being only Struve's roughly brought up. M. D'Arrest makes the diameter = $14''.6$.
- 4247 III. 727. The comparison of the place here set down with that of Auwers is curious for the great number of perfectly accidental errors which have heaped themselves together. The place (C.H.) is rightly reduced by her from σ Herculis, $f 16^m 11^s$; $n 0' 14''$, which is that given in P.T., and which, reduced to 1830, gives for the R.A. $16^h 44^m 46^s.8$ and for the P.D. $47^\circ 58' 16''$, differing $+8^s.8$ and $+11''$ from the exact result. In M. Auwers's catalogue it is entered thus: III. 127; R.A. $16^h 14^m 47^s$; Decl. $+43^\circ 1'$ (corresponding to P.D. $46^\circ 59'$). That is to say, there is a misprint *in each of the three particulars*. This is not to be taken as a specimen of M. Auwers's work, which is an admirable example of painstaking devotion, and far beyond any eulogy in my power to offer. But it is a striking instance of the way in which, in the great run of chances, unlucky coincidences will happen.
- 4259 h. 1974. Doubtful whether a nebula or a very faint double or triple star.
- 4294 M. 92 (= also Lalande No. 31544). Not observed by h., but 8 times by H. Place from Wollaston's catalogue, which is almost identical with Auwers (Δ .R.A.= $0^s.1$, Δ .P.D.= $0' 3''$).
- 4302 h. 1981=h. 3686=IV. 11. The annular form only perceived in the southern

No.

observations. Both H. and h., in their northern observations, describe it as of equable light throughout. It appears from Lord Rosse's observations that the annular form is much more common among these "planetary" nebulae than H. or h. had any idea of.

4364 h. 3723=II. 200. On a ground astonishingly rich.

4368 V. 13. P.D. by Auwers = $113^{\circ} 36'$ (1830), owing to an error in P.T. (see List of Errata).

4372 h. 3726= Δ . 473. There is a singular statement respecting this cluster by Cacciatore in No. 113 of the *Astronomische Nachrichten*. He observed it as a nebula, he says, on the 19th of March, 1826 (of course, therefore, Dunlop has the priority in point of date). But *where* he saw it Lacaille, he says, noted his star 1483 (*Cælum Australe*). Also, Piazzini in 1794 and 1801 in the same place saw only a star. Cacciatore in 1809 and 1810 observed the same star, but saw no nebula, only a star 9m following it (P. xvii. 341, 346). In looking for the comet of 1826, however, "fui colpito," he says, "da questa bella nebulosa." Unfortunately for this curious history, the place of Piazzini's star referred to (and which he identifies with 1483 C.A.) differs by no less than $18'$ in P.D. from that of the nebula in question, which was therefore out of the field of view, both of his own and of Piazzini's telescope, when observing the star.

4390 h. 2000. Σ . 6. Omitted by Auwers from his catalogue of new nebulae, which contains many far less remarkable. Diameter, according to D'Arrest, = $7''.05$. Bessel's place = h. + $0^{\circ} 8'$, - $0' 22''$.

4397 h. 2004=M. 24. H.'s two observations hardly consist with this description, and their deviation in R.A. of nearly 4^m from Messier's place makes it very doubtful whether he really saw this object.

4411 M. 69. Piazzini, in a note on xviii. 122 of his catalogue, says that both M. 69 and M. 70 are 1° more to the south. But he is wrong.

4415 Auwers, N. 40. This is the nebula discovered by Tuttle on Sept. 1, 1859, and it would appear to be variable, for M. D'Arrest says (in a letter of May 8, 1863), "La nébuleuse de M. Tuttle (*Astron. Nachr.* No. 1337. p. 272) était, le 24 Sept. 1862, si brillante et si remarquable dans le chercheur (*grandis et præclara, ovalis, 2' longa, 80'' lata*), que je suis persuadé qu'elle n'a pas été telle du temps de Messier et de votre père, et de vos propres observations. Voici la position que j'ai obtenue. 1861.0 R.A. $275^{\circ} 55'.6$, N.P.D. = $15^{\circ} 30'.1$." The place given in the present Catalogue is that of M. Auwers, and differs somewhat, though not considerably, from this determination.

4428 M. 70. See the note on No. 4411.

4462 III. 742. This agrees too well with M. D'Arrest's place of his No. 113 not to be the same. His description is F; S; R; $*10p 12'.6$, s $2' 30''$.

4473 Auwers, N. 44. This is the nebula discovered by Mr. Hind on March 30, 1845.

No.

- It was observed in May 1852 as a nebula of the first class; subsequently as "pretty faint and diluted." M. Auwers found it "surprisingly faint," and of the 2nd class at the highest.
- 4487 h. 2037=III. 743. This was seen as a planetary nebula in the twilight by M. D'Arrest with the $4\frac{1}{2}$ -inch refractor, and can therefore hardly be ranked so low as Class III.
- 4536 h. 2062=III. 144. Not seen by Lord Rosse; once looked for. (See note on No. 132, &c.)
- 4570 h. 2073. Not seen by Lord Rosse; twice looked for. h. has three observations agreeing well. The object is an equivocal one.
- 4585 } h. 2081=I. 103. According to an observation of Olbers, cited by Auwers, this
4586 } is identical with No. 4585=I. 103, the place of the latter nebula, as assigned by H., being 20' wrong in P.D. This had escaped my notice until the nebulae in this Catalogue had been finally numbered and much other work accumulated on them; and it was considered better to let No. 4585 stand, though erroneous, than to hazard confusion by striking it out and altering all the subsequent numbering.
- 4618 h. 2093. In conformity with Mr. Mason's remarks on my observations of this nebula, and with his elaborate and excellent monograph of the great nebulous system of which it forms a part, I have diminished the P.D. in my Catalogue of 1833 by 1° . It is evident that the index reading must have been mistaken, 1° for 0° . Sweep 8 examined; the writing is clear and the reduction correct, but the conclusion from Mr. Mason's observations is irresistible.
- 4628 h. 2098=IV. 1. According to Lassell this is annular, an elliptic ring with a star in the centre.
- 4654 h. 2113. Not seen by Lord Rosse; twice looked for. Examined sw. 86 (h.), in which it was observed. All found apparently correct, the observation clearly written and right reduced: and it is added, "the double star" (h. 934 in my "3rd series of observations, &c. &c.," Mem. Ast. Soc. vol. iii.) "is a good guide." A diagram accompanying the observations, by indicating lines points out the relative situation of the double star and nebula.
- 4710 h. 2133. Not seen by Lord Rosse in four observations.
- 4714 h. 3897. Not found by Mr. Lassell within 30' all round the place.
- 4723 h. 2137=III. 920. Not seen by Lord Rosse in one observation.
- 4756 h. 2148. Not seen by Lord Rosse in three observations. In one a cloud passing.
- 4775 h. 2156=III. 932. H. says, "just sf a S* to which it seems almost to be attached, but is free from it." h. says, "has a * 13m at a distance from the edge = 1 diameter by diagram." Sw. 274 (h.). This sweep re-examined. The diagram makes the star north of the nebula. The description says, "Diagram certainly right."
- 4816 2172, a. In this group Lord Rosse has given only measures of relative position,

No.

- and none of distance; so that it is impossible to assign specific places to the individuals of which it consists. He speaks of five *near* to h. 2172. The diagram exhibits only four. One may possibly be III. 166.
- 4848 2184, α . In Lord Rosse's diagram of the group to which this belongs, α is h. 2183 = No. 4845; β = D'Arr. 117 = No. 4844; γ = h. 2184 = III. 217 = No. 4846; δ = D'Arr. 118 = No. 4847. That marked as 2184, α is not lettered in the diagram, and is "nova."
- 4892 h. 2205 = I. 55. Placed in the second class only by M. D'Arrest with the 4½-inch Leipzig refractor. In this Catalogue it is set down as only "pretty Bright," from a mean of seven observations.
- 4894 h. 3971 = h. 3972. These are assuredly identical; but the minute of R.A. being doubtful, that of the earlier 3971 is preferred. The mean of the seconds and the Polar distances is taken, blending the two, and also the descriptions.
- 4922 h. 2223 = III. 222. Three times called by h. "pretty Bright," and three times by h. and H., eF; vF; eF. Is this a case of variability?
- 4933 h. 2228 = h. 3982 = I. 104. Placed in the second class by M. D'Arrest. With this the present Catalogue agrees; making it "pretty Faint" by a mean of three observations.
- 4941 D'Arr. Not included by M. D'Arrest in his final list; but there are four observations of it recorded in his "Resultate," all agreeing well.
- 4964 h. 2241 = IV. 18. According to Mr. Lassell this superb "planetary nebula" is *bi-annular*, consisting of a nucleus and *two oval rings*.
- 4966 h. 2242 = III. 226. Called by h. in four observations, pB; pB; pB; pB, and in two by H. eF; vF.
- 4980 h. 2250 = III. 213. Not seen by Lord Rosse in 4 observations. In my observations of sweep 103, a very short sweep, using the quadrant instead of the index arc, and with no good zero star, both R.A. and P.D. may be a good deal wrong. My place, however, agrees pretty well with that of H. (Δ .R.A. = 5^s, Δ .P.D. = 4[']), and the existence of a nebula as described, *hereabouts*, is certain, but it should be looked for within somewhat wider limits.
- 4998 h. 2261 = I. 110. H. has two observations in which this nebula is called cB; h. has one where it is called eF; adding "sky quite clear."
- 5003 } h. 2263 = II. 208. These can hardly be the same. The R.A.'s differ by nearly
5004 } 2^m and the P.D.'s by 6[']. The descriptions also disagree. 255°, the position of the star 14m in h. 2263, is not np but sp, and the estimates of their magnitudes differ materially.
- 5015 h. 2271 = III. 854. A very problematic object, and in which there is great difficulty in making out its nature. Stars and nebula oddly mixed.
- 5020 } h. 2274 = II. 230; 2274, α ; h. 2275 = II. 231. In Lord Rosse's diagram of this
5021 } group, α = h. 2274; β = h. 2275; γ = nova = 2274, α . h. sweep 91 makes II.
5022 } 230 the np of two, and II. 231 "to have II. 230, 45° sp." This is contradicted

No.

by the diagram. There is some confusion among the observations as to whether the two nebulae II. 230, 231 really lie np or sp from each other, and it might be suspected that the P.D.'s had been read crossways, the R.A.'s being rightly set down; but Lord Rosse's diagram and measures decide the point in favour of the relative situation being here correctly given.

5051 h. 2302. Not seen by Lord Rosse in two observations. Examined the original observation, all clear and apparently correct. The nebula certainly exists in or very near the place here set down.

5061 2849, *a*. A nebula mentioned by M. D'Arrest, but not included in his MS. list of well-determined nebulae. Should, however, be looked for.

References to Figures of Nebulae in various works.

In the following list of figured nebulae, the first column contains the current number of the nebula or cluster in the present Catalogue; the second the number attached to it in my Catalogues in P.T. 1833 and C.G.H.; or if not found in either of these, the class and number in my Father's Catalogues or other sufficient designation. The third contains an abbreviated reference to the publication in which the figure will be found, viz.—

P.T. 33. The volume of the Philosophical Transactions of the Royal Society for A.D. 1833.

P.T. 44. Ditto, Ditto, for 1844

P.T. 50. Ditto, Ditto, for 1850

P.T. 61. Ditto, Ditto, for 1861

} Lord Rosse's papers.

C.G.H. Results of astronomical observations at the Cape of Good Hope by J.F.W.H.

R. di. The woodcut diagrams in Lord Rosse's paper, Philosophical Transactions, 1861; such only being referred to as express some distinct peculiarity not elsewhere figured.

B.A.A. Professor Bond's Memoirs in vol. iii. N.S. of the Transactions of the American Academy of Arts and Sciences.

M.A.A. Mr. Mason's Memoirs in vol. vii. of the Transactions of the American Academy.

D'Arr. M. D'Arrest's Inaugural dissertation and description of the Copenhagen Equatoreal, 1861.

Lam. Dr. Lamont's "Oeffentliche Vorlesung über die Nebelflecken." München 1837.

Lass. Mr. Lassell's Memoirs in vol. xxiii. of the Transactions of the Royal Astronomical Society.

Column 4 contains the number of the Plate in the volume referred to where the figure will be found, and column 5 the number of the figure in that Plate.

The figures annexed to Mr. Dunlop's catalogue are not included, as for the main part they offer no resemblance to the objects figured (when identifiable), and would serve only

to mislead. The same remark applies to most of the older figures of nebulae scattered through the volumes of the *Histoire de l'Académie Française*, and other collections. Of the older figures of the nebula in Orion, however, for curiosity's sake, a list is sub-joined. The figures accompanying my Father's memoir in *Philosophical Transactions*, 1811, are also omitted. They do not profess to be resemblances, and are given rather as types of certain classes of objects into which he there considers the nebulae to be distributable. At least they are made from very rude diagrams.

References to published figures of Nebulae.

| No. in Catalogue. | h. &c. | Work cited. | No. of plate. | No. of fig. | | No. in Catalogue. | h. &c. | Work cited. | No. of plate. | No. of fig. |
|-------------------|--------|-------------|---------------|-------------|--|-------------------|--------|-------------|---------------|-------------|
| 27 | 2315 | C.G.H. | iv. | 8 | | 1157 | 357 | P.T. 33 | viii. | 81 |
| 31 | 15 | P.T. 61 | xxv. | 1 | | | | P.T. 44 | xix. | 81 |
| 52 | 2322 | C.G.H. | iii. | 1 | | | | R. di. | | |
| 67 | 2327 | C.G.H. | vi. | 19 | | | | D'Arr. | ii. | 4 |
| 105 | 44 | B.A.A. | opp. p. 86 | | | 1163 | 2864 | Lass. | ii. | 1 |
| 106 | 45 | B.A.A. | Ditto. | | | 1164 | 2865 | C.G.H. | iv. | 7 |
| 116 | 50 | B.A.A. | Ditto. | | | 1165 | 2866 | C.G.H. | iv. | 7 |
| 117 | 51 | B.A.A. | Ditto. | | | 1168 | 2867 | C.G.H. | vi. | 20 |
| 138 | 61 | P.T. 33 | vi. | 52 | | 1171 | Δ. 136 | C.G.H. | vi. | 20 |
| 169 | 2359 | C.G.H. | v. | 10 | | 1171 | 2868 | C.G.H. | vi. | 20 |
| 187 | 2370 | C.G.H. | iv. | 6 | | 1174 | 2872 | C.G.H. | iv. | 7 |
| 298 | 112 | P.T. 33 | v. | 38 | | 1175 | 2869 | C.G.H. | vi. | 20 |
| 303 | 116 | R. di. | | | | 1176 | 2875 | C.G.H. | iv. | 7 |
| 352 | 131 | P.T. 50 | xxxvi. | 5 | | 1177 | 2876 | C.G.H. | iv. | 7 |
| | | P.T. 61 | xxvi. | 10 | | 1179 | 360 | C.G.H. | viii. | 1 |
| 372 | 142 | R. di. | | | | | | B.A.A. | opp. p. 96 | |
| 400 | 151 | P.T. 33 | vi. | 58 | | | | Lass. | i. | 1 |
| 412 | 156 | P.T. 61 | xxv. | 2 | | 1180 | V. 30 | * | see note | |
| 527 | 218 | P.T. 33 | ii. | 28 | | 1183 | 361 | C.G.H. | ii. | 3 |
| | | R. di. | | | | | | C.G.H. | ii. | 3 |
| 544 | 223 | D'Arr. | ii. | 7 | | | | P.T. 50 | xxxviii. | 6 |
| 560 | 232 | P.T. 61 | xxv. | 3 | | | | Lass. | ii. | 3 |
| 567 | 2487 | C.G.H. | vi. | 14 | | 1185 | M. 43 | C.G.H. | viii. | 1 |
| 572 | 241 | P.T. 61 | xxv. | 4 | | | | B.A.A. | opp. p. 96 | |
| 575 | 242 | P.T. 33 | vi. | 56 | | | | Lass. | i. | 1 |
| | | P.T. 61 | xxv. | 5 | | | | * | see note | |
| 600 | 262 | P.T. 61 | xxv. | 6 | | 1225 | 365 | D'Arr. | ii. | 2 |
| 705 | 2534 | C.G.H. | vi. | 7 | | | | Lass. | ii. | 2 |
| 731 | 2552 | C.G.H. | iv. | 1 | | 1226 | iv. 24 | D'Arr. | ii. | 10 |
| 810 | 311 | P.T. 33 | ii. | 31 | | 1233 | 2910 | C.G.H. | iii. | 5 |
| | | P.T. 61 | xxv. | 17 | | 1235 | 2913 | C.G.H. | iii. | 5 |
| 822 | 2620 | C.G.H. | v. | 11 | | 1238 | 2916 | C.G.H. | iii. | 5 |
| 823 | 2621 | C.G.H. | v. | 11 | | 1243 | 2918 | C.G.H. | iii. | 5 |
| 826 | 2618 | D'Arr. | ii. | 9 | | 1248 | 2923 | C.G.H. | iv. | 9 |
| | | Lass. | ii. | 4 | | 1249 | 2925 | C.G.H. | iv. | 9 |
| 853 | 315 | P.T. 61 | xxv. | 8 | | 1258 | 2935 | C.G.H. | iv. | 9 |
| 888 | 327 | P.T. 61 | xxv. | 9 | | 1259 | 2933 | C.G.H. | iv. | 9 |
| 979 | 2709 | C.G.H. | iii. | 3 | | 1260 | 2936 | C.G.H. | iv. | 9 |
| 980 | 2710 | C.G.H. | iii. | 3 | | 1265 | 2938 | C.G.H. | iv. | 9 |
| 981 | 2711 | C.G.H. | iii. | 3 | | 1266 | 2939 | C.G.H. | iv. | 9 |
| 987 | 2716 | C.G.H. | iii. | 3 | | 1267 | 368 | P.T. 33 | iv. | 36 |
| 1057 | 2775 | C.G.H. | vi. | 1 | | | | R. di. | | |
| 1082 | 2802 | C.G.H. | iii. | 6 | | 1269 | 2941 | C.G.H. | ii. | 4 |
| 1084 | 2803 | C.G.H. | iii. | 6 | | 1276 | 2948 | C.G.H. | iii. | 4 |
| 1085 | 2804 | C.G.H. | iii. | 6 | | 1277 | 2949 | C.G.H. | iii. | 4 |
| 1086 | 2805 | C.G.H. | iii. | 6 | | 1278 | 2950 | C.G.H. | iii. | 4 |
| 1089 | 2808 | C.G.H. | iii. | 6 | | 1279 | 2951 | C.G.H. | iii. | 4 |
| 1090 | 2810 | C.G.H. | iii. | 6 | | 1281 | 2952 | C.G.H. | iii. | 4 |
| 1135 | 2840 | C.G.H. | iii. | 2 | | 1282 | 2953 | C.G.H. | iii. | 4 |
| 1137 | 355 | P.T. 33 | v. | 49 | | 1283 | 2954 | C.G.H. | iii. | 4 |
| 1140 | 2842 | C.G.H. | iii. | 2 | | 1419 | 390 | R. di. | | |
| 1141 | 2843 | C.G.H. | iii. | 2 | | 1425 | 393 | P.T. 61 | xxvii. | 11 |
| 1142 | 2844 | C.G.H. | iii. | 2 | | 1437 | 399 | P.T. 33 | vi. | 64 |
| 1143 | 2845 | C.G.H. | iii. | 2 | | | | P.T. 50 | xxxvii. | 10 |
| 1156 | 2859 | C.G.H. | iv. | 7 | | | | Lass. | ii. | 8 |

TABLE (continued).

| No. in Catalogue. | h. &c. | Work cited. | No. of plate. | No. of fig. | | No. in Catalogue. | h. &c. | Work cited. | No. of plate. | No. of fig. | |
|-------------------|----------|-------------|---------------|-------------|----------|-------------------|----------------|-------------|---------------|-------------|--|
| 1467 | 415 | P.T. 33 | viii. | 91 | η Argūs. | 2841 | 1175 | P.T. 33 | vi. | 55 | |
| 1477 | 421 | P.T. 61 | xxvii. | 12 | | 2870 | 1196 | P.T. 61 | xxvii. | 21 | |
| 1511 | 3075 | C.G.H. | iv. | 4 | | 2878 | 1202 | P.T. 33 | vii. | 69 | |
| 1519 | 444 | P.T. 33 | vii. | 72 | | 2884 | 1196, <i>a</i> | P.T. 61 | xxvii. | 21 | |
| | | P.T. 50 | xxxvii. | 6 | | 2910 | 1225 | P.T. 33 | vi. | 57 | |
| 1520 | 445 | Lass. | ii. | 9 | | 2950 | 1245 | P.T. 61 | xxvii. | 22 | |
| 1521 | | | | | | 2958 | 1252 | P.T. 33 | vii. | 68 | |
| 1532 | 450 | P.T. 50 | xxxviii. | 15 | | 2962 | 1252 | P.T. 33 | vii. | 68 | |
| | | Lass. | ii. | 6 | | 2972 | 1258 | R. di. | | | |
| 1565 | { 464 } | P.T. 50 | xxxviii. | 12 | | 3041 | 1306 | P.T. 61 | xxvii. | 23 | |
| | { 3093 } | Lass. | ii. | 5 | | 3042 | 1308 | P.T. 61 | xxvii. | 23 | |
| 1567 | 3095 | Lass. | ii. | 7 | | 3085 | 1337 | P.T. 33 | iv. | 37 | |
| 1677 | 3131 | C.G.H. | vi. | 12 | | | | P.T. 61 | xxviii. | 24 | |
| 1721 | 536 | P.T. 33 | vi. | 61 | | 3101 | 1352 | P.T. 33 | viii. | 83 | |
| | | Lam. | i. | 8 | | 3106 | 1357 | P.T. 50 | xxxvii. | 9 | |
| 1728 | 537 | P.T. 33 | vi. | 65 | | 3108 | { 1358 } | P.T. 33 | vii. | 78 | |
| 1745 | 3145 | C.G.H. | v. | 12 | | | { 1363 } | | | | |
| 1801 | 3154 | C.G.H. | v. | 8 | | 3109 | { 1359 } | P.T. 33 | vii. | 78 | |
| 1861 | 604 | P.T. 33 | vii. | 70 | | | { 1365 } | | | | |
| 1863 | | | | | | 3113 | 1362 | P.T. 33 | vi. | 66 | |
| | | P.T. 50 | xxxvi. | 3 | | 3132 | 1376 | P.T. 33 | vi. | 50 | |
| 1911 | 639 | P.T. 61 | xxvii. | 13 | | 3151 | { 1385 } | P.T. 61 | xxviii. | 25 | |
| 2003 | 3221 | C.G.H. | v. | 9 | | 3152 | | | | | |
| 2017 | 3228 | C.G.H. | vi. | 9 | | 3165 | 1397 | P.T. 33 | vii. | 76 | |
| | | Lass. | ii. | 10 | | | | P.T. 50 | xxxvii. | 9 | |
| 2058 | 692 | P.T. 61 | xxvii. | 14 | | 3180 | 1405 | P.T. 33 | vii. | 74 | |
| 2063 | 3241 | C.G.H. | vi. | 2 | | 3182 | 1408 | P.T. 33 | vii. | 74 | |
| 2067 | 3239 | C.G.H. | iv. | 3 | | 3189 | 1414 | P.T. 33 | vii. | 75 | |
| 2102 | 3248 | C.G.H. | vi. | 5 | | 3190 | 1415 | P.T. 61 | xxviii. | 26 | |
| | | Lass. | ii. | 11 | | 3240 | 1441 | P.T. 61 | xxviii. | 27 | |
| 2158 | 731 | P.T. 33 | v. | 40 | | 3249 | 1451 | R. di. | | | |
| 2197 | 3295 | C.G.H. | ix. | 1 | | 3258 | 1456 | P.T. 33 | v. | 41 | |
| 2216 | 765 | P.T. 61 | xxvii. | 15 | | 3275 | 3435 | C.G.H. | i. | 2 | |
| 2217 | 766 | P.T. 61 | xxvii. | 15 | | 3278 | 1466 | P.T. 33 | viii. | 84 | |
| 2333 | 3324 | C.G.H. | iv. | 10 | | 3321 | 1486 | P.T. 33 | ii. | 27 | |
| 2336 | 3325 | C.G.H. | iv. | 10 | | 3340 | 1499 | P.T. 33 | vi. | 62 | |
| 2337 | 3326 | C.G.H. | iv. | 10 | | 3356 | 1509 | P.T. 33 | vi. | 67 | |
| 2338 | 3327 | C.G.H. | iv. | 10 | | 3511 | 1589 | P.T. 61 | xxviii. | 28 | |
| 2340 | 3329 | C.G.H. | iv. | 10 | | 3525 | 3501 | C.G.H. | iv. | 2 | |
| 2342 | 3330 | C.G.H. | iv. | 10 | | 3531 | 3504 | C.G.H. | v. | 7 | |
| 2343 | 838 | P.T. 33 | ii. | 32 | | 3570 | 3514 | C.G.H. | vi. | 1 | |
| | | P.T. 50 | xxxvii. | 11 | | 3572 | 1622 | P.T. 33 | ii. | 25 | |
| 2373 | 854 | P.T. 33 | vi. | 53 | | | | P.T. 50 | xxxv. | 1 | |
| | | P.T. 50 | xxxvii. | 7 | | | | R. di. | | | |
| | | Lam. | i. | 6 | | 3606 | 3523 | C.G.H. | iv. | 5 | |
| 2377 | { 857 } | P.T. 33 | vi. | 54 | | 3614 | 1649 | P.T. 33 | v. | 39 | |
| | { 875 } | P.T. 61 | xxvi. | 16 | | 3615 | 1650 | P.T. 61 | xxviii. | 29 | |
| 2378 | 859 | P.T. 33 | vi. | 51 | | 3651 | 3541 | C.G.H. | vi. | 15 | |
| 2379 | 858 | R. di. | | | | 3706 | 3548 | C.G.H. | vi. | 10 | |
| 2445 | 910 | R. di. | | | | 3717 | 1713 | P.T. 61 | xxviii. | 30 | |
| 2486 | { 934 } | P.T. 33 | vii. | 79 | | 3750 | 1734 | R. di. | | | |
| | { 3355 } | | | | | 3766 | III. 787 | P.T. 61 | xxix. | 35 | |
| 2488 | { 936 } | P.T. 33 | vii. | 79 | | 3770 | 1744 | P.T. 61 | xxix. | 35 | |
| | { 3356 } | | | | | 3778 | III. 788 | P.T. 61 | xxix. | 35 | |
| 2559 | 982 | R. di. | | | | 3779 | III. 789 | P.T. 61 | xxix. | 35 | |
| 2597 | 1002 | R. di. | | | | 4051 | { 1905 } | P.T. 33 | vii. | 77 | |
| 2606 | 1011 | P.T. 61 | xxvi. | 17 | | 4052 | | | | | |
| 2652 | 1041 | P.T. 50 | xxxvii. | 7 | | 4058 | 1909 | P.T. 61 | xxviii. | 31 | |
| 2670 | 1052 | P.T. 61 | xxvi. | 16 | | 4066 | 3594 | C.G.H. | vi. | 8 | |
| 2671 | 1053 | P.T. 61 | xxvi. | 16 | | 4083 | 1916 | P.T. 33 | viii. | 87 | |
| 2680 | 1061 | P.T. 61 | xxvii. | 19 | | 4087 | 1917 | R. di. | | | |
| 2733 | 1092 | R. di. | | | | 4118 | 1929 | P.T. 33 | viii. | 89 | |
| 2756 | 1111 | P.T. 61 | xxvii. | 20 | | 4125 | 3610 | C.G.H. | vi. | 7 | |
| 2760 | 1113 | P.T. 61 | xxvii. | 20 | | 4160 | 1946 | P.T. 61 | xxviii. | 32 | |
| 2804 | 1146 | P.T. 33 | vii. | 71 | | 4224 | 3641 | C.G.H. | v. | 4 | |
| 2806 | 1148 | P.T. 33 | vi. | 59 | | 4229 | 3644 | C.G.H. | v. | 6 | |
| 2807 | 1149 | P.T. 50 | xxxvii. | 8 | | 4230 | 1968 | P.T. 33 | viii. | 86 | |
| 2838 | 1173 | P.T. 50 | xxxv. | 2 | | 4234 | 1970 | P.T. 61 | xxviii. | 33 | |
| | | | | | | | | Lam. | i. | 1 | |

TABLE (continued).

| No. in Cata- logue. | h. &c. | Work cited. | No. of plate. | No. of fig. | | No. in Cata- logue. | h. &c. | Work cited. | No. of plate. | No. of fig. | |
|---------------------------|------------------|----------------|------------------|----------------|------------|---------------------------|------------------|----------------|------------------|----------------|--|
| 4261 | 3661 | C.G.H. | vi. | 13 | Milky Way. | 4572 | 2075 | P.T. 33 | v. | 47 | |
| 4284 | 3675 | C.G.H. | vi. | 6 | | | | P.T. 61 | xxviii. | 34 | |
| 4290 | 3680 | C.G.H. | vi. | 3 | | | | Lam. | i. | 5 | |
| | 3680, 2 | C.G.H. | v. | 3 | | 4594 | 2084 | P.T. 61 | xxx. | 36 | |
| 4302 | { 1891 3686 } | C.G.H. | vi. | 4 | Milky Way. | 4600 | 2088 | P.T. 33 | iii. | 33 | |
| 4305 | 3688 | C.G.H. | vi. | 18 | | 4616 | 2092 | P.T. 33 | iii. | 34 | |
| | 3702, 2 | C.G.H. | v. | 1 | | 4618 | 2093 | P.T. 33 | viii. | 82 | |
| 4335 | 3707 | C.G.H. | v. | 5 | | | | M.A.A. | vii. | 1 | |
| 4342 | 3713, 2 | C.G.H. | v. | 2 | † | 4627 | 2099 | P.T. 61 | xxx. | 37 | |
| 4343 | 1989 | P.T. 33 | v. | 42 | | 4628 | 2098 | P.T. 33 | v. | 44 | |
| 4355 | { 1991 3718 } | P.T. 33 | viii. | 80 | | | | P.T. 50 | xxxviii. | 14 | |
| | | | | | | | | D'Arr. | ii. | 1 | |
| | | C.G.H. | ii. | 2 | | | | Lam. | i. | 4 | |
| | | M.A.A. | iv. | 1 | | 4678 | 2125 | P.T. 33 | viii. | 88 | |
| 4361 | 3722 | C.G.H. | i. | 1 | | | | P.T. 44 | xviii. | 88 | |
| 4375 | 3727 | C.G.H. | vi. | 16 | | 4687 | { 2128 3878 } | P.T. 33 | viii. | 90 | |
| 4395 | 2002 | P.T. 33 | ii. | 30 | | 4729 | 3908 | C.G.H. | iv. | 11 | |
| 4403 | 2008 | P.T. 33 | iv. | 35 | | 4730 | 3909 | C.G.H. | iv. | 11 | |
| | | C.G.H. | ii. | 1 | | 4731 | 3910 | C.G.H. | iv. | 11 | |
| | | Lam. | i. | 10 | | 4733 | 3911 | C.G.H. | iv. | 11 | |
| | | M.A.A. | vi. | 1 | | 4734 | 2139 | P.T. 61 | xxx. | 38 | |
| 4437 | 2019 | Lam. | i. | 9 | | 4815 | 2172 | P.T. 61 | xxx. | 39 | |
| 4447 | 2023 | P.T. 33 | ii. | 29 | | 4876 | 2197 | P.T. 33 | vii. | 73 | |
| | | P.T. 44 | xix. | 29 | | 4877 | 2198 | P.T. 33 | vii. | 73 | |
| | | D'Arr. | ii. | 5 | | 4892 | 2205 | P.T. 33 | vi. | 63 | |
| 4487 | 2037 | Lam. | i. | 7 | | | | P.T. 50 | xxxvi. | 4 | |
| 4510 | 2047 | P.T. 33 | v. | 46 | | | | D'Arr. | ii. | 6 | |
| | | D'Arr. | ii. | 3 | | 4950 | 2236 | P.T. 33 | vi. | 60 | |
| | | Lam. | i. | 2 | | 4964 | 2241 | P.T. 33 | v. | 45 | |
| 4514 | 2050 | P.T. 33 | v. | 43 | | | | P.T. 50 | xxxviii. | 13 | |
| 4532 | 2060 | P.T. 33 | ii. | 26 | | | | P.T. 61 | xxx. | 40 | |
| | | P.T. 44 | xix. | 26 | | | | Lam. | i. | 3 | |
| | | P.T. 50 | xxxviii. | 17 | | 4971 | 2245 | P.T. 33 | viii. | 85 | |
| | | P.T. 61 | xxxi. | 43 | | | | P.T. 61 | xxx. | 41 | |
| | | D'Arr. | ii. | 8 | | 5046 | 2297 | P.T. 61 | xxx. | 42 | |
| 4565 | 2072 | P.T. 33 | v. | 48 | | | | | | | |

* No. 1179=h. 360. Other figures of the great nebula in Orion will be found in Huyghens's *Systema Saturnium*, 1659; ditto, copied by Le Gentil in *Mém. Acad. Sci. Par.* 1759, pl. 21, fig. 1; Le Gentil's own figure in *do. do.* fig. 2; by Picard, *do. do.* fig. 5; another by Le Gentil, *do. do.* fig. 6. See also:—

Mairan, "Sur la Lumière Zodiacale," copied in Lalande's 'Astronomy.' These older representations, however, are mere curiosities, and present no points of exact resemblance.

Messier, *Hist. de l'Acad. Sci. Par.* 1771, p. 435...461. Plate 8 is a careful and (for the time) elaborate figure. J. F. W. Herschel, *Mem. Astron. Soc.* ii. 1826.

De Vico, *Memoria intorno ad alcune osservazioni fatte nel Collegio Romano nel corrente anno 1838*, nebula d'Orione osservata al Telescopio di Cauchoix. 1839.

Bond. A very fine engraving—not yet published.

† No. 4447. P.T. 44. xix. fig. 29. There is an erratum in this figure. For Decl. 32° 49' n read 22° 49' n.

The following nebulae have been indicated by Lord Rosse as being either "of spiral structure (S), having in them dark spaces (D), as knotted (K), or as in the form of rays (*i. e.* much elongated forms) with splits or clefts (R).

| No. in Catalogue. | h. &c. | | No. in Catalogue. | h. &c. | | No. in Catalogue. | h. &c. | | No. in Catalogue. | h. &c. | |
|-------------------|--------|---|-------------------|--------|---|-------------------|--------|---|-------------------|--------|---|
| 202 | 84 | K | 2158 | 731 | D | 2717 | 1085 | S | 3249 | 1451 | S |
| 372 | 142 | S | 2194 | 749 | S | 2733 | 1092 | S | 3258 | 1456 | S |
| 594 | 257 | K | 2248 | 788 | D | 2749 | 1107 | D | 3474 | 1570 | S |
| 600 | 262 | S | 2373 | 854 | S | 2807 | 1149 | R | 3572 | 1622 | S |
| 604 | 264 | D | 2377 | 857 | D | 2870 | 1196 | S | 3750 | 1734 | S |
| 888 | 327 | S | 2379 | 858 | S | 2878 | 1202 | S | 3843 | 1776 | S |
| 895 | 329 | K | 2413 | 887 | D | 2890 | 1211 | S | 4045 | 1901 | K |
| 1267 | 368 | D | 2445 | 910 | S | 2910 | 1225 | D | 4058 | 1909 | D |
| 1458 | 409 | K | 2499 | 943 | S | 2991 | 1274 | K | 4087 | 1917 | R |
| 1527 | 446 | K | 2559 | 982 | S | 3049 | 1312 | S | 4572 | 2075 | S |
| 1676 | 514 | D | 2597 | 1002 | S | 3050 | | | 4815 | 2172 | S |
| 1806 | 581 | K | 2652 | 1041 | R | 3106 | 1357 | R | 4964 | 2241 | D |
| 2058 | 692 | D | 2670 | 1052 | S | 3121 | 1368 | S | 4971 | 2245 | S |
| 2066 | 695 | S | 2680 | 1061 | S | | | | | | |

List of Errata and Corrigenda in Sir William Herschel's Catalogue of 2500 Nebulae in the Philosophical Transactions.

| Class. | No. | No. in Catalogue. | Error and Correction. |
|--------|-----|-------------------|--|
| I. | 6 | 3702 | for f. 3 ^m 56 ^s read f. 33 ^m 56 ^s |
| | 54 | 214 | for f. 12 ^m 44 ^s ; s. 2° 50' read f. 18 ^m 36 ^s ; s. 1° 26' |
| | 87 | 2274 | for f. 9 ^m 30 ^s read f. 10 ^m 30 ^s |
| | 137 | 1837 | for 42 Lyncis read 41 Lyncis |
| | 143 | 3356 | for s. 2° 7' read s. 0° 54' |
| | 144 | 3846 | for n. 0° 24' read n. 2° 7' |
| | 153 | 536 | for p. 23 ^m 16 ^s read f. 23 ^m 16 ^s |
| | 154 | 549 | for f. 1 ^m 23 ^s read p. 1 ^m 23 ^s |
| | 155 | 778 | for f. 7 ^m 49 ^s read p. 7 ^m 49 ^s |
| | 202 | 2604 | for f. 0 ^m 47 ^s read f. 7 ^m 47 ^s |
| | 203 | 2597 | for f. 7 ^m 42 ^s read f. 14 ^m 42 ^s |
| II. | 1 | 4738 | for p. 15 ^m ::, s. 4° :: read p. 11 ^m 45 ^s , n. 0° 17' |
| | 11 | 2824 | for f. 1 ^m 24 ^s , n. 0° 24' read f. 1 ^m 13 ^s , n. 0° 30' |
| | 14 | 2730 | for 3 (v) Virginis f. 2 ^m 20 ^s , n. 1° 22' read 59 e Virginis p. 69 ^m 0 ^s , n. 0° 11' |
| | 48 | 1707 | for f. 56 ^m 45 ^s read f. 54 ^m 45 ^s |
| | 181 | 3214 | for s. 0° 48' read s. 1° 15' |
| | 185 | 3421 | for p. 11 ^m 0 ^s read p. 1 ^m 0 ^s |
| | 239 | 634 | for 27 (x) Persei p. 8 ^m 20 ^s , n. 0° 2' read 30 Persei p. 14 ^m 41 ^s , n. 0° 51' |
| | 240 | 5046 | for read 39 Pisc. p. 2 ^m 24 ^s , n. 1° 0' |
| | 241 | 29 | for read 39 Pisc. p. 14 ^m 24 ^s , s. 0° 11' |
| | 242 | 4973 | for 48 (μ) Pegasi read 87 (u) Pegasi |
| | 264 | 1335 | for 47 (δ) Cancri read 25 (δ) Canis |
| | 265 | 1384 | for 1 x Can. read ξ 1 Can. |
| | 286 | 654 | for p. read 13 (ξ) Eridani p. |
| | 314 | 3528 | for f. 17 ^m 57 ^s read f. 15 ^m 57 ^s |
| | 372 | 2771 | for p. 74 ^m 24 ^s read p. 14 ^m 24 ^s |
| | 658 | 1718 | for 44 Lyncis read 43 Lyncis |
| | 708 | 1788 | for 37 Lyncis read 36 Lyncis |
| | 794 | { 3177 3179 } | for s. 0° 49' read s. 1° 0' (see note on this No. in Catal.) |
| | 795 | 3216 | for s. 1° 13' read s. 1° 24' (see note on this No. in Catal.) |
| | 796 | 3224 | for s. 1° 25' read s. 1° 36' (see note on this No. in Catal.) |
| | 818 | 4056 | for 12 Draconis read 12 Draconis Hevelii |
| | 853 | 14 | for p. 25 ^m 38 ^s read p. 25 ^m 48 ^s |
| II. | 6 | 3228 | for 59 (e) Virginis p. 28 ^m 11 ^s read d Virginis f. 2 ^m 42 ^s , n. 0° 57'. The obs. belongs to I. 8 |
| | 26 | 3078 | for 20 Comæ f. 4 ^m 30 ^s , s. 0° 37' read 26 Comæ p. 5 ^m 5 ^s , s. 0° 32' |
| | 112 | 2417 | for 74 φ Leonis f. 10 ^m 6 ^s , s. 1° 52' read Mayer 510. z. p. 61 ^m 48 ^s , s. 1° 10' |
| | 113 | 2577 | for φ Leonis f. 34 ^m 18 ^s , s. 1° 3' read Mayer 510. z. p. 37 ^m 36 ^s , s. 0° 31' |
| | 178 | 631 | for 17 (γ) Persei f. 9 ^m 6 ^s read 17 (r) Persei f. 10 ^m 0 ^s |
| | 192 | 419 | for 72 Ceti read 62 Ceti |

TABLE (continued).

| Class. | No. | No. in Catalogue. | Error and Correction. |
|--------|-----|-------------------|--|
| III. | 195 | 684 | for f. 42 ^m 42 ^s read f. 41 ^m 6 ^s |
| | 199 | 628 | for 27 (κ) Persei p. 8 ^m 27 ^s , n. 0° 2' read 30 Persei p. 14 ^m 44 ^s , n. 0° 55' |
| | 256 | 1641 | for s. 0° 48' read s. 0° 58' |
| | 289 | 1911 | for s. 0° 25' read s. 0° 31' |
| | 293 | 1974 | for 23 Leonis read 23 Leonis minoris |
| | 319 | 3888 | for n. 2° 26' read s. 2° 26' |
| | 347 | 3844 | for s. 1° 17' read s. 0° 17' |
| | 353 | 2440 | for f. 53 ^m 4 ^s read f. 43 ^m 4 ^s |
| | 369 | 3618 | for — 25 ^m 41 ^s read f. 25 ^m 41 ^s |
| | 422 | 3664 | for n. 0° 44' read n. 0° 36' |
| | 423 | 3668 | |
| | 511 | 4042 | |
| | 607 | 1645 | for f. 3 ^m 5 ^s read f. 3 ^m 11 ^s |
| | 627 | 1820 | for p. 12 ^m 33 ^s read p. 12 ^m 23 ^s |
| | 739 | 4149 | for 43 Lynceis read 42 Lynceis |
| | 751 | 1897 | for p. 32 ^m 30 ^s read p. 32 ^m 47 ^s |
| | 778 | 3206 | for 39 Lynceis read 38 Lynceis |
| | | | for s. 1° 4' read s. 1° 15' (see note on this No. in Catal.) |
| IV. | 29 | 2255 | for f. 3 ^m 36 ^s read f. 3 ^m 46 ^s |
| | 31 | 4802 | for — 0° 37' read s. 0° 37' |
| V. | 13 | 4368 | for n. 0° 39' read s. 0° 38' :: |
| VI. | 8 | 3967 | for 26 χ Virginis f. 23 ^m 44 ^s , s. 0° 6' read Mayer 577. z. f. 1 ^m 48 ^s , n. 1° 26' |
| VII. | 6 | 1509 | for 50 Geminorum read 51 Geminorum |
| VIII. | 11 | 1534 | for 50 Geminorum read 51 Geminorum |
| | 28 | 1229 | for (1 λ) Orionis read (1st χ) Orionis |
| | 44 | 1533 | for 5 (η) Can. min. read 4 (γ) Can. min. |

The following nebulae are declared in MS. notes to be identical.

II. 6=I. 1; II. 119=II. 94; II. 148=II. 20; II. 176=II. 70; II. 243=II. 241; II. 703=II. 621;
 III. 6=I. 8; III. 198=II. 238; III. 835=III. 804.

Errata and Corrigenda in M. Auwers's Catalogue.

| Page. | | For | Read | Page. | | For | Read |
|-------|------------------------|---|---|-------|----------------------------|-----------------------------------|-----------------------------------|
| 19 | ..... | II. 844 | II. 834 | 37 | III. 946 in Decl. | 89° | 80° |
| 20 | III. 291 in Decl. | 27° | 26° | 39 | III. 347 in Decl. | 24° | 25° |
| 24 | II. 30 in R.A. | 11 ^h 12 ^m 21 ^s | 11 ^h 11 ^m 33 ^s | 40 | II. 751 in Decl. | 20° 44' | 20° 14' |
| 25 | IV. 59 under Δα | —5 | —31 | 40 | ..... | I. 282 | I. 182 |
| 26 | III. 385 in R.A. | 16 ^h | 11 ^h | 42 | III. 127..... | III. 127 | III. 727 |
| 26 | III. 388 in R.A. | 10 ^h | 11 ^h | 42 | Do. in R.A. | 14 ^m | 44 ^m |
| 26 | II. 342 in R.A. | 10 ^h | 11 ^h | 42 | Do. in Decl. | 43° | 42° |
| 28 | III. 814 in Decl. | 53° | 54° | 72 | No. 27 Decl. | 58'8 | 48'8 |
| 32 | ..... | III. 858 | III. 850 | 77 | List of Errata, II. 341... | 16 ^m & 11 ^m | 16 ^u & 11 ^u |
| 33 | III. 778 in R.A. | 13 ^h 37 ^m | 12 ^h 37 ^m | 77 | Ditto, III. 680... | 26 ^m & 16 ^m | 26 ^u & 16 ^u |

M. Auwers has given a list of errata and corrigenda required in my two previous Catalogues. They are very numerous, but relate almost exclusively to errors of identification with my Father's classes and numbers. They had been, with hardly an exception, detected and rectified during the process of preparing and arranging the present Catalogue, which being therefore expurgated of them, it is unnecessary to annex a list of them here.

One very important erratum, however, must be noticed, not having been set down by M. Auwers. In p. 494, explanation of plates, Phil. Trans. 1833, figs. 13...18, for pmbM; vbM; vmbM read psbM; sbM; vsbM.

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 1 | h. | H. | | h m s | s | | | | | | |
| 2 | ..... | ..... | D'Arrest, 1 | 0 0 5 | +3.07 | [4] | 63 4 0 | -20.05 | [4] | F; S; R; bet*11 and *14 ... | 0 |
| 3 | 4014 | ..... | ..... | 0 1 13.8 | 3.065 | 3 | 120 41 11.5 | 20.05 | 3 | eF; cL; mE; vglbM..... | 3 |
| 4 | 4015 | ..... | ..... | 0 1 28.3 | 3.062 | 2 | 124 38 54.5 | 20.05 | 2 | F; cL; vLE; glbM..... | 2 |
| 5 | 1 | III. 868 | ..... | 0 1 34.2 | 3.073 | 2 | 86 7 38.5 | 20.05 | 2 | eF; pL; vglbM..... | 3 |
| 6 | 2 | III. 866 | ..... | 0 1 35.7 | 3.084 | 2 | 57 20 43.5 | 20.05 | 2 | vF; vS; Sst+neb..... | 3 |
| 7 | 2, a | ..... | R. nova | 0 1 | ..... | ..... | 57 20 | ..... | ..... | ..... | 0 |
| 8 | 3 | II. 591 | ..... | 0 1 37.0 | 3.076 | 3 | 74 57 52.5 | 20.05 | 3 | vF; pS; R; glbM..... | 4 |
| 9 | 4 | ..... | ..... | 0 1 52.1 | 3.083 | 1 | 63 3 27.5 | 20.05 | 1 | pB; S; R; bM..... | 1 |
| 10 | ..... | III. 147 | ..... | 0 2 33.4 | 3.081 | 1 | 64 49 57.5 | 20.05 | 1 | 3Sst+neb..... | 1 |
| 11 | 2308 | III. 461 | ..... | 0 2 47.2 | 3.061 | 1 | 115 44 58.5 | 20.05 | 1 | vF; cL; mE; gbM..... | 2 |
| 12 | 2309 | ..... | ..... | 0 2 57.1 | 3.053 | 2 | 147 48 14.5 | 20.05 | 2 | vF; S; R..... | 2 |
| 13 | 5 | IV. 15 | ..... | 0 3 14.6 | 3.085 | (1) | 63 4 58.5 | 20.05 | 1 | vF; vS; stell..... | 2* |
| 14 | 2310 | ..... | ..... | 0 3 25.2 | 3.033 | 1 | 147 46 24.5 | 20.05 | 1 | eF; p of 2..... | 1 |
| 15 | 6 | II. 853 | ..... | 0 3 31.8 | 3.089 | 2 | 57 25 28.5 | 20.05 | 2 | pB; pL; E 0°±..... | 3 |
| 16 | 2311 | ..... | ..... | 0 3 39.0 | 3.020 | 2 | 147 46 21.5 | 20.05 | 2 | eeF; S; R; f of 2..... | 2 |
| 17 | ..... | ..... | Auw. N. 1 | 0 3 41.7 | 3.078 | ... | 71 59 0.7 | 20.05 | ... | F (Schmidt 1861, Oct. 10) ... | 0 |
| 18 | 2312 | ..... | ..... | 0 4 22.0 | 3.023 | 1 | 147 43 45.5 | 20.05 | 1 | eF; S; R..... | 1 |
| 19 | 7 | III. 861 | ..... | 0 5 7.5 | 3.093 | 2 | 59 44 3.5 | 20.05 | 3 | vF; pS; R..... | 4 |
| 20 | ..... | III. 456 | ..... | 0 5 11.3 | 3.076 | 1 | 84 21 57.5 | 20.05 | 1 | vF; pS; iF..... | 1 |
| 21 | 8 | IV. 58 | ..... | 0 5 31.4 | 3.188 | 3 | 18 15 26.5 | 20.05 | 3 | vF; vS; R; vsmbM*10; *12 241°4; 25°. | 4 |
| 22 | 9 | ..... | ..... | 0 5 45.3 | 3.095 | 1 | 59 51 46.5 | 20.05 | 1 | eF; *12, 45°, 325°..... | 1 |
| 23 | 10 | ..... | ..... | 0 5 59.4 | 3.096 | 1 | 59 29 20.5 | 20.05 | 1 | eF; vS..... | 1 |
| 24 | 2313 | ..... | ..... | 0 6 47.8 | 3.052 | 1 | 113 57 14.8 | 20.04 | 1 | eF; L; vglbM; L*cont, f ... | 1 |
| 25 | ..... | ..... | Auw. N. 2 | 0 6 59.2 | 3.074 | ... | 84 47 28.8 | 20.04 | ... | A nebula (Markree Cat. 1852, Oct. 22). | 0 |
| 26 | 11 | III. 183 | ..... | 0 7 47.8 | 3.089 | 1 | 72 14 19.8 | 20.04 | 1 | vF; S; E..... | 2 |
| 27 | 2314 | ..... | ..... | 0 7 53.1 | 2.978 | 1 | 151 6 13.8 | 20.04 | 1 | eF; S; R; bM..... | 1 |
| 28 | 2315 | ..... | Δ. 507 | 0 8 0.4 | 3.028 | 3 | 129 59 33.8 | 20.04 | 3 | vB; vL; vmiE; tri-N..... | 3† |
| 29 | 12 | ..... | ..... | 0 8 8.9 | 3.083 | 1 | 78 19 58.8 | 20.04 | 1:: | eL; eF; diff..... | 1 |
| 30 | 13 | II. 241 = II. 243 | ..... | 0 8 18.0 | 3.088 | 1 | 73 26 48.8 | 20.04 | 1 | F; S; R; sbM..... | 4* |
| 31 | 14 | III. 248 | ..... | 0 9 14.6 | 3.065 | 1 | 97 5 46.8 | 20.04 | 1 | vF; S; iR; psvlbM..... | 3 |
| 32 | 15 | V. 16 | ..... | 0 11 6.2 | 3.112 | 1 | 60 42 9.1 | 20.03 | 1 | eF; L; 3 or 4st+neb..... | 2† |
| 33 | 16, a | ..... | R. 6 novæ | 0 11 | ..... | ... | 60 42 | ..... | ... | Nos. 32...37 incl..... | 0 |
| 34 | 17 | ..... | ..... | 0 13 54.8 | 3.106 | 1 | 68 24 45.7 | 20.01 | 1 | F; S; R; psbM..... | 1 |
| 35 | 18 | ..... | ..... | 0 14 5.3 | 3.107 | 1 | 68 19 15.7 | 20.01 | 1 | E; bi-N; 3Bst near..... | 1 |
| 36 | 19 | II. 257 | ..... | 0 15 9.8 | 3.088 | 1 | 80 17 48.7 | 20.01 | 1 | F; pL; R; gbM..... | 3 |
| 37 | 20 | ..... | ..... | 0 15 10.5 | 3.124 | 1 | 61 1 29.7 | 20.01 | 1 | F; vS; R; gbM..... | 1 |
| 38 | 21 | ..... | ..... | 0 15 55.7 | 2.970 | 1 | 136 3 13.0 | 20.00 | 1 | vF; pS; R; bM; r..... | 1 |
| 39 | 22 | ..... | ..... | 0 16 56.0 | 3.004 | 2 | 123 19 22.3 | 19.99 | 2 | pB; pL; iE; *14, f..... | 2 |
| 40 | 23 | ..... | ..... | 0 17 38.2 | 3.266 | 1 | 29 26 39.3 | 19.99 | 1 | Cl; pS; pC; st11...18..... | 1 |
| 41 | 24 | ..... | Δ. 18 = 47 Toucani | 0 17 47.4 | 2.721 | 4 | 162 51 33.3 | 19.99 | 4 | ⊕; !; vB; vL; vmCM..... | 4† |
| 42 | 25 | III. 148 | ..... | 0 18 39.6 | 3.134 | 2 | 61 33 49.6 | 19.98 | 2 | pF; pL; R; psbM..... | 3 |
| 43 | 26 | ..... | D'Arrest, 2 | 0 18 49 | 3.117 | [1] | 68 58 20 | 19.98 | [1] | vF; S; 3 st near, making quadr. | 0 |
| 44 | 27 | ..... | ..... | 0 19 18.9 | 3.411 | 1 | 19 23 2.6 | 19.98 | 1 | Cl; pR; iC; st9...12..... | 1 |
| 45 | 28 | ..... | ..... | 0 19 51.3 | 2.989 | 2 | 124 27 21.9 | 19.97 | 2 | vF; pL; iE; D*2', np..... | 2 |
| 46 | 29 | ..... | ..... | 0 20 17.3 | 2.877 | 2 | 147 45 22.9 | 19.97 | 2 | pB; S; R; mbM..... | 2 |
| 47 | 30 | ..... | ..... | 0 20 25.1 | 2.685 | 1 | 162 18 23.9 | 19.97 | 1 | pB; pS; iE; vglbM..... | 1 |
| 48 | 31 | III. 869 | ..... | 0 21 41.4 | 3.123 | 2 | 87 56 3.2 | 19.96 | 2 | vF; S; bM; D*vnR; p of 2... | 3 |
| 49 | 32, a | ..... | R. nova | 0 22 0.7 | +3.123 | ... | 87 57 38.5 | -19.96 | ... | No descr (MS)..... | 0 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 61 | h. 23, <i>b</i> | H. | R. nova | h m s | s | ... | 87° 54' 8.5" | -19.95 | ... | No descr (MS) | 0 |
| 62 | 25 | II. 854 | ..... | 0 22 0.7 | +3.123 | ... | 87 54 38.5 | 19.95 | 2 | pB; vS; IE, 0°±; bM; f of 2 | 3 |
| 63 | 24 | VIII. 79 | ..... | 0 22 4.7 | 3.077 | 2 | 30 33 4.5 | 19.95 | 1 | Cl; vL; pR; lC; st 9...13 | 2 |
| 64 | 23, <i>c</i> | ..... | R. nova | 0 22 6.2 | 3.302 | 1 | 87 54 8.5 | 19.95 | ... | No descr (MS) | 0 |
| 65 | 2326 | ..... | ..... | 0 22 8.7 | 3.123 | ... | 124 2 2.5 | 19.95 | 2 | F; pL; pmE; vgbm; p of 2... | 2 |
| 66 | 26 | II. 855 | ..... | 0 22 42.6 | 2.979 | 2 | 88 41 12.5 | 19.95 | 3 | pF; cL; R; vglbm; r | 6 |
| 67 | 2327 | ..... | ..... | 0 23 0.2 | 3.076 | 3 | 124 1 45.8 | 19.94 | 2 | vB; L; vmE, 47°5; psbM; f of 2; *10 327°9 45" | 2† |
| 68 | ..... | VI. 35 | ..... | 0 23 27.6 | 2.976 | 2 | 29 16 1.8 | 19.94 | 1 | ⊕; vF; S; eC | 1 |
| 69 | ..... | II. 471 | ..... | 0 23 48.3 | 3.332 | 1 | 80 34 1.8 | 19.94 | 1 | F; iF; lbM | 1 |
| 70 | { 27= } 2328 | ..... | ..... | 0 24 3.5 | 3.096 | 1 | 95 55 33.1 | 19.93 | 2 | { F; pL; vIE; vgbM; } *8.9, 75°±; 5'. | 2 |
| 71 | 28 | ..... | ..... | 0 24 38.0 | 3.057 | 2 | 27 29 19.4 | 19.92 | 1 | Cl; pL; lC; st 11...12; D*... | 1 |
| 72 | 29 | ..... | ..... | 0 25 12.7 | 3.367 | 1 | 42 16 32.4 | 19.92 | 1 | vF; vL; iR; g; smbM*11 | 1 |
| 73 | 2329 | ..... | ..... | 0 25 30.6 | 3.243 | 1 | 122 33 57.7 | 19.91 | 1 | vB; S; IE 90°; smbM*11 | 2 |
| 74 | { 30= } 2330 | II. 478 | ..... | 0 26 22.3 | 2.971 | 1 | 100 28 30.7 | 19.91 | 2 | pF; pL; IE 90°; vglbm | 4 |
| 75 | 2331 | ..... | ..... | 0 26 57.8 | 3.042 | 2 | 163 53 11.0 | 19.90 | 1 | vF; L; R; vglbm | 1 |
| 76 | 31 | III. 467 | ..... | 0 27 3.7 | 2.513 | 1 | 103 25 59.0 | 19.90 | 1 | eF; vS; R | 2 |
| 77 | 2332 | ..... | ..... | 0 27 14.0 | 3.033 | 1 | 146 33 23.3 | 19.89 | 2 | vF; pS; R; glbM; 3stf | 2 |
| 78 | ..... | II. 3 | ..... | 0 28 2.9 | 2.818 | 2 | 99 32 4.3 | 19.89 | 2 | F; L; mE; bet 2cBst | 2* |
| 79 | 32 | III. 476 | ..... | 0 28 32.5 | 3.044 | 2 | 66 48 49.3 | 19.89 | 1 | vF; S; stellar; *7, 15°, 5'... | 2 |
| 80 | 32, <i>a</i> | ..... | R. nova | 0 28 43.0 | 3.147 | 1 | 66 48 | ... | ... | Makes Dneb with h. 32 | 0 |
| 81 | ..... | III. 954 | ..... | 0 28 | ..... | ... | 100 51 4.6 | 19.88 | 1 | eeF; S | 1 |
| 82 | ..... | ..... | D'Arrest, 3 | 0 29 20.1 | 3.039 | 1 | 66 46 18 | 19.87 | [1] | F; pL; R; *6, 3½ dist | 0 |
| 83 | ..... | III. 223?? | ..... | 0 29 33 | 3.15 | [1] | 109 44 5.6 | 19.88 | 1 | vF; pL; IE; 2pBst sf | 1 |
| 84 | 33 | III. 871 | ..... | 0 29 41.2 | 3.008 | 1 | 88 48 44.9 | 19.87 | 2 | vF; S; R; vgbM; *11, 225°±; 80" | 3 |
| 85 | 2333 | ..... | ..... | 0 30 1.5 | 3.076 | 2 | 120 14 30.9 | 19.87 | 3 | eF; S; vIE; amBst | 3 |
| 86 | 2334 | III. 223 | ..... | 0 30 2.4 | 2.968 | 3 | 110 42 9.9 | 19.87 | 1 | pB; pL; E; gbM; r | 1 |
| 87 | 2335 | ..... | ..... | 0 30 20.6 | 3.004 | 1 | 163 56 28.9 | 19.87 | 2 | eF; S; vIE; r; *8 near | 2 |
| 88 | ..... | III. 876 | ..... | 0 30 21.5 | 2.446 | 2 | 82 6 6.2 | 19.86 | 1 | vF; pL; iR; *np inv | 1* |
| 89 | ..... | III. 870 | ..... | 0 30 46.6 | 3.098 | 1 | 88 1 7.2 | 19.86 | 1 | vF; S; iR; vgbM | 1 |
| 90 | 35 | II. 707 | ..... | 0 31 0.5 | 3.079 | 1 | 42 26 0.2 | 19.86 | 1 | pB; vL; iR; vgbm; r | 2 |
| 91 | ..... | ..... | D'Arrest, 4 | 0 31 11.4 | 3.278 | 1 | 87 36 6 | 19.85 | [2] | F; S; R; lbM | 0 |
| 92 | 34 | ..... | ..... | 0 31 15 | 3.08 | [2] | 5 26 27.6 | 19.84 | 1 | Cl; vL; R; 150...200st 10 ... 18. | 1 |
| 93 | 36 | ..... | ..... | 0 31 40.6 | 5.151 | 1 | 29 42 31.5 | 19.85 | 1 | Cl; pL; R; st 11...15 | 1 |
| 94 | 37 | ..... | ..... | 0 31 40.7 | 3.407 | 1 | 87 25 4.5 | 19.85 | 1 | vF; L; p of 2; st 15 close | 1 |
| 95 | 38 | II. 479 | ..... | 0 31 49.4 | 3.081 | 1:: | 99 46 25.5 | 19.85 | 1 | pB; pL; iE 0°± | 3 |
| 96 | 39 | III. 872 | ..... | 0 31 53.4 | 3.039 | 1 | 89 54 28.5 | 19.85 | 5 | F; pS; pmE; bM; 1st of 3... | 6 |
| 97 | ..... | II. 857 | ..... | 0 32 2.3 | 3.072 | 5 | 87 57 7.5 | 19.85 | 1 | F; S; vgbM | 1 |
| 98 | 40 | II. 856 | ..... | 0 32 4.5 | 3.079 | 1 | 87 42 54.8 | 19.84 | 1 | pB; S; R; vgbM | 2 |
| 99 | 40, <i>a</i> | ..... | R. nova | 0 32 5.6 | 3.080 | 1 | 87 42 | ..... | ... | (? = h. 37 or II. 857) | 0 |
| 100 | 41 | III. 595 | ..... | 0 32 | ..... | ... | 89 51 23.8 | 19.84 | 1 | F; pS; R; psmbM; f of 2 | 2 |
| 101 | 42 | II. 860 | ..... | 0 32 6.8 | 3.072 | 1 | 87 27 4.8 | 19.84 | 1:: | pB; pS; R; vgbM; 2nd of 3 | 5 |
| 102 | 43 | III. 873 | ..... | 0 32 14.4 | 3.081 | 1:: | 89 55 7.8 | 19.84 | 2 | vF; cL; E; vglbm; f of 3 | 3 |
| 103 | ..... | ..... | D'Arrest, 5 | 0 32 21.4 | 3.072 | 2 | 87 37 24 | 19.84 | [1] | F; vS; *8, p 27°7, ls | 0 |
| 104 | ..... | II. 858 | ..... | 0 32 22 | 3.08 | [1] | 87 52 7.8 | 19.84 | 1 | pB; S; vgbM | 1 |
| 105 | 44 | V. 18 | C.H. | 0 32 22.5 | 3.079 | 1 | 49 4 49.8 | 19.84 | 1 | vB; vL; mE 165°; vgvmbM | 6† |
| 106 | 45 | V. 36 | ..... | 0 32 45.4 | 3.243 | 1 | 50 1 34.8 | 19.84 | 1 | vF; vL; mE 0° | 4† |
| 107 | 46 | II. 452 | ..... | 0 32 47.8 | 3.237 | 1 | 104 38 20.1 | 19.83 | 3 | B; pS; R; psbM; r; *90°± | 4 |
| 108 | 46, <i>a</i> | ..... | R. nova | 0 33 32.4 | 3.020 | 3 | 74 17 8.4 | 19.82 | 2 | E 0°± | 0 |
| 109 | ..... | III. 200 | ..... | 0 33 32 | ..... | ... | 146 56 14.4 | 19.82 | 2 | F; S; bet 2 Sst | 2 |
| 110 | 2336 | ..... | ..... | 0 33 48.8 | 3.129 | 2 | 65 16 6.4 | 19.82 | 2 | vF; S; R; p of 2 | 2 |
| 111 | 47 | II. 209 | ..... | 0 33 49.9 | 2.763 | 2 | 146 58 27.7 | 19.81 | 2 | pF; pS; vglbm; r | 4 |
| 112 | 2337 | ..... | ..... | 0 34 5.4 | 3.166 | 1 | 111 48 59.7 | 19.81 | 1 | F; S; R; amst; f of 2 | 2 |
| 113 | 49 | III. 244 | ..... | 0 34 25.7 | 2.757 | 2 | 100 47 1.7 | 19.81 | 1 | eF; vS; IE 0°...90° | 2 |
| 114 | 48 | II. 480 | ..... | 0 34 28.9 | 2.990 | 1 | 89 50 6.6 | ..... | ... | See No. 5058. | 3 |
| 5058 | | | | 0 34 30.2 | 3.033 | 1 | 164 9 52.7 | -19.81 | 3 | F; iR; vgbM; 1st of several | 3 |
| 115 | 2338 | | | 0 35 1.0 | | ... | | | | | |
| | | | | 0 35 2.1 | +2.344 | 3 | | | | | |

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| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 116 | 50 | | M. 31 | 0 35 3.9 | +3.252 | 1 | 49 29 45.7 | -19.81 | 1 | {!!!eeB; eL; vmE; (An- drom. Gt. Neb.) Bifid (Bond) | 13† |
| 117 | 51 | ..... | M. 32 | 0 35 5.3 | 3.250 | 1 | 49 54 12.7 | 19.81 | 1 | !vvB; L; R; psmbMN | 8† |
| 118 | 2339 | ..... | ..... | 0 35 5.4 | 2.338 | 1 | 164 14 1.7 | 19.81 | 1 | vF; R; 2nd of several..... | 1 |
| 119 | ..... | ..... | {D'Arrest, 6= Auw.N.4 | 0 35 6 | 3.07 | [3] | 89 55 0 | 19.81 | [3] | vF; pL; R (Bond, Jan. 1853) | 0* |
| 120 | 52 | VIII. 78 | C.H. | 0 35 19.2 | 3.457 | 1 | 28 58 43.0 | 19.80 | 1 | Cl; L; IC; st 9...10 | 3 |
| 121 | 53 | ..... | ..... | 0 35 24.0 | 3.204 | 1 | 58 10 55.0 | 19.80 | 1 | eF; S; R; *13, 20" 180° ... | 1 |
| 122 | ..... | II. 444 | ..... | 0 35 33.8 | 3.064 | 1 | 92 18 11.0 | 19.80 | 1 | F; pL; lbM..... | 1 |
| 123 | 2340 | ..... | Δ. 2?? | 0 35 50.6 | 2.329 | 1 | 164 7 16.6 | 19.78 | 1 | i train of st and neb | 1 |
| 124 | 54 | III. 149 | ..... | 0 36 5.2 | 3.196 | 2 | 60 10 58.3 | 19.79 | 2 | F; vS; R; lbM | 3 |
| 125 | ..... | II. 245 | ..... | 0 36 10.9 | 3.124 | 4 | 76 27 54.3 | 19.79 | 4 | F; pS; iLE; bM | 4 |
| 126 | 2341 | ..... | ..... | 0 36 53.3 | 2.803 | 1 | 140 56 42.6 | 19.78 | 1 | eF; pl; R; gvlbM | 1 |
| 127 | 2342 | ..... | ..... | 0 38 13.4 | 2.278 | 1 | 164 11 39.2 | 19.76 | 1 | vF; R | 1 |
| 128 | 2343 | ..... | ..... | 0 38 18.6 | 2.275 | 3 | 164 12 17.2 | 19.76 | 3 | F; S; S; bi-N..... | 3 |
| 129 | 55 | III. 485 | ..... | 0 38 45.1 | 3.005 | 1 | 106 20 58.5 | 19.75 | 1 | vF; S; iR; r; *10, 5' s | 3 |
| 130 | ..... | II. 445 | ..... | 0 39 3.7 | 3.063 | 1 | 92 29 13.5 | 19.75 | 1 | F; pS; iF; er | 1 |
| 131 | 56 | V. 25 | ..... | 0 40 1.4 | 3.019 | 2 | 102 38 24.1 | 19.73 | 2 | vF; L; 4st in diff n..... | 3 |
| 132 | 57 | V. 20 | ..... | 0 40 4.2 | 2.979 | 1 | 111 30 57.1 | 19.73 | 1 | F; vL; vmE 172° | 2* |
| 133 | 2344 | ..... | ..... | 0 40 13.4 | 2.240 | 2 | 164 8 36.1 | 19.73 | 2 | F; S; E or bi-N; vglbM..... | 2 |
| 134 | 2346 | ..... | Δ. 19? 21? | 0 40 17.9 | 2.255 | 3 | 163 51 1.1 | 19.73 | 3 | F; pL; vLE; r | 3 |
| 135 | 58 | III. 204? | ..... | 0 40 22.9 | 3.154 | (2) | 71 9 48.1 | 19.73 | 1 | vF; S; R; lbM; 2vSstf; *inv | 3 |
| 136 | 59 | II. 609 | ..... | 0 40 32.9 | 3.195 | 5 | 63 8 35.1 | 19.73 | 5 | pB; S; R; pmbM; r; * p ... | 6 |
| 137 | 59, a | ..... | R. nova | 0 40 | ..... | ... | 63 8 | ..... | ... | One of R.'s novæ; the other =h. 60. | 0 |
| 138 | {61= 2345} | V. 1 | C.H. | 0 40 37.6 | 2.954 | 3 | 116 3 40.4 | 19.72 | 3 | {!!!; vvB; vvL; vmE} 54°5 gbM; 4st. | 9*† |
| 139 | 60 | ..... | ..... | 0 40 39.3 | 3.195 | 1 | 63 8 14.4 | 19.72 | 1 | pF; R; bM | 1 |
| 140 | 2347 | ..... | ..... | 0 40 40.7 | 2.920 | 3 | 122 11 28.4 | 19.72 | 3 | vB; pS; iE; smbM; *8, 5'nf | 3 |
| 141 | 62 | II. 472 | ..... | 0 40 43.5 | 3.020 | 1 | 102 14 39.4 | 19.72 | 1 | F; pS; R; gbM | 2 |
| 142 | 2348 | ..... | ..... | 0 40 44.3 | 2.223 | 4 | 164 16 44.4 | 19.72 | 4 | F; S; R; gbM; *9, 40"nf ... | 4 |
| 143 | ..... | II. 863 | ..... | 0 40 47.1 | 3.105 | 1 | 82 27 14.4 | 19.72 | 1 | pL; iE; gbM; r | 1 |
| 144 | 63 | ..... | ..... | 0 40 55.7 | 3.057 | 1 | 93 37 22.4 | 19.72 | 1 | vF; Δ 2st & neb | 1 |
| 145 | 64 | {II. 703 = II. 621 | ..... | 0 40 56.1 | 3.058 | 1 | 93 32 40.4 | 19.72 | 1 | F; S; E 135°±; lbM..... | 3* |
| 146 | 2349 | ..... | Δ. 3, 4, 21? | 0 41 23.8 | 2.233 | 3 | 163 52 6.7 | 19.71 | 3 | F; pL; R; gbM*13 | 3 |
| 147 | 2350 | ..... | ..... | 0 41 41.6 | 2.872 | 1 | 129 0 20.7 | 19.71 | 1 | F; S; R; vsvmbM*13 | 1 |
| 148 | 2351 | ..... | ..... | 0 42 3.8 | 2.198 | 4 | 164 15 4.0 | 19.70 | 4 | F; pS; R; | 4 |
| 149 | 65 | III. 153 | ..... | 0 42 13.6 | 3.226 | 4 | 58 29 23.0 | 19.70 | 4 | pB; pS; iE; psbM; r; *8sf4', | 5 |
| 150 | 2352 | ..... | ..... | 0 42 49.8 | 2.195 | 1 | 164 2 37.3 | 19.69 | 1 | Cl; F; pL; stvS | 1 |
| 151 | 66 | III. 463 | ..... | 0 43 1.3 | 3.046 | 2 | 95 57 59.3 | 19.69 | 2 | vF; pS; iLE; r..... | 4 |
| 152 | 2353 | ..... | ..... | 0 43 20.8 | 2.169 | 1 | 164 18 1.6 | 19.68 | 1 | vF; S; R..... | 1 |
| 153 | 68 | III. 955 | ..... | 0 43 28.7 | 3.030 | (1) | 99 25 39.6 | 19.68 | 2 | pF; vS; iR; pgbM | 3 |
| 154 | 67 | II. 446 | ..... | 0 43 34.3 | 3.061 | 1 | 92 39 59.6 | 19.68 | 1 | pF; S; iE; psbM; *8 f5°5... | 3 |
| 155 | ..... | III. 430 | ..... | 0 43 47.0 | 3.038 | 1 | 97 39 17.9 | 19.67 | 1 | vF; vS..... | 1 |
| 156 | 69 | III. 429 | ..... | 0 43 56.8 | 3.037 | 1 | 97 49 22.9 | 19.67 | 1 | pB; pS; smbM; sp of Dneb . | 3 |
| 157 | 70 | ..... | ..... | 0 43 59.1 | 3.037 | 1 | 97 49 2.9 | 19.67 | 1 | vF; S; R; nf of Dneb | 2 |
| 158 | 71 | I. 159 | ..... | 0 44 10.2 | 3.352 | 1 | 43 12 15.9 | 19.67 | 1 | eB; pL; R; 2st10nr | 4 |
| 159 | 73 | III. 439 | ..... | 0 44 59.5 | 3.059 | 2 | 92 59 10.5 | 19.65 | 2 | vF; S; iR; bM; stellar | 4 |
| 160 | 72 | III. 477 | ..... | 0 45 0.3 | 3.189 | 1 | 66 25 23.5 | 19.65 | 1 | eF; S; R; *15, f30" | 3 |
| 161 | 75 | ..... | ..... | 0 45 52.1 | 3.241 | 1 | 58 16 59.8 | 19.64 | 1 | eF; S; R..... | 1 |
| 162 | {74= 2354} | VI. 20 | ..... | 0 45 52.1 | 2.932 | 2 | 117 20 41.8 | 19.64 | 2 | ⊕; B; L; iE; st 12...16..... | 3 |
| 163 | 2355 | ..... | ..... | 0 45 57.6 | 2.903 | 3 | 121 57 53.1 | 19.63 | 3 | vB; L; pME; glbM; *11np | 4 |
| 164 | 2357 | ..... | ..... | 0 46 16.9 | 2.135 | 1 | 163 54 48.1 | 19.63 | 1 | eF | 1 |
| 165 | 2356 | ..... | ..... | 0 46 33.5 | 2.115 | 2 | 164 6 33.1 | 19.63 | 2 | Cl; F; eeL; R; st 12...18 ... | 2* |
| 166 | 2358 | | Δ. 5, 6? | 0 47 14.8 | 2.102 | 1 | 164 8 28.7 | 19.61 | 1 | vF; pL; R; vglbM; r..... | 2 |
| 167 | | II. 214 | | 0 47 51.9 | +3.242 | 1 | 59 11 21.0 | -19.60 | 1 | F; E; aB*f, vnr | 1 |

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| | h. | H. | | h m s | s | | | | | | |
| 168 | 2360 | | | 0 48 23.0 | + 2.151 | 4 | 162° 57' 22.3 | - 19.59 | 4 | pB; vS; R; gvlbM; r..... | 4 |
| 169 | 2359 | | | 0 48 24.5 | 2.844 | 3 | 128 27 8.3 | 19.59 | 4 | pB; vL; vmiE; vgpmbM ... | 5*† |
| 170 | 76 | ..... | ..... | 0 48 59.6 | 3.131 | 1 | 78 40 51.6 | 19.58 | 1 | Cl; S; scst | 1 |
| 171 | 2361 | ..... | ..... | 0 49 15.8 | 2.132 | 1 | 163 0 0.9 | 19.57 | 1 | F; vS | 1 |
| 172 | 77 | ..... | ..... | 0 49 25.0 | 3.060 | 1 | 92 31 27.9 | 19.57 | 1 | pF; S; E | 1 |
| 173 | 78 | ..... | ..... | 0 49 55.7 | 3.240 | 2 | 60 28 21.2 | 19.56 | 2 | pF; vS; R; gbM..... | 2 |
| 174 | 2363 | ..... | ..... | 0 50 3.5 | 2.675 | 2 | 143 32 6.2 | 19.56 | 2 | F; S; R; *12 f 90°..... | 2 |
| 175 | 2362 | ..... | ..... | 0 50 10.7 | 2.883 | 2 | 122 43 13.2 | 19.56 | 2 | eF; vS; R; pB* f 2' | 2 |
| 176 | 79 | II. 210 | ..... | 0 50 11.5 | 3.241 | 3 | 60 24 25.2 | 19.56 | 3 | pB; pL; R; gbM; *9, 3' 135° | 4 |
| 177 | 79, a, b | ..... | R. 2 novæ | 0 50 22.3 | 3.241 | ... | 60 21 31.2 | 19.56 | ... | { F; S; R (ε of Lord R.). } For b, see No. 5059. } | 0* |
| 5059 | | | | | | | | | | | |
| 178 | 4007 | ..... | ..... | 0 50 29.3 | 2.780 | 1 | 134 35 56.5 | 19.55 | 1 | eF; vS; R; lbM | 1* |
| 179 | 4008 | ..... | ..... | 0 50 36.2 | 2.780 | 1 | 134 30 1.5 | 19.55 | 1 | vF; vS; R; lbM; 3stp | 1* |
| 180 | 2365 | ..... | ..... | 0 50 36.7 | 2.668 | 2 | 143 43 58.5 | 19.55 | 2 | pF; S; R; bM; p of 2 | 2 |
| 181 | 2364 | ..... | ..... | 0 50 40.4 | 2.810 | 1 | 131 12 36.5 | 19.55 | 1 | (?)F; S; stellar | 1 |
| 182 | 2366 | ..... | ..... | 0 50 51.5 | 2.667 | 1 | 143 39 58.8 | 19.54 | 1 | vF; iE; vgbM; f of 2 | 1 |
| 183 | 2367 | ..... | Δ. 23 | 0 51 27.2 | 2.078 | 5 | 163 13 35.1 | 19.53 | 5 | ⊕; vB; S; iE; st 13...15 ... | 5 |
| 184 | 2368 | ..... | ..... | 0 52 10.5 | 2.850 | 2 | 125 53 21.4 | 19.52 | 2 | vF; S; R; glbM; 2st11s..... | 2 |
| 185 | 80 | II. 433 | ..... | 0 52 46.1 | 3.027 | ... | 98 19 51.0 | 19.50 | ... | pF; L; E 0°±; glbM; *10, f 20*5. | 2 |
| 186 | 2369 | ..... | ..... | 0 53 13.3 | 1.902 | 1 | 165 12 27.0 | 19.50 | 1 | F; L; R; vgbM | 1 |
| 187 | 2370 | ..... | Δ. 25 | 0 54 19.9 | 2.043 | 5 | 162 56 9.3 | 19.49 | 5 | B; L; viF; mbMD*; r | 5† |
| 188 | 2371 | ..... | ..... | 0 54 45.4 | 2.632 | 2 | 143 59 49.6 | 19.48 | 2 | eF; S; R | 2 |
| 189 | 81 | III. 191 | ..... | 0 55 5.2 | 3.044 | 2 | 94 59 49.5 | 19.45 | 2 | pF; S; iE; *8f97s | 4 |
| 190 | 82 | II. 434 | ..... | 0 56 16.4 | 3.032 | 1 | 97 5 49.1 | 19.43 | 3 | F; S; iR; sbM; *14nf 20''... | 4 |
| 191 | 2372 | ..... | ..... | 0 57 26.8 | 2.308 | 1 | 156 21 30.0 | 19.40 | 1 | eF; vmiE 145°4; vlbM | 1 |
| 192 | 2374 | ..... | Δ. 55 ?? | 0 57 28.7 | 2.022 | 2 | 162 22 33.0 | 19.40 | 2 | vvF; pL; viE; vgbM | 2 |
| 193 | 2375 | ..... | Δ. 62 | 0 57 28.8 | 2.069 | 3 | 161 35 59.0 | 19.40 | 3 | ⊕; vB; vL; vC; vmbM; st 13...14. | 4 |
| 194 | 2373 | ..... | ..... | 0 57 44.3 | 2.828 | 2 | 125 53 46.0 | 19.40 | 2 | F; S; R; glbM | 2 |
| 195 | 83 | ..... | ..... | 0 57 45.8 | 3.700 | 1 | 28 34 5.0 | 19.40 | 1 | Cl; S | 1 |
| 196 | 4012 | ..... | ..... | 0 57 57.6 | 2.745 | 1 | 134 1 50.3 | 19.39 | 1 | eF; vS; *7.8 sp 3' | 1* |
| 197 | ..... | ..... | D'Arrest, 7 | 0 58 53 | 3.28 | [1] | 58 20 18 | 19.37 | [1] | vF; *13, s 15''; m diff | 0 |
| 198 | 2376 | ..... | Δ. 31 ?? | 0 58 56.4 | 1.969 | 5 | 162 48 27.9 | 19.37 | 5 | Cl; F; L; R; pC; st 14...16. | 5 |
| 199 | ..... | ..... | D'Arrest, 8 | 0 59 21 | 3.29 | [1] | 57 57 18 | 19.36 | ... | F; S; bet 2 st 15..... | 0 |
| 200 | 2378 | ..... | Δ. 36 ?? | 0 59 27.3 | 1.904 | 2 | 163 34 23.2 | 19.36 | 2 | ⊕; B; S; R | 2 |
| 201 | 2377 | ..... | ..... | 0 59 31.7 | 2.864 | 1 | 120 55 53.2 | 19.36 | 1 | vF; S; R; gbM | 1 |
| 202 | 84 | II. 215 | ..... | 0 59 32.3 | 3.289 | 3 | 58 14 9.2 | 19.36 | 3 | pF; S; R; bM; 1st of 3 | 4* |
| 203 | 85 | II. 216 | ..... | 0 59 34.3 | 3.289 | 3 | 58 16 41.2 | 19.36 | 3 | pF; S; R; sbM; 2nd of 3 ... | 4* |
| 204 | ..... | VIII. 64 | C.H. | 0 59 37.4 | 3.703 | 1 | 29 9 36.2 | 19.36 | 1 | Cl; pC | 1 |
| 205 | 86, a | ..... | R. nova | 0 59 39.6 | 3.289 | ... | 58 20 48.2 | 19.36 | ... | γ' in Lord R.'s diagram | 0* |
| 206 | 86 | II. 217 | ..... | 0 59 40.5 | 3.289 | 3 | 58 20 16.2 | 19.36 | 3 | pF; pL; R; gbM; 3rd of 3... | 4* |
| 207 | ..... | ..... | D'Arrest, 9 | 0 59 42 | 3.29 | [3] | 58 26 0 | 19.36 | [3] | p of Dneb; vF; pS; { Δ.R.A.=0 } { Δ.P.D.=93'' } | 0* |
| 208 | ..... | ..... | D'Arrest, 10 | 0 59 42 | 3.29 | [3] | 58 25 18 | 19.36 | [3] | vF; R; pS; f of D neb | 0* |
| 209 | 86, b | ..... | R. nova | 0 59 46.3 | 3.288 | ... | 58 23 20.2 | 19.35 | ... | δ in Lord R.'s diagram | 0* |
| 210 | 86, c | ..... | R. nova | 1 0 2.3 | 3.288 | ... | 58 27 16.2 | 19.34 | ... | θ in Lord R.'s diagram | 0* |
| 211 | ..... | ..... | Auw. N. 9 | 1 0 15.1 | 3.071 | ... | 89 48 55.8 | 19.34 | ... | F nebula (Bond, Jan. 1853). | 0* |
| 212 | 87 | II. 218 | ..... | 1 0 39.6 | 3.299 | 1 | 57 37 10.1 | 19.33 | 1 | F; vS; R; mbM; bet 2 st ... | 2 |
| 213 | 87, a | ..... | R. nova | 1 0 | ..... | ... | 59 37 | ..... | ... | makes a D neb with h. 87 ... | 0 |
| 214 | 88 | I. 54 | ..... | 1 0 43.4 | 3.361 | 2 | 51 5 25.1 | 19.33 | 2 | F; vS; viE; gbM; 4Sstr | 4* |
| 215 | ..... | ..... | D'Arrest, 11 | 1 0 45 | 3.30 | [1] | 57 36 18 | 19.33 | [1] | F; S; pos from h. 87=40°; dist 47''. | 0 |
| 216 | 2379 | ..... | ..... | 1 0 45.8 | 1.940 | 1 | 162 44 38.1 | 19.33 | 1 | vF; pL; R; glbM | 1 |
| 217 | ..... | ..... | D'Arrest, 12 | 1 1 29 | 3.30 | [1] | 57 59 48 | 19.31 | [1] | vF; S; R; *10f1s.8, s 80'' ... | 0 |
| 218 | 89 | II. 224 | ..... | 1 1 39.0 | 3.326 | 2 | 55 2 13.7 | 19.31 | 2 | pB; cL; R; gbM; β Androm.nr | 3 |
| 219 | 2380 | ..... | ..... | 1 2 5.5 | 2.679 | 1 | 137 25 34.0 | 19.30 | 1 | eS; stellar; =*7m | 1 |
| 220 | 2381 | ..... | ..... | 1 2 39.6 | 2.041 | 1 | 160 37 28.3 | 19.29 | 1 | F; vL; R; vglbM | 1 |
| 221 | | II. 219 | | 1 2 44.2 | 3.306 | (1) | 57 34 0.3 | 19.29 | (1) | eS; F; p of D neb | 1 |
| 222 | | II. 220 | | 1 2 44.2 | + 3.306 | (1) | 57 34 0.3 | - 19.29 | (1) | pL; f of D neb | 1 |

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| | h. | H. | | h m s | s | | | | | | |
| 223 | 2382 | | | 1 3 9.2 | +2.800 | 1 | 126 31 25.9 | -19.27 | 1 | eF; S; R; vS* nr | 1 |
| 224 | 2384 | | | 1 3 27.6 | 1.908 | 1 | 162 30 42.9 | 19.27 | 1 | eF; pL; R; gvlbM | 2 |
| 225 | 2383 | ..... | ..... | 1 3 37.2 | 2.801 | 2 | 126 14 35.2 | 19.26 | 2 | vF; S; R; glbM | 2 |
| 226 | 2386 | ..... | ..... | 1 3 39.2 | 1.861 | 4 | 163 6 23.2 | 19.26 | 4 | F; pS; R; gbM | 4 |
| 227 | 2385 | ..... | ..... | 1 3 57.5 | 2.849 | 3 | 120 57 48.5 | 19.25 | 3 | F; pL; R; vglbM; p of 2 ... | 3 |
| 228 | 2387 | ..... | Δ. 36? | 1 4 4.2 | 1.814 | 1 | 163 37 59.5 | 19.25 | 1 | ..... | 4 |
| 229 | 90 | III. 15 | ..... | 1 4 25.7 | 3.303 | 1 | 58 37 12.8 | 19.24 | 1 | F; pS; R; bM..... | 2 |
| 230 | ..... | III. 15 ⁴ | ..... | 1 4 26.1 | 3.303 | 1:: | 58 36 22.8 | 19.24 | 1:: | eF; vS | 1 |
| 231 | [162] | ..... | ..... | 1 4 28.3 | 1.890 | 1 | 162 30 54.8 | 19.24 | 1 | vF | 1 |
| 232 | 2388 | ..... | ..... | 1 4 41.6 | 2.855 | 2 | 119 58 44.8 | 19.24 | 2 | eF; S; E; glbM; f of 2 | 2 |
| 233 | 2389 | ..... | ..... | 1 4 57.6 | 2.768 | 1 | 128 49 39.1 | 19.23 | 1 | vF; S; R; glbM | 1 |
| 234 | 91 | III. 592 | ..... | 1 5 41.2 | 3.066 | 1 | 91 3 7.7 | 19.21 | 1 | vF; vS; R | 2 |
| 235 | 91, <i>a</i> | ..... | R. nova | 1 5 ..... | ..... | ... | 91 3 ..... | ..... | ... | Forms a Δ with h. 91 & 92... | 0 |
| 236 | 2390 | ..... | ..... | 1 5 43.8 | 2.826 | 2 | 122 49 44.7 | 19.21 | 2 | 2 vSst + F neb | 2 |
| 237 | 92 | III. 593 | ..... | 1 5 46.4 | 3.065 | 1 | 91 4 22.7 | 19.21 | 1 | eF; eS | 2 |
| 238 | ..... | II. 622 | ..... | 1 5 49.2 | 3.074 | 1 | 89 45 44.0 | 19.20 | 1 | F; L; R; bM; er..... | 1 |
| 239 | 93 | II. 447 | ..... | 1 5 51.7 | 3.066 | 1 | 90 59 22.7 | 19.21 | 1 | F; vS; R; vsbM* | 3 |
| 240 | 95 | ..... | ..... | 1 6 16.1 | 3.324 | 1 | 57 1 50.0 | 19.20 | 1 | F; S; vsbM..... | 1 |
| 241 | 2391 | ..... | ..... | 1 6 16.3 | 2.340 | 1 | 152 20 39.0 | 19.20 | 1 | F; S; R; gbM; *12 f..... | 2 |
| 242 | 94 | ..... | ..... | 1 6 27.6 | 3.732 | 1 | 30 36 52.3 | 19.19 | 1 | Cl; S; iC | 1 |
| 243 | 2392 | ..... | ..... | 1 6 36.9 | 2.430 | 2 | 148 59 52.3 | 19.19 | 2 | B; S; R; psbM | 2 |
| 244 | ..... | VII. 45 | ..... | 1 6 53.4 | 3.703 | 2 | 31 56 6.6 | 19.18 | 2 | Cl; S; iF; pC | 2 |
| 245 | 2393 | ..... | ..... | 1 7 7.0 | 2.761 | 2 | 128 38 59.9 | 19.17 | 2 | pF; S; R; glbM | 2 |
| 246 | 2394 | ..... | ..... | 1 7 12.4 | 2.823 | 2 | 122 29 25.9 | 19.17 | 2 | pB; S; R; gbM | 2 |
| 247 | 2396 | ..... | ..... | 1 7 13.1 | 2.423 | 2 | 149 1 44.9 | 19.17 | 2 | F; vS; R | 2 |
| 248 | 2395 | ..... | ..... | 1 7 16.6 | 2.823 | 2 | 122 32 55.9 | 19.17 | 2 | pF; S; R; gbM | 2 |
| 249 | ..... | ..... | D'Arrest, 13 | 1 7 21 | 3.32 | [1] | 57 31 18 | 19.16 | [1] | F; S; R; *15 p, 8 ^s 3, 270° ... | 0 |
| 250 | ..... | ..... | D'Arrest, 14 | 1 7 51 | 3.32 | [2] | 57 40 42 | 19.15 | [2] | F; pL; bM; *11 nr..... | 0 |
| 251 | 96, <i>a</i> | ..... | R. nova | 1 8 ..... | ..... | ... | 59 43 ..... | ..... | ... | vF; mE135°±; lbM; nph.96 | 0 |
| 252 | 96 | ..... | ..... | 1 8 29.3 | 3.306 | 1 | 59 42 41.8 | 19.14 | 1 | vF; E; *9np; S*nf, vnr..... | 1 |
| 253 | 2397 | ..... | ..... | 1 8 35.1 | 2.480 | 1 | 146 8 37.8 | 19.14 | 1 | vF; S; R; bM..... | 1 |
| 254 | ..... | III. 440 | ..... | 1 8 48.8 | 3.061 | 1 | 91 35 19.1 | 19.13 | 1 | vF; vL | 1 |
| 255 | 2399 | ..... | Δ. 7, 10? | 1 9 50.6 | 1.668 | 3 | 164 2 15.0 | 19.10 | 4 | pF; pL; iR; r; 1st of sev, neb and st. | 3 |
| 256 | 97 | VII. 42 | ..... | 1 10 24.8 | 3.722 | 1 | 32 24 35.3 | 19.09 | 1 | Cl; B; L; pR; st 7, 8, 10 ... | 3 |
| 257 | 2401 | ..... | Δ. 60? | 1 10 40.8 | 1.799 | 2 | 162 17 13.6 | 19.08 | 2 | pF; L; R; vgbM | 2 |
| 258 | ..... | III. 205 | ..... | 1 10 41.4 | 3.198 | 1 | 73 4 51.6 | 19.08 | 1 | eF | 1 |
| 259 | 2402 | ..... | Δ. 8, 10? | 1 10 48.6 | 1.650 | 4 | 164 2 41.6 | 19.08 | 4 | F; pL; iR; gbM; r; 2nd of sev. | 4 |
| 260 | 2400 | ..... | ..... | 1 10 54.4 | 2.794 | 1 | 124 6 11.6 | 19.08 | 1 | pB; R; glbM; ? 1° in P.D.... | 1 |
| 261 | 2404 | ..... | Δ. 9? | 1 11 42.3 | 1.629 | 1 | 164 4 36.5 | 19.05 | 1 | pB; pL; iF; 3rd of sev. | 1 |
| 262 | 2403 | ..... | ..... | 1 11 43.3 | 2.365 | 1 | 149 38 46.5 | 19.05 | 1 | vF; R; gbM; 30 | 1 |
| 263 | 99 | III. 250 | ..... | 1 11 56.6 | 3.091 | 1 | 87 25 16.5 | 19.05 | 1 | pB; pL; R; gmbM; p of 2... | 4 |
| 264 | ..... | I. 108 | ..... | 1 12 1.0 | 3.091 | 1 | 87 30 53.5 | 19.05 | 1 | eB; vL; iR; pB*f | 1 |
| 265 | 98 | ..... | ..... | 1 12 2.9 | 3.335 | 1 | 58 1 55.5 | 19.05 | 1 | vF; eS; stellar..... | 1 |
| 266 | ..... | ..... | D'Arrest, 15 | 1 12 41 | 3.33 | [2] | 58 2 0 | 19.03 | [2] | eF; vS; *9p14 ^s ; v diffc..... | 0 |
| 267 | ..... | III. 206 | ..... | 1 12 41.2 | 3.192 | 1 | 74 14 55.1 | 19.03 | 1 | eF; S | 1 |
| 268 | 100 | III. 577 | ..... | 1 13 19.9 | 3.428 | 1 | 50 14 18.7 | 19.01 | 1 | vF; pS; vLE; vglbM | 2 |
| 269 | ..... | III. 251 | ..... | 1 13 21.4 | 3.092 | 3: | 87 22 9.7 | 19.01 | 3: | pB; S; smbM; f of 2 | 3 |
| 270 | 101 | ..... | ..... | 1 13 47.2 | 3.119 | 1:: | 83 43 2 | 19.00 | 1 | eF; pL; R; red *7.8, 225° ... | 1 |
| 271 | 2405 | ..... | ..... | 1 14 3.5 | 2.691 | 1 | 131 42 52.3 | 18.99 | 1 | eF; iE | 1 |
| 272 | 102 | III. 156 | ..... | 1 14 6.0 | 3.350 | 1 | 57 17 30.3 | 18.99 | 1:: | vF; eS; 1st of 3 | 3 |
| 273 | 2406 | ..... | ..... | 1 14 7.3 | 2.353 | 2 | 149 15 33.3 | 18.99 | 2 | vB; S; iE; psmbM | 2 |
| 274 | ..... | ..... | D'Arrest, 16 | 1 14 29 | 3.14 | [1] | 81 31 48 | 18.97 | [1] | pB; S; E | 0 |
| 275 | 103, <i>a</i> | ..... | R. nova | 1 14 29 | 3.107 | ... | 85 24 26.6 | 18.98 | ... | γ in Lord R.'s diagram | 0 |
| 276 | 103 | III. 252 | ..... | 1 14 31.2 | 3.107 | 2 | 85 28 25.6 | 18.98 | 2 | pB; L; R; svmbM; *7 f1 ^m ... | 3 |
| 277 | 103, <i>b</i> | ..... | R. nova | 1 14 46.4 | 3.107 | ... | 85 21 47.6 | 18.98 | ... | β in Lord R.'s diagram | 0 |
| 278 | ..... | III. 157 | ..... | 1 14 51.3 | 3.351 | 2 | 57 15 28.9 | 18.97 | 2 | vF; S; 2nd of 3 | 2 |
| 279 | 2407 | ..... | ..... | 1 14 53.5 | 2.772 | 2 | 124 48 15.9 | 18.97 | 2 | B; S; vLE; bM; vS*nr | 2 |
| 280 | 103, <i>c</i> | ..... | R. nova | 1 14 57.1 | 3.107 | ... | 85 18 37.6 | 18.97 | ... | δ in Lord R.'s diagram | 0 |
| 281 | 105 | III. 594 | | 1 14 59.5 | 3.075 | 1 | 89 47 7.2 | 18.96 | 1 | vF; L; mE 60°±; lbM | 2 |
| 282 | 104 | | | 1 15 4.4 | +3.352 | 1 | 57 33 18.2 | -18.96 | 1 | vF; E; *s | 1 |

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|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|----|
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| | h. | H. | | h m s | s | | ° ' " | " | | | | |
| | 104, <i>a</i> | | R. 5 novæ | 1 15 | + | ... | 57 33 | " | —18°95 | ... | No descr Nos. 283...287 incl | 0 |
| 288 | 106, <i>a</i> | | R. nova | 1 15 | | ... | 57 16 | | 18°95 | ... | No description | 0 |
| 289 | 106 | III. 158 | ..... | 1 15 19·6 | 3·354 | 2 | 57 16 46·5 | | 18°95 | 2 | pB; pL; R; 3rd of 3 | 4 |
| 290 | 103, <i>d</i> | ..... | R. nova | 1 15 23·2 | 3·107 | ... | 85 20 17·6 | | 18°95 | ... | ε in Lord R.'s diagram | 0 |
| 291 | ..... | ..... | D'Arrest, 17 | 1 15 35 | 3·35 | [3] | 57 31 18 | | 18°94 | [3] | vF; S; obs. with H. 157, 158, 159, 160. | 0 |
| 292 | 107 | ..... | ..... | 1 15 36·6 | 3·352 | 1: | 57 36 31·8 | | 18°94 | 1: | No description | 1 |
| 293 | ..... | ..... | D'Arrest, 18 | 1 15 38 | 3·13 | [2] | 81 41 6 | | 18°94 | [2] | cB; S; R; bMN | 0 |
| 294 | 108 | III. 159 | ..... | 1 15 48·0 | 3·354 | 2 | 57 28 37·8 | | 18°94 | 2 | vF; pL; R; bM; p of 2 | 3 |
| 295 | 109 | III. 160 | ..... | 1 15 49·0 | 3·354 | 1 | 57 26 52·8 | | 18°94 | 1 | vF; S; f of 2 | 2 |
| 296 | 110 | ..... | ..... | 1 16 7·8 | 3·362 | 1 | 56 49 53·1 | | 18°93 | 1 | vF; vS | 1 |
| 297 | 111 | III. 169 | ..... | 1 16 34·4 | 3·362 | 1 | 56 56 28·4 | | 18°92 | 1 | F; S; stellar | 2 |
| 298 | 112 | II. 252 | ..... | 1 16 35·8 | 3·169 | 2 | 77 49 10·7 | | 18°91 | 2 | F; L; IE; vglbM; * f | 3† |
| 299 | 113 | III. 167 | ..... | 1 16 45·3 | 3·360 | 1 | 57 16 37·7 | | 18°91 | 1 | Stellar; p of 2 | 2 |
| 300 | ..... | ..... | D'Arrest, 19 | 1 16 48 | 3·14 | [2] | 81 10 6 | | 18°91 | [2] | eF; S; v diff; I 151 f41 ^s ... | 0 |
| 301 | 114 | III. 168 | ..... | 1 16 48·8 | 3·360 | 1 | 57 18 37·7 | | 18°91 | 1 | pB; R; stellar; f of 2 | 2 |
| 302 | 114, <i>a</i> | ..... | R. nova | 1 16 | ..... | ... | 57 18 |  | ..... | ... | S; R; bM | 0 |
| 303 | 116 | III. 253 | ..... | 1 17 19·4 | 3·097 | 1 | 86 55 16·3 | | 18°89 | 1 | F; cL; E 135°± | 3† |
| 304 | 115 | II. 461 | ..... | 1 17 19·8 | 3·078 | 2 | 89 0 21·3 | | 18°89 | 2 | F; pL; R; gbM | 5 |
| 305 | ..... | ..... | D'Arrest, 20 | 1 17 22 | 3·14 | [2] | 80 44 24 | | 18°89 | [2] | eF; pL; iF; ?Cl+neb | 0 |
| 306 | ..... | ..... | D'Arrest, 21 | 1 17 25 | 3·37 | [1] | 56 42 18 | | 18°89 | [1] | D neb; vF; 90° pos | 0 |
| 307 | 117 | I. 151 | ..... | 1 17 26·8 | 3·142 | 1 | 81 11 50·3 | | 18°89 | 1 | vB; pL; mbM; 4S st nr | 2 |
| 308 | ..... | ..... | D'Arrest, 22 | 1 17 31 | 3·14 | [2] | 81 1 12 | | 18°88 | [2] | vF; vS; * 11·12 p 5 ^s | 0 |
| 309 | 2408 | ..... | ..... | 1 17 35·1 | 2·750 | 3 | 125 48 8·3 | | 18°89 | 3 | F; S; IE; p of 2 | 3 |
| 310 | 2409 | ..... | ..... | 1 17 37·5 | 2·748 | 3 | 125 51 0·3 | | 18°89 | 3 | F; S; IE; bM; f of 2 | 3 |
| 311 | 118 | ..... | ..... | 1 17 44·5 | 3·377 | 1 | 56 1 31·3 | | 18°89 | 1 | pB; vS; sbM; p of 2 | 1* |
| 312 | 118, <i>a</i> | ..... | R. nova | 1 17 | ..... | ... | 56 1 |  | ..... | ... | One of 4 neb nr h. 120 | 0 |
| 313 | ..... | III. 556 | ..... | 1 17 51·6 | 3·140 | 1 | 81 28 43·6 | | 18°88 | 1 | vF; pL; mE 15°± | 1* |
| 314 | 119 | ..... | ..... | 1 17 51·6 | 3·140 | (1)? | 81 29 30·6 | | 18°88 | 1 | Not vF; L; R; bM | 2* |
| 315 | 121 | II. 462 | ..... | 1 18 19·5 | 3·081 | 2 | 88 58 4·9 | | 18°87 | 2 | pB; pL; R; gmbM | 3 |
| 316 | 2410 | ..... | ..... | 1 18 22·9 | 2·708 | 2 | 128 52 11·9 | | 18°87 | 2 | eeF; S; R; vgbM; 1st of 4... .. | 2 |
| 317 | 120 | ..... | ..... | 1 18 24·6 | 3·379 | 1 | 56 2 19 | | 18°87 | 1 | pB; pL; gbM; f of 2 | 1* |
| 318 | 120, <i>a</i> | ..... | R. nova | 1 18 | ..... | ... | 56 2 |  | ..... | ... | One of 4, see h. 118, 120 ... | 0 |
| 319 | ..... | III. 170 | ..... | 1 18 26·6 | 3·373 | 1 | 56 39 5·2 | | 18°86 | 1 | Stellar | 1* |
| 320 | 2411 | ..... | ..... | 1 18 51·2 | 2·707 | 2 | 128 48 57·5 | | 18°85 | 2 | eeF; S; R; vgbM; 2nd of 4... .. | 2 |
| 321 | 2412 | ..... | ..... | 1 18 52·4 | 2·707 | 2 | 128 47 17·5 | | 18°85 | 2 | eeF; S; R; vgbM; 3rd of 4... .. | 2 |
| 322 | ..... | II. 448 | ..... | 1 18 55·2 | 3·056 | 1 | 92 3 54·5 | | 18°85 | 1 | Stellar; p of D neb | 1 |
| 323 | ..... | II. 449 | ..... | 1 18 55·2 | 3·056 | 1 | 92 3 54·5 | | 18°85 | 1 | Stellar; f of D neb | 1 |
| 324 | 2413 | ..... | ..... | 1 19 6·8 | 2·707 | 1 | 128 44 40·8 | | 18°84 | 1 | eeF; S; R; vgbM; 4th of 4... .. | 1 |
| 325 | ..... | III. 171 | ..... | 1 19 27·2 | 3·383 | 1 | 56 4 7·1 | | 18°83 | 1 | Stellar | 1* |
| 326 | 122 | II. 463 | ..... | 1 19 33·1 | 3·083 | 2 | 88 42 53·1 | | 18°83 | 2 | F; S; E 90°; bM; r | 5 |
| 327 | 123 | III. 560 | ..... | 1 19 42·9 | 3·415 | 1 | 53 32 28·1 | | 18°83 | 1 | vF; S; E; vglbM; *13 nr ... | 2 |
| 328 | ..... | III. 172 | ..... | 1 19 56·5 | 3·371 | 1 | 57 16 7·4 | | 18°82 | 1 | vS; stellar; p of 2 | 1 |
| 329 | ..... | III. 173 | ..... | 1 19 56·5 | 3·371 | 1 | 57 16 7·4 | | 18°82 | 1 | vS; stellar; f of 2 | 1 |
| 330 | 124 | VII. 48 | ..... | 1 20 10·3 | 3·969 | 1 | 27 25 54·7 | | 18°81 | 1 | Cl; B; pL; pRi; st mm | 2* |
| 331 | ..... | ..... | D'Arrest, 23 | 1 20 21 | 3·38 | [1] | 56 25 18 | | 18°80 | [1] | eF; pL; R | 0 |
| 332 | ..... | III. 441 | ..... | 1 20 34·8 | 3·051 | 1 | 92 40 8·0 | | 18°80 | 1 | vF; vS; iE; p of 2 | 1 |
| 333 | ..... | III. 442 | ..... | 1 20 39·9 | 3·052 | 1 | 92 37 8·0 | | 18°80 | 1 | vF; vS; iF; f of 2 | 1 |
| 334 | 125 | ..... | ..... | 1 21 10·0 | 3·362 | 1 | 58 23 57·6 | | 18°78 | 1 | vF; S; R | 1 |
| 335 | 2414 | ..... | ..... | 1 21 37·4 | 2·726 | 1 | 126 27 1·2 | | 18°76 | 1 | vF; S; R | 1 |
| 336 | 2415 | ..... | ..... | 1 22 20·5 | 2·675 | 1 | 130 2 23·8 | | 18°74 | 1 | eF; S; att to S*; B*nr | 1 |
| 337 | 2416 | ..... | ..... | 1 22 43·5 | 2·723 | 1 | 126 19 27·1 | | 18°73 | 2 | vS; *pos 225° inv | 3 |
| 338 | 2417 | ..... | ..... | 1 23 15·2 | 2·453 | 1 | 142 18 52·7 | | 18°71 | 1 | F; S; R; bM; am st 11 | 1 |
| 339 | 2418 | ..... | ..... | 1 23 43·9 | 2·864 | 1 | 113 23 44·0 | | 18°70 | 1 | B; L; pmE; gpmbM | 1 |
| 340 | 127 | ..... | ..... | 1 23 47·8 | 3·390 | 1 | 57 6 32·0 | | 18°70 | 1 | vF; pL; gbM | 1 |
| 341 | 126 | ..... | Σ.131=M.103 | 1 23 59·8 | 3·916 | 2 | 30 2 9·3 | | 18°69 | 2 | Cl; B; R; Ri; pL; st 10...11 .. | 5 |
| 342 | 128 | I. 100 | ..... | 1 24 18·7 | 3·008 | 3 | 97 35 25·6 | | 18°68 | 3 | vB; pL; R; mbM; p of 2 ... | 4 |
| 343 | 128, <i>a</i> | ..... | R. nova | 1 24 | ..... | ... | 97 35 |  | ..... | ... | No description | 0 |
| 344 | ..... | III. 431 | ..... | 1 24 22·2 | 3·008 | (1) | 97 36 39·6 | | 18°68 | (1) | eF; S; f of 2 | 1 |
| 345 | 129 | | | 1 24 33·4 | 3·059 | 1 | 91 38 46·6 | | 18°68 | 1 | vF; S; R; bM | 1 |
| 346 | 130 | | | 1 24 35·7 | + 3·008 | *1 | 97 36 47·9 | | —18°67 | 1 | vF; vS; R | 1 |

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| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 347 | | | D'Arrest, 24 | 1 24 40 | +3.41 | [1] | 55 26 18 | -18.66 | [1] | vvF; S; ?rr | 0 |
| 348 | | | D'Arrest, 25 | 1 25 0 | 3.35 | [2] | 60 5 0 | 18.65 | [2] | F; M. 33, f65 ^s ; another f28 ^s .. | 0 |
| 349 | ..... | ..... | D'Arrest, 26 | 1 25 28 | 3.35 | [2] | 60 5 0 | 18.64 | [2] | F; pL, f of 2..... | 0 |
| 350 | 2419 | ..... | ..... | 1 25 53.4 | 2.737 | 2 | 124 13 32.1 | 18.63 | 2 | F; S; R; bM | 2 |
| 351 | 132 | II. 4 | ..... | 1 25 54.1 | 3.006 | 1 | 97 44 13.1 | 18.63 | 1 | pB; R; bM; r; *6, f47 ^s .5 ... | 7 |
| 352 | 131 | V. 17 | M. 33 | 1 25 56.3 | 3.358 | 1 | 60 3 50.1 | 18.63 | 1 | !; eB; eL; R; vRi; vgbMN; rr. | 14† |
| 353 | ..... | II. 473 | ..... | 1 26 1.4 | 2.960 | 1 | 102 53 18.1 | 18.63 | 1 | F; S; iF; er..... | 1 |
| 354 | ..... | III. 432 | ..... | 1 26 15.0 | 3.003 | 1 | 98 2 38.4 | 18.62 | 1 | eeF | 1 |
| 355 | 133 | III. 150 | ..... | 1 26 17.0 | 3.361 | 1 | 59 57 47.4 | 18.62 | 1 | vS; R; vvlbM | 5 |
| 356 | 2421 | ..... | Δ. 17? | 1 26 24.6 | 1.327 | 2 | 164 16 37.4 | 18.62 | 2 | B; S; R; psbM*; r..... | 2 |
| 357 | ..... | ..... | R. nova | 1 26 33.5 | 3.355 | :: | 60 31 53.9 | 18.61 | :: | S, a neb or Cl with 3stin v ... | 0 |
| 358 | ..... | ..... | { D'Arr. = Auw.N.15 } | 1 27 18.1 | 3.002 | ... | 98 5 42.6 | 18.58 | ... | { Nebulous *11, m (D'Arr. Resultate). } | 0* |
| 359 | 134 | ..... | ..... | 1 27 23.6 | 3.399 | 1 | 57 4 11.6 | 18.58 | 1 | vF; psbM; stellar | 1 |
| 360 | 2423 | ..... | ..... | 1 27 44.5 | 2.690 | 1 | 127 13 26.9 | 18.57 | 1 | F; vS; R; *12, p | 1 |
| 361 | { 139 = 2422 } | I. 281 | ..... | 1 27 47.4 | 2.780 | 3 | 120 7 37.9 | 18.57 | 3 | { vB; vL; vmE, 118°3; } sbM; *34°5, 6°5. } | 5 |
| 362 | 135 | III. 174 | ..... | 1 27 53.1 | 3.401 | 1 | 57 2 16.9 | 18.57 | 1 | pF; psbM; stellar | 2 |
| 363 | 137 | II. 282 | ..... | 1 28 18.0 | 3.001 | 1: | 98 2 43.5 | 18.55 | 1 | pB; pL; iE; gmbM; r; *8, np10'. | 4 |
| 364 | 136 | ..... | ..... | 1 28 19.5 | 3.399 | 1 | 57 19 26.5 | 18.55 | 1 | pB; pL; bM; *f, 2 ^m 51 ^s | 1 |
| 365 | 2424 | ..... | ..... | 1 28 37.9 | 2.687 | 1 | 127 12 19.8 | 18.54 | 1 | eeeF; vS; R; p of 2..... | 1 |
| 366 | 138 | III. 454 | ..... | 1 28 48.9 | 3.072 | 1 | 90 2 25.1 | 18.53 | 2 | eF; pL; not bM | 2 |
| 367 | 2425 | ..... | ..... | 1 28 50.4 | 2.686 | 1 | 127 12 40.1 | 18.53 | 1 | F; S; R; f of 2 | 1 |
| 368 | 140 | III. 471 | ..... | 1 28 55.4 | 2.976 | 1 | 100 43 34.1 | 18.53 | 1 | eF; S; am vSst | 2 |
| 369 | 2426 | ..... | Δ. 479 | 1 28 57.2 | 2.612 | 1 | 132 9 23.1 | 18.53 | 2 | B; pL; mE; gpmbM | 3 |
| 370 | 2427 | ..... | ..... | 1 29 2.6 | 2.647 | 1 | 129 51 50.1 | 18.53 | 1 | pF; S; R; bM..... | 1 |
| 371 | 141 | ..... | ..... | 1 29 9.2 | 3.405 | 1? | 57 7 44.4 | 18.52 | 1:: | vF; R; f of 2 | 1 |
| 372 | 142 | ..... | M. 74 | 1 29 11.1 | 3.211 | 2 | 74 55 46.4 | 18.52 | 2 | ⊕; F; vL; R; vg, psmbM; rr | 11† |
| 373 | ..... | ..... | Auw. N. 16 | 1 29 14.4 | 4.681 | ... | 17 49 45.0 | 18.50 | ... | iF; 3st + neb (Struve, Σ. 2)... | 0 |
| 374 | 2428 | ..... | ..... | 1 29 27.8 | 2.642 | 1 | 130 3 42.7 | 18.51 | 1 | pF; S; R; bM..... | 1 |
| 375 | 143 | ..... | ..... | 1 29 59.6 | 3.119 | 1 | 84 50 14.0 | 18.50 | 1 | pB; S; R; psbM..... | 1 |
| 376 | 2429 | ..... | ..... | 1 30 9.9 | 2.669 | 2 | 128 2 13.0 | 18.50 | 2 | pB; S; R; gbm; *np..... | 2 |
| 377 | 144 | II. 283 | ..... | 1 32 7.6 | 2.997 | 2 | 98 13 12.4 | 18.42 | 2 | pB; vS; R; mbM; r | 4 |
| 378 | ..... | VII. 49 | ..... | 1 32 8.2 | 4.132 | 1 | 26 40 32.4 | 18.42 | 1 | Cl; pS; L & vSst..... | 1 |
| 379 | 2430 | ..... | ..... | 1 32 32.0 | 2.759 | 3 | 120 38 10.7 | 18.41 | 3 | vF; vS; p of 2 | 3 |
| 380 | 2432 | ..... | ..... | 1 32 38.7 | 2.575 | 2 | 133 14 25.0 | 18.40 | 3 | F; S; R; gpmbM; p of 2 ... | 3 |
| 381 | 2431 | ..... | ..... | 1 32 39.3 | 2.759 | 3 | 120 37 15.0 | 18.40 | 3 | vF; pS; R; gbm; *f, nr..... | 3 |
| 382 | 2435 | ..... | ..... | 1 32 40.7 | 0.929 | 2 | 166 16 4.0 | 18.40 | 2 | vF; pS; R; vglbM | 2 |
| 383 | 2433 | ..... | ..... | 1 32 50.9 | 2.573 | 2 | 133 18 22.0 | 18.40 | 2 | F; S; vLE; glbM; f of 2 | 2 |
| 384 | 2434 | ..... | ..... | 1 32 55.1 | 1.907 | 1 | 155 36 37.3 | 18.39 | 1 | vF; iR; vglbM | 1 |
| 385 | ..... | ..... | M. 76 | 1 33 28.5 | 3.334 | 1 | 39 8 52.4 | 18.37 | 1 | vB; p of D neb | 2 |
| 386 | ..... | I. 193 | ..... | 1 33 37.5 | 3.734 | 1 | 39 7 27.4 | 18.37 | 1 | vB; f of D neb..... | 1 |
| 387 | 145 | VII. 46 | ..... | 1 34 28.0 | 4.062 | 2 | 28 49 19.8 | 18.34 | 2 | Cl; iF; Ri; one * 6.7; st 11 ...14. | 4 |
| 388 | 146 | ..... | ..... | 1 34 41.6 | 3.856 | 1 | 34 49 52.1 | 18.33 | 1 | Cl; pRi; st 12, m | 1 |
| 389 | ..... | VIII. 65 | C.H. | 1 34 45.0 | 4.018 | 1 | 30 0 37.1 | 18.33 | 1 | Cl; S; iRi; stL | 1 |
| 390 | ..... | II. 253 | ..... | 1 35 35.6 | 3.199 | 1 | 77 4 36.0 | 18.30 | 1 | pB; pL; E; bM; r | 1 |
| 391 | 147 | II. 610 | ..... | 1 36 23.8 | 3.366 | 1 | 62 0 24.9 | 18.27 | 1 | F; S; R; bM; r | 3 |
| 392 | ..... | VI. 31 | ..... | 1 36 29.2 | 4.055 | 1 | 29 27 40.9 | 18.27 | 1 | Cl; B; L; eR; st pL | 1 |
| 393 | 148 | ..... | ..... | 1 36 30.8 | 3.107 | 1 | 86 28 36.9 | 18.27 | 1 | vF; S; R | 1 |
| 394 | ..... | II. 588 | ..... | 1 37 15.0 | 3.165 | 2 | 80 17 10.8 | 18.24 | 2 | F; S; iE; bM; r | 2 |
| 395 | 149 | II. 611 | ..... | 1 39 33.1 | 3.365 | 2 | 62 48 58.2 | 18.16 | 2 | F; S; iE 0°+ | 3 |
| 396 | 150 | I. 157 | ..... | 1 40 0.8 | 3.360 | 2 | 63 16 25.8 | 18.14 | 3 | F; E 0°...90°; bet 2 st..... | 4 |
| 397 | ..... | II. 589 | ..... | 1 40 35.6 | 3.183 | 2 | 79 10 46.7 | 18.11 | 2 | F; pL; E; lbM; *nf, 2' | 2 |
| 398 | ..... | ..... | D'Arrest, 27 | 1 41 29 | 3.30 | [1] | 68 21 3 | 18.08 | [1] | pB; vmE; *14, f8 ^s | 0 |
| 399 | ..... | II. 228 | ..... | 1 41 34.5 | 3.299 | 2 | 68 42 50.6 | 18.08 | 2 | pB; S; iR; mbM; 1st of 2 ... | 2 |
| 400 | 151 | IV. 42 | ..... | 1 41 37.9 | 3.126 | 2 | 84 47 12.6 | 18.08 | 2 | vF; vmE, 165°±; sbM*9 ... | 3† |
| 401 | ..... | III. 175 | ..... | 1 41 51.1 | +3.482 | 1 | 54 53 51.9 | -18.07 | 1 | F; stellar | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|--|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 402 | ..... | II. 229 | ..... | 1 41 57.7 | +3.299 | 2 | 68 44 49.2 | -18.06 | 2 | pB; S; iR; mbM; 2nd of 2... | 2 |
| 403 | 152 | II. 612 | ..... | 1 42 3.5 | 3.369 | (1) | 63 3 33.2 | 18.06 | 1 | F; vLE, 90°; *15, nr | 2 |
| 404 | 2436 | II. 481 | ..... | 1 42 17.0 | 2.959 | 1 | 101 7 2.5 | 18.05 | 1 | pF; cL; R; glbM; S*p, 90" | 2 |
| 405 | 153 | ..... | ..... | 1 42 17.6 | 3.186 | 1:: | 79 0 17.5 | 18.05 | 1 | eF | 1 |
| 406 | 154 | II. 501 | ..... | 1 42 18.3 | 2.910 | 1 | 105 39 54.5 | 18.05 | 1 | cF; S; R; gvlbMN | 2 |
| 407 | 2438 | ..... | ..... | 1 42 20.7 | 2.290 | 1 | 143 29 3.5 | 18.05 | 1 | F; vL; R; vgvlbM | 1 |
| 408 | { 155 = 2437 } | III. 459 | ..... | 1 42 21.3 | 2.808 | 1 | 114 29 31.5 | 18.05 | 1 | vF; vS; R; gbM; er; 2stnr | 4 |
| 409 | ..... | III. 561 | ..... | 1 42 25.7 | 3.492 | 1 | 54 21 52.8 | 18.04 | 1 | vF; stellar | 1 |
| 410 | ..... | II. 617 | ..... | 1 42 55.7 | 3.299 | 1 | 68 56 54.1 | 18.03 | 1 | F; cL; vgvlbM | 1 |
| 411 | 2439 | ..... | ..... | 1 43 2.1 | 2.393 | 2 | 139 19 59.1 | 18.03 | 2 | B; S; R; gbM | 2 |
| 412 | 156 | II. 859 | ..... | 1 43 10.9 | 3.129 | 1 | 84 33 6.4 | 18.02 | 1 | pF; S; E90°; vgvlbM; *10, nf | 2† |
| 413 | ..... | ..... | D'Arrest, 28 | 1 43 13 | 3.30 | [1] | 68 42 18 | 18.01 | [1] | F; S; R; bet 2 st 15 | 0 |
| 414 | ..... | II. 618 | ..... | 1 43 29.0 | 3.309 | 1 | 68 7 54.7 | 18.01 | 1 | vS; stellar | 1 |
| 415 | 2440 | ..... | ..... | 1 43 32.7 | 2.652 | 1 | 125 38 52.7 | 18.01 | 1 | F; S; R | 1 |
| 416 | ..... | III. 179 | ..... | 1 43 39.3 | 3.307 | 2 | 68 20 25.0 | 18.00 | 2 | F; cL; E; mbM | 2 |
| 417 | 2441 | ..... | ..... | 1 43 42.0 | 2.653 | 1 | 125 34 5.0 | 18.00 | 1 | eF; S | 1 |
| 418 | { 160 = 2442 } | I. 62 | ..... | 1 44 8.0 | 2.964 | 1 | 100 23 45.6 | 17.98 | 2 | F; pL; E; vgvlbM; r | 4* |
| 419 | 158 | III. 192 | ..... | 1 44 17.0 | 3.024 | 2 | 94 44 57.9 | 17.97 | 3 | eF; vLE 0° ±, *13, s, 90" | 4 |
| 420 | ..... | III. 564 | ..... | 1 44 25.9 | 3.496 | 1 | 54 35 56.9 | 17.97 | 1 | Stellar; 3rd of 4 | 1 |
| 421 | ..... | III. 565 | ..... | 1 44 25.9 | 3.496 | 1 | 54 35 56.9 | 17.97 | 1 | Stellar; last of 4 | 1 |
| 422 | 157 | III. 562 | ..... | 1 44 27.3 | 3.497 | 1 | 54 31 58.9 | 17.97 | 1 | vF; stellar; 1st of 4 | 2 |
| 423 | { 157, a | ..... | R. 3 novæ | 1 44 | ..... | ... | 54 32 | ..... | ... | Near h. 157, 159 | 0 |
| 424 |  | ..... | ..... | 1 44 | ..... | ... | 54 32 | ..... | ... | ..... | 0 |
| 425 |  | ..... | ..... | 1 44 | ..... | ... | 54 32 | ..... | ... | ..... | 0 |
| 426 | 161 | II. 596 | ..... | 1 44 30.7 | 3.131 | 1 | 84 24 17.9 | 17.97 | 1 | F; S; bM; *13 1', n | 3 |
| 427 | 159 | III. 563 | ..... | 1 44 34.3 | 3.497 | 1 | 54 33 1.9 | 17.97 | 1 | F; pL; bM; 2nd of 4 | 2 |
| 428 | 162 | ..... | 55 Androm. | 1 44 55.9 | 3.575 | 1 | 49 57 41.5 | 17.95 | 1 | Fine nebulous * with strong atm. | 1* |
| 429 | 163 | ..... | ..... | 1 44 56.2 | 3.509 | 1 | 53 52 9.5 | 17.95 | 1 | vF; R; am pBst | 1 |
| 430 | 164 | II. 270 | ..... | 1 45 56.9 | 3.110 | 2 | 86 29 23.7 | 17.91 | 2 | pB; S; iR; psmbM | 3 |
| 431 | { 165 = 2443 } | I. 105 | ..... | 1 46 12.4 | 2.918 | 2 | 104 25 39.0 | 17.90 | 2 | cB; pL; lE; psmbM | 3 |
| 432 | ..... | ..... | D'Arrest, 29 | 1 46 19 | 3.28 | [1] | 70 50 18 | 17.89 | [1] | eF; R; *19, f | 0 |
| 433 | ..... | ..... | D'Arrest, 30 | 1 46 32 | 3.56 | [1] | 51 18 3 | 17.88 | [1] | eF; pL | 0 |
| 434 | ..... | ..... | D'Arrest, 31 | 1 47 5 | 3.29 | [3] | 69 59 18 | 17.86 | [3] | vF; vS; R; β Arietis in field | 0 |
| 435 | { 166 = 2444 } | III. 460 | ..... | 1 47 13.9 | 2.797 | 2 | 114 26 46.2 | 17.86 | 2 | pF; vS; R; vgvlbM | 3 |
| 436 | 167 | ..... | ..... | 1 47 14.6 | 2.795 | 1 | 114 33 21.2 | 17.86 | 1 | vF; pL; R; gbM; S*195° | 1 |
| 437 | 2445 | ..... | ..... | 1 47 43.1 | 2.621 | 1 | 126 34 24.8 | 17.84 | 1 | F; S; R; bM | 1 |
| 438 | 168 | ..... | ..... | 1 47 47.9 | 3.110 | 1 | 86 29 14.8 | 17.84 | 1 | Suspected neb. | 1 |
| 439 | 2446 | ..... | ..... | 1 47 50.1 | 2.621 | 1 | 126 32 0.8 | 17.84 | 1 | eeeF; S; R | 1 |
| 440 | ..... | III. 266 | ..... | 1 48 6.0 | 2.969 | 1 | 99 38 5.4 | 17.82 | 1 | eF; stellar | 1 |
| 441 | { 177 = 2447 } | III. 265 | ..... | 1 48 17.0 | 2.968 | 1 | 99 44 29.4 | 17.82 | 1 | vF; pS; vLE | 3 |
| 442 | ..... | II. 221 | ..... | 1 48 26.0 | 3.463 | 1 | 57 38 16.7 | 17.81 | 1 | F; pL; mE; r | 1* |
| 443 | ..... | III. 176 | ..... | 1 48 33.4 | 3.483 | 1 | 56 23 6.7 | 17.81 | 1 | eeeF; stellar | 1 |
| 444 | 169 | ..... | ..... | 1 48 33.9 | 3.463 | 3 | 57 38 53.7 | 17.81 | 3 | pB; R; bM; *13, np | 3* |
| 445 | 169, a | ..... | R. nova | 1 48 34.5 | 3.463 | ... | 57 38 25.7 | 17.81 | { β, γ, δ of Lord R.'s diag. ε=II. 221 H. | { 0* 0* 0* | { 0* 0* 0* |
| 446 | 169, b | ..... | R. nova | 1 48 38.4 | 3.463 | ... | 57 38 0.7 | 17.81 | | | |
| 447 | 169, c | ..... | R. nova | 1 48 47.9 | 3.463 | ... | 57 40 30.7 | 17.81 | | | |
| 448 | 172 | II. 271 | ..... | 1 49 2.8 | 3.126 | 1 | 85 3 29.3 | 17.79 | | | |
| 449 | 173 | II. 272 | ..... | 1 49 3.2 | 3.126 | 1 | 85 3 41.3 | 17.79 | 1 | vF; vS; R; sbM; f of 2 | 4 |
| 450 | 170 | | | 1 49 6.3 | 4.127 | 1 | 30 30 49.6 | 17.78 | 1 | Cl; not Ri; * | 1 |
| 451 | 171 | | | 1 49 7.6 | +3.953 | 1 | 35 13 13.6 | -17.78 | 1 | Cl; pL; pRi; iF; st 11...13. | 1 |

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|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 452 | h. 2449 | H. | | h m s 1 49 12.4 | s +2.112 | 1 | 147° 22' 44.6 | -17.78 | 1 | pB; S; R; gbM | 1 |
| 453 | 176 | III. 193 | ..... | 1 49 20.4 | 3.017 | 2 | 95 9 13.6 | 17.78 | 2 | eF; *9, 315° ± | 3 |
| 454 | 2448 | ..... | ..... | 1 49 21.5 | 2.707 | 3 | 120 36 23.6 | 17.78 | 3 | pB; S; E; 1M | 3 |
| 455 | 175 | II. 222 | ..... | 1 49 23.6 | 3.468 | 1 | 57 29 41.6 | 17.78 | 1 | F; pL; mE; r; f of 2 | 3 |
| 456 | 175, a | ..... | R. nova | 1 49 | ..... | ... | 57 29 | ..... | ... | nf h. 175 | 0 |
| 457 | 174 | VII. 32 | ..... | 1 49 25.8 | 3.541 | 1 | 53 1 14.9 | 17.77 | 1 | Cl; vvL; Ri; st L and sc ... | 5 |
| 458 | 2450 | ..... | ..... | 1 49 27.7 | 2.107 | 1 | 147 26 49.9 | 17.77 | 1 | vF; S; R; bM | 1 |
| 459 | { 178 = 2451 } | III. 464 | ..... | 1 49 57.4 | 3.006 | 3 | 96 5 19.5 | 17.75 | 3 | vF; S; lE; vglbM | 4 |
| 460 | 180 | ..... | ..... | 1 51 17.8 | 3.158 | 1 | 82 20 13.3 | 17.69 | 1 | vF; S; R; *10, 2' 285° | 1 |
| 461 | ..... | ..... | D'Arrest, 32 | 1 51 35 | 3.28 | [2] | 71 42 48 | 17.68 | [2] | vF; S; R; nr I. 112 H. | 0 |
| 462 | 179 | ..... | 50 Cassiop. | 1 51 36.4 | 5.005 | 1 | 18 15 36.6 | 17.68 | 1 | Suspected nebulous * | 1* |
| 463 | 181 | 112 | ..... | 1 51 39.0 | 3.283 | 2 | 71 40 12.6 | 17.68 | 2 | B; cL; R; gbM; r | 3 |
| 464 | 181, a | ..... | R. nova | 1 51 39 | 3.283 | :: | 71 45 ± | ..... | :: | 5 or 6' s of h. 181 | 0 |
| 465 | 2452 | III. 468 | ..... | 1 52 0.8 | 2.936 | 1 | 102 10 50.9 | 17.67 | 1 | cF; pL; E 0° ±; glbM | 2 |
| 466 | ..... | III. 214 | ..... | 1 52 2.0 | 3.223 | 1 | 76 41 15.9 | 17.67 | 1 | vF; stellar | 1 |
| 467 | 2453 | ..... | ..... | 1 52 3.7 | 2.751 | 2 | 116 58 27.9 | 17.67 | 2 | pF; S; R; glbM | 1 |
| 468 | ..... | ..... | D'Arrest, 33 | 1 52 5 | 3.34 | [1] | 67 2 18 | 17.66 | [1] | F; pL | 0 |
| 469 | 182 | II. 223 | ..... | 1 52 10.0 | 3.451 | 1 | 59 15 3.2 | 17.66 | 1 | pB; pL; R; glbM | 2 |
| 470 | 183 | I. 101 | ..... | 1 52 40.6 | 2.999 | 3 | 96 38 24.8 | 17.64 | 3 | cB; L; mE 163° 0; mbM ... | 6 |
| 471 | ..... | III. 215 | ..... | 1 52 43.3 | 3.209 | 1 | 77 59 17.8 | 17.64 | 1 | eF; stellar | 1 |
| 472 | 184 | III. 583 | ..... | 1 52 52.3 | 3.406 | 1 | 62 26 29.1 | 17.63 | 1 | vF; vS; E; 3 stp; *250° ... | 2* |
| 473 | 2454 | ..... | ..... | 1 52 57.3 | 2.039 | 1 | 148 28 9.1 | 17.63 | 1 | pB; pL; lE; *12 att | 1 |
| 474 | 185 | II. 435 | ..... | 1 54 2.1 | 2.989 | (1) | 97 30 22.6 | 17.58 | 1 | pF; pS; R; bM | 2 |
| 475 | 186 | III. 433 | ..... | 1 54 20.6 | 3.005 | 1 | 96 3 38.9 | 17.57 | 1 | vF; cS; R; bM | 3 |
| 476 | ..... | ..... | D'Arrest, 34 | 1 54 25 | 3.16 | [1] | 82 10 18 | 17.56 | [1] | cF; S; *14 f 90°; 11.65 ... | 0 |
| 477 | 187 | ..... | ..... | 1 54 39.4 | 3.247 | 1 | 74 57 35.2 | 17.56 | 1 | eF; S; R; *11 75° | 1 |
| 478 | 188 | III. 207 | ..... | 1 54 49.2 | 3.280 | 1 | 72 17 54.5 | 17.55 | 1 | vF; cS; R; stellar | 2 |
| 479 | 2455 | ..... | ..... | 1 54 55.4 | 2.100 | 1 | 146 30 26.8 | 17.54 | 1 | pF; S; R; 2 st 11, nr | 1 |
| 480 | 2456 | ..... | ..... | 1 55 1.3 | 0.699 | 3 | 164 54 18.8 | 17.54 | 3 | vF; vS; R; *12, 25" 315° ... | 3 |
| 481 | 189 | III. 566 | ..... | 1 55 8.5 | 3.571 | 1 | 52 33 52.1 | 17.53 | 1 | eF; S; iR; sbM; *nr | 3 |
| 482 | 2457 | ..... | ..... | 1 55 46.1 | 1.428 | 1 | 158 32 40.7 | 17.51 | 1 | eeF; vS; R; *13 p 100" ... | 1 |
| 483 | 190 | III. 208 | ..... | 1 56 8.7 | 3.253 | 1 | 74 38 1.3 | 17.49 | 1 | vF; S; iR; glbM; *10 p 3.5 | 2 |
| 484 | 191 | III. 151 | ..... | 1 56 54.9 | 3.428 | 1 | 61 40 47.2 | 17.46 | 1 | vF; vS; iR; bet 2 stn and sp.. | 3 |
| 485 | { 192 = 2458 } | ..... | ..... | 1 57 28.5 | 2.780 | 2 | 113 58 18.1 | 17.43 | 2 | vF; pS; vLE | 2 |
| 486 | 2459 | ..... | ..... | 1 58 26.4 | 1.343 | 1 | 159 7 19.3 | 17.39 | 1 | pF; S; R; gbM | 1 |
| 487 | 193 | I. 152 | ..... | 1 59 51.2 | 3.196 | 1 | 79 40 47.1 | 17.33 | 1 | B; vS; vLE; svmbM; *10, 55" 320°. | 3* |
| 488 | 194 | II. 604 | ..... | 2 0 19.0 | 3.604 | 1 | 51 54 21.7 | 17.31 | 1 | pB; cL; lE; mbM | 2 |
| 489 | 195 | ..... | ..... | 2 0 49.6 | 3.238 | 1 | 76 18 58.6 | 17.28 | 1 | F; R; vS; bM | 1 |
| 490 | 2461 | ..... | ..... | 2 0 55.4 | 2.468 | 2 | 131 49 14.6 | 17.28 | 2 | cF; vS; R; sbM; r | 2 |
| 491 | { 196 = 2640 } | ..... | ..... | 2 0 56.9 | 2.741 | 2 | 116 7 18.6 | 17.28 | 2 | vF; vF * inv | 2 |
| 492 | 2462 | ..... | ..... | 2 0 58.2 | 2.561 | 1 | 127 9 11.6 | 17.28 | 2 | F; S; R; vsymbM *13 | 2 |
| 493 | 198 | III. 227 | ..... | 2 1 34.0 | 3.161 | 1 | 82 41 44.2 | 17.26 | 1 | vF; S; R; bM; am st | 2 |
| 494 | 197 | II. 605 | ..... | 2 1 40.3 | 3.617 | 1 | 51 28 53.5 | 17.25 | 1 | pB; S; iR; * f 15° | 2 |
| 495 | { 199 = 2463 } | II. 482 | ..... | 2 2 30.1 | 2.942 | 3 | 100 47 38.7 | 17.21 | 3 | F; S; R; 1st of 4 | 4 |
| 496 | ..... | III. 567 | ..... | 2 2 32.5 | 3.591 | 1 | 53 0 41.7 | 17.21 | 1 | vF; S; lE | 1 |
| 497 | { 200 = 2464 } | II. 483 | ..... | 2 2 32.8 | 2.942 | 3 | 100 47 50.7 | 17.21 | 3 | F; S; R; 2nd of 4 | 4 |
| 498 | { 201 = 2465 } | II. 484 | ..... | 2 2 47.1 | +2.942 | 3 | 100 48 31.0 | -17.20 | 3 | vF; vS; R; 3rd of 4 | 4 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|--|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 499 | $\left\{ \begin{array}{l} 202 \\ = \\ 2466 \end{array} \right\}$ | II. 485 | ..... | 2 2 51.4 | +2.941 | 2 | 100 51 11.0 | -17.20 | 3 | vF; pS; R; 4th of 4 | 4 |
| 500 | 203 | ..... | ..... | 2 2 55.0 | 2.971 | 1 | 98 25 7.3 | 17.19 | 1 | vF; vS; R; psbM | 1 |
| 501 | 204 | III. 604 | ..... | 2 3 56.7 | 3.593 | 1 | 53 10 55.5 | 17.15 | 1 | vF; iF; stellar | 2* |
| 502 | 2467 | ..... | ..... | 2 4 15.8 | 1.992 | 1 | 147 23 34.1 | 17.13 | 1 | pF; pS; R; glbM; r | 1 |
| 503 | ..... | III. 259 | ..... | 2 4 27.5 | 3.047 | 1 | 92 9 47.4 | 17.12 | 1 | eF; eS; iF | 1 |
| 504 | ..... | II. 486 | ..... | 2 4 45.7 | 2.951 | 1 | 99 58 5.7 | 17.11 | 1 | F; S; E | 1 |
| 505 | 2468 | ..... | ..... | 2 5 36.7 | 2.555 | 3 | 126 30 33.9 | 17.07 | 4 | cF; pS; iE 0°; gbM | 4 |
| 506 | ..... | II. 613 | ..... | 2 5 51.5 | 3.435 | 1 | 62 46 51.2 | 17.06 | 1 | F; S; iE 90°; bM | 1 |
| 507 | 2469 | ..... | ..... | 2 6 30.8 | 2.623 | 2 | 122 36 11.1 | 17.03 | 2 | cB; S; E; psmbM | 2 |
| 508 | 2470 | ..... | ..... | 2 7 24.0 | 2.420 | 2 | 132 41 12.3 | 16.99 | 2 | F; vS; svmbM | 2 |
| 509 | 205 | III. 260 | ..... | 2 7 24.4 | 3.056 | 1 | 91 24 41.3 | 16.99 | 1 | vF; R; bM; stellar | 2 |
| 510 | 206 | III. 457 | ..... | 2 8 6.4 | 3.140 | 1 | 84 39 32.5 | 16.95 | 1 | eF; cL; R; gbM; *12 sf att. | 2* |
| 511 | ..... | III. 2 | ..... | 2 8 41.3 | 3.078 | 1 | 89 36 2.1 | 16.93 | 1:: | eF; vS; R; bM | 1 |
| 512 | 207 | VI. 33 | ..... | 2 9 15.3 | 4.166 | 2 | 33 29 55.0 | 16.90 | 2 | !; Cl; vL; vRi; st7...14 ... | 5 |
| 513 | 208 | III. 201 | ..... | 2 9 33.1 | 3.252 | 1 | 76 5 52.3 | 16.89 | 1 | vF; vS; R; *10 sf 4' | 2 |
| 514 | 208, <i>a</i> | ..... | R. nova | 2 9 | ..... | ... | 76 5 + | ..... | ... | neb s of h. 208 | 0 |
| 515 | $\left\{ \begin{array}{l} 209 \\ = \\ 2471 \end{array} \right\}$ | II. 474 | ..... | 2 9 43.2 | 2.920 | 5 | 101 59 58.6 | 16.88 | 5 | F; pL; R; vglbM | 7 |
| 516 | 210 | II. 246 | ..... | 2 10 22.6 | 3.253 | 1 | 76 6 11.5 | 16.85 | 1 | pF; pL; iE; pgbM; { *9, 185° ± 5' { S* sf 1' | 2* |
| 517 | 210, <i>a</i> | ..... | R. nova | 2 10 | ..... | ... | 76 6 | ..... | ... | neb s of h. 210 | 0 |
| 518 | 211 | II. 436 | ..... | 2 11 14.5 | 2.980 | 1 | 97 17 24.7 | 16.81 | 1 | F; pS; E; bM; 2 or 3 st nr... | 2 |
| 519 | 213 | ..... | ..... | 2 11 59.3 | 3.272 | 1 | 74 48 57.9 | 16.77 | 1 | eF; R; gbM; *16 nr | 1 |
| 520 | 215 | II. 437 | ..... | 2 12 8.7 | 2.978 | 2 | 97 25 44.2 | 16.75 | 2 | pF; pS; vLE; bM; * nr | 3 |
| 521 | 212 | VI. 34 | ..... | 2 12 34.2 | 4.188 | 2 | 33 32 49.5 | 16.75 | 2 | !; Cl; vL; vRi; ruby * M ... | 5 |
| 522 | 214 | ..... | ..... | 2 12 46.6 | 4.536 | 1 | 26 52 20.1 | 16.73 | 1 | Cl; L; iC; sc st 9...13 | 1 |
| 523 | 216 | III. 486 | ..... | 2 12 54.3 | 2.852 | 1 | 106 42 4.1 | 16.73 | 1 | F; S; iR; pgbM | 2 |
| 524 | 2473 | ..... | ..... | 2 13 20.1 | 1.774 | 1 | 150 30 8.7 | 16.71 | 1 | eF; S; R; 2 or 3 vSst nr ... | 1 |
| 525 | 2472 | ..... | ..... | 2 13 30.8 | 2.400 | 2 | 132 23 1.0 | 16.70 | 2 | vF; vS; R; bM; *7 sf and 6 more. | 2 |
| 526 | 217 | II. 225 | ..... | 2 13 41.2 | 3.548 | 4 | 57 22 48.3 | 16.69 | 4 | B; S; R; bM; 3S st sp | 5 |
| 527 | 218 | V. 19 | ..... | 2 13 50.4 | 3.737 | 1 | 48 16 47.6 | 16.68 | 1 | !; B; vL; vME 22° 3' | 5+ |
| 528 | 2474 | ..... | ..... | 2 14 21.4 | 2.404 | 2 | 132 2 58.2 | 16.66 | 2 | pF; pS; R; lbM; *8 90°, 4' .. | 2 |
| 529 | 219 | II. 438 | ..... | 2 14 35.7 | 2.993 | 1 | 96 10 8.8 | 16.64 | 2 | F; vL; iR; gbM | 4 |
| 530 | 219, <i>a</i> | ..... | R. nova | 2 14 | ..... | ... | 96 10 | ..... | ... | E; F; bM; makes D neb with h. 219; both E. | 0 |
| 531 | ..... | III. 695 | ..... | 2 15 1.0 | 4.448 | 1 | 28 40 47.1 | 16.63 | 1 | eF; pL; iF | 1 |
| 532 | 2475 | ..... | ..... | 2 15 9.4 | 2.563 | 1 | 124 21 30.4 | 16.62 | 1 | pB; S; R; psbM; *10 f 90° 0 35''. | 1 |
| 533 | ..... | III. 570 | ..... | 2 15 14.0 | 3.732 | 2 | 48 42 17.4 | 16.62 | 1 | eF; vS; iE | 1 |
| 534 | 2476 | ..... | ..... | 2 15 26.4 | 2.779 | 1 | 111 27 12.0 | 16.60 | 1 | pB; S; gbM; r; *p | 1 |
| 535 | 2477 | III. 224 | ..... | 2 16 34.0 | 2.778 | 1 | 111 20 33.5 | 16.55 | 1 | F; S; E 90°; gbM | 3 |
| 536 | ..... | I. 153 | ..... | 2 16 36.1 | 2.770 | 1 | 111 52 23.5 | 16.55 | 1 | cB; vL; E 0°...90° | 1* |
| 537 | ..... | III. 571 | ..... | 2 16 44.2 | 3.736 | 1 | 48 49 21.5 | 16.55 | 1 | eF; stellar | 1 |
| 538 | 221 | ..... | ..... | 2 17 49.4 | 3.319 | 1 | 72 7 46.3 | 16.49 | 1 | pF; L; R; *10 sf 3' | 1 |
| 539 | 220 | ..... | ..... | 2 17 50.6 | 3.543 | 1 | 58 23 33.3 | 16.49 | 1 | vF; S; R; 4 st nr | 1 |
| 540 | 2478 | III. 239 | ..... | 2 18 44.7 | 2.710 | 1 | 115 26 13.5 | 16.45 | 1 | cF; pL; R; gpmbM | 2 |
| 541 | ..... | III. 474 | ..... | 2 18 50.8 | 3.350 | 1 | 70 7 27.8 | 16.44 | 1 | eF; vS; iR | 1 |
| 542 | 222 | III. 177 | ..... | 2 18 55.7 | 3.571 | 2 | 57 3 25.1 | 16.43 | 2 | cF; cL; E; vgbM; 2st13np.. | 3 |
| 543 | ..... | II. 489 | ..... | 2 19 58.5 | 3.350 | 1 | 70 15 30.6 | 16.38 | 1 | F; S; iE; 3 st inv | 1 |
| 544 | 223 | IV. 23 | ..... | 2 20 29.1 | 3.049 | 1 | 91 46 18.5 | 16.35 | 1 | vB; vL; R; mbMN | 2+ |
| 545 | 2479 | ..... | ..... | 2 20 59.9 | 2.295 | 2 | 135 4 17.1 | 16.33 | 2 | vvF; S; R; gvlbM | 2 |
| 546 | 224 | III. 261 | ..... | 2 21 21.5 | 3.049 | 1 | 91 47 36.7 | 16.31 | 1 | vF; cL; R; f of 2 | 2 |
| 547 | $\left\{ \begin{array}{l} 225 \\ = \\ 2480 \end{array} \right\}$ | II. 487 | ..... | 2 21 48.4 | 2.919 | 2 | 101 10 10.3 | 16.29 | 2 | vF; L; iR; glbM | 3 |
| 548 | 2481 | ..... | ..... | 2 22 1.5 | +2.795 | 1 | 109 40 3.6 | -16.28 | 1 | pB; E; gbM | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.' Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ′ ″ | ″ | | | |
| 549 | 226 | I. 154 | ..... | 2 22 18.6 | +3.654 | 1 | 53 29 51.2 | -16.26 | 1 | cB; L; E; vgbM | 3* |
| 550 | 2482 | ..... | ..... | 2 23 20.3 | 2.366 | 4 | 132 1 30.7 | 16.21 | 4 | vF; pL; lE; gbM; *8 sf 3'... | 4 |
| 551 | 229 | II. 278 | ..... | 2 23 24.6 | 3.050 | 1 | 91 43 1.7 | 16.21 | 1 | pB; S; E; psbM | 3 |
| 552 | 228 | ..... | ..... | 2 23 27.5 | 3.837 | 1 | 45 59 37.0 | 16.20 | 1 | Cl; pRi; st 9...15 | 1 |
| 553 | 227 | ..... | ..... | 2 23 28.9 | 4.288 | 1 | 33 5 46.0 | 16.20 | 1 | Cl; pL; pRi; st 13...15 | 1 |
| 554 | 230 | II. 237? | ..... | 2 23 38.8 | 3.024 | 1 | 93 33 56.3 | 16.19 | 1 | pF; iE 0°±; bM | 2 |
| 555 | 2483 | ..... | ..... | 2 25 21.5 | 2.482 | 2 | 126 39 0.0 | 16.10 | 4 | pB; pS; mE 215°.7 | 4 |
| 556 | 2484 | ..... | ..... | 2 25 38.1 | 2.817 | 2 | 107 49 36.8 | 16.09 | 2 | F; S; iR; gbM | 2 |
| 557 | 231 | ..... | ..... | 2 25 44.2 | 3.580 | 1 | 57 40 44.3 | 16.09 | 1 | S; R; psbM; 1st of 3 | 1* |
| 558 | 231, ^a | ..... | R. nova | 2 25 47.7 | 3.580 | ... | 57 38 59.3 | 16.09 | ... | } γ and δ of Lord R.'s diag. | { 0* |
| 559 | 231, ^b | ..... | R. nova | 2 25 52.0 | 3.580 | ... | 57 38 50.3 | 16.09 | ... | | |
| 560 | 232 | II. 211 | ..... | 2 25 52.4 | 3.512 | (2) | 61 17 57.6 | 16.08 | (2) | pB; cL; lE 0...90°; gmbM; 3st s. | 3† |
| 561 | 233 | ..... | ..... | 2 26 0.7 | 3.580 | 1 | 57 40 14.9 | 16.07 | 1 | vF; R; bM; 2nd of 3 | 1* |
| 562 | 2485 | III. 472 | ..... | 2 26 16.8 | 2.912 | 1 | 101 22 37.5 | 16.05 | 1 | eF; pS; R; vlbM; amscst... | 2 |
| 563 | 234 | ..... | ..... | 2 26 21.2 | 3.580 | 1 | 57 46 23.5 | 16.05 | 1 | pB; R; 3rd of 3 | 1* |
| 564 | 2486 | ..... | ..... | 2 26 26.9 | 2.270 | 2 | 135 8 21.8 | 16.04 | 2 | F; S; R; bet 2 st in par | 2 |
| 565 | 235 | III. 572 | ..... | 2 26 33.1 | 3.753 | 1: | 49 47 23.8 | 16.04 | 1: | vF; pS; p of 2; 210''; 157°... | 2 |
| 566 | 236 | III. 573 | ..... | 2 26 37.4 | 3.754 | 1 | 49 44 28.1 | 16.03 | 1 | F; S; f of 2; 210''; 337° ... | 2 |
| 567 | 2487 | ..... | Δ . 519?? | 2 28 0.1 | 2.404 | 2 | 129 39 17.2 | 15.96 | 2 | pB; L; pmE; smbM; bi-N... | 2† |
| 568 | 237 | III. 161 | ..... | 2 28 23.1 | 3.595 | 2 | 57 17 16.5 | 15.95 | 2 | F; S; vLE; bM; r; 2 st 14 np | 4 |
| 569 | 238 | III. 557 | ..... | 2 28 43.8 | 3.232 | 1 | 78 58 34.1 | 15.93 | 1 | F; S; vLE; psbM; r | 2 |
| 570 | 239 | III. 434 | ..... | 2 28 46.2 | 2.963 | 1 | 97 46 30.4 | 15.92 | 1 | vF; cL; iF; vlbM | 2 |
| 571 | 240 | II. 238 = III. 198 | ..... | 2 30 24.9 | 3.761 | 1 | 49 43 53.8 | 15.84 | 1 | pF; L; E 90°±; mbM; r ... | 4* |
| 572 | 241 | | | 2 30 56.6 | 3.540 | 1: | 60 27 46.0 | 15.80 | 1 | F; pS; iR; bM; st inv | 3† |
| 573 | ..... | II. 6 | ..... | 2 31 35.3 | 3.077 | 1 | 89 44 6.9 | 15.77 | 1 | S; cometic | 1* |
| 574 | 244 | I. 102 | ..... | 2 31 36.0 | 2.968 | 3 | 97 17 18.9 | 15.77 | 3 | cB; pL; vR; mbM | 5* |
| 575 | 242 | I. 156 | ..... | 2 31 38.3 | 3.731 | 1 | 51 32 45.9 | 15.77 | 1 | vB; vL; vmE; vmbM | 3† |
| 576 | 243 | II. 592 | ..... | 2 31 38.5 | 3.222 | 1 | 79 45 46.9 | 15.77 | 1 | pF; S; lE; bM; *11, 25' 50° | 2 |
| 577 | 2488 | ..... | ..... | 2 31 43.4 | 1.877 | 1 | 145 28 45.9 | 15.77 | 1 | eF; S; R; p of 2 | 1 |
| 578 | ..... | VIII. 66 | ..... | 2 32 1.1 | 4.572 | 2 | 29 3 23.5 | 15.75 | 2 | Cl; L; sc st, one 10 | 2 |
| 579 | 245 | III. 581 | ..... | 2 32 2.2 | 3.333 | 1: | 72 34 8.5 | 15.75 | 1: | vF; iE | 2 |
| 580 | 2490 | ..... | ..... | 2 32 8.3 | 1.874 | 1 | 145 28 16.8 | 15.74 | 1 | F; S; R; gbM; *11, s 2' ... | 1 |
| 581 | 246 | II. 5 | ..... | 2 32 11.6 | 3.080 | 2 | 89 30 24.8 | 15.74 | 2 | pB; S; vLE 0...90°; bm; 3st trap. | 10 |
| 582 | { 249 = 2489 } | II. 284 | ..... | 2 32 36.5 | 2.945 | 2 | 98 44 27.7 | 15.71 | 2 | pF; L; mE; r; *17, att sf ... | 4 |
| 583 | | III. 475 | ..... | 2 32 42.1 | 3.354 | (1) | 71 19 38.7 | 15.71 | 1 | F; S; R; lbM | 2 |
| 584 | 248 | ..... | M. 34 | 2 33 2.3 | 3.829 | 2 | 47 49 25.0 | 15.70 | 2 | Cl; B; vL; lC; sc st 9 | 8 |
| 585 | 251 | III. 228 | ..... | 2 33 36.3 | 3.193 | 1 | 81 52 7.2 | 15.66 | 1 | vF; vS; p of 2; *10 p | 2 |
| 586 | { 253 = 2491 } | II. 488 | ..... | 2 33 42.9 | 2.898 | 2 | 101 53 28.2 | 15.66 | 2 | F; S; R; bM | 3 |
| 587 | | III. 229 | ..... | 2 33 43.8 | 3.192 | 1 | 81 53 22.2 | 15.66 | 1 | eF; vS; f of 2 | 2 |
| 588 | 2492 | ..... | ..... | 2 33 57.9 | 2.491 | 1 | 124 52 20.8 | 15.64 | 1 | pB; S; R; stellar | 1 |
| 589 | { 254 = 2493 } | I. 63 | ..... | 2 34 12.1 | 2.943 | 3 | 98 51 19.1 | 15.63 | 3 | B; pL; R; mbM *12 | 4 |
| 590 | | III. 584 | ..... | 2 34 35.0 | 3.520 | 1: | 62 1 17.0 | 15.60 | 1 | F; S; R; psbM | 2 |
| 591 | 258 | I. 1 | ..... | 2 34 35.1 | 3.072 | 2 | 90 9 14.0 | 15.60 | 2 | pF; cL; iE 80°; bM; pB*nr | 8* |
| 592 | 255 | II. 633 | ..... | 2 34 39.9 | 3.701 | 1 | 53 16 21.0 | 15.60 | 1 | pF; cL; R; glbM | 3 |
| 593 | 259 | ..... | ..... | 2 34 44.5 | 3.337 | 1 | 72 35 27.0 | 15.60 | 1 | eF; ? | 1 |
| 594 | 257 | III. 162 | ..... | 2 34 49.1 | 3.596 | 2 | 58 10 18.3 | 15.59 | 2 | F; pL; R; lbM; *7.8 p 43°.5 | 4 |
| 595 | { 257, ^a} } | ..... | R. 3 novæ | 2 34 | ..... | ... | 58 10 | ..... | ... | { 6 seen (including .: h. } { 257, 260, 261). } | 0 |
| 596 |  | ..... | ..... | 2 34 | ..... | ... | 58 10 | ..... | ... | ..... | ..... |
| 597 | 260 | III. 163 | | 2 35 23.6 | 3.598 | 1 | 58 7 34.9 | 15.57 | 1 | vF; pL; R; lbM; sp of 2 ... | 2 |
| 598 | 261 | | | 2 35 26.2 | +3.599 | 1 | 58 4 35.2 | -15.56 | 1 | eF; S; nf of 2 | 1 |

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|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 600 | h. 262 | H. | M. 77 | h m s 2 35 30.2 | s +3.065 | 1 | 90° 35' 56".2 | —15.56 | 1 | vB; pL; iR; sbMrrN; *130°, 2'. | 13† |
| 601 | 263 | II. 273 | ..... | 2 36 0.3 | 3.138 | 1 | 85 37 19.1 | 15.53 | 1 | pF; S; iR; gbM | 2 |
| 602 | ..... | III. 455 | ..... | 2 36 33.3 | 3.085 | 2 | 89 13 22.0 | 15.50 | 2 | vF; L; lbM; er | 2 |
| 603 | 2494 | ..... | ..... | 2 37 43.7 | 2.589 | 1 | 119 35 49.8 | 15.44 | 1 | B; pL; pmE; sbM | 1 |
| 604 | 264 | I. 64 | ..... | 2 39 6.9 | 2.950 | 1 | 98 9 52.5 | 15.35 | 1 | vB; pL; E; gpmbM | 3 |
| 605 | 265 | II. 466 | ..... | 2 39 15.4 | 3.057 | 1 | 91 5 53.8 | 15.34 | 1 | pB; cL; iE; mbM | 4 |
| 606 | 266 | II. 465 | ..... | 2 39 21.1 | 3.061 | 1 | 90 49 5.8 | 15.34 | 1 | vF; pL; iR; bM | 4 |
| 607 | ..... | III. 582 | ..... | 2 39 22.7 | 3.313 | 1 | 74 25 31.8 | 15.34 | 1 | vF; S; iF | 1 |
| 608 | 267 | III. 462 | ..... | 2 40 18.4 | 3.061 | 1 | 90 50 57.3 | 15.29 | 1 | vF; S; R; 2Sst p | 2 |
| 609 | 2496 | ..... | ..... | 2 40 20.8 | 1.552 | 1 | 150 30 14.3 | 15.29 | 1 | F; pS; R; glbM | 1 |
| 610 | 2495 | V. 48 | ..... | 2 40 21.5 | 2.557 | 2 | 120 51 30.3 | 15.29 | 2 | vB; L; vmE 151°.1; vbMN | 3 |
| 611 | { 269 = 2497 } | III. 449 | ..... | 2 42 35.2 | 2.796 | 2 | 107 34 23.5 | 15.15 | 2 | pF; pL; pmE; glbM | 3 |
| 612 | 268 | ..... | ..... | 2 42 39.0 | 3.839 | 1 | 48 55 4.5 | 15.15 | 1 | neb or vScl of vSst | 1 |
| 613 | 270 | II. 601 | ..... | 2 43 44.5 | 3.858 | 1 | 48 22 21.3 | 15.09 | 1 | cF; S; iR; vgbM; r | 2 |
| 614 | ..... | ..... | Bessel | 2 44 6.5 | 3.738 | ... | 53 4 14.9 | 15.07 | ... | ? a comet | 0* |
| 615 | 272 | III. 450 | ..... | 2 45 8.9 | 2.799 | 1 | 107 12 50.7 | 15.01 | 1 | vF; S; iE; gbM | 3 |
| 616 | 271 | II. 602 | ..... | 2 45 25.7 | 3.847 | 1 | 49 0 2.3 | 14.99 | 1 | cF; pS; iR; vglbM | 2 |
| 617 | { 271, a } | ..... | R. 2 novæ | 2 45 | ..... | ... | 49 | ..... | ... | h. 271 is D; another near | 0. |
| 618 |  | ..... | ..... | 2 45 | ..... | ... | 49 | ..... | ... | h. 271 is D; another near | 0. |
| 619 | 273 | ..... | ..... | 2 45 44.4 | 3.044 | 1 | 91 51 24.6 | 14.98 | 1 | eF; pL; gbM; *8f | 1 |
| 620 | ..... | II. 254 | ..... | 2 46 0.9 | 3.269 | 1 | 77 34 54.2 | 14.96 | 1 | F; S; iR; r | 1 |
| 621 | 2498 | ..... | ..... | 2 46 35.8 | 1.778 | 1 | 145 32 30.4 | 14.92 | 1 | F; R; gbM | 1 |
| 622 | 2499 | ..... | ..... | 2 46 44.5 | 1.772 | 1 | 145 38 31.4 | 14.92 | 1 | F; R; gbM | 1 |
| 623 | 274 | III. 580 | ..... | 2 47 29.7 | 3.897 | 1 | 47 31 21.6 | 14.88 | 1 | vF; vS; R; gbM; 2Sst Δ | 2 |
| 624 | { 275 = 2500 } | II. 470 | ..... | 2 47 46.2 | 2.905 | 2 | 100 36 9.2 | 14.86 | 2 | vF; S; R; stellar | 4 |
| 625 | 2501 | ..... | ..... | 2 48 7.7 | 2.760 | 1 | 109 13 6.8 | 14.84 | 1 | F; pL; vmE; 2Sst f | 1 |
| 626 | 276 | II. 274 | ..... | 2 50 52.8 | 3.118 | 1 | 87 11 7.6 | 14.68 | 1 | F; vS; iE; sbM; er | 2 |
| 627 | ..... | II. 619 | ..... | 2 51 35.0 | 3.493 | 1 | 65 21 16.1 | 14.63 | 1 | pB; cL; pmE 0°; r; *n 1' | 1 |
| 628 | 277 | III. 199 | ..... | 2 51 54.7 | 3.949 | 1 | 45 40 24.7 | 14.61 | 1 | F; pS; iE; SbM; *p 6°.5 | 4 |
| 629 | 277, a | ..... | R. nova | 2 52 + | ..... | ... | 45 40 + | ..... | ... | R (nisi = H. II. 239) | 0 |
| 630 | 2502 | III. 469 | ..... | 2 52 16.6 | 2.863 | 1 | 102 57 33.3 | 14.59 | 1 | F; R; gbM; stellar | 2 |
| 631 | ..... | III. 178 | ..... | 2 52 47.8 | 3.711 | 1 | 55 18 19.2 | 14.56 | 1 | vF; pL; R; spmbM | 1 |
| 632 | 278 | ..... | ..... | 2 52 51.3 | 3.908 | 1 | 47 58 42.2 | 14.56 | 1 | eF; vS | 1 |
| 633 | 2503 | ..... | ..... | 2 52 56.7 | 2.484 | 2 | 122 39 22.5 | 14.55 | 2 | vF; pL; E; vlbM | 2 |
| 634 | ..... | II. 239? | ..... | 2 53 0.1 | 3.977 | 2 | 45 35 20.5 | 14.55 | 2 | pB; pL; iR; mbM | 3 |
| 635 | 279 | II. 620 | ..... | 2 53 28.9 | 4.025 | (2) | 44 10 52.4 | 14.52 | (2) | pF; pS; iF; sbM | 2 |
| 636 | 280 | II. 502 | ..... | 2 55 0.2 | 2.818 | 1 | 105 23 8.1 | 14.43 | 1 | pF; pL; R; psbM | 2* |
| 637 | ..... | II. 607 | ..... | 2 55 21.2 | 3.906 | 1 | 48 13 26.7 | 14.41 | 1 | F; cL; E | 1 |
| 638 | ..... | II. 704 | ..... | 2 55 44.9 | 8.608 | 1 | 9 42 40.3 | 14.39 | 1 | F; pL; mE 90°...180° | 2 |
| 639 | 281 | IV. 43 | ..... | 2 56 20.1 | 3.925 | 1 | 47 43 32.5 | 14.35 | 1 | F; mE; smbMS* | 3* |
| 640 | 2504 | III. 245 | ..... | 2 56 25.0 | 2.669 | 1 | 113 25 4.8 | 14.34 | 1 | pF; cL; pmE; gbM*16; r... | 2 |
| 641 | ..... | II. 608 | ..... | 2 56 32.2 | 3.975 | 1 | 46 10 29.0 | 14.40 | 1 | F; cL; er | 1 |
| 642 | 2505 | ..... | ..... | 2 56 55.1 | 2.864 | 1 | 102 38 19.0 | 14.30 | 1 | vF; sp of 2 | 2 |
| 643 | 282 | II. 503 | ..... | 2 57 5.8 | 2.802 | 1 | 106 8 59.3 | 14.29 | 1 | cB; pS; iR; smbM | 2 |
| 644 | 2506 | II. 475 | ..... | 2 57 14.1 | 2.865 | 1 | 102 33 6.3 | 14.29 | 1 | pF; cL; iR; bM; nf of 2 | 3 |
| 645 | 283 | I. 109 | ..... | 2 58 3.7 | 2.603 | 1 | 116 35 45.8 | 14.24 | 1 | cB; pS; vLE 0°; r; S*nr | 4 |
| 646 | 284 | III. 578 | ..... | 2 59 19.7 | 3.810 | 1 | 52 9 24.2 | 14.16 | 1 | cF; vS; R; psbM | 2* |
| 647 | { 285 = 2507 } | II. 285 | ..... | 2 59 25.2 | 2.905 | 3 | 100 5 8.5 | 14.15 | 3 | pB; S; iE 80°±; lbM | 7 |
| 648 | 286 | II. 504 | ..... | 2 59 30.2 | 2.799 | 1 | 106 8 39.5 | 14.15 | 1 | B; S; cE; psbM | 2 |
| 649 | 2508 | ..... | ..... | 3 0 48.0 | 2.288 | 1 | 129 34 26.9 | 14.07 | 1 | pF; S; R; psbM | 2 |
| 650 | 287 | ..... | ..... | 3 1 29.2 | 4.337 | 1 | 37 11 56.1 | 14.03 | 1 | Cl; vS of Sst | 1 |
| 651 | 2509 | II. 258 | ..... | 3 3 27.9 | 2.702 | 3 | 111 7 0.0 | 13.90 | 3 | pB; cL; R; gbM; r | 7 |
| 652 | 288 | III. 262 | | 3 4 20.1 | 3.022 | (1) | 93 3 4.5 | 13.85 | 1 | stellar; difficult | 2 |
| 653 | | III. 164 | | 3 4 23.3 | +3.634 | 1 | 59 57 41.8 | —13.84 | 1 | eF; vS; ? vSst | 1 |

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|-------------------|--|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 654 | $\left\{ \begin{array}{l} 289 \\ = \\ 2510 \end{array} \right\}$ | II. 286 | ..... | 3 4 26.8 | +2.912 | 3 | 99 27 28.8 | -13.84 | 3 | F; pL; R; vglbM; *9np ... | 5 |
| 655 | 289, <i>a</i> | ..... | R. nova | 3 4 31.4 | 2.912 | ... | 99 26 25.8 | 13.84 | ... | No description..... | 0* |
| 656 | $\left\{ \begin{array}{l} 291 \\ = \\ 2511 \end{array} \right\}$ | III. 591 | ..... | 3 4 36.2 | 2.912 | 2 | 99 29 11.6 | 13.78 | 2 | eF; vS; R; stell; sf of 2..... | 3* |
| 657 | 2512 | ..... | Δ. 205?? | 3 4 41.9 | 0.771 | 2 | 157 18 47.1 | 13.83 | 2 | F; S; pmE; gbm 3 | 3 |
| 658 | 290 | VI. 25 | ..... | 3 5 6.3 | 4.106 | 1 | 43 17 22.3 | 13.79 | 1 | Cl; pL; Ri; C; iR; st 12...15 | 3 |
| 659 | 2513 | ..... | ..... | 3 5 18.2 | 0.747 | 2 | 157 29 13.6 | 13.78 | 2 | pF; S; R; glbM 2 | 2 |
| 660 | ..... | II. 900 | ..... | 3 5 38.6 | 2.884 | 1 | 101 0 7.2 | 13.76 | 1 | F; pL; E 80°± 1 | 1 |
| 661 | 292 | III. 443 | ..... | 3 5 49.8 | 2.975 | 3 | 95 45 4.5 | 13.75 | 3 | cF; S; lE; bM; *9, n 5' ... 4 | 4 |
| 662 | 2514 | ..... | ..... | 3 5 57.7 | 1.775 | 1 | 143 52 15.8 | 13.74 | 1 | B; L; vmE 80°; vgbM 2 | 2 |
| 5060 | ..... | ..... | ..... | 3 6 55.2 | ..... | ... | 89 4 27.5 | ..... | ... | See No. 5060. | |
| 663 | 2515 | ..... | ..... | 3 7 7.5 | 1.474 | 1 | 148 40 18.9 | 13.67 | 1 | Cl of 18 or 20 st..... 1 | 1 |
| 664 | ..... | IV. 17 | ..... | 3 7 7.6 | 3.016 | 1 | 93 27 10.9 | 13.67 | 1 | * with neb att 90" 1 1 | 1 |
| 665 | 2516 | ..... | ..... | 3 7 46.9 | 2.667 | 1 | 112 30 46.1 | 13.63 | 1 | F; S; E; alm stell; *8, np... 1 | 1 |
| 666 | 2517 | ..... | Δ. 337 | 3 8 25.7 | 1.635 | 2 | 145 44 50.6 | 13.58 | 2 | ⊕; B; L; R; rr 2 | 2 |
| 667 | ..... | III. 194 | ..... | 3 8 43.9 | 3.020 | 1 | 93 8 18.9 | 13.57 | 1 | eF; eS 1 | 1 |
| 668 | ..... | ..... | D'Arrest, 35 | 3 9 31 | 3.93 | [2] | 49 2 30 | 13.49 | [2] | F; vS; R; stellar; 1st of 7... 0 | 0 |
| 669 | ..... | ..... | D'Arrest, 36 | 3 9 31 | 3.93 | [2] | 49 1 42 | 13.49 | [2] | eF; S; lE; cometary; 2d of 7 0 | 0 |
| 670 | 2518 | ..... | ..... | 3 9 41.5 | 2.198 | 1 | 131 36 25.7 | 13.51 | 1 | vB; R; gmbM 1 | 1 |
| 671 | ..... | ..... | D'Arrest, 37 | 3 9 45 | 3.93 | [2] | 49 1 54 | 13.48 | [2] | vF; S; R; 3rd of 7..... 0 | 0 |
| 672 | ..... | ..... | D'Arrest, 38 | 3 10 8 | 3.93 | [2] | 49 1 36 | 13.46 | [2] | F; S; R; 4th of 7 0 | 0 |
| 673 | ..... | ..... | D'Arrest, 39 | 3 10 11 | 3.94 | [2] | 48 58 30 | 13.45 | [2] | vF; vS; 5th of 7..... 0 | 0 |
| 674 | 293 | II. 603 | ..... | 3 10 32.7 | 3.937 | 1 | 49 0 5.5 | 13.45 | 1 | pB; pS; R; bM; 6th of 7... 2* | 2* |
| 675 | ..... | ..... | D'Arrest, 40 | 3 10 35 | 3.97 | [2] | 49 0 3 | 13.42 | [2] | F; S; *17; 7th of 7 0 | 0 |
| 676 | 2519 | III. 956 | ..... | 3 11 2.0 | 2.884 | 1 | 100 48 41.4 | 13.42 | 1 | eF; vS; 2 st 2' or 3' s..... 2 | 2 |
| 677 | $\left\{ \begin{array}{l} 293, a \\ 293, a \\ 293, a \\ 293, a \end{array} \right\}$ | ..... | R. 6 novæ | 3 11 ± | ..... | ... | 49 ± | ..... | ... | 6 of 15 (including probably h. 294, 295) 0 | 0 |
| 678 | | | | | | | | | | | |
| 679 | | | | | | | | | | | |
| 680 | | | | | | | | | | | |
| 681 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 682 | 2520 | ..... | ..... | 3 11 34.2 | 2.425 | 1 | 123 5 43.3 | 13.39 | 1 | vF; L; R; vglbM 1 | 1 |
| 684 | ..... | III. 195 | ..... | 3 11 43.7 | 3.017 | 1 | 93 14 30.6 | 13.38 | 1 | eeF; eS 1* | 1* |
| 685 | 2521 | ..... | Δ. 487 | 3 12 15.0 | 2.189 | 2 | 131 36 47.1 | 13.33 | 2 | ⊕; vB; pL; R; mbM; er ... 2 | 2 |
| 686 | 294 | III. 574 | ..... | 3 12 23.9 | 3.938 | 1 | 49 11 42.1 | 13.33 | 1 | vF; R; bM; p & sm of 2 ... 2 | 2 |
| 687 | 295 | III. 575 | ..... | 3 12 25.0 | 3.938 | 1 | 49 10 4.4 | 13.32 | 1 | vF; R; bM; f of 2; 100", 352° 4. 2 | 2 |
| 688 | 296 | II. 287 | ..... | 3 13 15.0 | 2.954 | 4 | 96 45 57.9 | 13.27 | 4 | vF; S; vLE; gbm; er 7 | 7 |
| 689 | 2522 | ..... | ..... | 3 13 22.5 | 2.710 | 2 | 110 55 8.9 | 13.27 | 2 | cB; vL; vmE; psvmbM..... 2 | 2 |
| 690 | ..... | III. 444 | ..... | 3 14 7.5 | 2.983 | 1 | 95 8 11.7 | 13.21 | 1 | eF; vS 1 | 1 |
| 691 | ..... | III. 568 | ..... | 3 15 25.7 | 3.016 | 1 | 93 15 44.1 | 13.13 | 1 | eF; S; iF; am 3 or 4 st 1 | 1 |
| 692 | 2523 | I. 106 | ..... | 3 15 36.2 | 2.786 | 1 | 105 53 51.7 | 13.11 | 1 | pB; cL; iR; gbm; *7, f 7 ^s .5, 211° 0. 3 | 3 |
| 693 | 2524 | ..... | ..... | 3 15 41.5 | 2.295 | 3 | 127 38 38.7 | 13.11 | 3 | ⊕; vF; pL; R; vglbM..... 3 | 3 |
| 694 | 2525 | ..... | ..... | 3 16 0.3 | 1.749 | 1 | 142 41 0.3 | 13.09 | 1 | F; pL; mE 37° 3; gbm 1 | 1 |
| 5061 | ..... | ..... | ..... | 3 16 29.0 | ..... | ... | 89 19 3.0 | ..... | ... | See No. 5061. | |
| 695 | 2528 | ..... | Δ. 206 | 3 16 34.1 | 0.698 | 1 | 156 59 37.2 | 13.06 | 1 | pB; L; lE; vgbM; r 1 | 1 |
| 696 | 2526 | ..... | ..... | 3 16 54.8 | 2.666 | 1 | 111 52 19.1 | 13.03 | 1 | pB; S; R; gbm 1 | 1 |
| 697 | 2527 | ..... | Δ. 548 | 3 17 20.4 | 2.288 | 2 | 127 43 40.0 | 13.00 | 2 | vB; cL; vLE; vsvmbMN ... 2 | 2 |
| 698 | 2529 | ..... | Δ. 547 | 3 17 23.1 | 2.291 | 2 | 127 36 24.0 | 13.00 | 2 | pB; pS; psbM..... 2 | 2 |
| 699 | 2533 | ..... | ..... | 3 17 45.6 | 2.662 | 1 | 112 1 0.9 | 12.97 | 1 | F; S; R; bM; p of 2 1 | 1 |
| 700 | $\left\{ \begin{array}{l} 298 \\ = \\ 2530 \end{array} \right\}$ | III. 197 | ..... | 3 17 48.3 | 3.011 | 1 | 93 31 34.9 | 12.97 | 1 | vF; S; R; bM; 1st of 3 3 | 3 |
| 701 | $\left\{ \begin{array}{l} 297 \\ = \\ 2531 \end{array} \right\}$ | III. 196 | ..... | 3 17 48.8 | 3.011 | 1 | 93 30 34.9 | 12.97 | 1 | vF; vS; E; ? neb *; 2nd of 3 3 | 3 |
| 702 | 2532 | ..... | ..... | 3 17 50.9 | +3.012 | 1 | 93 25 54.9 | -12.97 | 1 | F; vS; R; bM; 3rd of 3..... 1 | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | | | | |
| 703 | 297, <i>a</i> | ..... | R. nova | 3 17 53.6 | + 3.011 | ... | 93 16 41.9 | -12.97 | ... | ..... | 0 |
| 704 | 299 | III. 445 | ..... | 3 18 4.9 | 2.962 | 2 | 96 14 11.2 | 12.96 | 2 | vF; pS; pmE | 3 |
| 705 | 2534 | IV. 77 | ..... | 3 18 18.0 | 2.661 | 2 | 112 1 49.8 | 12.94 | 2 | F; mE; 239°1; com; *9, 10 att. | 3† |
| 706 | 2535 | ..... | ..... | 3 18 37.6 | 2.305 | 1 | 126 58 12.7 | 12.91 | 1 | O? pS; vsvmbMN | 1 |
| 707 | 2536 | ..... | ..... | 3 19 39.5 | 2.739 | 1 | 108 4 59.5 | 12.85 | 1 | F; pS; R; glbM | 1 |
| 708 | ..... | III. 959 | ..... | 3 19 53.5 | 2.662 | 2 | 111 51 1.8 | 12.84 | 2 | vF; vS; sf of 2 | 1* |
| 709 | ..... | I. 60 | ..... | 3 20 15.0 | 2.662 | 2 | 111 50 36.0 | 12.80 | 2 | vB; S; E 90°...180°; smbMN; np of 2. | 2* |
| 710 | ..... | ..... | Auw. N. 17 | 3 20 41.7 | 3.690 | ... | 59 6 31.2 | 12.76 | ... | F; L; *10f 4 ^s ; n 2'5 (Schönfeld, 1858). | 0* |
| 711 | ..... | ..... | D'Arrest, 41 | 3 20 47 | 3.98 | [1] | 48 39 6 | 12.72 | [1] | eF; pL; lbM | 0 |
| 712 | 2537 | ..... | ..... | 3 21 10.0 | 2.319 | 3 | 126 12 33.5 | 12.75 | 3 | vF; S; vLE; gbM | 3 |
| 713 | 2538 | ..... | ..... | 3 22 29.8 | 2.407 | 2 | 122 46 15.5 | 12.65 | 2 | eB; pS; R; psbM; *p | 2 |
| 714 | 2542 | I. 257 | ..... | 3 22 38.1 | 2.437 | (1) | 121 34 40.8 | 12.64 | 1:: | cB; pL; iR; vgbM | 2 |
| 715 | 2539 | ..... | ..... | 3 22 38.5 | 2.441 | 1 | 121 23 12.8 | 12.64 | 1 | vB; pS; lE; psbM | 1 |
| 716 | 2540 | ..... | ..... | 3 22 39.6 | 2.275 | 1 | 127 38 11.8 | 12.64 | 1 | F; S; R; *12, sf | 1 |
| 717 | 301 | VIII. 88 | ..... | 3 22 41.0 | 3.852 | 1 | 53 9 36.8 | 12.64 | 1 | Cl; vL; ab 60 st | 3 |
| 718 | 300 | III. 694 | ..... | 3 22 54.4 | 6.312 | 2 | 17 54 18.1 | 12.63 | 2 | vS; iR; gbM; *vnr | 3 |
| 719 | 2541 | ..... | ..... | 3 23 10.3 | 2.732 | 1 | 108 16 10.7 | 12.61 | 1 | F; S; R; psbM | 1 |
| 720 | ..... | VIII. 84 | ..... | 3 23 42.3 | 4.361 | 1 | 39 3 16.6 | 12.58 | 1 | Cl; lRi; stL | 1 |
| 721 | 2545 | ..... | Δ. 591 | 3 24 11.0 | 2.365 | 1? | 124 12 43.8 | 12.54 | 1:: | B; L; mE; vmbMRN | 1 |
| 722 | 2544 | ..... | ..... | 3 25 8.3 | 2.332 | 1 | 125 20 9.9 | 12.47 | 1 | pB; pS; R; psbM | 1 |
| 723 | 2543 | ..... | ..... | 3 25 16.8 | 2.698 | 1 | 109 45 38.2 | 12.46 | 1 | eF; psbM; v diff *8, sf | 1 |
| 724 | 2546 | III. 246 | ..... | 3 25 52.1 | 2.665 | 2 | 111 17 46.1 | 12.43 | 2 | pB; cL; iE; mbM | 5 |
| 725 | 2547 | III. 487 | ..... | 3 26 2.0 | 2.778 | 1 | 105 41 32.4 | 12.42 | 1 | vF; pS; lE; glbM | 2 |
| 726 | 2548 | II. 290 | ..... | 3 26 44.0 | 2.808 | 2 | 104 9 24.9 | 12.37 | 2 | pF; pL; R; lbM; pL*nf 5' | 5 |
| 727 | 302 | III. 446 | ..... | 3 26 44.3 | 2.971 | 2 | 95 33 27.9 | 12.37 | 2 | vF; S; bet 2st | 3 |
| 728 | 2549 | ..... | ..... | 3 26 30.7 | 1.789 | 2 | 140 45 56.6 | 12.38 | 2 | vF; pL; iR; gbM; *nr | 2 |
| 729 | 2550 | ..... | ..... | 3 27 28.6 | 2.690 | 1 | 109 58 38.4 | 12.32 | 1 | F; L; R; vglbM | 1 |
| 730 | 2551 | III. 960 | ..... | 3 27 38.5 | 2.674 | 2 | 110 46 3.7 | 12.31 | 2 | vF; S; R | 3 |
| 731 | 2552 | ..... | ..... | 3 28 18.0 | 2.289 | 2 | 126 36 31.9 | 12.27 | 2 | !! vB; vL; mE; rN in vLE Halo. | 2† |
| 732 | 2553 | III. 857 | ..... | 3 28 18.2 | 2.421 | (1) | 121 40 37.9 | 12.27 | (1) | vF; S; iF; lbM | 2 |
| 733 | 2554 | III. 559 | ..... | 3 29 0.5 | 2.670 | 3 | 110 50 45.4 | 12.22 | 3 | vF; S; R; bet 2st 14 | 4 |
| 734 | 2555 | II. 262 | ..... | 3 29 1.6 | 2.570 | 1 | 115 24 21.4 | 12.22 | 1 | pB; pL; vLE; psbM | 2 |
| 735 | 2556 | ..... | ..... | 3 29 50.6 | 2.310 | 1 | 125 42 24.2 | 12.16 | 1 | eF; vS; p of 3 | 1 |
| 736 | 2557 | ..... | ..... | 3 30 0.6 | 2.311 | 1 | 125 41 4.5 | 12.15 | 1 | vB; pL; lE; gmbM; 2nd of 3 | 1 |
| 737 | 2558 | ..... | ..... | 3 30 0.6 | 2.309 | 1 | 125 43 44.5 | 12.15 | 1 | B; S; lE; pmbM; 3rd of 3 | 1 |
| 738 | 303 | II. 288 | ..... | 3 30 7.0 | 2.971 | 2 | 95 30 0.1 | 12.13 | 2 | eF; pL; iR; bM; r | 5 |
| 739 | 2559 | ..... | Δ. 574 | 3 30 9.5 | 2.316 | 1? | 125 28 56.8 | 12.14 | 1:: | vB; L; R; psbM | 1 |
| 740 | 2560 | III. 961 | ..... | 3 30 28.7 | 2.657 | 2 | 111 21 44.4 | 12.12 | 2 | F; S; R; gbM | 3 |
| 741 | 2561 | ..... | ..... | 3 30 42.7 | 2.307 | 1 | 125 55 1.7 | 12.11 | 1 | ⊕; B; pL; R; gpmbM | 2 |
| 742 | 2562 | ..... | ..... | 3 31 19.8 | 2.710 | 1 | 108 48 18.5 | 12.05 | 1 | pF; S; R; psmbM | 1 |
| 743 | 2563 | II. 263 | ..... | 3 31 26.9 | 2.576 | 1 | 114 58 4.5 | 12.05 | 1 | pB; pS; R; gpmbM | 2 |
| 744 | 2564 | ..... | ..... | 3 31 34.7 | 2.298 | 1 | 125 58 33.5 | 12.05 | 1 | ⊕; vB; pL; R; gmbM | 2 |
| 745 | 2565 | III. 451 | ..... | 3 32 19.8 | 2.706 | 1 | 108 53 34.6 | 11.98 | 1 | F; S; R; glbM | 2 |
| 746 | 2566 | I. 58 | ..... | 3 32 24.1 | 2.608 | 2 | 113 28 55.6 | 11.98 | 2 | B; pS; E; psmbM | 4 |
| 747 | 2567 | II. 593 | ..... | 3 33 11.0 | 2.700 | 1 | 109 9 29.4 | 11.92 | 1 | eB; pS; R; psmbM | 2 |
| 748 | 2569 | ..... | ..... | 3 33 11.6 | 2.296 | 2 | 125 54 53.1 | 11.93 | 2 | ⊕; vB; pL; psbM; rr | 3 |
| 749 | 2568 | III. 247 | ..... | 3 33 14.1 | 2.613 | 1 | 113 10 47.4 | 11.92 | 1 | vF; vS; R | 2 |
| 750 | 2571 | ..... | ..... | 3 33 43.1 | 2.291 | 1 | 126 2 48.0 | 11.90 | 1 | vB; pL; R; psmbM | 2 |
| 751 | 2572 | ..... | ..... | 3 33 49.8 | 2.407 | 1 | 121 46 25.6 | 11.88 | 1 | F; cL; vmE; vglbM; *7np | 1 |
| 752 | 2570 | I. 107 | ..... | 3 33 55.4 | 2.702 | 1 | 109 2 21.9 | 11.87 | 1 | vB; L; R; svmbMN | 3 |
| 753 | 304 | III. 263 | ..... | 3 34 4.2 | 3.040 | (2) | 91 45 34.5 | 11.85 | (2) | eF; stellar or lE | 2 |
| 754 | 304, <i>a</i> | ..... | R. nova | 3 34 | ..... | ... | 91 45 | ..... | ... | makes D neb with h. 304 | 0 |
| 755 | 2573 | ..... | ..... | 3 34 5.2 | 2.014 | 2 | 134 33 18.9 | 11.87 | 2 | B; pS; R; smbM | 2 |
| 756 | 305 | III. 569 | ..... | 3 34 32.3 | 2.977 | 1 | 95 7 5.4 | 11.82 | 1:: | eF; lE; er; 1st of 3 | 2 |
| 757 | 2574 | ..... | ..... | 3 34 36.5 | 2.531 | 1 | 116 40 8.4 | 11.82 | 1 | F; S; E; gmbM; *sf 2' | 1 |
| 758 | 306 | II. 455 | | 3 34 41.5 | 2.976 | 1 | 95 8 51.7 | 11.81 | 1 | pF; pL; lE; lbM; *sf; 2d of 3 | 3 |
| 759 | 2575 | II. 267 | | 3 34 51.1 | + 2.615 | 3 | 113 0 43.7 | -11.81 | 3 | pB; S; lE; pglbM; *sf 2' | 4 |

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|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 760 | 307 | II. 456 | ..... | 3 35 2.3 | + 2.976 | 3 | 95 9 45.6 | - 11.78 | 2 | vF; S; E; B* 135°, 1'; 3d of 3 | 4 |
| 761 | 2576 | ..... | ..... | 3 35 29.9 | 2.229 | 2 | 127 58 34.9 | 11.77 | 2 | pF; pS; R; psbM | 2 |
| 762 | 2577 | II. 291 | ..... | 3 35 56.9 | 2.804 | 2 | 103 56 56.1 | 11.73 | 2 | F; cL; mE 0° ±; r | 4 |
| 763 | 307, a | ..... | R. nova | 3 35 58.6 | 2.976 | :: | 95 9 45.6 | 11.73 | :: | No description | 0 |
| 764 | ..... | II. 852 | ..... | 3 36 30.1 | 2.438 | 1 | 120 21 11.3 | 11.69 | 1 | F; pL; iR; gbM | 1 |
| 765 | 2578 | III. 248 | ..... | 3 36 42.1 | 2.622 | 2 | 112 33 21.6 | 11.68 | 2 | pF; S; lE; bM | 3 |
| 766 | 2579 | ..... | ..... | 3 37 0.0 | 2.288 | 1 | 125 50 50.2 | 11.66 | 1 | pF; S; R; psmbM | 1 |
| 767 | 2580 | ..... | Δ. 426 | 3 37 37.8 | 1.879 | 2 | 137 40 33.4 | 11.62 | 2 | vB; L; pmE; vsvmbM*10 ... | 2 |
| 768 | ..... | ..... | Auw. N. 18 | 3 37 52.3 | 3.542 | ... | 66 40 12.9 | 11.57 | ... | !!! B; vL; iF; VAR. (Tempel) | 0* |
| 769 | 2581 | ..... | Δ. 562 | 3 38 7.9 | 2.264 | 1? | 126 34 12.6 | 11.58 | 1? | ⊕; vB; pmE; pgbM | 2 |
| 770 | 2582 | ..... | ..... | 3 38 20.0 | 2.272 | 1 | 126 18 1.9 | 11.57 | 1 | F; vL; R; glbM | 1 |
| 771 | 2584 | III. 249 | ..... | 3 38 43.4 | 2.623 | 3 | 112 21 40.1 | 11.53 | 3 | F; pS; gpmbM | 5 |
| 772 | ..... | II. 597 | ..... | 3 38 44.4 | 2.986 | 2 | 94 31 51.1 | 11.53 | 2 | vF; S; iE; *nr | 1 |
| 773 | 2583 | II. 458 | ..... | 3 38 44.4 | 2.703 | 2 | 108 43 32.1 | 11.53 | 2 | pB; pS; R; smbM*13 | 3 |
| 774 | ..... | II. 594 | ..... | 3 38 46.3 | 2.682 | 2 | 109 41 52.1 | 11.53 | 2 | pB; vS; bM | 1* |
| 775 | 308 | VIII. 80 | ..... | 3 38 52.0 | 4.490 | 2 | 37 46 18.6 | 11.48 | 2 | Cl of ab 30st 12...14 | 3 |
| 776 | 2585 | ..... | ..... | 3 39 4.9 | 1.977 | 1 | 135 5 20.4 | 11.52 | 1 | pB; L; vmE 221° 6 | 1 |
| 777 | ..... | II. 459 | ..... | 3 39 12.4 | 2.696 | 1 | 109 0 25.3 | 11.49 | 1 | F; R; lbM | 1 |
| 778 | 309 | I. 155 | ..... | 3 39 32.4 | 2.989 | 1 | 94 24 37.9 | 11.47 | 1 | pB; S; R; *17M | 3* |
| 779 | 2586 | ..... | ..... | 3 39 56.6 | 1.974 | 3 | 135 5 22.2 | 11.46 | 3 | pF; pL; eE 42° 3; vgpmbM | 3 |
| 780 | 2587 | ..... | ..... | 3 40 59.9 | 2.241 | 1 | 127 7 51.9 | 11.37 | 1 | F; S; R; *att | 1 |
| 781 | 2588 | II. 460 | ..... | 3 42 24.8 | 2.739 | 1 | 106 49 22.2 | 11.26 | 1 | pB; S; lE; mbMN | 2 |
| 782 | 2589 | ..... | ..... | 3 43 32.5 | + 1.139 | 2 | 150 14 27.4 | 11.22 | 2 | cF; S; R; glbM; am 7Bst ... | 2 |
| 783 | 2590 | ..... | ..... | 3 45 15.1 | - 0.360 | 1 | 162 6 36.1 | 11.13 | 1 | pF; pS; iR; glbM; *7f | 2 |
| 784 | 2592 | ..... | ..... | 3 46 48.5 | + 0.224 | 2 | 158 38 24.7 | 11.01 | 2 | cF; pL; R; gvlbM | 2 |
| 785 | 2591 | ..... | ..... | 3 47 34.5 | 1.955 | 2 | 134 56 47.0 | 10.90 | 2 | cF; S; E 90°; gbM | 2 |
| 786 | 2593 | ..... | ..... | 3 48 18.8 | 2.644 | 1 | 110 52 29.8 | 10.84 | 1 | eF; S; R; 2Bstf; p of 2 | 1 |
| 787 | 2594 | III. 962 | ..... | 3 48 28.0 | 2.643 | 3 | 110 54 59.4 | 10.82 | 2 | F; S; vLE; 2st 10nr; f of 2 ... | 4 |
| 788 | 2595 | ..... | Δ. 427? 428? | 3 48 31.1 | 1.830 | 2 | 137 53 54.8 | 10.84 | 2 | cF; pL; R; vglbM | 2 |
| 789 | 2596 | ..... | ..... | 3 49 9.1 | 2.212 | 1 | 127 24 18.6 | 10.78 | 1 | vF; L; E; vglbM | 1 |
| 790 | 2597 | ..... | Δ. 480 | 3 51 4.2 | 2.029 | 3 | 132 46 40.8 | 10.64 | 3 | pb; pL; R; gbM; 2st Δ | 3 |
| 791 | ..... | ..... | Auw. N. 19 | 3 52 1.3 | 3.444 | ... | 71 49 55.8 | 10.54 | ... | *12 inv in neb (Markree Cat. Nov. 24, 1854). | 0 |
| 792 | 2599 | ..... | ..... | 3 52 22.9 | 0.478 | 2 | 156 25 42.3 | 10.59 | 2 | pB; S; vLE; pmbM | 2 |
| 793 | ..... | I. 258 | ..... | 3 52 32.8 | 4.482 | 1 | 39 1 19.4 | 10.52 | 1 | vB; S; iF; bM; r; *inv | 1 |
| 794 | 2598 | ..... | ..... | 3 52 59.7 | 2.251 | 1 | 125 51 46.3 | 10.49 | 1 | vF; vS; R | 1 |
| 795 | 2600 | ..... | Δ. 438 | 3 53 5.8 | 1.870 | 2 | 136 36 53.0 | 10.50 | 2 | F; cL; R; vglbM | 2 |
| 796 | 2601 | ..... | ..... | 3 53 36.3 | 1.748 | 2 | 139 18 42.9 | 10.47 | 2 | F; L; R; vglbM; 3st n ... | 2 |
| 797 | 2602 | ..... | ..... | 3 53 47.2 | 1.721 | 3 | 134 52 57.5 | 10.45 | 3 | eF; S; lE 90°; vglbM | 3 |
| 798 | 310 | ..... | ..... | 3 53 47.4 | 4.551 | 1 | 37 45 45.6 | 10.38 | 1 | Cl; segment of a ring | 1 |
| 799 | ..... | VII. 3 | ..... | 3 53 52.2 | 2.821 | 1 | 102 25 27.4 | 10.42 | 1 | Cl; S; C | 1 |
| 800 | 2603 | ..... | Δ. 369? | 3 54 33.6 | 1.573 | 1 | 142 43 35.3 | 10.39 | 1 | F; vS; R; pmbM; *8 np ... | 1 |
| 801 | ..... | IV. 53 | ..... | 3 54 57.0 | 5.109 | 2 | 29 27 30.6 | 10.28 | 2 | O; pB; pS; vLE; 1' diam ... | 2 |
| 802 | ..... | VII. 47 | ..... | 3 55 9.9 | 5.232 | 2 | 28 3 51.2 | 10.26 | 2 | Cl; pRi; cC; iF | 2 |
| 803 | 2604 | ..... | ..... | 3 55 25.3 | 0.456 | 1 | 156 25 44.2 | 10.36 | 1 | eF; pS; R; *10 np | 1 |
| 804 | 2605 | ..... | ..... | 3 56 44.9 | 1.552 | 1 | 142 58 5.1 | 10.23 | 2 | eeF; S; R; bet 2st 12 & 13.. | 2 |
| 805 | ..... | II. 279 | ..... | 3 57 19.5 | 3.021 | 2 | 92 35 1.5 | 10.15 | 2 | vF; pL; mE; vlbM; er | 2 |
| 806 | 2606 | ..... | ..... | 3 59 0.1 | 1.965 | 2 | 133 47 35.5 | 10.05 | 2 | F; pL; R; vgmB | 2 |
| 807 | 2608 | ..... | ..... | 3 59 3.1 | 0.218 | 3 | 158 1 23.7 | 10.09 | 3 | pB; pS; mE 121° 5; gbM ... | 3 |
| 808 | 2607 | ..... | Δ. 466 | 3 59 20.3 | 1.966 | 3 | 133 44 23.1 | 10.03 | 3 | ⊕; B; cL; R; bM; rr | 3 |
| 809 | ..... | VII. 60 | ..... | 3 59 35.9 | 4.416 | 1 | 40 51 49.5 | 9.95 | 1 | Cl; L; vRi; pC; st vL | 1 |
| 810 | 311 | IV. 69 | ..... | 4 0 28.6 | 3.755 | 2 | 59 35 29.2 | 9.96 | 2 | *8m in neb 3' diam | 3*+ |
| 811 | 2609 | ..... | Δ. 348 | 4 0 39.4 | 1.448 | 2 | 144 29 25.8 | 9.94 | 2 | B; L; vmE 10°; bM | 2 |
| 812 | 2610 | III. 499 | ..... | 4 1 24.0 | 2.884 | 2 | 99 12 21.5 | 9.85 | 2 | eeF; S; E; psmbM; er | 3 |
| 813 | 2611 | ..... | ..... | 4 1 44.0 | + 2.613 | 1 | 111 33 0.1 | 9.83 | 1 | B; L; pmE; gbM; *8 sp ... | 1 |
| 814 | 2615 | ..... | ..... | 4 2 8.1 | - 2.026 | 1 | 167 13 0.4 | 9.92 | 1 | Cl; pL; lRi; st 9...10 | 1 |
| 815 | 2612 | ..... | ..... | 4 2 10.3 | + 2.616 | 1 | 111 25 36.0 | 9.80 | 1 | pB; R; bM | 1 |
| 816 | 2613 | ..... | ..... | 4 2 35.2 | 1.525 | 2 | 143 2 40.3 | 9.79 | 2 | eF; vS; R; vlbM | 2 |
| 817 | 2614 | ..... | ..... | 4 2 48.1 | 1.440 | 1 | 144 28 35.9 | 9.77 | 1 | vF; R | 1 |
| 818 | 2617 | ..... | ..... | 4 4 8.8 | 0.425 | 2 | 156 12 37.0 | 9.70 | 2 | eF; vS; R; glbM | 2 |
| 819 | 2616 | ..... | ..... | 4 4 17.7 | + 1.761 | 2 | 138 15 52.5 | - 9.65 | 2 | pB; pS; E 77°; vsmbMRN... | 3 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 820 | ..... | VII. 61 | ..... | 4 4 37.1 | +4.520 | 1 | 39 7 14.2 | -9.56 | 1 | Cl; B; vRi; cC | 1 |
| 821 | 2619 | ..... | ..... | 4 5 33.4 | 0.746 | 1 | 153 16 3.3 | 9.59 | 1 | vF; S; R; gbM | 1 |
| 822 | 2620 | ..... | ..... | 4 6 34.6 | 2.302 | 3 | 123 12 36.2 | 9.46 | 3 | pB; pL; R; bM; np of 2 ... | 3+ |
| 823 | 2621 | ..... | Δ. 600 | 4 6 39.6 | 2.301 | 3 | 123 14 8.2 | 9.46 | 3 | B; vL; vmE 32°2; psmbM... | 3+ |
| 824 | 2622 | ..... | ..... | 4 6 51.0 | 1.297 | 2 | 146 29 15.9 | 9.47 | 2 | vB; vL; R; smbM; 2st *10nf | 2 |
| 825 | 2623 | ..... | ..... | 4 6 59.8 | 0.749 | 2 | 153 9 21.9 | 9.47 | 2 | F; S; R; vS* ³ d sf | 2 |
| 826 | 2618 | IV. 26 | ..... | 4 7 50.8 | 2.792 | A | 103 5 32.2 | 9.36 | 1 | ⊕; vB; S; R; ps, vsbM; r... | 5*+ |
| 827 | 2625 | ..... | ..... | 4 8 4.3 | 1.267 | 1 | 146 50 24.6 | 9.38 | 1 | vF; R; pL; vlbM | 1 |
| 828 | 2624 | ..... | ..... | 4 8 17.9 | 2.337 | 1 | 121 54 41.8 | 9.34 | 1 | vB; pS; IE; psymbM | 1 |
| 829 | 2626 | ..... | ..... | 4 9 32.7 | 2.420 | 2 | 118 50 16.1 | 9.23 | 2 | vF; vS; E; gvlbM; r | 2 |
| 830 | 2627 | ..... | ..... | 4 9 58.6 | 1.170 | 1 | 148 5 33.1 | 9.23 | 1 | B; pL; E; smbMN=*11 ... | 1 |
| 831 | ..... | VIII. 85 | ..... | 4 10 25.3 | 4.489 | 1 | 40 5 39.7 | 9.11 | 1 | Cl; pS; R; IC; stL | 1 |
| 832 | 2628 | ..... | ..... | 4 11 37.5 | 1.282 | 2 | 146 24 57.7 | 9.11 | 2 | pB; IE; gbMEN; *p | 2 |
| 833 | 312 | ..... | ..... | 4 11 45.8 | 3.959 | 1 | 53 25 50.1 | 9.03 | 1 | Cl; vL; IRi; IC; st10...12 ... | 1 |
| 834 | 2629 | ..... | ..... | 4 12 9.4 | 1.313 | 1: | 145 55 46.2 | 9.06 | 1 | B; pS; R | 1 |
| 835 | ..... | ..... | D'Arrest, 42 | 4 12 21 | 3.11 | [1] | 87 56 12 | 8.99 | [1] | vF; S; R; *13nr | 0 |
| 836 | ..... | II. 464 | ..... | 4 12 22.5 | 3.097 | 1 | 88 55 34.0 | 9.00 | 1 | F; vS; R | 1* |
| 837 | 313 | III. 490 | ..... | 4 13 10.4 | 3.052 | 2 | 91 2 17.1 | 8.93 | 2 | cF; pS; IE; vgbM; *11sf ... | 3 |
| 838 | 2630 | ..... | ..... | 4 13 11.1 | 1.295 | 1 | 146 7 50.6 | 8.98 | 2 | vB; pS; R; gmbM; am 3st... | 2 |
| 839 | ..... | ..... | Auw. N. 20 | 4 13 47.7 | 3.488 | ... | 70 48 46.0 | 8.87 | ... | !!!; vF; S; variable (Hind)... | 0* |
| 840 | 2631 | ..... | ..... | 4 13 56.5 | +1.622 | 2 | 140 30 9.7 | 8.91 | 2 | cF; S; R; vglbM | 2 |
| 841 | 2633 | ..... | ..... | 4 14 0.8 | -0.349 | 1 | 160 46 26.2 | 8.96 | 1 | Cl; vLC; ab 20 sc st | 1 |
| 842 | 2632 | ..... | ..... | 4 14 56.3 | +1.858 | 1 | 135 21 58.1 | 8.83 | 1 | pF; S; E; gbM | 2 |
| 843 | 2634 | ..... | ..... | 4 15 56.3 | 0.704 | 2 | 153 7 47.6 | 8.78 | 2 | vB; vL; mE; vgpmbM; *14 att n. | 2 |
| 844 | 2635 | ..... | Δ. 338?? | 4 16 52.1 | 1.337 | 2 | 145 16 34.3 | 8.69 | 2 | B; vL; vg, vsmbM; 15 ^a d in R.A. | 2 |
| 845 | 2636 | ..... | ..... | 4 17 9.1 | 1.707 | 1 | 138 35 23.2 | 8.66 | 1 | F; S; R; bM | 2 |
| 846 | 2637 | ..... | ..... | 4 17 42.3 | 1.916 | 1 | 133 47 30.7 | 8.61 | 1 | F; S; R; gbM | 1 |
| 847 | ..... | II. 768 | ..... | 4 17 43.5 | 5.621 | 1 | 25 27 13.7 | 8.51 | 1 | pB; S; IE; bNM; pB*n ... | 1 |
| 848 | 2638 | ..... | ..... | 4 17 45.5 | 1.910 | 1 | 133 57 0.7 | 8.61 | 1 | vF; S; R; gbM; *nf | 1 |
| 849 | 2639 | ..... | ..... | 4 17 59.3 | 2.026 | 1 | 130 55 4.6 | 8.58 | 1 | pF; S; R; *13 nf 1' | 1 |
| 850 | 2640 | ..... | ..... | 4 19 13.4 | 1.190 | 1 | 147 17 51.7 | 8.51 | 1 | pB; S; R; pgbM; 2S st sf ... | 1 |
| 851 | 314 | III. 587 | ..... | 4 19 24.3 | 2.989 | 1 | 93 56 58.5 | 8.45 | 1 | eF; bM; bet 2 st | 2* |
| 852 | 2641 | ..... | ..... | 4 20 12.4 | 1.526 | 3 | 141 55 9.4 | 8.42 | 3 | pF; S; R; bM | 3 |
| 853 | 315 | I. 217 | ..... | 4 21 2.8 | 3.925 | 3 | 55 2 25.3 | 8.29 | 3 | pB; vL; iR; mbM; *8, 350°, 2'. | 6+ |
| 854 | 2642 | ..... | ..... | 4 21 37.2 | 1.321 | 2 | 145 15 47.7 | 8.31 | 2 | F; S; E; glbM | 2 |
| 855 | ..... | VIII. 70 | ..... | 4 22 9.3 | 4.233 | 1 | 46 27 35.0 | 8.20 | 1 | Cl; vL; pRi; IC; stL | 1 |
| 856 | 2643 | ..... | ..... | 4 22 58.1 | 1.957 | 1 | 132 27 41.3 | 8.19 | 1 | pF; S; R; gbM; *12, 287°8 | 1 |
| 857 | ..... | ..... | D'Arrest, 43 | 4 23 5 | 3.05 | [1] | 90 50 6 | 8.15 | [1] | vF; iF; vlbM; bet * & *14.. | 0 |
| 858 | 316 | II. 8 | ..... | 4 23 29.1 | 3.081 | 1 | 89 39 14.4 | 8.12 | 1 | F; pS; R; r; p of D neb | 5 |
| 859 | 317 | II. 9 | ..... | 4 23 32.6 | 3.081 | 1 | 89 38 36.7 | 8.11 | 1 | F; vS; R; r; f of D neb | 5 |
| 860 | 318 | II. 7 | ..... | 4 23 33.5 | 3.085 | 1 | 89 26 33.7 | 8.11 | 1 | F; pL; IE132°; *42°, 80'' ... | 5 |
| 861 | 2644 | ..... | ..... | 4 23 48.7 | 2.450 | 3 | 117 0 49.0 | 8.10 | 3 | pF; pS; R; gbM | 3 |
| 862 | 2645 | ..... | ..... | 4 23 52.7 | 2.443 | 1 | 117 15 57.0 | 8.10 | 1: | vF; vS | 1 |
| 863 | 2646 | ..... | ..... | 4 24 24.8 | 1.710 | 1 | 138 7 6.6 | 8.08 | 1 | vF; S; R; bM | 1 |
| 864 | 2648 | ..... | ..... | 4 24 35.0 | 1.305 | 2 | 145 20 17.6 | 8.08 | 2 | B; pL; mE15°0; smbM; p of 2. | 2 |
| 865 | 2647 | ..... | ..... | 4 24 36.3 | 1.711 | 1 | 138 5 22.2 | 8.06 | 1 | F; S; R; bM | 1 |
| 866 | 319 | I. 158 | ..... | 4 24 45.0 | 2.958 | 4 | 95 23 3.4 | 8.02 | 4 | pB; pL; R; gmbM | 6 |
| 867 | } 319, a | ..... | ..... | 4 24 ± | ..... | ... | 95 23 ± | ..... | ... | ..... | 0 |
| 868 |  | ..... | R. 3 novæ | 4 24 ± | ..... | ... | 95 23 ± | ..... | ... | ..... | 0 |
| 869 |  | ..... | ..... | 4 24 48.1 | 1.303 | 2 | 145 22 1.2 | 8.06 | 2 | eF; pL; IE; f of 2 | 2 |
| 870 | 2649 | ..... | ..... | 4 24 59.0 | 4.298 | 1 | 45 3 48.9 | 7.97 | 1 | Cl; vF; pS; C; steS | 1 |
| 871 | ..... | VI. 26 | ..... | 4 25 45.2 | 2.973 | 1 | 94 38 56.8 | 7.94 | 1 | Susp in hazy weather | 1 |
| 872 | ..... | III. 585 | ..... | 4 26 10.8 | 2.975 | 2 | 94 33 58.0 | 7.90 | 2 | eF; S; E90°+ | 2 |
| 873 | ..... | III. 586 | ..... | 4 28 20.2 | 1.883 | 3 | 134 0 32.2 | 7.76 | 3 | F; S; E; vglbM | 3 |
| 874 | 2650 | ..... | ..... | 4 28 33.6 | +1.321 | 2 | 144 54 14.2 | -7.76 | 2 | B; L; mE105°8; } vg, vsmbMN5''. | 2 |
| 875 | 2651 | ..... | Δ. 339?? | 4 28 33.6 | +1.321 | 2 | 144 54 14.2 | -7.76 | 2 | | |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 876 | 320 | II. 524 | ..... | 4 29 6.8 | +2.999 | 1 | 93 26 37.9 | -7.67 | 1 | F; S; iF; lbM; 2st sf | 2 |
| 877 | 321 | II. 514 | ..... | 4 29 26.0 | 3.064 | 2 | 90 25 50.1 | 7.63 | 2 | vF; pL; mE0°...90°; B *nf.. | 3 |
| 878 | 320, a | ..... | D'Arrest, 44 | 4 29 34 | 3.00 | [2] | 93 28 48 | 7.63 | [2] | vF; S; *20, 270°, 5°; II. 524 p (R). | 0 |
| 879 | ..... | V. 49 | ..... | 4 29 47.5 | 4.558 | 1 | 39 50 13.9 | 7.57 | 1 | F; cL; iF; 6 or 7 st + neb ... | 1 |
| 880 | 322 | ..... | ..... | 4 30 7.9 | 2.995 | 1 | 93 35 45.6 | 7.58 | 1 | vF; E 90°...180°; sbM; B*p 40°. | 1* |
| 881 | 322, a | ..... | R. nova | 4 30 19.9 | +2.995 | :: | 90 30 45.6 | 7.58 | :: | MS | 0 |
| 882 | 2653 | ..... | ..... | 4 31 14.0 | -0.756 | 1 | 162 8 7.3 | 7.59 | 1 | vF; pL; R; glbM | 1 |
| 883 | 2652 | ..... | ..... | 4 32 20.0 | +2.598 | 1 | 110 55 34.4 | 7.42 | 1 | Neb. No description | 1 |
| 884 | 323 | III. 952 | ..... | 4 32 36.3 | 3.227 | 2 | 82 56 7.6 | 7.38 | 2 | eF; S; R; *8 sp; p of D neb | 3 |
| 885 | 324 | III. 953 | ..... | 4 32 36.5 | 3.226 | 1 | 82 57 2.6 | 7.38 | 1 | eF; vS; f of D neb | 2 |
| 886 | 325 | II. 515 | ..... | 4 33 1.4 | 3.055 | 1 | 90 49 38.5 | 7.35 | 1 | F; S; R; bM; *9 nf 12° 5 ... | 2 |
| 887 | { 326 = 2654 } | II. 522 | ..... | 4 33 57.4 | 2.878 | 2 | 98 52 48.9 | 7.27 | 2 | vF; pS; R; vgbM; r; *nf 1'. | 4 |
| 888 | 327 | I. 122 | ..... | 4 34 26.6 | 3.005 | 2 | 93 8 53.1 | 7.23 | 2 | cB; L; R; vgbM; er | 3† |
| 889 | 2655 | ..... | ..... | 4 34 36.9 | 2.686 | 1 | 107 16 3.1 | 7.23 | 1 | eF; vS; R; bet 2 st | 1 |
| 890 | ..... | II. 525 | ..... | 4 35 29.3 | 3.028 | 1 | 92 2 39.5 | 7.15 | 1 | F; pL; iE | 1 |
| 891 | 2656 | ..... | ..... | 4 35 30.1 | 0.266 | 1 | 156 4 46.4 | 7.22 | 1 | Cl; pL; pRi; pmC; st11...16 | 1 |
| 892 | ..... | ..... | D'Arrest, 45 | 4 35 45 | 3.08 | [1] | 89 39 1 | 7.12 | [1] | F; R; cometary; Δ with 2 st 18, f. | 0 |
| 893 | 328 | III. 588 | ..... | 4 36 51.6 | 2.950 | 1 | 95 35 42.8 | 7.04 | 1 | eF; vS; iR; bM | 2 |
| 894 | 2657 | ..... | ..... | 4 37 7.2 | 0.206 | 3 | 156 27 51.3 | 7.09 | 3 | F; S; R; gbM | 3 |
| 895 | 329 | II. 523 | ..... | 4 37 41.4 | 2.879 | 1 | 98 47 13.9 | 6.97 | 1 | F; vS; iR; bM; *7 np | 2 |
| 896 | ..... | VIII. 8 | ..... | 4 37 54.5 | +3.500 | 2 | 71 11 21.8 | 6.94 | 2 | Cl; vL; stL, sc | 2 |
| 897 | 2660 | ..... | ..... | 4 38 37.3 | -0.201 | 1 | 159 5 7.6 | 6.98 | 1 | F; pS; R; gbM | 1 |
| 898 | 2662 | ..... | ..... | 4 38 42.3 | -0.531 | 3 | 160 51 32.6 | 6.98 | 3 | pF; L; vLE; vglbM | 3 |
| 899 | 2661 | ..... | ..... | 4 38 43.9 | -0.177 | 3 | 158 56 26.9 | 6.97 | 3 | vF; S; R; glbM | 3 |
| 900 | ..... | II. 526 | ..... | 4 38 49.7 | +3.015 | 1 | 92 38 59.9 | 6.87 | 1 | F; cS; R; lbM | 1 |
| 901 | 330 | ..... | ..... | 4 39 0.9 | 2.954 | 1 | 95 24 18.2 | 6.86 | 1 | eF; iF; ? | 1 |
| 902 | 2658 | ..... | ..... | 4 39 28.8 | 1.952 | 1 | 131 45 5.5 | 6.85 | 1 | F; pS; pmE; glbM | 1 |
| 903 | 331 | III. 589 | ..... | 4 39 36.7 | 2.962 | 1 | 95 2 37.7 | 6.81 | 1 | pF; pS; iE90°±; bM | 2 |
| 904 | 2659 | ..... | ..... | 4 39 37.6 | 1.950 | 1 | 131 46 55.1 | 6.83 | 1 | vF; S; iE; glbM | 1 |
| 905 | 332 | VII. 1 | ..... | 4 40 44.9 | 3.310 | 1 | 79 19 18.7 | 6.71 | 1 | Cl of L & S sc st | 3 |
| 906 | ..... | VIII. 7 | ..... | 4 40 45.1 | 3.361 | 2 | 77 6 7.7 | 6.71 | 2 | Cl; iRi; st L & S | 3 |
| 907 | ..... | VIII. 59 | ..... | 4 41 2.4 | 4.268 | 1 | 46 33 17.5 | 6.65 | 1 | Cl; iRi; iC; pL | 1 |
| 908 | 333 | II. 547 | ..... | 4 41 23.7 | 2.947 | 1 | 95 41 12.2 | 6.66 | 1 | eF; pL; R; lbM | 3* |
| 909 | 2663 | ..... | ..... | 4 41 59.7 | 1.811 | 1 | 135 2 6.8 | 6.64 | 1 | eF; R; att to *14 | 1 |
| 910 | 2664 | ..... | ..... | 4 42 20.4 | 0.236 | 1 | 156 4 5.2 | 6.66 | 1 | eF; S; R | 1 |
| 911 | ..... | III. 501 | ..... | 4 42 46.2 | 3.007 | 1 | 93 0 18.8 | 6.54 | 1 | vF; vS | 1 |
| 912 | 2665 | ..... | Δ. 296 ?? | 4 43 32.0 | +0.930 | 2 | 149 30 3.8 | 6.54 | 2 | B; L; smbMN | 2 |
| 913 | 2667 | ..... | ..... | 4 43 34.7 | -0.404 | 1 | 160 4 2.6 | 6.58 | 1 | vF; S; att to *10 | 1 |
| 914 | 2669 | ..... | ..... | 4 44 19.2 | -0.228 | 1 | 159 4 32.7 | 6.51 | 1 | vF; pL; iR; r | 1 |
| 915 | ..... | III. 502 | ..... | 4 44 35.4 | +3.010 | 1 | 92 51 28.0 | 6.40 | 1 | vF; S | 1 |
| 916 | 2666 | ..... | ..... | 4 44 39.1 | 2.276 | 2 | 122 12 45.4 | 6.42 | 2 | vB; L; iR; 4st inv | 2 |
| 917 | 2668 | ..... | ..... | 4 44 41.5 | 1.665 | 3 | 138 3 31.4 | 6.42 | 3 | vF; S; R; r or st inv | 3 |
| 918 | 334, a | ..... | R. nova | 4 45 16.3 | 2.999 | :: | 93 14 46.4 | 6.32 | :: | R, MS | 0 |
| 919 | ..... | ..... | D'Arrest, 46 | 4 45 22 | 3.00 | [2] | 93 21 0 | 6.33 | [2] | vF; vS; II. 527, f 12°± | 0 |
| 920 | 334 | II. 527 | ..... | 4 45 32.3 | 2.999 | 2 | 93 20 46.4 | 6.32 | 2 | pF; S; R; bM; *7, 225°± ... | 4 |
| 921 | 334, b | ..... | R. nova | 4 45 44.3 | 2.999 | :: | 93 20 46.4 | 6.32 | :: | MS } No description | { 0 |
| 922 | 334, c | ..... | R. nova | 4 45 44.3 | 2.999 | :: | 93 8 46.4 | 6.32 | :: | MS } | |
| 923 | 2670 | ..... | ..... | 4 46 9.1 | 2.212 | 2 | 124 10 25.0 | 6.30 | 2 | vF; S; R; vglbM | 2 |
| 924 | ..... | II. 528 | ..... | 4 46 12.6 | 2.999 | 1 | 93 18 35.2 | 6.26 | 1 | F; S; lbM | 1 |
| 925 | 2671 | ..... | ..... | 4 46 18.6 | 0.875 | 3 | 150 2 6.7 | 6.31 | 3 | pB; pL; iR; pgmbM | 3 |
| 926 | 335 | ..... | ..... | 4 47 6.7 | +3.104 | 1 | 88 35 49.3 | 6.19 | 1 | vF; vS; am vSst; L* sp | 1* |
| 927 | 2672 | ..... | ..... | 4 48 23.2 | -0.339 | 2 | 159 35 14.9 | 6.17 | 2 | F; S; R | 2 |
| 928 | 2673 | ..... | ..... | 4 48 30.2 | 0.345 | 2 | 159 37 5.2 | 6.16 | 2 | F; S; R | 2 |
| 929 | 2674 | ..... | ..... | 4 48 47.0 | 0.146 | 1 | 158 27 26.8 | 6.14 | 1 | vF; E; vlbM | 1 |
| 930 | 2675 | ..... | ..... | 4 49 1.9 | 0.203 | 5 | 158 47 31.4 | 6.12 | 5 | ⊕; pB; L; R; rr | 5 |
| 931 | 2677 | ..... | ..... | 4 49 42.0 | -0.302 | 1 | 159 20 44.2 | -6.06 | 1 | pB; pS; R; glbM | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 932 | 336 | IV. 32 | ..... | 4 50 1.9 | +2.959 | 1 | 95 5 43.5 | -5.95 | 1 | cB; S; mbM*..... | 3 |
| 933 | 2676 | ..... | ..... | 4 50 25.3 | +2.333 | 3 | 120 6 11.1 | 5.93 | 3 | F; S; vIE; glbM; *10, 75''. | 3 |
| 934 | 2680 | ..... | Δ. 73? | 4 50 27.0 | -0.443 | 1 | 160 5 32.0 | 6.00 | 1 | Cl; vF; S | 1 |
| 935 | 2678 | ..... | ..... | 4 50 48.7 | +0.866 | 2 | 149 58 0.1 | 5.93 | 2 | F; L; R; vglbM; * att..... | 2 |
| 936 | 2683 | ..... | ..... | 4 50 53.7 | -0.427 | 2 | 159 59 14.9 | 5.97 | 2 | F; pS; iE; r | 2 |
| 937 | 2679 | ..... | ..... | 4 51 8.5 | +1.342 | 3 | 143 35 14.3 | 5.89 | 3 | pF; S; R; pmbM | 3 |
| 938 | 2682 | ..... | ..... | 4 51 15.3 | 0.544 | 1 | 153 13 27.7 | 5.91 | 1 | F; pS; R; vglbM | 1 |
| 939 | 338 | ..... | ..... | 4 51 15.6 | 3.253 | 1 | 81 58 39.1 | 5.83 | 1 | S; R; rrr | 1 |
| 940 | 337 | ..... | ..... | 4 51 32.4 | +4.753 | 1 | 37 19 51.9 | 5.77 | 1 | Cl; vL; pRi; iC; stL and S. | 1 |
| 941 | 2684 | ..... | Δ. 76? | 4 51 44.5 | -0.473 | 2 | 160 13 0.0 | 5.90 | 2 | ⊕; B; S; iR; rrr; st14 | 2 |
| 942 | 2685 | ..... | ..... | 4 51 46.1 | -0.370 | 1 | 159 39 49.3 | 5.89 | 1 | Cl; pB; S | 1 |
| 943 | 339 | II. 516 | ..... | 4 51 47.1 | +3.057 | 2 | 90 42 45.3 | 5.79 | 2 | F; S; R; bM; p of 2 | 2 |
| 944 | 339, a | ..... | R. nova | 4 51 ± | ..... | ... | 90 42 ± | ..... | ... | No description | 0 |
| 945 | 2686 | ..... | ..... | 4 52 0.4 | 0.043 | 5 | 157 8 55.2 | 5.86 | 5 | vB; S; Eorbi-N; bM; sp of 2 | 5 |
| 946 | 2687 | ..... | ..... | 4 52 2.6 | 0.046 | 3 | 157 7 48.2 | 5.86 | 3 | vF; S; R; sbM; 2stnr; nfof 2 | 3 |
| 947 | 2681 | ..... | ..... | 4 52 16.4 | 2.592 | 1 | 110 34 42.9 | 5.77 | 1 | pF; pL; R; glbM | 1 |
| 948 | 340 | ..... | ..... | 4 52 18.9 | +3.063 | 1: | 90 28 7.5 | 5.75 | 1: | pF; S; iR; psbM | 2 |
| 949 | 340, a | ..... | R. nova | 4 52 ± | ..... | ... | 90 28 ± | ..... | ... | No description | 1 |
| 950 | 2688 | ..... | ..... | 4 52 20.4 | +0.022 | 3 | 157 16 42.8 | 5.84 | 3 | F; pS; R; vglbM | 3 |
| 951 | ..... | ..... | D'Arrest, 47 | 4 52 39 | +2.89 | [2] | 98 4 0 | 5.73 | [2] | pF; pL; lbM; h. 341 nr..... | 0 |
| 952 | 2689 | ..... | ..... | 4 52 41.7 | -0.366 | 3 | 159 37 11.4 | 5.82 | 3 | Cl; pF; S; R; 2nd of 3 | 3 |
| 953 | 341 | ..... | ..... | 4 52 57.2 | +2.893 | 1 | 97 58 11.7 | 5.71 | 1 | F; R; *13, s | 1* |
| 954 | 2690 | ..... | ..... | 4 53 0.9 | -0.358 | 3 | 159 34 7.3 | 5.79 | 3 | Cl; pB; pS; pmE; st12 | 3 |
| 955 | ..... | III. 503 | ..... | 4 53 21.2 | +2.994 | 1 | 93 32 9.9 | 5.67 | 1 | vF; pL; 2B st v nr..... | 1 |
| 956 | 2691 | ..... | ..... | 4 53 22.6 | +0.038 | 3 | 157 8 36.5 | 5.75 | 3 | Cl; pL; lRi; iC; st10...15... | 3 |
| 957 | 2694 | ..... | ..... | 4 53 43.2 | -0.238 | 2 | 158 52 23.4 | 5.72 | 2 | S; R; close * in M | 2 |
| 958 | 2693 | ..... | ..... | 4 53 49.2 | +0.073 | 1 | 156 53 44.7 | 5.71 | 1 | eF; pS; R; gbM..... | 1 |
| 959 | 2695 | ..... | ..... | 4 54 8.4 | -0.259 | 1 | 158 59 17.0 | 5.70 | 1 | pB; L; R; gmbM | 1 |
| 960 | 2696 | ..... | ..... | 4 54 18.5 | +0.009 | 1 | 157 18 56.9 | 5.67 | 2 | pF; pS; R; 2st att | 2 |
| 961 | 2697 | ..... | ..... | 4 54 19.0 | -0.143 | 1 | 158 17 20.9 | 5.67 | 1 | B; R; r | 1 |
| 962 | 2698 | ..... | ..... | 4 54 31.9 | -0.335 | 1: | 159 24 10.2 | 5.66 | 1: | vF; S; 1st of 4 | 1 |
| 963 | 2699 | ..... | Δ. 114 | 4 54 49.4 | -0.339 | 2 | 159 25 17.8 | 5.64 | 2 | B; pL; R; gbM; r; 2nd of 4 | 2 |
| 964 | 2692 | ..... | ..... | 4 54 51.1 | +2.440 | 1 | 116 14 38.2 | 5.56 | 1 | F; vL; vME; vglbM | 1 |
| 965 | 342 | ..... | ..... | 4 54 58.2 | +2.994 | 1 | 93 30 26.1 | 5.53 | 1 | eF; vS; *12, sf | 1 |
| 966 | 2702 | ..... | ..... | 4 55 7.9 | -0.335 | 1: | 159 23 11.7 | 5.61 | 1: | F; S; 3rd of 4..... | 1 |
| 967 | 2701 | ..... | ..... | 4 55 12.5 | -0.006 | 2 | 157 23 32.0 | 5.60 | 2 | Cl; pS; lRi; stvS | 2 |
| 968 | 2704 | ..... | ..... | 4 55 13.8 | -0.340 | 1 | 159 25 6.0 | 5.60 | 1 | pB; vS; R; 4th of 4 | 1 |
| 969 | 2703 | ..... | ..... | 4 55 16.5 | -0.166 | 1 | 158 24 26.3 | 5.59 | 1 | vF; R; p of 2 | 1 |
| 970 | ..... | VIII. 43 | ..... | 4 55 18.9 | +3.630 | 1 | 66 33 18.3 | 5.49 | 1 | Cl; stL, vscs | 1* |
| 971 | 2705 | ..... | ..... | 4 55 19.4 | -0.456 | 1 | 160 1 59.0 | 5.60 | 1 | eF; pL; iR | 1 |
| 972 | ..... | ..... | D'Arrest, 49 | 4 55 26 | +2.88 | [2] | 98 26 48 | 5.49 | 2 | F; pL; pmE; 2 or 3st11nf... | 0 |
| 973 | 2708 | ..... | ..... | 4 55 36.9 | -0.581 | 1 | 160 39 49.9 | 5.57 | 1 | F; S; R; *13att, 135° | 1 |
| 974 | 2707 | ..... | ..... | 4 55 37.8 | -0.350 | 1 | 159 27 21.9 | 5.57 | 1 | vF; S; R | 1 |
| 975 | 343 | ..... | ..... | 4 55 45.0 | +2.962 | 1 | 94 55 35.9 | 5.47 | 1 | vLdiff neb in zigzags?? | 1* |
| 976 | 2706 | ..... | Δ. 167 | 4 55 49.5 | 0.266 | 1 | 155 25 43.1 | 5.53 | 1 | vB; pL; R; gbM; f of 2 | 1 |
| 977 | ..... | VII. 21 | ..... | 4 55 55.7 | 3.634 | 1 | 66 25 21.1 | 5.43 | 1 | Cl; pC; stL and S | 1 |
| 978 | 2700 | ..... | ..... | 4 56 5.5 | 2.037 | 1 | 128 55 2.2 | 5.46 | 1 | vF; pL; vglbM | 1 |
| 979 | 2709 | ..... | ..... | 4 56 15.6 | 0.087 | 1: | 156 43 53.0 | 5.50 | 1: | vF; S; 3vSst inv..... | 1*† |
| 980 | 2710 | ..... | ..... | 4 56 19.0 | 0.093 | 3 | 156 41 5.0 | 5.50 | 3 | Cl; L; mC; * 9 | 3† |
| 981 | ..... | III. 453 | ..... | 4 56 24.5 | 3.104 | 1 | 88 34 31.3 | 5.39 | 1 | vS; vF | 1* |
| 982 | 2711 | ..... | ..... | 4 56 31.9 | +0.102 | 5 | 156 37 13.3 | 5.49 | 5 | vB; vL; vimE..... | 5† |
| 983 | 2713 | ..... | ..... | 4 56 42.0 | -0.092 | 1 | 157 54 38.9 | 5.47 | 1 | vF; S; R | 1 |
| 984 | 2712 | ..... | ..... | 4 56 51.7 | +0.631 | 2 | 152 14 11.8 | 5.44 | 2 | cF; S; R; glbM | 2 |
| 985 | 2717 | ..... | ..... | 4 57 15.1 | -0.543 | 2 | 160 26 16.8 | 5.44 | 2 | cF; S; gbM | 2 |
| 5062 | ..... | ..... | ..... | 4 57 18.4 | ..... | ... | 159 36 32.1 | ..... | ... | See No. 5062 | 1 |
| 986 | 2718 | ..... | ..... | 4 57 22.2 | -0.185 | 1 | 158 28 4.4 | 5.42 | 1 | F; S; R; gbM | 1 |
| 987 | 2716 | ..... | ..... | 4 57 29.6 | +0.091 | 5 | 156 39 56.0 | 5.40 | 5 | B; L; iR; vsmBM * 10..... | 5† |
| 988 | 2715 | ..... | Δ. 169 | 4 57 39.7 | -0.213 | 2 | 158 37 42.3 | 5.39 | 2 | Cl+neb; pL; pRi; st11...18 | 2 |
| 989 | 2720 | ..... | ..... | 4 57 48.0 | +0.509 | 1 | 153 20 44.2 | 5.36 | 1 | vF; mE; glbM; *7, 8np | 1 |
| 990 | 2722 | ..... | ..... | 4 57 48.9 | -0.416 | 3 | 159 46 2.3 | 5.39 | 3 | pB; pS; iR; rr | 3 |
| 991 | 2721 | ..... | ..... | 4 57 50.3 | +0.105 | 1 | 156 33 59.9 | -5.37 | 1 | pF; pL; iR; 2 or 3Bst nr | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 992 | 2723 | ..... | ..... | 4 58 11.0 | -0.027 | 3 | 157° 27' 6.5 | -5.35 | 3 | B; S; R; smbM; *+neb ... | 3 |
| 993 | 2725 | ..... | ..... | 4 58 18.6 | -0.590 | 1 | 160 38 26.5 | 5.35 | 1 | eF; pL; iR | 3 |
| 994 | 2724 | ..... | ..... | 4 58 23.2 | +0.093 | 1 | 156 38 1.4 | 5.32 | 1 | vF; S; R; gbM | 1 |
| 995 | 2728 | ..... | ..... | 4 58 28.2 | -1.562 | 1 | 164 29 44.2 | 5.36 | 1 | eF; E; * 9att, f | 2 |
| 996 | 344 | VIII. 61 | ..... | 4 58 35.7 | +4.041 | 1 | 53 8 20.3 | 5.19 | 1 | Cl; pC; lRi; iF; stL | 2 |
| 997 | { 345 = 2714 } | III. 500 | ..... | 4 58 37.6 | +2.860 | 3 | 99 20 30.1 | 5.23 | 3 | pB; S; R; gpmbM | 4 |
| 998 | ..... | III. 268 | ..... | 4 58 42.9 | +2.643 | 1 | 108 22 53.0 | 5.31 | 1 | eF; vS; stellar | 1* |
| 999 | 2727 | ..... | ..... | 4 58 43.5 | -0.390 | 2 | 159 36 16.7 | 5.31 | 2 | ⊕; pB; S; R; pmbM; rr ... | 2 |
| 1000 | 2726 | ..... | ..... | 4 58 44.0 | +0.153 | 2 | 156 11 37.6 | 5.28 | 2 | cB; L; R; vgpmbM; r | 2 |
| 1001 | 2719 | ..... | ..... | 4 58 56.6 | +2.797 | 1 | 102 4 3.7 | 5.21 | 1 | pB; pL; vLE; vgbM; am st .. | 1 |
| 1002 | (147) | ..... | ..... | 4 59 12.2 | -0.294 | 1 | 159 3 36.9 | 5.27 | 1 | No description | 1 |
| 1003 | 2729 | ..... | ..... | 4 59 20.7 | -0.109 | 3 | 157 57 2.5 | 5.25 | 3 | vB; pS; lE; vsymbM*9 ... | 3 |
| 1004 | 2731 | ..... | ..... | 4 59 52.1 | +0.170 | 1 | 156 2 39.3 | 5.19 | 1 | Cl; vL; pRi | 1 |
| 1005 | ..... | V. 32 | ..... | 4 59 55.9 | +2.993 | 2 | 93 32 59.7 | 5.11 | 2 | B; cL; R; bM ** 15; *10, 318°. | 4 |
| 1006 | 2733 | ..... | ..... | 4 59 57.5 | -0.926 | 1 | 162 5 37.4 | 5.22 | 1 | vF; pS; R; vglbM | 1 |
| 1007 | 346 | ..... | ..... | 5 0 12.6 | +4.723 | 1 | 38 7 8.8 | 5.04 | 1 | Cl group of 8 or 9 st10 | 1 |
| 1008 | 2734 | ..... | ..... | 5 0 20.2 | -0.542 | 1 | 160 21 49.6 | 5.18 | 1 | eF; S; R | 1 |
| 1009 | 2730 | ..... | Δ. 531? | 5 0 23.9 | +2.056 | 2 | 128 11 33.0 | 5.10 | 3 | vB; vL; mE314°; glbM; rr .. | 3 |
| 1010 | 2736 | ..... | ..... | 5 0 36.4 | -0.426 | 2 | 159 45 22.5 | 5.15 | 2 | F; S; R; glbM | 2 |
| 1011 | 2738 | ..... | Δ. 81 | 5 0 58.7 | -0.472 | 1 | 159 59 38.4 | 5.12 | 1 | F; pL; lE | 1 |
| 1012 | 2735 | ..... | ..... | 5 1 1.0 | +0.710 | 2 | 151 19 31.6 | 5.08 | 2 | pF; pS; pmE; vglbM | 2 |
| 1013 | 2732 | ..... | ..... | 5 1 10.9 | +2.260 | 1 | 122 8 40.1 | 5.03 | 1 | pB; pmE; gpmbM; *13f ... | 1 |
| 1014 | 2739 | ..... | ..... | 5 1 34.1 | -0.440 | 4 | 159 48 27.9 | 5.07 | 4 | F; pL; R; vglbM; p of 2 ... | 4 |
| 1015 | ..... | VIII. 41 | ..... | 5 1 44.4 | +3.647 | 1 | 66 4 49.8 | 4.94 | 1 | Cl; st c se | 1 |
| 1016 | 2737 | ..... | ..... | 5 1 51.5 | +1.544 | 1 | 139 45 48.3 | 4.99 | 1 | F; S; R; vglbM; *11sf; ? neb | 1 |
| 1017 | 2742 | ..... | ..... | 5 1 51.9 | -0.344 | 2 | 159 16 55.8 | 5.04 | 2 | F; S; R; bM | 2 |
| 1018 | 2741 | ..... | Δ. 233? | 5 2 1.9 | +0.128 | 5 | 156 18 4.4 | 5.02 | 5 | B; vS; vsmbM; st+neb | 5 |
| 1019 | 2745 | ..... | ..... | 5 2 31.5 | -0.159 | 1 | 158 11 17.6 | 4.98 | 1 | pB; L; gbM | 1 |
| 1020 | 348 | ..... | ..... | 5 2 37.5 | +3.453 | 1 | 73 39 38.9 | 4.87 | 1 | Cl; pRi; stL and S | 1 |
| 1021 | 2740 | ..... | Δ. 549 | 5 2 50.1 | +2.071 | 2 | 127 41 47.0 | 4.90 | 2 | B; L; E; psbM | 2 |
| 1022 | 2747 | ..... | ..... | 5 3 4.7 | -0.448 | 1 | 159 49 11.8 | 4.94 | 1 | pF; S; R; gbM; 2nd of 2 ... | 1 |
| 1023 | 2746 | ..... | Δ. 235 | 5 3 9.1 | +0.086 | 5 | 156 34 15.4 | 4.92 | 5 | cF; S; R; lbM; ⊕f | 5 |
| 1024 | 2743 | ..... | ..... | 5 3 16.9 | +2.340 | 2 | 119 27 56.5 | 4.85 | 2 | cF; S; lE; p of 2 | 2 |
| 1025 | 2744 | ..... | ..... | 5 3 27.3 | +2.341 | 2 | 119 26 7.1 | 4.83 | 2 | F; S; R; glbM; f of 2 | 2 |
| 1026 | 2752 | ..... | ..... | 5 3 54.8 | -0.586 | 1 | 160 30 43.6 | 4.88 | 1 | vF; S; R; r | 1 |
| 1027 | 2748 | ..... | ..... | 5 3 55.4 | -0.054 | 2 | 157 29 41.2 | 4.86 | 2 | vF; R; s of 2 in Cl | 2 |
| 1028 | 2753 | ..... | ..... | 5 3 56.0 | -0.648 | 2 | 160 48 33.6 | 4.88 | 2 | F; vS; R; vlbM; am st | 2 |
| 1029 | 2750 | ..... | ..... | 5 3 58.7 | -0.048 | 1 | 157 27 2.5 | 4.85 | 1 | vF; R; 2nd neb in Cl | 1 |
| 1030 | 349 | VII. 4 | ..... | 5 3 59.1 | +3.458 | 2 | 73 28 42.5 | 4.75 | 2 | Cl; L; Ri; lC; st11...14 ... | 5* |
| 1031 | 2749 | ..... | Δ. 236 | 5 4 2.0 | +0.076 | 6 | 156 37 3.5 | 4.85 | 6 | ⊕; vB; pL; R; vmC; rr ... | 6 |
| 1032 | 2754 | ..... | ..... | 5 4 22.1 | -0.049 | 1 | 157 26 48.4 | 4.82 | 1 | Cl; pL; Ri; C; iF | 1 |
| 1033 | 2756 | ..... | ..... | 5 4 47.9 | +0.104 | 1 | 156 23 46.6 | 4.78 | 1 | vF; S; p of 2 | 1 |
| 1034 | 2758 | ..... | ..... | 5 4 51.8 | -0.595 | 1 | 160 31 53.0 | 4.80 | 1 | Cl; pF; L; iF; st12...15 ... | 1 |
| 1035 | 2755 | ..... | ..... | 5 4 53.3 | +0.834 | 2 | 149 54 12.5 | 4.75 | 2 | vF; pL; vmE162°0 | 2 |
| 1036 | (199) | ..... | ..... | 5 5 2.2 | -0.328 | 1:: | 159 7 51.0 | 4.80 | 1:: | No description | 1 |
| 1037 | 2757 | ..... | ..... | 5 5 10.7 | +0.101 | 1 | 156 24 57.5 | 4.75 | 1 | vF; S; f of 2 | 1 |
| 1038 | 2751 | ..... | ..... | 5 5 12.8 | +2.088 | 1 | 127 9 17.3 | 4.69 | 1 | vF; vmE; long ray; *11inv. | 1 |
| 1039 | 2761 | ..... | ..... | 5 5 16.9 | -0.411 | 4 | 159 34 33.2 | 4.76 | 4 | F; S; R; 1st of 3 | 4 |
| 1040 | 2760 | ..... | ..... | 5 5 22.7 | -0.177 | 1 | 158 14 14.8 | 4.74 | 1 | F; pL; R; r | 1 |
| 1041 | 2762 | ..... | ..... | 5 5 33.9 | -0.403 | 4 | 159 31 45.1 | 4.73 | 4 | F; pS; R; 2nd of 3 | 4 |
| 1042 | 2759 | ..... | Δ. 246 | 5 5 35.8 | +0.275 | 2 | 155 6 40.7 | 4.71 | 2 | B; L; R; glbM; r | 2 |
| 1043 | ..... | II. 292 | ..... | 5 5 52.9 | +2.702 | 1 | 105 53 13.4 | 4.62 | 1 | pB; iR; mbM; cSnf1' | 1 |
| 1044 | 2765 | ..... | ..... | 5 5 56.2 | -0.679 | 1 | 160 55 5.7 | 4.71 | 1 | vF; pL; 1st of sev | 1 |
| 1045 | 2764 | ..... | ..... | 5 6 3.3 | 0.381 | 1 | 159 23 56.5 | 4.68 | 1 | ⊙ ? B; eS; lE | 1 |
| 1046 | 2763 | ..... | ..... | 5 6 3.7 | 0.415 | 4 | 159 35 14.6 | 4.68 | 4 | cB; S; R; gmbM; 3rd of 3.. | 4 |
| 1047 | 2766 | ..... | ..... | 5 6 12.5 | 0.278 | 2 | 158 48 40.9 | 4.67 | 2 | st+neb; 1st of sev | 2 |
| 1048 | 2769 | | | 5 6 28.0 | 0.677 | 2 | 160 53 56.2 | 4.66 | 2 | Cl; L; Ri; st sc | 2 |
| 1049 | 2767 | | Br. 895 | 5 6 32.8 | -0.246 | 1 | 158 37 28.8 | -4.64 | 1 | Cl; L; vlc | 1 |

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|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 1050 | 2768 | ..... | Δ. 170? | 5 6 38.4 | -0.278 | 2 | 158 48 37.5 | -4.65 | 2 | st+neb; pB; iF; 2nd of sev | 2 |
| 1051 | 2771 | ..... | ..... | 5 6 46.2 | 0.909 | 1 | 161 56 6.8 | 4.64 | 1 | F; R; bM; r (? min. of R.A.) | 1 |
| 1052 | 2788 | ..... | ..... | 5 7 1.6 | 9.684 | 1 | 174 12 38.6 | 4.88 | 1 | pF; L; iR; vsbM; r | 1 |
| 1053 | 2772 | ..... | ..... | 5 7 20.8 | 0.060 | 2 | 157 27 15.9 | 4.57 | 2 | vvF; R; p of 2 | 2 |
| 1054 | 2773 | ..... | ..... | 5 7 36.6 | 0.068 | 4 | 157 29 56.8 | 4.54 | 5 | pF; pL; R; gbM; f of 2 | 5 |
| 1055 | 2770 | ..... | ..... | 5 7 38.3 | 0.651 | 2 | 160 44 41.2 | 4.56 | 2 | Cl; vLCM; st 9, 11...16 | 2 |
| 1056 | 2774 | ..... | ..... | 5 7 45.1 | 0.089 | 3 | 157 37 57.8 | 4.54 | 4 | pB; cL; R; vglbM; r | 4 |
| 1057 | 2775 | ..... | ..... | 5 7 56.4 | 0.343 | 2 | 159 8 54.1 | 4.53 | 2 | B; S; iE; * in M | 2+ |
| 1058 | 2776 | ..... | ..... | 5 8 5.8 | -0.785 | 1 | 161 21 52.1 | 4.53 | 1 | Cl; vLC; st 9, ... | 1 |
| 1059 | 2778 | ..... | ..... | 5 9 20.8 | +0.078 | 1 | 156 28 44.3 | 4.39 | 1 | vF; S; iE; glbM | 1 |
| 1060 | 2780 | ..... | Δ. 170? | 5 9 25.2 | -0.309 | 6 | 158 55 47.0 | 4.40 | 6 | ⊕! vB; L; iE; vmCM; rr... | 6 |
| 1061 | 2777 | ..... | Δ. 508 | 5 9 29.8 | +1.970 | 2 | 130 12 20.1 | 4.33 | 2 | ⊕! vB; vL; R; vsvbm; rrr. | 3 |
| 1062 | 2781 | ..... | ..... | 5 9 41.5 | -0.145 | 4 | 157 56 58.9 | 4.37 | 4 | F; pL; R; vglbM | 4 |
| 1063 | 2779 | ..... | ..... | 5 9 51.6 | +1.019 | 3 | 147 33 40.1 | 4.33 | 3 | F; S; mE 45°; vglbM; *11 nf. | 3 |
| 1064 | 2782 | ..... | ..... | 5 10 2.3 | -0.327 | 5 | 159 1 12.5 | 4.35 | 5 | ⊕; cB; S; R; gbm; 2d of 3 | 5 |
| 1065 | 2783 | ..... | ..... | 5 10 8.1 | 0.326 | 1 | 159 0 38.8 | 4.34 | 1 | Cl; vB; L; R; st12 | 1 |
| 1066 | 2784 | ..... | ..... | 5 10 20.3 | -0.379 | 3 | 159 17 59.1 | 4.33 | 3 | B; pL; R; gbM; 12" diam R.A. | 3 |
| 1067 | 350 | VII. 33 | ..... | 5 10 26.0 | +4.138 | 1 | 50 48 30.6 | 4.18 | 1 | Cl; pRi; pC; st 7, ... | 2 |
| 1068 | 2785 | ..... | ..... | 5 10 37.2 | -0.337 | 7 | 159 3 44.0 | 4.30 | 7 | B; L; iE; biN; Cl+neb | 7 |
| 1069 | 2786 | ..... | ..... | 5 10 59.4 | +0.220 | 1 | 155 24 46.2 | 4.26 | 1 | F; S; R; vgbM; * 7 nf 6' | 1 |
| 1070 | 2787 | ..... | Δ. 172? | 5 11 21.6 | -0.316 | 1 | 158 55 38.1 | 4.23 | 1 | F; pL; R; vgbM | 1 |
| 1071 | 2790 | ..... | ..... | 5 12 2.3 | -0.708 | 1 | 160 56 56.6 | 4.18 | 1 | eF; pL; R; vglbM | 1 |
| 1072 | 2789 | ..... | ..... | 5 12 6.1 | +0.094 | 1 | 156 18 45.2 | 4.16 | 1 | pF; L; iR; vgbM; r | 1 |
| 1073 | 2791 | ..... | Δ. 173? | 5 12 19.1 | -0.312 | 5 | 158 53 22.5 | 4.15 | 5 | vB; vS; R; r or stellar | 5 |
| 1074 | 2792 | ..... | ..... | 5 12 56.3 | 0.130 | 2 | 157 47 15.6 | 4.08 | 2 | F; pS; iR; bM; r or stellar | 2 |
| 1075 | 2794 | ..... | Δ. 173?? | 5 13 6.0 | -0.321 | 3 | 158 55 37.6 | 4.08 | 3 | vF; pL; R; vglbM | 3 |
| 1076 | 2793 | ..... | Δ. 247? 248? | 5 13 11.3 | +0.185 | 1 | 155 37 35.2 | 4.06 | 1 | vB; L; R; vgmBM; r | 1 |
| 1077 | 2795 | ..... | ..... | 5 13 27.1 | +0.071 | 1 | 156 27 4.8 | 4.04 | 1 | eF; pL; R | 1 |
| 1078 | 2796 | ..... | ..... | 5 13 41.5 | +0.376 | 2 | 154 6 36.7 | 4.01 | 2 | pB; pL; R; vglbM | 2 |
| 1079 | 2798 | ..... | Δ. 210 | 5 13 58.4 | -0.092 | 3 | 157 32 7.0 | 4.00 | 2 | Cl; L; pRi; st sc | 2 |
| 1080 | 2799 | ..... | ..... | 5 13 59.0 | 0.386 | 2 | 159 16 29.7 | 4.01 | 2 | B; S; R; glbM | 2 |
| 1081 | 2800 | ..... | ..... | 5 14 5.5 | 0.105 | 2 | 157 36 46.0 | 4.00 | 2 | Cl; lRi; 2nd of sev | 2 |
| 1082 | 2802 | ..... | ..... | 5 14 7.8 | 0.423 | 4 | 159 28 12.0 | 4.00 | 4 | pB; R; gbM; 1st of group | 4+ |
| 1083 | 2801 | ..... | ..... | 5 14 8.8 | 0.086 | 1 | 157 29 23.3 | 3.99 | 1 | Cl; 3rd of sev | 1 |
| 1084 | 2803 | ..... | ..... | 5 14 9.6 | 0.434 | 1 | 159 31 55.0 | 4.00 | 1 | neb & Cl; biN | 1+ |
| 1085 | 2804 | ..... | ..... | 5 14 16.2 | 0.432 | 4 | 159 31 1.6 | 3.98 | 4 | pB; iR; biN; 2nd in group | 4+ |
| 1086 | 2805 | ..... | ..... | 5 14 19.0 | 0.434 | 1 | 159 31 50.6 | 3.98 | 1 | vF; 3rd of group in Cl | 1+ |
| 1087 | 2807 | ..... | ..... | 5 14 26.2 | -0.651 | 1 | 160 37 52.6 | 3.98 | 1 | vF; iE; vglbM; r | 1 |
| 1088 | 2797 | ..... | ..... | 5 14 37.2 | +2.244 | 1 | 122 17 45.6 | 3.88 | 1 | vF; L; R; vglbM; *12p | 1 |
| 1089 | 2808 | ..... | ..... | 5 14 37.9 | -0.435 | 1 | 159 31 47.2 | 3.96 | 1 | 4th N. of neb in Cl | 1+ |
| 1090 | 2810 | ..... | ..... | 5 15 3.1 | -0.421 | 1 | 159 27 2.4 | 3.92 | 1 | vF; * p | 1+ |
| 1091 | 2809 | ..... | ..... | 5 15 15.7 | +0.091 | 1 | 156 16 34.6 | 3.88 | 1 | pF; R; vglbM; r | 1 |
| 1092 | ..... | VII. 34 | ..... | 5 15 28.7 | 4.452 | 1 | 43 35 54.8 | 3.74 | 1 | Cl; vF; pRi; pC; iF | 1 |
| 1093 | 2812 | ..... | ..... | 5 15 45.0 | 0.084 | 1 | 156 18 45.8 | 3.84 | 1 | eF; pL | 1 |
| 1094 | 2814 | ..... | ..... | 5 15 47.4 | 0.362 | 1 | 159 7 24.2 | 3.86 | 1 | pB; vS; R; bM | 1 |
| 1095 | 2813 | ..... | ..... | 5 15 53.7 | 0.061 | 1 | 156 28 16.1 | 3.83 | 1 | vF; vS; R; *p25" | 1 |
| 1096 | 352 = 2806 | II. 289 | ..... | 5 16 3.7 | +2.802 | 2 | 101 38 3.8 | 3.74 | 2 | pB; pL; R; r | 2 |
| 1097 | 352, a | ..... | R. nova | 5 16 | ..... | ... | 101 38 | ..... | ... | Makes a close D neb with h. 352. | 0 |
| 1098 | 2816 | ..... | ..... | 5 16 5.8 | -1.017 | 1 | 162 13 55.5 | 3.85 | 1 | vF; S; R; glbM | 1 |
| 1099 | 2811 | ..... | ..... | 5 16 20.8 | +2.124 | 1 | 125 51 33.8 | 3.74 | 1 | Cl; L; Sc; * taken | 1 |
| 1100 | 2815 | ..... | ..... | 5 16 31.9 | +0.245 | 2 | 155 6 43.9 | 3.77 | 2 | cF; pL; E 90°±; vglbM | 2 |
| 1101 | 351 | ..... | ..... | 5 16 32.3 | +3.935 | 1 | 56 44 33.9 | 3.67 | 1 | Cl; L; Ri; iC | 1 |
| 1102 | 2818 | ..... | ..... | 5 16 56.7 | -0.457 | 1 | 159 36 42.2 | 3.76 | 1 | F; pL; R; sbM; r; st inv | 1 |
| 1103 | 2817 | | | 5 17 3.0 | -0.092 | 4 | 157 28 36.8 | 3.74 | 4 | pF; pL; R; vglbM | 4 |
| 1104 | 353 | VIII. 4 | | 5 17 8.1 | +3.802 | 1:: | 69 58 11.1 | -3.63 | 1:: | Cl; vLri; vLC; st 9...12 | 3 |

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|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 1105 | 2820 | ..... | ..... | 5 17 44.0 | -0.112 | 1 | 157 35 20.6 | -3.68 | 1 | eF; S; R | 1 |
| 1106 | 2822 | ..... | ..... | 5 17 51.1 | -0.495 | 1 | 159 47 44.6 | 3.68 | 1 | F; pS; R | 1 |
| 1107 | 2821 | ..... | ..... | 5 17 58.4 | -0.180 | 1 | 158 1 7.2 | 3.66 | 1 | F; pS; R; vglbM; 3st10p ... | 1 |
| 1108 | 2819 | ..... | ..... | 5 18 1.2 | +0.475 | 2 | 153 10 14.8 | 3.64 | 2 | F; pL; lE; vglbM; *7np... | 2 |
| 1109 | 2824 | ..... | ..... | 5 18 7.8 | -0.302 | 1 | 158 44 6.2 | 3.66 | 1 | Cl; BM; lRi; st7 | 1 |
| 1110 | 2823 | ..... | ..... | 5 18 14.1 | +0.013 | 5 | 156 46 1.1 | 3.63 | 5 | ⊕; pB; pL; R; pmbM; rr... | 5 |
| 1111 | 2825 | ..... | ..... | 5 18 22.1 | -0.436 | 5 | 159 28 39.8 | 3.64 | 5 | vB; S; R; gmbM | 5 |
| 1112 | ..... | ..... | M. 79 | 5 18 25.6 | +2.469 | A | 114 39 39.5 | 3.55 | A | ⊕; pL; eRi; eC; rrr | 4 |
| 1113 | 4016 | ..... | ..... | 5 18 36.3 | -0.087 | 1 | 157 25 24.7 | 3.61 | 1 | F; S; R; r | 1 |
| 1114 | 354 | VII. 39 | ..... | 5 18 42.6 | +4.001 | 3 | 54 48 28.6 | 3.48 | 3 | Cl; pRi; pC; R; st9...12 ... | 5 |
| 1115 | ..... | V. 33 | ..... | 5 18 52.3 | 3.011 | 1 | 92 39 22.0 | 3.30 | 1 | v diffused neb susp | 1 |
| 1116 | ..... | V. 38 | ..... | 5 19 10.4 | +2.881 | 1 | 98 15 15.9 | 3.47 | 1 | eL; strongly susp (2° in P.D.). | 1 |
| 1117 | 2827 | ..... | Δ. 129 | 5 19 10.4 | -0.416 | 4 | 159 21 30.9 | 3.57 | 4 | Cl; L; pRi; iR; st 11...16 ... | 4 |
| 1118 | 2826 | ..... | ..... | 5 19 13.2 | -0.010 | 1 | 156 54 4.5 | 3.55 | 1 | F; R; gbM; am st | 1 |
| 1119 | ..... | ..... | M. 38 | 5 19 17.0 | +4.020 | (2) | 54 17 36.1 | 3.43 | (2) | Cl; B; vL; vRi; iF; st L & S | 7 |
| 1120 | (356) | ..... | ..... | 5 19 33.6 | -0.480 | 1 | 159 41 31.8 | 3.54 | 1 | No description | 1 |
| 1121 | 2830 | ..... | ..... | 5 19 35.7 | 0.833 | 2 | 161 23 42.8 | 3.54 | 2 | F; L; iE | 2 |
| 1122 | 2828 | ..... | ..... | 5 19 36.7 | 0.016 | 1 | 156 56 22.4 | 3.52 | 1 | eF; pL | 1 |
| 1123 | 2829 | ..... | ..... | 5 19 39.1 | 0.453 | 3 | 159 32 47.1 | 3.53 | 3 | B; S; R; vgmbM; r | 3 |
| 1124 | 2831 | ..... | ..... | 5 19 53.3 | 0.379 | 1 | 159 8 15.0 | 3.50 | 1 | vF; L; R; vglbM | 1 |
| 1125 | (369) | ..... | ..... | 5 20 10.1 | 0.496 | 1 | 159 46 33.6 | 3.48 | 1 | No description | 1 |
| 1126 | 2832 | ..... | ..... | 5 20 15.1 | 0.030 | 1 | 157 0 57.2 | 3.46 | 1 | Cl; eF; L; iR; mC; rr | 1 |
| 1127 | 2833 | ..... | ..... | 5 20 33.0 | 0.014 | 7 | 156 54 44.8 | 3.44 | 7 | pB; pL; R; vglbM | 7 |
| 1128 | 2834 | ..... | ..... | 5 20 33.9 | 0.527 | 1 | 159 55 8.5 | 3.45 | 1 | vF; pS; lE; r | 1 |
| 5063 | ..... | ..... | ..... | 5 20 52.9 | -0.469 | 1 | 159 36 35.4 | 3.42 | 1 | (See No. 5063) | 1 |
| 1129 | 2835 | ..... | ..... | 5 21 6.5 | +0.168 | 1 | 155 36 58.6 | 3.38 | 1 | vF; pS; R | 1 |
| 1130 | ..... | III. 447 | ..... | 5 21 8.1 | 2.947 | 2 | 95 26 56.0 | 3.30 | 2 | pF; pL; iR; st nr | 2 |
| 1131 | 2837 | ..... | ..... | 5 21 22.2 | +0.113 | 1 | 156 0 17.2 | 3.36 | 1 | Cl; vRi; lC; st 10 | 1 |
| 1132 | 2838 | ..... | ..... | 5 21 40.7 | -0.480 | 3 | 159 39 51.5 | 3.35 | 3 | pB; pL; iR; r; in diff n | 3 |
| 1133 | 356 | ..... | ..... | 5 22 0.7 | +2.875 | 1 | 98 29 41.4 | 3.22 | 1 | Diffused nebosity | 1* |
| 1134 | 2839 | ..... | Δ. 131 | 5 22 1.5 | -0.473 | 2 | 159 36 55.4 | 3.32 | 2 | pF; pL; R; gbM | 2 |
| 1135 | 2840 | ..... | ..... | 5 22 1.9 | -0.198 | 1 | 158 3 33.7 | 3.31 | 1 | F; p of group | 1† |
| 1136 | 2836 | ..... | ..... | 5 22 3.0 | +1.666 | 2 | 136 51 6.2 | 3.26 | 2 | pF; S; R; bM; 4B st p | 2 |
| 1137 | 355 | I. 261 | ..... | 5 22 10.0 | 3.968 | 3 | 55 52 3.6 | 3.18 | 3 | vB; L; R; b ** in M | 4† |
| 1138 | 2841 | ..... | ..... | 5 22 14.9 | +0.074 | 5 | 156 16 28.3 | 3.29 | 5 | {pB; S; R; smbM} D neb | 5* |
| 1139 | | | | | | | | | | { eF; R; stellar } 26°, 80" | |
| 1140 | 2842 | ..... | ..... | 5 22 21.3 | -0.197 | 1 | 158 2 52.6 | 3.28 | 1 | 2nd neb of group | 1† |
| 1141 | 2843 | ..... | ..... | 5 22 24.9 | 0.204 | 4 | 158 5 19.6 | 3.28 | 4 | pF; S; R; 3rd of group | 4† |
| 1142 | 2844 | ..... | Δ. 175 | 5 22 41.6 | 0.207 | 6 | 158 6 22.5 | 3.25 | 6 | !; pB; S; R; 4th of group ... | 6† |
| 1143 | 2845 | ..... | ..... | 5 22 43.6 | 0.195 | 1 | 158 1 49.5 | 3.25 | 1 | vF; pL; follows a group | 1† |
| 1144 | 2848 | ..... | Δ. 89? | 5 22 45.6 | 0.564 | 4 | 160 4 39.2 | 3.26 | 4 | {pB; pS; R; glbM} D neb | 4 |
| 1145 | | | | | | | | | | { F; S; R; glbM } 339° 1, 50" | |
| 1146 | 2847 | ..... | ..... | 5 22 54.5 | -0.082 | 2 | 157 18 47.1 | 3.23 | 2 | pB; vS; R; bM; 2st 9 & 10 f | 2 |
| 1147 | 2846 | ..... | ..... | 5 22 55.3 | +0.039 | 1 | 156 30 33.4 | 3.22 | 1 | vS; neb+st | 1 |
| 1148 | 2849 | ..... | ..... | 5 23 51.4 | +0.358 | 2 | 154 4 25.8 | 3.14 | 2 | eF; stell; *14+ neb | 2 |
| 1149 | 2850 | ..... | Δ. 90 | 5 23 53.2 | -0.608 | 3 | 160 16 48.9 | 3.17 | 3 | pF; pS; iR; vglbM; *15, 190° 6, 60' | 3 |
| 1150 | 2852 | ..... | ..... | 5 24 26.6 | -1.188 | 1 | 162 36 15.8 | 3.14 | 1 | pB; pL; R; bM | 1 |
| 1151 | 2851 | ..... | ..... | 5 24 48.3 | +0.025 | 1 | 156 34 43.9 | 3.07 | 1 | eeeF; vL; irr diff | 1 |
| 1152 | 2854 | ..... | Δ. 237? | 5 25 8.5 | 0.034 | 1 | 156 30 29.8 | 3.04 | 1 | pF; R; gbM; r | 1 |
| 1153 | 2855 | ..... | ..... | 5 25 37.5 | 0.255 | 1 | 154 52 39.3 | 2.99 | 1 | pB; L; R; glbM; *9np | 1 |
| 1154 | 2856 | ..... | ..... | 5 25 40.3 | +0.051 | 1 | 156 23 6.3 | 2.99 | 1 | Cl; cL; Ri; st 13 | 1 |
| 1155 | 2857 | ..... | ..... | 5 25 47.4 | -0.296 | 1 | 158 35 32.3 | 2.99 | 1 | pB; S; R; psbM | 1 |
| 1156 | 2859 | ..... | ..... | 5 25 50.5 | -0.561 | 2 | 160 1 23.3 | 2.99 | 2 | The 1st of a group of 71 | 2† |
| 1157 | 357 | ..... | M. 1 | 5 26 3.9 | +3.605 | 1 | 68 5 10.5 | 2.85 | 1 | vB; vL; E135°+; vglbM; r | 12† |
| 1158 | 2858 | ..... | ..... | 5 26 4.1 | +0.003 | 2 | 156 42 31.2 | 2.96 | 2 | B; lE; sbM * 10 & 11 | 2 |
| 1159 | 2862 | ..... | ..... | 5 26 16.7 | -0.362 | 2 | 158 57 2.5 | 2.95 | 2 | pB; S; R; glbM | 2 |
| 1160 | 2853 | III. 590 | ..... | 5 26 24.5 | +2.738 | 1 | 104 9 58.5 | 2.85 | 1 | vF; S; R; smbM | 2 |
| 1161 | 2863 | | Δ. 211 | 5 26 31.0 | -0.137 | 1 | 157 37 22.4 | 2.92 | 1 | Cl; Ri; 2nd of sev | 1 |
| 1162 | 2874 | | | 5 26 39.9 | -3.085 | 2 | 167 51 34.3 | -2.99 | 2 | | 2 |

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|-------------------|------------------------------------|------------------------------|--------------------------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 1163 | h. 2864 | H. | | h m s 5 26 46.8 | s -0.550 | 3 | 159° 57' 22.7 | -2.91 | 3 | F; pL; iR; vgbM; 2nd of group! | 3† |
| 1164 | 2865 | ..... | ..... | 5 26 50.2 | -0.569 | 1 | 160 2 51.7 | 2.91 | 1 | F; vL; vgbM; 3rd of group! | 1† |
| 1165 | 2866 | ..... | Δ. 136? | 5 27 15.3 | -0.363 | 1:: | 158 57 7.3 | 2.89 | 1 | vF; pL; R; 1st of 4! | 1*† |
| 1166 | 358 | ..... | M. 36 | 5 27 3.1 | +3.966 | 3 | 55 57 28.2 | 2.76 | 3 | Cl; B; vL; vRi; iC; st 9...11sc | 9 |
| 1167 | ..... | III. 747 | ..... | 5 27 11.2 | +6.681 | 1 | 20 35 59.9 | 2.67 | 1 | cF; pL; iF; mbm; er; * inv (? P.D.). | 1* |
| 1168 | 2867 | ..... | Δ. 136? | 5 27 32.7 | -0.358 | 2:: | 158 55 26.2 | 2.86 | 2:: | F; S; 2nd of 4! | 2*† |
| 1169 | 2861 | ..... | ..... | 5 27 17.2 | +2.094 | 1 | 126 28 48.3 | 2.79 | 1 | Cl; st 8...11 | 1 |
| 1170 | 2860 | IV. 21 | ..... | 5 27 26.0 | +2.536 | 1 | 112 2 39.9 | 2.77 | 1 | F; vS; R; vsvmbM*12; 3st inv. | 2 |
| 1171 | 2868 | ..... | Δ. 136 | 5 27 37.6 | -0.361 | 4 | 158 56 0.7 | 2.84 | 4 | { Cl; pL; iF; 1st 9; } + group of 4n nebpB; } R; psibM; 3rd of 4 } | 3*† 1 |
| 1172 | (456) | ..... | ..... | 5 27 43.2 | 0.411 | 2: | 159 12 33.1 | 2.83 | 2: | No description..... | 2 |
| 1173 | 2870 | ..... | ..... | 5 27 44.2 | 0.132 | 1 | 157 34 9.4 | 2.82 | 1 | Cl; Ri; 3rd of sev | 1 |
| 1174 | 2872 | ..... | ..... | 5 27 46.7 | 0.553 | 1 | 159 57 36.7 | 2.82 | 1 | F; S; 4th of gr of 7 | 1† |
| 1175 | 2869 | ..... | ..... | 5 27 50.4 | 0.361 | 1:: | 158 56 34.5 | 2.84 | 1:: | 4th of 4 | 1*† |
| 1176 | 2875 | ..... | ..... | 5 28 1.0 | 0.556 | 1 | 159 58 24.7 | 2.81 | 1 | 5th of gr of 7 | 1† |
| 1177 | 2876 | ..... | ..... | 5 28 2.0 | 0.555 | 1 | 159 57 34.7 | 2.81 | 1 | 6th of gr of 7! D; a vS neb np | 1† |
| 1178 | 2877 | ..... | Δ. 213 | 5 28 16.4 | -0.129 | 1 | 157 32 34.9 | 2.77 | 1 | Cl; L; irr..... | 1 |
| 1179 | 360 | ..... | { M. 42= } θ ¹ Orionis | 5 28 24.0 | +2.945 | B.A.C. | 95 29 10.9 | 2.68 | B.A.C. | !!!; θ ¹ Orionis & the great neb | Mon.*† |
| 1180 | ..... | V. 30 | 42, c ¹ Orionis | 5 28 29.2 | +2.958 | B.A.C. | 94 56 2.3 | 2.67 | B.A.C. | !!!; c ¹ 42 Orionis & neb..... | 2 |
| 1181 | 2878 | ..... | Δ. 238?? | 5 28 32.1 | -0.019 | 3 | 156 20 18.8 | 2.74 | 3 | vB; vL; iE; vgpmbM | 3 |
| 1182 | ..... | III. 240 | ..... | 5 28 32.9 | +2.498 | 1 | 113 26 9.6 | 2.68 | 1 | vF; vS; stellar | 1 |
| 1183 | 361 | V. 31 | 44, i Orionis | 5 28 35.3 | 2.933 | B.A.C. | 96 0 21.0 | 2.66 | B.A.C. | vF; vL; i 44 Orionis inv ... | 3 |
| 1184 | 362 | ..... | ..... | 5 28 36.5 | 2.969 | 1 | 94 26 50.5 | 2.65 | 1 | Cl; vB; iRi; stL, sc | 1 |
| 1185 | ..... | III. 1?? | { M. 43= } 144 Bo. Orionis | 5 28 38.4 | +2.948 | ... | 95 21 48.7 | 2.65 | ... | { i vB; vL; R, with tail; } mbM*8.9 } | Mon.*† |
| 1186 | 2881 | ..... | ..... | 5 28 39.5 | -0.393 | 1 | 159 5 49.5 | 2.75 | 1 | Cl; vL; pRi; iF | 1 |
| 1187 | 2882 | ..... | ..... | 5 28 39.8 | -0.419 | 1 | 159 14 12.5 | 2.75 | 1 | Cl; place of * | 2 |
| 1188 | 359 | III. 865 | ..... | 5 28 41.1 | +3.897 | 1 | 58 6 38.4 | 2.62 | 1 | cF; S; R; psbM | 2 |
| 1189 | 2883 | ..... | ..... | 5 28 57.6 | -0.581 | 4 | 160 4 57.4 | 2.72 | 4 | B; pL; R; gbm | 4 |
| 1190 | 2885 | ..... | ..... | 5 28 59.3 | -0.739 | 2 | 160 50 53.1 | 2.73 | 2 | F; L; iR; 3stp | 2 |
| 1191 | ..... | ..... | Chacornae | 5 29 4.0 | +3.581 | ... | 68 52 20.4 | ..... | ... | !!!; variable (Chacornae) ... | 0* |
| 1192 | 2871 | ..... | ..... | 5 29 5.5 | 2.279 | 3 | 120 53 59.1 | 2.63 | 3 | vF; S; R; lbM; st nr | 3 |
| 1193 | 363 | V. 34 | ε Orionis | 5 29 6.6 | +3.042 | 1 | 91 17 44.7 | 2.61 | 1 | !!!; eL; ε Orionis inv | 2 |
| 1194 | 2884 | ..... | ..... | 5 29 12.9 | -0.130 | 1 | 157 32 21.3 | 2.69 | 1 | Cl; 4th of sev | 1 |
| 1195 | 2873 | ..... | ..... | 5 29 13.9 | +2.276 | 1 | 120 59 31.4 | 2.62 | 1 | eeF; vS | 1 |
| 1196 | ..... | III. 269 | ..... | 5 29 20.4 | +2.644 | 1 | 107 55 16.0 | 2.60 | 1 | eF; vS; stellar..... | 1* |
| 1197 | 2887 | ..... | ..... | 5 29 21.2 | -0.423 | 2 | 159 15 1.3 | 2.69 | 2 | Cl; eS; st 11...16 | 2 |
| 1198 | 2879 | ..... | ..... | 5 29 24.4 | +1.559 | 1 | 138 46 56.4 | 2.62 | 1 | eeF; R; bM; diffie; p of 2... | 1 |
| 1199 | ..... | VIII. 42 | ..... | 5 29 32.9 | 3.711 | 2 | 64 15 45.5 | 2.55 | 2 | Cl; L; iC; iRi | 2 |
| 1200 | 2886 | ..... | ..... | 5 29 35.3 | 0.437 | 1 | 153 18 40.5 | 2.65 | 1 | eF; vS; R | 1 |
| 1201 | 2880 | ..... | ..... | 5 29 37.1 | 1.559 | 2 | 138 47 31.0 | 2.60 | 2 | vF; R; gbm; st s; f of 2 ... | 2 |
| 1202 | ..... | IV. 33 | ..... | 5 29 37.6 | +2.914 | 3 | 96 48 42.9 | 2.57 | 4 | B* inv in N..... | 4 |
| 1203 | 2889 | ..... | ..... | 5 29 45.0 | -0.997 | 1 | 161 58 34.9 | 2.67 | 1 | F; pL; R; vlbM | 1 |
| 1204 | 2888 | ..... | Δ. 178?? | 5 29 51.1 | 0.350 | 2 | 158 50 55.5 | 2.65 | 2 | Cl; st 13m | 2 |
| 1205 | 2890 | ..... | Δ. 214? | 5 30 25.2 | -0.048 | 2 | 156 59 13.3 | 2.59 | 2 | vB; S; R; * + neb in vLCl... | 2 |
| 1206 | 2981 | ..... | ..... | 5 30 49.7 | +0.014 | 1 | 156 34 8.5 | 2.55 | 1 | B; S; stellar; r | 1 |
| 1207 | 2893 | ..... | Δ. 215 | 5 30 54.5 | -0.110 | 6 | 157 23 18.5 | 2.55 | 6 | ⊕; B; pL; pRi; C; st 12 ... | 6 |
| 1208 | (509) | ..... | ..... | 5 31 22.8 | 0.541 | 1:: | 159 51 17.4 | 2.52 | 1:: | No description..... | 1 |
| 1209 | 2895 | ..... | ..... | 5 31 26.5 | -0.061 | 2 | 157 4 8.3 | 2.49 | 2 | Cl; eL; vRi; vBvSNM | 2 |
| 1210 | 2892 | ..... | ..... | 5 31 36.8 | +1.433 | 1 | 141 1 12.1 | 2.43 | 1 | eF; pL; R | 1 |
| 1211 | 2894 | ..... | ..... | 5 31 44.8 | +1.431 | 1 | 141 2 52.1 | 2.43 | 1 | eF; pL; R; vlbM | 1 |
| 1212 | 2897 | ..... | ..... | 5 31 59.0 | -0.434 | 4 | 159 16 53.2 | 2.46 | 4 | pF; pS; R; glbM; in Cl..... | 4 |
| 1213 | 2898 | ..... | ..... | 5 32 15.9 | 0.764 | 1 | 160 55 58.8 | 2.44 | 1 | F; cL; R; vglbM | 1 |
| 1214 | 2899 | | | 5 32 40.9 | 0.149 | 1 | 157 37 1.3 | 2.39 | 1 | vB; S; R; psmbM | 1 |
| 1215 | 2907 | | | 5 32 41.8 | -4.411 | 1 | 169 57 24.4 | -2.52 | 1 | vF; S; iE; bM; 2 st 9nf | 1 |

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| | h. | H. | | h m s | s | | | | | | |
| 1216 | 364 | | | 5 32 43.1 | +6.02 | 1 | 24 16 50.7 | -2.21 | 1 | Cl; vLr; st 11..... | 1 |
| 1217 | 2900 | | | 5 32 48.0 | -0.177 | 3 | 157 47 24.3 | 2.39 | 3 | Cl; pL; pC; iF; st 9...15 ... | 3 |
| 1218 | 2901 | ..... | ..... | 5 32 52.0 | 0.448 | 1 | 159 21 16.3 | 2.39 | 1 | Cl; vL; Ri; vLC | 1 |
| 1219 | 2902 | ..... | ..... | 5 32 57.5 | -0.583 | 1 | 160 3 5.6 | 2.38 | 1 | F; vL; iR; gbM | 1 |
| 1220 | 2896 | ..... | ..... | 5 33 7.7 | +2.643 | 1 | 107 55 45.9 | 2.27 | 1 | Cl of Lst | 1 |
| 1221 | 2904 | ..... | ..... | 5 33 16.8 | -0.819 | 1 | 161 10 19.2 | 2.36 | 1 | pB; pL; R; pglbM; *10pinv | 1 |
| 1222 | 2905 | ..... | Δ. 98 | 5 33 29.3 | 0.624 | 2 | 160 15 3.1 | 2.33 | 2 | B; pL; gbM | 2 |
| 1223 | 2903 | ..... | Δ. 218 | 5 33 31.3 | 0.180 | 2 | 157 48 16.7 | 2.31 | 2 | F; vL; vLE; vglbM | 2 |
| 1224 | 2906 | ..... | ..... | 5 33 46.9 | -0.139 | 1 | 157 32 58.0 | 2.30 | 1 | vF; S; R; in pLCl | 1 |
| 1225 | 365 | IV. 34 | ..... | 5 34 26.4 | +3.283 | 2 | 80 59 3.8 | 2.14 | 2 | ○; pB; vS; vLE; r? | 4† |
| 1226 | ..... | IV. 24 | ..... | 5 34 40.0 | 3.019 | 1 | 92 18 43.1 | 2.13 | 1 | B* in M of L, 1E neb | 1*† |
| 1227 | ..... | V. 28 | ..... | 5 34 47.2 | +3.028 | 2 | 91 55 43.7 | 2.11 | 2 | lirr; B; vvL; black sp incl ... | 2 |
| 1228 | 2909 | ..... | ..... | 5 34 47.8 | -0.964 | 1 | 161 47 23.1 | 2.23 | 1 | vB; vS; 1E; gmbM; r | 1 |
| 1229 | ..... | VIII. 28 | ..... | 5 34 48.5 | +3.557 | 1 | 69 57 43.0 | 2.10 | 1 | Cl; iRi; lC; st pL | 1 |
| 1230 | 2908 | ..... | Δ. 241 | 5 35 4.3 | -0.058 | 3 | 157 0 29.6 | 2.18 | 3 | Cl; vL; Ri; st 9...11 | 3 |
| 1231 | 2912 | ..... | Δ. 100? | 5 35 11.2 | 0.585 | 1 | 160 2 26.6 | 2.18 | 1 | vF | 1 |
| 1232 | 2911 | ..... | Δ. 240 | 5 35 20.3 | -0.158 | 2 | 157 38 43.5 | 2.15 | 2 | pB; pL; R; gbM; in cLCl... | 2 |
| 1233 | 2910 | ..... | ..... | 5 35 26.6 | +0.072 | 2 | 156 6 50.8 | 2.14 | 2 | pB; L; iR; gbM; 1st of 3 ... | 2† |
| 1234 | 2915 | ..... | ..... | 5 35 33.9 | -0.804 | 2 | 161 5 22.5 | 2.15 | 2 | ⊕; B; pL; R; gbM; rr | 2 |
| 1235 | 2913 | ..... | Δ. 219? | 5 35 39.8 | 0.162 | 5 | 157 39 47.1 | 2.13 | 5 | B; L; E; 2nd of 3 | 5† |
| 1236 | (579) | ..... | ..... | 5 35 45.4 | 0.553 | 1: | 159 52 28.8 | 2.14 | 1: | Cl; no description | 1 |
| 1237 | 2914 | ..... | ..... | 5 35 51.8 | 0.055 | 1 | 156 58 42.7 | 2.11 | 1 | Cl; vL; Ri | 1 |
| 1238 | 2916 | ..... | Δ. 220 | 5 35 52.8 | 0.163 | 3 | 157 40 20.7 | 2.11 | 3 | B; L; R; bM; 3rd of 3 | 3† |
| 1239 | 2917 | ..... | ..... | 5 35 58.0 | 0.416 | 1 | 159 8 38.7 | 2.11 | 1 | vF; pL; R; gbM | 1 |
| 1240 | (593) | ..... | ..... | 5 36 18.4 | 0.553 | 1: | 159 51 30.6 | 2.08 | 1: | Cl; no description | 1 |
| 1241 | 2920 | ..... | ..... | 5 36 23.5 | -0.710 | 3 | 160 38 22.6 | 2.08 | 3 | pB; S; R; gbM; *9, np 5'... | 3 |
| 1242 | 366 | ..... | ..... | 5 36 25.7 | +3.273 | 1 | 81 25 37.9 | 1.97 | 1 | Cl; vL; iRi; lC | 1 |
| 1243 | 2918 | ..... | ..... | 5 36 27.9 | -0.160 | 5 | 157 39 3.2 | 2.06 | 5 | F; L; iR; glbM; r | 5† |
| 1244 | 2919 | ..... | ..... | 5 36 35.9 | 0.070 | 4 | 157 4 23.8 | 2.04 | 4 | B; S; R; vglbM | 4 |
| 1245 | 2922 | ..... | ..... | 5 37 1.6 | 0.391 | 1 | 159 0 17.4 | 2.02 | 1 | Cl; vL; Ri; st 12...15 | 1 |
| 1246 | (608) | ..... | ..... | 5 37 7.7 | -0.444 | 1: | 159 17 32.7 | 2.01 | 1: | Cl; no description | 1 |
| 1247 | 367 | ..... | Lal. 10842 | 5 37 8.3 | +3.375 | 1 | 77 10 43.0 | 1.90 | 1 | *8, 9, with Fneb | 1 |
| 1248 | 2923 | ..... | ..... | 5 37 11.1 | -0.644 | 1 | 160 18 59.7 | 2.01 | 1 | vF; R; gbM; 1st of 7 | 1† |
| 1249 | 2925 | ..... | ..... | 5 37 27.0 | 0.635 | 1 | 160 16 15.3 | 1.99 | 1 | F; S; 1E; 2nd of 7 | 1† |
| 1250 | 2926 | ..... | ..... | 5 37 35.8 | -0.522 | 1 | 159 41 40.9 | 1.97 | 1 | vF; L; pmE | 1 |
| 1251 | 2921 | ..... | ..... | 5 37 53.2 | +2.300 | 2 | 120 8 42.2 | 1.86 | 2 | vF; S; R; bM | 2 |
| 1252 | 2928 | ..... | ..... | 5 37 54.6 | -0.479 | 1 | 159 28 11.8 | 1.94 | 1 | Cl+neb; mC; iF; st vS..... | 1 |
| 1253 | 2930 | ..... | ..... | 5 38 2.8 | 0.810 | 1 | 161 5 21.8 | 1.94 | 1 | pB; S; R; gbM | 1 |
| 1254 | 2929 | ..... | ..... | 5 38 3.3 | 0.557 | 1: | 159 52 11.8 | 1.94 | 1 | eF; vvS; vglbM | 1 |
| 1255 | 2927 | ..... | ..... | 5 38 3.9 | 0.139 | 1 | 157 30 8.4 | 1.92 | 1 | F; pL; 1E; gbM | 1 |
| 1256 | 2931 | ..... | ..... | 5 38 14.7 | 0.485 | 1 | 159 29 59.7 | 1.91 | 1 | Cl; vL; Ri; st 10...15 | 1 |
| 1257 | 2932 | ..... | ..... | 5 38 17.9 | 0.755 | 1 | 160 45 15.4 | 1.92 | 1 | pB; R; bM; p of 2; *9 bet... | 1 |
| 1258 | 2935 | ..... | ..... | 5 38 24.3 | 0.652 | 1 | 160 20 40.7 | 1.91 | 2 | pF; S; R; gbM; 4th of 7 ... | 2† |
| 1259 | 2933 | ..... | Δ. 102 | 5 38 24.6 | 0.631 | 2 | 160 14 33.7 | 1.91 | 2 | vB; pL; R; gbM; 3rd of 7... | 2† |
| 1260 | 2936 | ..... | ..... | 5 38 27.3 | 0.624 | 1: | 160 12 26.7 | 1.91 | 1 | vF; 5th of 7 | 2† |
| 1261 | (642) | ..... | ..... | 5 38 42.9 | -0.438 | 1: | 159 14 36.6 | 1.88 | 1: | neb; no description..... | 1 |
| 1262 | 2924 | ..... | ..... | 5 38 49.3 | +2.174 | 1 | 124 1 5.3 | 1.79 | 1 | Cl; L; lC; st13 | 1 |
| 1263 | 2937 | ..... | ..... | 5 38 57.3 | -0.055 | 1 | 156 56 50.8 | 1.84 | 1 | vF; pS; E; glbM; 2st 10, s... | 1 |
| 1264 | ..... | VIII. 2 | ..... | 5 39 6.6 | +3.276 | 1 | 81 16 35.1 | 1.73 | 2 | Cl; poor; Ssc st | 3 |
| 1265 | 2938 | ..... | Δ. 103? | 5 39 10.9 | -0.646 | 2 | 160 18 26.8 | 1.84 | 2 | B; R; 6th of 7 | 2† |
| 1266 | 2939 | ..... | ..... | 5 39 21.0 | -0.634 | 1: | 160 15 5.4 | 1.82 | 1: | vF; vS; E; 7th of 7 | 1† |
| 1267 | 368 | ..... | M. 78 | 5 39 34.1 | +3.072 | 2 | 90 0 15.7 | 1.61 | 2 | B; L; wisp-sh; vgmbN; 3st inv; r. | 8† |
| 1268 | 2940 | ..... | Δ. 143 | 5 39 37.8 | -0.409 | 1 | 159 4 43.3 | 1.79 | 1 | F; L; E | 1 |
| 1269 | 2941 | ..... | Δ. 142 | 5 39 40.7 | -0.423 | 8 | 159 10 18.3 | 1.79 | 8 | llvB; vL; looped | 8† |
| 1270 | ..... | IV. 36 | ..... | 5 39 49.8 | +3.077 | 3 | 89 46 49.6 | 1.68 | 3 | * with vF, Lchev..... | 3 |
| 1271 | 2934 | III. 241 | ..... | 5 39 59.5 | +2.532 | 1 | 112 3 59.6 | 1.68 | 1 | eF; vS; R; gbM | 2 |
| 1272 | 2942 | ..... | ..... | 5 40 1.0 | -0.499 | 1 | 159 33 35.2 | 1.76 | 1 | pB; pL; mE; 5st inv | 1 |
| 1273 | 2943 | ..... | ..... | 5 40 9.0 | -0.740 | 1 | 160 45 20.2 | 1.76 | 1 | B; R; bM; rr; f of 2 | 1 |
| 1274 | | III. 267 | | 5 40 35.0 | +2.670 | 1 | 106 48 12.4 | 1.62 | 1 | vF; pS; iE; bM | 1 |
| 1275 | 2947 | | | 5 40 49.6 | -0.534 | 1 | 159 43 48.3 | -1.69 | 1 | F; R; p of D neb | 1 |

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|-------------------|-----------------------------------|------------------------------|--------------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 1276 | 2948 | ..... | ..... | 5 40 53.3 | -0.550 | 1 | 159 48 52.3 | -1.69 | 1 | neb; np of gr of 4 | 1† |
| 1277 | 2949 | ..... | Δ. 152?? | 5 40 54.2 | 0.556 | 1 | 159 50 42.3 | 1.69 | 1 | neb; sp of gr of 4 | 1† |
| 1278 | 2950 | ..... | ..... | 5 40 56.7 | 0.532 | 1 | 159 43 22.6 | 1.68 | 1 | B; R; f of D neb | 1† |
| 1279 | 2951 | ..... | ..... | 5 41 10.5 | -0.484 | 1 | 159 28 20.2 | 1.66 | 1 | Cl; vF; mC; st+neb | 1† |
| 1280 | 2945 | ..... | ..... | 5 41 11.3 | +0.297 | 3 | 154 21 38.1 | 1.63 | 3 | pF; L; R; glbM | 3 |
| 1281 | 2952 | ..... | ..... | 5 41 11.8 | -0.549 | 1: | 159 48 24.2 | 1.66 | 1: | neb; nf of gr of 7 | 1† |
| 1282 | 2953 | ..... | ..... | 5 41 15.6 | 0.554 | 1: | 159 49 51.5 | 1.65 | 1: | neb; sf of gr of 7 | 1† |
| 1283 | 2954 | ..... | ..... | 5 41 18.8 | 0.537 | 1: | 159 44 57.5 | 1.65 | 1: | vF; R; *10vnr | 1† |
| 1284 | 2956 | ..... | ..... | 5 41 33.6 | -0.536 | 1: | 159 44 30.1 | 1.63 | 1: | B; pS; R; lbM; *10, p | 1 |
| 1285 | 2946 | ..... | ..... | 5 41 38.9 | +1.127 | 1 | 145 35 32.9 | 1.57 | 1 | eF; pS; R; vlbM | 1 |
| 1286 | 2955 | ..... | ..... | 5 41 39.6 | -0.314 | 2 | 158 31 43.4 | 1.62 | 2 | vF; S; R | 2 |
| 1287 | ..... | III. 270 | ..... | 5 41 43.7 | +2.648 | 1 | 107 39 20.4 | 1.52 | 1 | vF; eS; stellar | 1* |
| 1288 | 2944 | ..... | Δ. 594 | 5 41 56.8 | +2.163 | 2 | 124 18 21.4 | 1.52 | 2 | ⊕; B; pL; iR; gbM | 2 |
| 1289 | 2957 | ..... | ..... | 5 42 5.1 | -0.495 | 1 | 159 31 7.6 | 1.58 | 1 | vF; S; mE; glbM; ?D | 1 |
| 1290 | 2962 | ..... | ..... | 5 42 38.5 | 0.450 | 1 | 159 16 34.1 | 1.53 | 1 | vF; pL; R; rr | 1 |
| 1291 | 2963 | ..... | Δ. 184?? | 5 42 43.0 | 0.397 | 1 | 158 59 18.4 | 1.52 | 1 | vF; S; R | 1 |
| 1292 | 2959 | ..... | ..... | 5 42 45.6 | 0.298 | 1 | 158 25 39.4 | 1.52 | 2 | vF; S; R | 1 |
| 1293 | 2961 | ..... | ..... | 5 42 47.9 | 0.128 | 2 | 157 23 26.7 | 1.51 | 2 | Cl; F; cS; irr | 2 |
| 1294 | (725) | ..... | ..... | 5 43 2.4 | -0.319 | 1:: | 158 32 44.3 | 1.49 | 1:: | neb; no description | 1 |
| 1295 | 369 | ..... | M. 37 | 5 43 7.5 | +3.922 | 3 | 57 29 38.3 | 1.49 | 3 | Cl; Ri; pCM; st L & S | 8 |
| 1296 | 2960 | ..... | ..... | 5 43 6.1 | +0.474 | 3 | 152 50 34.2 | 1.46 | 3 | vF; pS; iR; pslbM*16 | 3 |
| 1297 | 2965 | ..... | Δ. 185?? | 5 43 7.3 | -0.282 | 1 | 158 20 10.3 | 1.49 | 2 | ⊕; B; S; rr | 2 |
| 1298 | 2966 | ..... | { Δ. 147? 151? 154? } | 5 43 9.6 | -0.450 | 5 | 159 16 26.3 | 1.49 | 5 | ⊕; B; pL; irrR; rr | 5 |
| 1299 | 2958 | ..... | ..... | 5 43 9.8 | +1.358 | 1 | 142 8 17.1 | 1.43 | 1 | eF; pS; R; 3st10 sf | 1 |
| 1300 | (730) | ..... | ..... | 5 43 24.9 | -0.503 | 1:: | 159 33 29.2 | 1.46 | 1:: | neb; no description | 1 |
| 1301 | 2968 | ..... | ..... | 5 43 44.7 | -0.888 | 1 | 161 23 47.8 | 1.44 | 1 | pB; L; pmE; gbM*13 | 1 |
| 1302 | 2964 | ..... | ..... | 5 43 49.9 | +1.390 | 1 | 141 36 16.9 | 1.37 | 1 | pB; pS; R; glbM | 1 |
| 1303 | 2969 | ..... | ..... | 5 44 23.6 | -0.064 | 1 | 156 58 0.9 | 1.37 | 2 | F; pS; R; gbM | 2 |
| 1304 | 2967 | ..... | ..... | 5 44 49.2 | +2.544 | 1 | 111 36 16.5 | 1.25 | 1 | vF; S; vLE; gbM | 1 |
| 1305 | 2971 | ..... | ..... | 5 44 54.6 | -0.736 | 2 | 160 42 13.8 | 1.34 | 2 | pB; pS; R; gbM | 2 |
| 1306 | 2970 | ..... | Δ. 153? | 5 44 58.2 | 0.444 | 1 | 159 14 0.1 | 1.33 | 1 | eF; pL; iE | 1 |
| 1307 | 2972 | ..... | ..... | 5 45 6.7 | -0.331 | 3 | 158 35 56.7 | 1.31 | 3 | F; pS; R; vglbM | 3 |
| 1308 | 370 | { III. 448 = III. 510 } | ..... | 5 45 30.3 | +2.897 | (4) | 97 30 3.2 | 1.16 | 1 | eF; cS; iE; pslbM; er | 5 |
| 1309 | 2973 | ..... | ..... | 5 46 27.5 | -0.817 | 2 | 161 2 46.7 | 1.21 | 2 | vF; S; R; gbM | 2 |
| 1310 | 371 | VII. 24 | ..... | 5 46 37.1 | +3.080 | 1 | 89 38 56.6 | 1.08 | 1 | Cl; pL; iRi; pC; stS | 3 |
| 1311 | 2975 | ..... | ..... | 5 46 40.1 | -0.560 | 4 | 159 49 44.6 | 1.18 | 5 | Cl; F; S; iF; vLC; rr | 5 |
| 1312 | 2974 | ..... | ..... | 5 46 44.7 | -0.246 | 1 | 158 5 35.9 | 1.17 | 1 | eF; pL; iR | 1 |
| 1313 | 2976 | ..... | ..... | 5 47 56.7 | +1.446 | 1 | 140 37 4.7 | 1.01 | 1 | eeF; vS; 3st10 sp | 1 |
| 1314 | 2977 | ..... | ..... | 5 47 57.0 | -0.326 | 1 | 158 33 11.2 | 1.06 | 1 | F; S; R; *11p | 1 |
| 1315 | 2978 | ..... | ..... | 5 48 7.4 | 0.149 | 5 | 157 29 33.8 | 1.04 | 5 | F; pL; iR; vlbM; rrr | 5 |
| 1316 | 2979 | ..... | ..... | 5 48 39.2 | -0.438 | 2 | 159 10 22.7 | 1.01 | 2 | ⊕; vB; vS; vsmbM; rr | 2 |
| 1317 | 2980 | ..... | ..... | 5 49 41.3 | +0.369 | 2 | 153 42 41.3 | 0.89 | 2 | eF; pL; R; vglbM | 2 |
| 1318 | 2982 | ..... | ..... | 5 50 15.5 | -0.922 | 1 | 161 30 44.6 | 0.88 | 1 | vF; cL; vgbM | 1 |
| 1319 | 2981 | ..... | Δ. 106 | 5 50 16.8 | -0.619 | 5 | 160 6 17.6 | 0.88 | 5 | Cl; pB; iF; gvmCM; st15 | 5 |
| 1320 | 2983 | ..... | ..... | 5 51 17.8 | +0.162 | 3 | 155 20 50.2 | 0.76 | 3 | pB; vS; R; gbM | 3 |
| 1321 | ..... | III. 225 | ..... | 5 51 46.8 | +2.584 | 1 | 110 3 13.8 | 0.64 | 1 | eeF; pS; E; r | 1 |
| 1322 | 2985 | ..... | ..... | 5 51 59.6 | -0.505 | 1 | 159 31 16.4 | 0.72 | 1 | vF; pS; R; gbM | 1 |
| 1323 | ..... | VIII. 68 | ..... | 5 52 7.3 | +4.659 | 1 | 40 6 11.5 | 0.55 | 1 | Cl, not Ri; 1*7m | 1 |
| 1324 | 2986 | ..... | ..... | 5 52 28.5 | -0.481 | 3 | 159 23 33.9 | 0.67 | 3 | pB; vS; R; gmbM | 3 |
| 1325 | 372 | VIII. 26 | ..... | 5 52 34.6 | +3.647 | 1 | 66 42 23.8 | 0.54 | 1 | Cl; pL; 40 or 50 st 8...15 | 2 |
| 1326 | 2987 | ..... | ..... | 5 52 41.1 | -0.131 | 7 | 157 21 35.8 | 0.64 | 7 | F; pS; R; glbM | 7 |
| 1327 | 2984 | ..... | ..... | 5 53 11.9 | +2.401 | 1 | 116 39 52.1 | 0.53 | 1 | vF; pS; R; gbM | 1 |
| 1328 | 2988 | ..... | ..... | 5 53 22.1 | +0.765 | 1 | 149 55 53.5 | 0.55 | 1 | Cl; vLC; st L & S | 1 |
| 1329 | 2989 | ..... | ..... | 5 53 26.1 | -0.854 | 2 | 161 12 17.0 | 0.60 | 2 | F; pL; R; gpmbM | 2 |
| 1330 | 2991 | ..... | ..... | 5 53 53.9 | 0.837 | 4 | 161 7 52.5 | 0.55 | 4 | ⊕; B; pL; R; gmbM; r | 4 |
| 1331 | 2990 | ..... | ..... | 5 53 54.3 | 0.146 | 5 | 157 27 0.8 | 0.54 | 5 | F; pS; R; r; am st | 5 |
| 1332 | 2992 | ..... | Δ. 160 | 5 54 7.4 | -0.504 | 4 | 159 30 51.1 | -0.53 | 4 | ⊕; pB; R; gmbM; rr; st 14...16. | 4 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 1333 | 2994 | ..... | ..... | 5 54 23.3 | -0.503 | 2 | 159 30 24.0 | -0.50 | 2 | vF; S; R; f of 2 | 2 |
| 1334 | 2993 | ..... | ..... | 5 54 34.6 | +0.090 | 1 | 155 51 30.9 | 0.47 | 1 | eF; S; R | 1 |
| 1335 | ..... | II. 264 | ..... | 5 54 55.9 | +2.482 | 1 | 113 49 28.9 | 0.37 | 1 | F; S | 1 |
| 1336 | 2995 | ..... | ..... | 5 55 1.4 | -0.342 | 3 | 158 37 0.8 | 0.44 | 3 | pF; pS; iR; bM | 3 |
| 1337 | 373 | ..... | ..... | 5 55 15.5 | +2.822 | 1 | 100 36 14.8 | 0.34 | 1 | * (3 Monoc) inv in pL, F, n | 1 |
| 1338 | 374 | ..... | ..... | 5 55 39.0 | +3.206 | 1 | 84 16 44.3 | 0.29 | 1 | Cl; L; pRi; vIC; st10, | 1 |
| 1339 | 3009 | ..... | ..... | 5 56 0.0 | -6.638 | 2 | 172 9 27.8 | 0.54 | 2 | F; pS; iR; bM | 2 |
| 1340 | 2998 | ..... | ..... | 5 56 13.4 | 0.798 | 1 | 160 56 36.5 | 0.35 | 1 | F; IE; r | 1 |
| 1341 | 2997 | ..... | ..... | 5 56 22.5 | -0.274 | 2 | 158 13 12.4 | 0.32 | 2 | eF; S; R; bM | 2 |
| 1342 | 2996 | ..... | ..... | 5 56 50.7 | +0.836 | 1 | 149 7 34.5 | 0.25 | 1 | eF; S; R; *12 vnr | 1 |
| 1343 | 3000 | ..... | ..... | 5 57 0.8 | -0.519 | 1 | 159 34 54.6 | 0.28 | 1 | F; vS; R; vsmBM; stellar ... | 1 |
| 1344 | 3001 | ..... | ..... | 5 57 13.7 | -0.416 | 1 | 159 2 0.5 | 0.25 | 1 | F; pS; R; bM | 1 |
| 1345 | 2999 | ..... | ..... | 5 57 34.0 | +1.437 | 2 | 140 44 5.6 | 0.18 | 2 | eeF; R; *15 att | 2 |
| 1346 | 3002 | ..... | ..... | 5 57 46.1 | +0.010 | 1 | 156 24 55.3 | 0.19 | 1 | eeF; IE; *16 att | 1 |
| 1347 | 3003 | ..... | ..... | 5 57 52.5 | -0.119 | 4 | 157 16 2.3 | 0.19 | 4 | F; pL; R; vglbM | 4 |
| 1348 | 3004 | ..... | ..... | 5 58 9.8 | +0.141 | 3 | 155 28 41.2 | 0.16 | 3 | F; pL; R; vglbM | 3 |
| 1349 | 3005 | ..... | Δ. 196 | 5 58 32.0 | -0.316 | 5 | 158 28 3.8 | 0.14 | 5 | pB; S; R; gbM; 1st of 3 ... | 5 |
| 1350 | 3006 | ..... | Δ. 161? | 5 58 35.9 | -0.447 | 4 | 159 11 59.1 | -0.13 | 4 | ⊕; vB; S; R; vgvmbM; rr.. | 4 |
| 1351 | 375 | VI. 17 | ..... | 5 58 49.3 | +3.670 | 1 | 65 53 46.0 | 0.00 | 1 | Cl; pS; mC; vRi; nrΔ; steS. | 3 |
| 1352 | 3007 | ..... | Δ. 193 | 5 58 50.0 | -0.345 | 4 | 158 38 5.4 | -0.12 | 4 | pF; S; R; gbM; *15 att nf.. | 4 |
| 1353 | 3008 | ..... | ..... | 5 58 50.7 | 0.287 | 1 | 158 17 48.7 | 0.11 | 1 | pF; pS; R; gbM | 1 |
| 1354 | 3013 | ..... | ..... | 5 59 33.7 | -1.702 | 1 | 164 21 22.3 | 0.09 | 1 | F; pL; R; gpmbM | 1 |
| 1355 | 3010 | ..... | ..... | 5 59 36.3 | +0.365 | 3 | 153 43 19.4 | 0.02 | 3 | F; pL; R; vglbM | 3 |
| 1356 | 3011 | ..... | Δ. 194 | 5 59 39.1 | -0.325 | 5 | 158 31 0.8 | -0.04 | 5 | ⊕; vB; R; mCM; rr | 5 |
| 1357 | 376 | ..... | ..... | 5 59 59.5 | +4.765 | 1 | 38 17 55.2 | +0.14 | 1 | Cl; pL; poor; st11 | 1 |
| 1358 | 3012 | ..... | Δ. 223? | 6 0 4.7 | -0.229 | 1 | 157 56 54.0 | 0.00 | 1 | F; S; R; gbM | 1 |
| 1359 | 378 | IV. 44 | ..... | 6 0 8.7 | +2.927 | 1 | 96 11 46.0 | +0.10 | 1 | Nebulous *7; am 3 st | 2 |
| 1360 | 377 | ..... | M. 35 | 6 0 12.5 | 3.677 | 1 | 65 39 16.9 | 0.13 | 1 | Cl; vL; cRi; pC; st 9...16... | 8 |
| 1361 | 379 | VIII. 24 | ..... | 6 0 33.4 | 3.405 | 1 | 76 1 38.5 | 0.15 | 1 | Cl; S; lRi; pmC; *Σ. 848... | 3 |
| 1362 | ..... | IV. 19 | ..... | 6 0 44.0 | +2.923 | 3 | 96 22 39.5 | 0.15 | 3 | *9 in vF, pLneb; E 170° ... | 3 |
| 1363 | 3016 | ..... | ..... | 6 0 44.6 | -0.750 | 1 | 160 43 11.2 | 0.04 | 1 | eF; L; R; glbM | 1 |
| 1364 | 3015 | ..... | ..... | 6 0 52.1 | 0.348 | 2 | 158 38 48.1 | 0.07 | 2 | F; cL; R; lbM | 2 |
| 1365 | 3018 | ..... | ..... | 6 0 56.3 | -1.295 | 1 | 162 58 41.2 | 0.04 | 1 | pF; pL; R; gmbM | 1 |
| 1366 | ..... | ..... | Auw. N. 21 | 6 1 19.1 | +3.569 | ... | 69 29 42.5 | 0.01 | ... | *8m in neb (Bruhns) | 0 |
| 1367 | 3017 | ..... | ..... | 6 1 27.2 | -0.056 | 1 | 156 51 19.9 | 0.13 | 1 | eeF; pL; R; gbM | 1 |
| 1368 | 3020 | ..... | ..... | 6 1 42.0 | -0.192 | 2 | 157 43 40.5 | 0.15 | 2 | F; vS; iR; lbM; r | 2 |
| 1369 | 3019 | ..... | ..... | 6 1 56.1 | +0.359 | 1 | 153 45 54.4 | 0.18 | 1 | eF; vS; R | 1 |
| 1370 | 3014 | ..... | ..... | 6 2 6.2 | 2.539 | 1 | 111 43 53.8 | 0.26 | 1 | F; pS; vmE; glbM | 1 |
| 1371 | 380 | VIII. 6 | ..... | 6 2 12.0 | 3.182 | 1 | 85 15 56.7 | 0.29 | 1 | Cl; pRi; lC; st L & S | 4 |
| 1372 | 3021 | ..... | ..... | 6 2 28.9 | 0.171 | 1 | 155 15 14.6 | 0.22 | 1 | vF; S; R | 1 |
| 1373 | 381 | IV. 38 | ..... | 6 2 41.6 | 2.924 | 1 | 96 18 57.6 | 0.32 | 1 | pB *; L*neb; E 90° ± | 3 |
| 1374 | 382 | ..... | ..... | 6 3 59.9 | 2.990 | 1 | 93 30 5.2 | 0.44 | 1 | Cl; L; vIC | 1 |
| 1375 | 383 | IV. 20 | ..... | 6 4 17.9 | 2.927 | 2 | 96 12 6.1 | 0.47 | 2 | *11 & 4 S st in vF, L neb | 5 |
| 1376 | 384 | VII. 25 | ..... | 6 4 39.8 | +3.200 | 1 | 84 31 53.0 | 0.50 | 1 | Cl; pL; pRi; pC; st L & S... | 2 |
| 1377 | 3025 | ..... | ..... | 6 5 3.8 | -0.516 | 3 | 159 33 49.6 | 0.42 | 3 | { pB; pS; R; gbM } D neb; { vF; R; glbM } 12°.5 } | 3 |
| 1378 | 3022 | ..... | ..... | 6 5 5.6 | +2.168 | 1 | 124 4 30.3 | 0.51 | 1 | pF; pL; vmE; gvlbM | 1 |
| 5064 | ..... | ..... | ..... | 6 5 7 | ..... | ... | 88 50 39 | ..... | ... | See No. 5064. | |
| 1379 | 3027 | ..... | ..... | 6 5 7.1 | -1.817 | 1 | 164 42 26.7 | 0.39 | 1 | vF; pL; R; glbM | 1 |
| 1380 | 3023 | ..... | ..... | 6 5 16.5 | +1.331 | 1 | 142 29 20.0 | 0.50 | 1 | pB; vS; E; vsbM; *9 p 5° ... | 1 |
| 1381 | ..... | VII. 57 | ..... | 6 5 25.2 | 4.189 | 1 | 50 6 21.0 | 0.60 | 1 | Cl; cL; C; iF; st vS | 1 |
| 1382 | 3026 | ..... | ..... | 6 5 47.6 | 0.196 | 1 | 155 4 9.3 | 0.51 | 1 | F; iF; glbM; 2 or 3 st inv ... | 1 |
| 1383 | ..... | VI. 5 | ..... | 6 6 2.3 | 3.377 | 2 | 77 9 55.9 | 0.63 | 2 | Cl; L; Ri; gymCM | 2 |
| 1384 | 3024 | II. 265 | ..... | 6 6 14.4 | +2.539 | 4 | 111 46 26.6 | 0.62 | 4 | pF; pS; vIE; pmbM; st nr... | 5 |
| 1385 | 3028 | ..... | ..... | 6 6 21.3 | -0.087 | 2 | 157 4 22.5 | +0.55 | 2 | vF; pS; R; gbM | 2 |
| 5065 | ..... | ..... | ..... | 6 6 40.9 | ..... | ... | 88 58 11.2 | ..... | ... | See 5065. | |
| 1386 | 3031 | ..... | ..... | 6 7 57.9 | -1.404 | 1 | 163 22 10.8 | +0.66 | 1 | F; vS; R; bM | 1 |
| 1387 | 3029 | ..... | ..... | 6 9 5.0 | +1.799 | 2 | 133 37 23.5 | 0.85 | 2 | eF; pS; R; vlbM; ?134° PD. | 2 |
| 1388 | 3030 | ..... | ..... | 6 9 18.6 | 1.798 | 2 | 133 39 27.1 | 0.87 | 2 | eF; S; R; psbM; ?134° PD. | 2 |
| 1389 | 385 | ..... | Σ. 885 | 6 9 23.0 | +3.213 | 1 | 83 58 10.6 | 0.92 | 1 | * Chief of Cl | 1 |
| 1390 | 3035 | ..... | ..... | 6 9 26.6 | -2.061 | 1 | 165 24 21.8 | +0.76 | 1 | pB; pL; iR; vgpmbM; r ... | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 1391 | ..... | VII. 13 | ..... | 6 9 33.3 | +2.622 | 1 | 108° 36' 47.3 | +0.91 | 1 | Cl; L; pRi; IC | 1 |
| 1392 | 3034 | ..... | ..... | 6 10 13.2 | 0.506 | 1 | 152 29 50.0 | 0.90 | 1 | pF; S; R; bM | 1 |
| 1393 | 3032 | ..... | ..... | 6 10 22.8 | 2.551 | 1 | 111 19 46.4 | 0.98 | 1 | pB; pL; mE, 87°; psbMRN | 1 |
| 1394 | 3033 | ..... | ..... | 6 10 23.9 | +2.399 | 2 | 116 43 35.4 | 0.98 | 2 | F; pS; vLE; psbM | 3 |
| 1395 | 3037 | ..... | ..... | 6 12 5.0 | -1.526 | 1 | 163 47 55.3 | 1.01 | 1 | vF; cL; R; gvlbM | 1 |
| 1396 | 3036 | ..... | ..... | 6 12 33.1 | 0.423 | 3 | 159 5 2.4 | 1.08 | 3 | vB; pL; R; mbM; r | 3 |
| 1397 | 3038 | ..... | ..... | 6 12 45.1 | 0.917 | 1 | 161 29 30.7 | 1.09 | 1 | vF; S; R; glbM; * p | 1 |
| 1398 | 3039 | ..... | Δ. 201 | 6 13 34.4 | -0.270 | 2 | 158 13 12.4 | 1.18 | 2 | B; pS; lE; gbM; rrr | 2 |
| 1399 | 386 | VII. 20 | ..... | 6 14 5.0 | +2.902 | 2 | 97 14 22.3 | 1.31 | 2 | Cl; cL; pRi; pC; st 11...15. | 5 |
| 1400 | 3040 | ..... | ..... | 6 15 36.9 | 2.532 | 1 | 112 0 58.2 | 1.44 | 1 | vF; pL; R; vglbM | 1 |
| 1401 | 3041 | ..... | ..... | 6 16 4.8 | 2.387 | 2 | 117 10 38.1 | 1.47 | 2 | vB; S; R; psmbM; r | 2 |
| 1402 | ..... | ..... | Auw. N. 22 | 6 16 25.2 | 3.539 | ... | 70 35 28.2 | 1.54 | ... | F Cl (Markree Obs. Jan. 13, 1853). | 0 |
| 1403 | 387 | ..... | ..... | 6 16 28.9 | 2.964 | 1 | 94 37 19.9 | 1.53 | 1 | Cl; P; vIC; st 6, 11...12 | 1 |
| 1404 | 3042 | ..... | ..... | 6 17 5.4 | 1.753 | 1 | 134 41 54.5 | 1.55 | 1 | Cl; B; P; st 8, ... | 1 |
| 1405 | 3044 | ..... | ..... | 6 18 1.5 | 0.980 | 1 | 147 29 35.0 | 1.60 | 1 | vF; lE; vgbM; p of 2 | 1 |
| 1406 | 3045 | ..... | ..... | 6 18 1.9 | 0.983 | 1 | 147 27 30.0 | 1.60 | 1 | vF; lE; vglbM; f of 2 | 1 |
| 1407 | 3043 | ..... | ..... | 6 18 43.9 | 2.513 | 3 | 112 46 8.0 | 1.70 | 3 | F; pL; R; vglbM; 2st inv... | 3 |
| 1408 | ..... | VII. 35 | ..... | 6 19 44.5 | 3.372 | 1 | 77 16 45.6 | 1.82 | 1 | Cl; pC; with neb? | 1 |
| 1409 | 388 | VII. 26 | ..... | 6 19 57.6 | 2.847 | 1 | 99 34 30.9 | 1.83 | 1 | Cl; P; lCM; st 12...15 | 2 |
| 1410 | 3046 | ..... | ..... | 6 20 1.4 | 2.536 | 1 | 111 55 24.9 | 1.83 | 1 | eF; R; * p 270°, 90' | 1 |
| 1411 | 3047 | ..... | ..... | 6 20 33.0 | 0.293 | 1 | 154 23 21.3 | 1.81 | 1 | F; S; R; glbM | 1 |
| 1412 | 3048 | ..... | ..... | 6 20 49.4 | 0.231 | 1 | 154 52 49.6 | 1.82 | 2 | F; vS; R; 1st of 3 | 2 |
| 1413 | 3049 | ..... | ..... | 6 20 55.3 | +0.226 | 1 | 154 55 25.2 | 1.84 | 1 | eF; S; lE; 2nd of 3 | 1 |
| 1414 | 3050 | ..... | ..... | 6 21 0.8 | -0.136 | 3 | 157 27 7.2 | 1.84 | 3 | F; pL; R; gvlbM; * f | 3 |
| 1415 | ..... | VIII. 25 | ..... | 6 21 1.6 | +2.963 | 1 | 94 40 44.6 | 1.92 | 1 | B* (10 Monoc) + Cl | 1 |
| 1416 | 3051 | ..... | ..... | 6 21 11.0 | 0.220 | 1 | 154 58 9.5 | 1.85 | 1 | eF; S; 3rd of 3 | 1 |
| 1417 | 389 | VIII. 9 | ..... | 6 21 13.5 | 3.473 | (1) | 73 13 33.5 | 1.95 | 1 | Cl; eL; pRi; lC; st L & S... | 2 |
| 1418 | 3052 | ..... | ..... | 6 21 49.5 | 0.235 | 1 | 154 51 45.3 | 1.91 | 1 | vF; S; R; * 12 nr | 1 |
| 1419 | 390 | VII. 5 | ..... | 6 22 11.0 | 3.233 | 1 | 83 4 23.2 | 2.04 | 1 | Cl; pRi; pC; st 10, 12...15... | 2+ |
| 1420 | 392 | ..... | ..... | 6 23 28.8 | 3.189 | 1 | 84 57 32.2 | 2.14 | 1 | * 8 in L; P; BCl | 4 |
| 1421 | 391 | VIII. 49 | ..... | 6 23 31.7 | +4.013 | 2 | 54 42 17.1 | 2.17 | 2 | Cl; pL; P; vIC; st 7, 10...15 | 3 |
| 1422 | 3054 | ..... | ..... | 6 23 42.4 | -0.366 | 3 | 158 50 33.8 | 2.06 | 3 | vF; pL; R; glbM | 3 |
| 1423 | 3053 | ..... | Δ. 616? | 6 24 13.8 | +2.267 | 2 | 121 11 28.4 | 2.18 | 2 | pB; cL; R; vglbM; 4' | 2 |
| 1424 | ..... | VII. 2 | 12 Monoc. B.A.C. | 6 24 53.4 | 3.189 | B.A.C. | 85 2 14.5 | 2.27 | B.A.C. | Cl; beautiful; st sc | |
| 1425 | 393 | IV. 3 | ..... | 6 24 58.0 | 3.312 | 2 | 79 44 43.1 | 2.27 | 2 | pL; com; mbNsf alm*; * 7.8 nf. | 7*+ |
| 1426 | ..... | ..... | Auw. N. 23 | 6 25 51.9 | +3.729 | ... | 63 35 16.9 | 2.36 | ... | Small cluster (Markree Obs. Dec. 23, 1853). | 0 |
| 1427 | 3055 | ..... | ..... | 6 26 38.1 | -0.360 | 4 | 158 50 0.3 | 2.31 | 4 | pB; pL; R; vgbM; * p | 4 |
| 1428 | 394 | ..... | ..... | 6 27 5.0 | +2.956 | 1 | 94 57 53.2 | 2.44 | 1 | Cl; pRi; lC; lE; st 8, 12...14 | 1 |
| 1429 | 395 | VIII. 3 | ..... | 6 27 8.4 | 3.269 | (2) | 81 32 16.8 | 2.46 | (2) | Cl; vL; E; Ri; lC | 4 |
| 1430 | 396 | VIII. 50 | ..... | 6 27 23.7 | 3.199 | (1) | 84 32 14.7 | 2.49 | 1 | Cl; vL; pRi; lC; st S | 3 |
| 1431 | ..... | VII. 54 | ..... | 6 27 56.0 | 6.043 | 1 | 24 2 15.6 | 2.62 | 1 | vF; st eS | 1 |
| 1432 | 397 | VII. 22 | ..... | 6 28 25.1 | 3.253 | 1 | 82 13 44.4 | 2.58 | 1 | Cl; S; pC; lF; st 11...15 | 2 |
| 1433 | 3056 | ..... | ..... | 6 28 59.1 | 2.153 | 2 | 124 42 52.7 | 2.59 | 2 | eF; S; lE; vlbM | 2 |
| 1434 | 3057 | ..... | ..... | 6 29 25.9 | 0.325 | 3 | 154 13 23.4 | 2.58 | 3 | F; cL; R; vglbM; r; 17.5-0d | 3 |
| 1435 | ..... | VI. 28 | ..... | 6 30 47.9 | 3.329 | 1 | 79 0 33.4 | 2.78 | 1 | Cl; cRi; eC; lF; st eS | 1 |
| 1436 | 398 | VIII. 48 | ..... | 6 31 2.3 | 3.041 | 1 | 91 20 42.7 | 2.79 | 1 | Cl; vL; P; vIC; st L & S | 2 |
| 1437 | 399 | IV. 2 | ..... | 6 31 31.4 | 3.278 | 3 | 81 8 20.5 | 2.85 | 3 | B; vmE 330°; Ncom=*11 | 7+ |
| 1438 | 400 | VII. 37 | ..... | 6 32 24.0 | 3.101 | 1 | 88 43 47.6 | 2.92 | 1 | Cl; vC; lR; bM; st eS | 2 |
| 1439 | 3058 | ..... | ..... | 6 32 41.8 | 2.462 | 1 | 114 43 55.6 | 2.92 | 1 | pF; lE; bet 2 vS st; psbM | 1 |
| 1440 | 401 | { V. 27 VIII. 5 } | 15 Monoc. | 6 33 16.0 | 3.305 | 1 | 79 59 24.7 | 2.99 | 1 | 15 Monoc; Cl; *; ? neb | 6* |
| 1441 | 402 | ..... | ..... | 6 33 40.5 | 3.354 | 1 | 77 57 3.2 | 3.04 | 1 | Cl; P; 30 or 40 st 12...13 | 1 |
| 1442 | 403 | VI. 21 | ..... | 6 34 32.6 | 3.748 | 1 | 62 53 35.6 | 3.12 | 1 | Cl; pS; eC; Ri; st 11...15 | 2 |
| 1443 | 3059 | ..... | ..... | 6 35 31.5 | 2.236 | 1 | 122 20 49.8 | 3.16 | 1 | pB; S; R; 2 or 3 st v nr | 1 |
| 1444 | 404 | VI. 3 | ..... | 6 36 26.7 | 3.180 | (1) | 85 17 41.1 | 3.27 | 1 | Cl; vmC; not Ri; st vS | 2 |
| 1445 | 405 | VII. 36 | ..... | 6 36 35.5 | 3.154 | 1 | 86 24 51.4 | 3.28 | 1 | Cl; lC; not Ri | 2 |
| 1446 | 3060 | | | 6 37 3.1 | 2.503 | 3 | 113 20 15.0 | 3.30 | 3 | pF; S; R; gbM; am st | 3 |
| 1447 | 3061 | | | 6 37 7.0 | +2.390 | 3 | 117 19 37.3 | +3.31 | 3 | pF; pS; vLE; bM; r | 3 |

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|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 1448 | 406 | II. 615 | ..... | 6 38 2.9 | +3.950 | 2 | 56 17 42.9 | +3.43 | 2 | F; S; bM..... | 4 |
| 1449 | 407 | II. 614 | ..... | 6 38 2.9 | 3.951 | 2 | 56 15 56.9 | 3.43 | 2 | eF; vS..... | 4 |
| 1450 | 3062 | ..... | ..... | 6 39 16.6 | 2.386 | 1 | 117 30 7.7 | 3.49 | 1 | pF; pL; IE; gbM | 1 |
| 1451 | ..... | VIII. 71 | ..... | 6 39 30.5 | 4.223 | 1 | 48 47 17.8 | 3.56 | 1 | Cl; pRi; vIC; st pL | 1 |
| 1452 | ..... | III. 271 | ..... | 6 39 46.2 | 2.642 | 1 | 108 3 23.8 | 3.56 | 1 | 3 or 4 S st + neb..... | 1* |
| 1453 | 408 | VIII. 31 | ..... | 6 40 39.4 | 3.002 | 1 | 93 1 23.9 | 3.63 | 1 | Cl; L; C; ab 100 st 9...15... | 3 |
| 1454 | 411 | ..... | M. 41 | 6 41 0.3 | 2.578 | 1: | 110 36 2.2 | 3.64 | 1 | vL; B; IC; st 8,... | 3* |
| 1455 | 410, a | ..... | R. nova | 6 41 34.1 | 3.944 | ... | 56 23 51.2 | 3.74 | ... | No desc.; β of Lord R.'s diag. | 0 |
| 1456 | 410, b | ..... | R. nova | 6 41 35.9 | 3.944 | ... | 56 22 58.2 | 3.74 | ... | No desc.; γ of Lord R.'s diag. | 0* |
| 1457 | 410 | III. 898 | ..... | 6 41 39.3 | 3.944 | 1: | 56 25 16.2 | 3.74 | 1 | eF; vS | 2 |
| 1458 | 409 | III. 897 | ..... | 6 41 39.4 | 3.946 | 1: | 56 21 16.2 | 3.74 | 1 | eF; vS | 2 |
| 1459 | 3063 | ..... | ..... | 6 41 44.2 | 2.414 | 1 | 116 35 49.0 | 3.70 | 1 | {pB; R; gbM} D neb; am st {eF; R; gbM} | 1 |
| 1460 | 410, c | ..... | R. nova | 6 41 54.0 | 3.944 | ... | 56 19 55.2 | 3.74 | ... | No desc.; ϵ of Lord R.'s diag. | 0* |
| 1461 | 3064 | ..... | ..... | 6 42 3.3 | 2.414 | 1 | 116 34 19.9 | 3.73 | 1 | eF; S; R; bet st; D neb p ... | 1 |
| 1462 | 3066 | ..... | ..... | 6 43 23.6 | 0.428 | 1 | 153 34 16.4 | 3.78 | 1 | vF; S; R; vglbM | 1 |
| 1463 | 3065 | ..... | Δ . 578 | 6 44 1.7 | 2.124 | 4 | 125 50 56.4 | 3.88 | 4 | \oplus ; B; pL; iR; gbM; rr..... | 4 |
| 1464 | 412 | ..... | ..... | 6 44 17.3 | 2.915 | 1 | 96 49 35.2 | 3.94 | 1 | Cl of 30 or 40 st..... | 1 |
| 1465 | 413 | VI. 27 | ..... | 6 44 35.1 | 3.086 | 2 | 89 22 44.1 | 3.97 | 3 | Cl; Ri; L; iF; st L & S | 5 |
| 1466 | 414 | VIII. 39 | ..... | 6 45 3.1 | 2.912 | 3 | 96 55 13.0 | 4.00 | 3 | Cl; L; P; IC | 6 |
| 1467 | 415 | VI. 2 | ..... | 6 46 55.4 | 3.501 | 2 | 71 49 12.7 | 4.09 | 2 | Cl; pL; Ri; mC; st vS | 5+ |
| 1468 | 3067 | ..... | ..... | 6 47 45.6 | 0.375 | 1 | 154 6 43.8 | 4.16 | 1 | vF; vS; R; 2 st Δ | 1 |
| 1469 | 416 | VIII. 51 | ..... | 6 47 47.1 | 2.910 | 1 | 97 1 26.2 | 4.24 | 1 | Cl; P; vIC | 4 |
| 1470 | 3068 | ..... | ..... | 6 47 58.3 | 0.369 | 2 | 154 9 52.4 | 4.18 | 2 | vF; pS; vIE 90° | 2 |
| 1471 | 417 | VI. 18 | ..... | 6 49 15.4 | 2.911 | 3 | 97 1 24.8 | 4.36 | 3 | Cl; pL; pRi; mC; st 13... .. | 7 |
| 1472 | 3069 | ..... | ..... | 6 49 23.0 | 1.949 | 2 | 130 41 29.2 | 4.34 | 2 | pB; pL; nmE 44°8; psbM.. | 2 |
| 1473 | 418 | VIII. 60 | ..... | 6 50 51.9 | 2.971 | 1 | 94 24 15.0 | 4.50 | 1 | Cl; IC; not Ri..... | 2 |
| 1474 | 419 | ..... | ..... | 6 51 6.4 | 3.311 | 1 | 79 33 25.9 | 4.53 | 1 | Cl; P | 1 |
| 1475 | ..... | ..... | D'Arrest, 50 | 6 51 23 | 2.89 | [3] | 97 45 24 | 4.51 | [3] | F; vS; R | 0 |
| 1476 | 420 | ..... | ..... | 6 51 49.9 | 4.665 | 2 | 39 12 51.9 | 4.63 | 2 | eF | 2 |
| 1477 | 421 | II. 304 | ..... | 6 52 55.6 | 2.898 | 3 | 97 35 39.1 | 4.67 | 3 | pF; S; R; r; S st inv | 6+ |
| 1478 | 421, a | ..... | R. nova | 6 52 | ..... | ... | 97 35 | ..... | ... | Makes a close D neb with h. 421. | 0 |
| 1479 | { 422 = 3070 } | VII. 14 | ..... | 6 53 4.4 | 2.759 | 2 | 103 30 44.4 | 4.68 | 2 | Cl; L; Sc; st 8...9 | 3 |
| 1480 | 423 | VIII. 1B | ..... | 6 53 48.2 | 3.145 | 2 | 86 44 53.5 | 4.75 | 2 | Cl of sc st; st 8, 9,... | 3* |
| 1481 | ..... | III. 874 | ..... | 6 54 46.7 | 4.658 | 1 | 39 15 39.4 | 4.88 | 1 | vF; vS; IE | 1 |
| 1482 | 424 | II. 861 | ..... | 6 54 57.4 | 4.661 | 1 | 39 13 10.3 | 4.81 | 1 | pB; S; iR; gbM; *8, 120°... | 2 |
| 1483 | 425 | ..... | M. 50 | 6 56 12.5 | 2.886 | 4 | 98 8 46.5 | 4.95 | 4 | Cl; vI; Ri; pC; E; st 12...16 | 8 |
| 1484 | 427 | VII. 38 | ..... | 6 56 57.0 | 3.100 | 2 | 88 44 31.6 | 5.02 | 3 | Cl; L; Ri; cC; st 12...16 ... | 5 |
| 1485 | 3071 | ..... | ..... | 6 57 7.4 | 2.368 | 1 | 118 30 13.3 | 5.01 | 1 | pB; pL; IE; gbM | 1 |
| 1486 | 426 | II. 734 | ..... | 6 57 28.6 | 4.663 | 1 | 39 5 50.6 | 5.02 | 1 | vF; pL; iR; psmbM; st p ... | 2 |
| 1487 | 428 | IV. 25 | ..... | 6 57 33.2 | 2.817 | 1 | 101 6 47.8 | 5.06 | 1 | pB* inv in S, vF, neb | 3 |
| 1488 | 3072 | ..... | ..... | 6 58 6.8 | 1.912 | 2 | 131 51 55.4 | 5.08 | 2 | vF; S; vIE; bM; am st | 2 |
| 1489 | 429 { II. 735 = III. 875 } | ..... | ..... | 6 58 33.7 | 4.547 | 1 | 41 10 42.0 | 5.20 | 1 | vF; vS; stellar..... | 4 |
| 1490 | 432 | VIII. 40 | ..... | 6 58 47.5 | 3.741 | 2 | 62 35 40.7 | 5.19 | 2 | Cl; L; vIC; Sel inv..... | 3 |
| 1491 | 430 | II. 862 | ..... | 6 58 49.2 | 4.631 | 1 | 39 36 2.6 | 5.22 | 1 | F; S; R; psbM | 2 |
| 1492 | 430, a | ..... | R. nova | 6 58 \pm | ..... | ... | 39 36 \pm | ..... | ... | Several near h. 430 (? 426, 433 & 1 nov). | 0 |
| 1493 | 431 | III. 899 | ..... | 6 58 54.3 | 3.986 | (1) | 54 39 36.3 | 5.21 | 1: | vF; S; R; bM..... | 2 |
| 1494 | ..... | VIII. 32 | ..... | 6 59 54.6 | 2.847 | 1 | 99 52 4.8 | 5.26 | 1 | Cl; L; IC | 1 |
| 1495 | 435 | ..... | ..... | 7 0 6.6 | 2.949 | 1 | 95 24 37.7 | 5.29 | 1 | Cl; vIC | 1 |
| 1496 | 434 | II. 769 | ..... | 7 0 9.7 | 3.515 | 1 | 71 0 17.0 | 5.30 | 1 | pB; pL; R; glbM | 2 |
| 1497 | 433 | II. 736 | ..... | 7 0 27.9 | 4.627 | 2 | 39 36 26.8 | 5.36 | 2 | pF; S; R; glbM; r..... | 4 |
| 1498 | ..... | VIII. 33 | ..... | 7 1 35.7 | 2.834 | 1 | 100 26 14.0 | 5.40 | 1 | Cl; cL; P; IC | 1 |
| 1499 | 3073 | ..... | ..... | 7 1 52.0 | 2.775 | 1 | 102 57 4.9 | 5.43 | 1 | Cl; pL; pRi; gbM; st 10...14 | 1 |
| 1500 | | IV. 65 | | 7 2 14.0 | 3.055 | 2 | 90 30 8.1 | 5.47 | 1 | *9 aff with S, vF, neb | 1 |
| 1501 | | III. 746 | | 7 2 47.5 | +5.827 | 1 | 24 57 49.7 | +5.59 | 1 | vF; S; R; lbM | 1 |

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| | h. | H. | | h m s | s | | | | | | |
| 1502 | 3074 | | | 7 3 7.1 | +0.009 | 1 | 157° 11' 8.8 | +5.46 | 1 | Cl; P; IC; 30 st ± | 1 |
| 1503 | 436 | VII. 27 | C. H. | 7 3 16.3 | 2.881 | 1 | 98 23 59.5 | 5.55 | 1 | Cl; cL; P; cC | 3 |
| 1504 | 437 | ..... | ..... | 7 6 55.9 | 2.817 | 1 | 101 15 9.5 | 5.85 | 1 | Cl; IC; * taken | 1 |
| 1505 | ..... | VII. 15 | ..... | 7 7 48.2 | 2.506 | 1 | 113 51 10.6 | 5.92 | 1 | Cl; pRi; pC | 1 |
| 1506 | ..... | VIII. 34 | ..... | 7 7 50.5 | 2.845 | 1 | 100 3 44.9 | 5.93 | 1 | Cl; L; IC; one vB* | 1 |
| 1507 | 438 | VII. 16 | ..... | 7 8 28.2 | 2.463 | 1 | 115 29 29.4 | 5.98 | 1 | Cl; cRi; IC | 2 |
| 1508 | 439 | VI. 6 | ..... | 7 9 3.8 | 3.390 | 1 | 75 58 53.5 | 6.05 | 1 | Cl; pS; pRi; mC; st 15...16 | 2* |
| 1509 | ..... | VII. 6 | ..... | 7 9 12.4 | 3.394 | 1 | 75 46 51.8 | 6.06 | 1 | Cl; IC | 1 |
| 1510 | ..... | VIII. 45 | ..... | 7 10 31.8 | 2.687 | 2 | 106 47 59.8 | 6.16 | 2 | Cl; P; IC | 1 |
| 1511 | 3075 | V. 21 | ..... | 7 11 3.0 | 2.778 | 1 | 102 57 54.0 | 6.20 | 1 | !!; vF; vL; viF | 3† |
| 1512 | { 440 = 3076 441 = 3077 } | VII. 12 | C. H. | 7 11 23.4 | 2.721 | 2 | 105 23 19.9 | 6.23 | 2 | Cl; vL; Ri; pC; st 9...12 ... | 5 |
| 1513 | { 442 = 3077 } | VII. 17 | A.S.C. 905 | 7 12 54.6 | 2.488 | 2 | 114 42 14.2 | 6.34 | 2 | Cl; pL; Ri | 4 |
| 1514 | 442 | ..... | ..... | 7 13 59.7 | 2.908 | 1 | 97 18 9.5 | 6.05 | 1 | Cl; pC; st pL; bifid | 1 |
| 1515 | ..... | III. 748 | ..... | 7 14 2.3 | 6.410 | 1 | 20 42 16.2 | 6.54 | 1 | vB; pL; R; mbM; r; vS* inv. | 1 |
| 1516 | ..... | VIII. 27 | ..... | 7 14 8.9 | 2.568 | 1 | 111 40 18.5 | 6.45 | 1 | Cl; S; P; IC | 1 |
| 1517 | 443 | ..... | ..... | 7 14 20.5 | 2.845 | 1 | 100 7 38.4 | 6.48 | 1 | Cl; S; pRi; st 15 | 1 |
| 1518 | 3078 | ..... | ..... | 7 15 0.5 | 0.679 | 2 | 152 5 45.1 | 6.47 | 2 | pB; pL; iE; glbM | 2 |
| 1519 | 444 | II. 316 | ..... | 7 16 42.9 | 3.792 | 1 | 60 14 41.0 | 6.70 | 1 | B; S; R; bMN; p of D neb, 45°, 60°. | 3† |
| 1520 | 445 | II. 317 | ..... | 7 16 44.7 | 3.792 | 1 | 60 14 21.0 | 6.70 | 1 | pB; S; R; bMN; f of D neb | 3† |
| 1521 | 3080 | VIII. 35 | ..... | 7 17 31.6 | 2.781 | 1 | 102 59 33.2 | 6.74 | 1 | Cl; vL; pRi; IC; st L | 5 |
| 1522 | 3079 | ..... | ..... | 7 18 18.9 | 2.423 | 1 | 157 15 54.7 | 6.79 | 1 | pF; pS; R; vsmbM; am st... | 1 |
| 1523 | 3084 | ..... | ..... | 7 18 27.0 | 0.617 | 1 | 112 48 48.5 | 6.75 | 1 | vF; vS; R; am st | 1 |
| 1524 | 3082 | ..... | ..... | 7 18 32.8 | 2.427 | 1? | 117 6 24.0 | 6.80 | 1: | pF; S; R; bM | 1 |
| 1525 | 3081 | ..... | ..... | 7 18 39.7 | 2.597 | 1 | 110 39 57.6 | 6.82 | 1 | Cl; pS; pmC; st 12 ... | 2 |
| 1526 | 3083 | ..... | ..... | 7 18 59.7 | 2.595 | 2 | 110 44 57.5 | 6.85 | 2 | Cl; IC; bifid; * | 2 |
| 1527 | 446 | ..... | ..... | 7 19 17.6 | 3.920 | 1? | 55 54 27.3 | 6.91 | 1: | neb; 1st of 4 | 1* |
| 1528 | 447 | III. 703 | ..... | 7 19 23.1 | 3.921 | 1 | 55 53 27.3 | 6.91 | 1: | vF; vS; R; bM | 3* |
| 1529 | ..... | II. 820 | ..... | 7 19 44.8 | 4.017 | 1 | 52 58 44.5 | 6.95 | 1 | pB; S; stellar | 1 |
| 1530 | 448 | III. 900 | ..... | 7 19 45.1 | 3.920 | 1 | 55 55 8.2 | 6.95 | 1 | vF; S; R; bM | 2* |
| 1531 | 449 | III. 901 | ..... | 7 19 57.6 | 3.921 | 1 | 55 51 47.1 | 6.97 | 1 | vF; S; R; psbM | 2* |
| 1532 | 450 | IV. 45 | ..... | 7 20 54.4 | 3.557 | 1 | 68 48 33.2 | 7.04 | 1 | B; S; R; *8 M | 4† |
| 1533 | ..... | VIII. 44 | ..... | 7 21 2.5 | 3.232 | 1 | 82 41 1.2 | 7.04 | 1 | Cl; L; P; vLC; st L | 1* |
| 1534 | ..... | VIII. 11 | ..... | 7 21 11.7 | 3.384 | 1 | 75 56 51.5 | 7.05 | 1 | Cl; pRi; C | 1 |
| 1535 | 451 | VIII. 36 | ..... | 7 21 38.5 | +2.818 | 1? | 101 27 32.1 | 7.07 | 1? | Cl; vL; vLC | 2 |
| 1536 | 3085 | ..... | ..... | 7 21 42.1 | -0.151 | 2 | 158 43 56.0 | 7.00 | 2 | pB; cL; cE 117°, lbM | 2 |
| 1537 | ..... | ..... | Auw. N. 24 | 7 22 32.1 | +3.070 | :: | 89 55 49.5 | 7.15 | ... | Two B neb (Bond, Feb. { 1853). | 0 |
| 1538 | ..... | ..... | Auw. N. 25 | 7 22 32.1 | 3.070 | :: | 89 55 49.5 | 7.15 | ... | | 0 |
| 1539 | 454 | VII. 65 | ..... | 7 22 57.2 | 2.767 | 1 | 103 41 23.1 | 7.17 | 1 | Cl; S; cRi; cC; st vS | 2 |
| 1540 | 453 | III. 19 | ..... | 7 23 6.9 | 3.250 | 2 | 80 3 25.0 | 7.20 | 3 | eF; S; R; lbM; * inv | 4 |
| 1541 | ..... | V. 44 | ..... | 7 23 18.6 | 5.864 | 1 | 24 0 3.0 | 7.30 | 1 | !!; cB; eL; vmE; vgmbMN 7' | 2 |
| 1542 | 452 | ..... | ..... | 7 24 35.7 | 6.898 | 1 | 18 1 37.9 | 7.43 | 1 | Cl; vLC | 1 |
| 1543 | 3086 | ..... | ..... | 7 25 21.7 | 2.693 | 1 | 106 54 16.1 | 7.37 | 1 | Cl; S but B; st 8...10 | 1 |
| 1544 | ..... | VIII. 52 | ..... | 7 26 49.5 | 2.789 | 1 | 102 47 49.7 | 7.49 | 1 | Cl; vL; P; vLC | 1 |
| 1545 | 455 | VIII. 37 | ..... | 7 26 49.5 | 2.735 | 1 | 105 8 46.7 | 7.49 | 1 | Cl; P; IC; st 9, &c. | 3 |
| 1546 | 456 | II. 821 | ..... | 7 27 43.4 | 3.954 | 1 | 54 28 22.7 | 7.59 | 2 | pB; cS; R; vgvbM; r; alm○ | 3 |
| 1547 | 3087 | ..... | ..... | 7 28 25.2 | 0.743 | 1 | 151 57 47.1 | 7.57 | 1 | vF; L; R; gbM; r | 1 |
| 1548 | 457 | I. 218 | ..... | 7 28 37.8 | 4.077 | 1 | 50 48 47.4 | 7.68 | 1 | pB; pL; iE 90°; vgbM; *7, 8, 19°. | 3 |
| 1549 | 458 | VI. 1 | ..... | 7 30 5.7 | 3.566 | 1 | 68 7 10.4 | 7.78 | 1 | Cl; cL; Ri; C; st 11...18 ... | 10 |
| 1550 | 3089 | VII. 67 | ..... | 7 30 10.0 | 2.615 | 1 | 110 18 0.8 | 7.76 | 1 | Cl; L; cRi; st 11...13 | 3 |
| 1551 | { 459 = 3088 } | VIII. 38 | ..... | 7 30 10.8 | 2.760 | 2 | 104 10 31.8 | 7.76 | 2 | Cl; B; vL; pRi; st L & S ... | 4 |
| 1552 | 3090 | VII. 28 | | 7 30 38.0 | 2.774 | 1 | 103 32 55.0 | 7.80 | 1 | Cl; vL; Ri; pC; st vS | 2 |
| 1553 | | VIII. 87 | | 7 31 51.7 | +2.751 | 1 | 104 35 14.0 | +7.90 | 1 | Cl; P; S; st vS | 1 |

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|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 1554 | h. 460 | H. II. 822 | | h m s | s | 1 | 37° 20' 50.0 | +8.00 | 1 | cF; R; vgbM; r; *8p | 2 |
| 1555 | 3091 | ..... | ..... | 7 32 31.5 | 1.739 | 1 | 137 18 28.9 | 7.93 | 1 | eF; L; pmE; gmbM; 2st inv | 1 |
| 1556 | ..... | VIII. 47 | ..... | 7 32 55.5 | 2.715 | 1 | 106 11 49.4 | 7.98 | 1 | Cl; vL; vIC..... | 1 |
| 1557 | ..... | VIII. 46 | ..... | 7 33 4.6 | 2.719 | 1 | 106 1 50.0 | 8.00 | 1 | Cl; vL; vIC..... | 1 |
| 1558 | ..... | III. 829 | ..... | 7 34 26.7 | 4.715 | 1 | 36 34 59.8 | 8.16 | 1 | eF; vS; R; bM | 1 |
| 1559 | 3092 | VI. 36 | ..... | 7 34 41.6 | 2.656 | 1 | 108 45 38.6 | 8.12 | 1 | Cl; pL; pC; E 0°; st L & S... | 3 |
| 1560 | 462 | ..... | ..... | 7 35 4.7 | +3.277 | 1 | 80 24 50.1 | 8.17 | 1 | eF; *15, 300°.0, 90" | 1 |
| 1561 | 3096 | ..... | ..... | 7 35 9.9 | -0.117 | 5 | 158 58 3.7 | 8.09 | 5 | pB; S; R; pmbM; 3 st 11 n... | 5 |
| 1562 | ..... | II. 616 | ..... | 7 35 11.2 | +3.833 | 1 | 57 59 59.0 | 8.20 | 1 | F; S; lbM | 1 |
| 1563 | 461 | ..... | ..... | 7 35 19.3 | 4.653 | 1 | 37 35 56.6 | 8.22 | 1 | vF; vS; R; bM | 1 |
| 1564 | 463 | ..... | M. 46 | 7 35 24.3 | 2.755 | 1 | 104 29 50.4 | 8.18 | 1 | !; Cl; vB; vRi; vL; inv ○... | 4 |
| 1565 | { 464 = 3093 } | IV. 39 | ..... | 7 35 25.4 | 2.757 | 2 | 104 24 39.4 | 8.18 | 3 | ○; pB; pS; eE; r; 3°.75 d... | 4+ |
| 1566 | 3094 | ..... | ..... | 7 35 26.2 | 2.328 | 1 | 121 19 45.1 | 8.17 | 1 | Cl; B; pRi; pL; IC; st 9, 12...14. | 1 |
| 1567 | 3095 | IV. 64 | ..... | 7 35 41.2 | +2.677 | 1 | 107 53 22.3 | 8.21 | 1 | ○; cB; not v well def | 3+ |
| 1568 | 3097 | ..... | ..... | 7 36 43.9 | -0.149 | 4 | 159 12 49.3 | 8.21 | 4 | { cL; vF; R } D neb; 40°; { pL; vF; R } * inv M ... | 4 |
| 1569 | | | | | | | | | | | |
| 1570 | 465 | ..... | ..... | 7 37 36.4 | +4.803 | 1 | 35 3 14.3 | 8.41 | 1 | F; am 4 st | 1 |
| 1571 | 3098 | ..... | M. 93 | 7 38 39.2 | 2.542 | 1 | 113 32 43.2 | 8.44 | 1 | Cl; L; pRi; IC; st 8...13 .. | 2 |
| 1572 | 466 | ..... | Lal. 15134 | 7 38 41.4 | 2.522 | 1 | 114 21 12.2 | 8.44 | 1 | Cl of 18 or 20 st 11...13 .. | 1 |
| 1573 | 3099 | ..... | ..... | 7 40 19.2 | 2.138 | 1 | 127 38 15.8 | 8.56 | 1 | Cl; vL; vIC; 1* 4.5 m | 1 |
| 1574 | 3100 | ..... | ..... | 7 41 47.4 | 2.457 | 2 | 117 0 6.7 | 8.69 | 2 | ○; F; S; IE; am 60 st | 2 |
| 1575 | 3101 | ..... | ..... | 7 41 56.8 | 2.459 | 1:: | 116 54 21.0 | 8.70 | 1:: | Cl; S; pRi; pC | 1 |
| 1576 | 3102 | ..... | ..... | 7 42 52.2 | 2.611 | 1 | 110 57 4.1 | 8.77 | 1 | Cl; cL; pRi; IC; st 12 | 1 |
| 1577 | 467 | ..... | ..... | 7 42 56.7 | 4.838 | 1 | 34 9 26.9 | 8.83 | 1 | vF; R; vgbM | 1 |
| 1578 | 468 | III. 479 | ..... | 7 44 24.4 | 3.280 | 2 | 80 5 29.5 | 8.91 | 2 | vF; S; rr group + neb | 3* |
| 1579 | 469 | ..... | ..... | 7 45 47.6 | +4.908 | 1 | 32 57 44.1 | 9.07 | 1 | eF; R; p of 2 | 1 |
| 1580 | 3104 | ..... | ..... | 7 46 20.9 | -0.423 | 1 | 161 3 33.8 | 8.96 | 1 | vF; S; R; lbM | 1 |
| 1581 | { 469, a } | ..... | R. 8 novæ | 7 47 ± | ..... | ... | 32 57 ± | ..... | ... | 8 of 10 neb, in line with h. 469, 470. | 0 |
| 1582 | | | | | | | | | | | |
| 1583 | | | | | | | | | | | |
| 1584 | | | | | | | | | | | |
| 1585 | | | | | | | | | | | |
| 1586 | | | | | | | | | | | |
| 1587 | | | | | | | | | | | |
| 1588 | | | | | | | | | | | |
| 1589 | 472 | IV. 22 | ..... | 7 46 40.1 | +2.488 | 1 | 116 2 1.1 | 9.07 | 1 | pB; vL; R; er; *8 M..... | 3 |
| 1590 | 470 | III. 836 | ..... | 7 46 42.0 | 4.905 | 2 | 32 57 5.9 | 9.13 | 2 | F; vS; R; *9 sf; f of 2 | 3 |
| 1591 | 471 | III. 830 | ..... | 7 47 11.2 | 4.660 | 1 | 36 46 9.8 | 9.16 | 1 | F; pS; E?; bM vS*? L* nf | 2 |
| 1592 | 471, a | ..... | R. nova | 7 47 | ..... | ... | 36 46 | ..... | ... | Makes D neb with h. 871 .. | 0 |
| 1593 | 3103 | ..... | Δ. 535 | 7 47 18.9 | 2.133 | 2 | 128 11 8.3 | 9.11 | 2 | !; Cl; B; Ri; L; IC; st 12 ... | 3 |
| 1594 | ..... | ..... | M. 47 | 7 48 20.5 | 2.751 | W. | 105 3 19.3 | 9.21 | W. | Place from Wollaston's Cat. | 0* |
| 1595 | ..... | VII. 58 | ..... | 7 48 39.8 | 2.700 | 1 | 107 21 4.6 | 9.22 | 1 | Cl; pL; pRi; pC; st S..... | 1 |
| 1596 | 473 | II. 302 | ..... | 7 48 50.3 | 3.602 | 1 | 65 52 5.8 | 9.26 | 1 | F; S; IE; bM; er | 3 |
| 1597 | 473, a | ..... | R. nova | 7 48 ± | ..... | ... | 65 52 ± | ..... | ... | vF; E; * inv near N | 0 |
| 1598 | { 474 = 3106 } | VII. 10 | ..... | 7 49 0.6 | 2.544 | 2 | 113 56 10.5 | 9.25 | 2 | Cl; L; cRi; vIC | 5 |
| 1599 | 3105 | ..... | ..... | 7 49 1.8 | 2.453 | 1 | 117 29 59.5 | 9.25 | 1 | Cl; L; IC..... | 1 |
| 1600 | 475 | III. 837 | ..... | 7 50 26.3 | 4.881 | 1 | 33 3 54.6 | 9.42 | 1 | vF; vS; R; glbM | 2 |
| 1601 | { 479 = 3107 } | VII. 23 | Δ. 626 | 7 50 36.9 | 2.396 | 3 | 119 41 58.1 | 9.37 | 3 | Cl; pL; cRi; pC; st 11...13 .. | 4 |
| 1602 | 477 | ..... | ..... | 7 50 53.9 | 3.682 | 1 | 62 35 59.9 | 9.43 | 1 | vF; S; R; bM..... | 1 |
| 1603 | 477, a | ..... | R. nova | 7 50 | ..... | ... | 62 35 | ..... | ... | F; S..... | 0 |
| 1604 | 476 | III. 750 | ..... | 7 50 55.0 | 4.067 | (1) | 49 47 50.2 | 9.44 | (1) | cB; S; R; sbM | 2 |
| 1605 | 476, a | ..... | R. nova | 7 50 + | ..... | ... | 49 47 ± | ..... | ... | Follows III. 750 (h. 476) ... | 0 |
| 1606 | ..... | III. 838 | ..... | 7 51 11.3 | 4.903 | 1 | 32 42 17.4 | 9.48 | 1 | eF; vS..... | 1 |
| 1607 | 478 | III. 709 | ..... | 7 51 25.4 | +4.530 | 1 | 38 52 4.7 | +9.49 | 1 | F; L; R; vgbM; r; am st ... | 3 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 1608 | 3108 | ..... | ..... | 7 52 3.2 | +2.778 | 2 | 103° 59' 2.7" | + 9.49 | 2 | cF; S; vIE 90°; glbM; am st. | 2 |
| 1609 | 3109 | ..... | ..... | 7 52 12.0 | 1.565 | 1 | 141 55 10.1 | 9.47 | 1 | pF; S; R; vgpmbM | 1 |
| 1610 | ..... | III. 839 | ..... | 7 53 15.3 | 4.672 | 1 | 36 10 28.9 | 9.63 | 1 | eF; vS | 1 |
| 1611 | 480 | VI. 37 | ..... | 7 53 15.8 | 2.858 | 1 | 100 14 21.4 | 9.58 | 1 | Cl; pL; vRi; C; st 11...20... | 2* |
| 1612 | 481 | II. 544 | ..... | 7 53 39.5 | 3.409 | 1 | 73 54 23.9 | 9.63 | 1 | pB; pL; iR; vgbM; er; *225° 5, 60". | 3 |
| 1613 | ..... | VIII. 1 | ..... | 7 54 31.8 | 2.675 | 3 | 108 41 12.4 | 9.68 | 3 | Cl; B; pRi; iC; stS | 4 |
| 1614 | 482 | III. 605 | ..... | 7 54 45.3 | 3.586 | 1 | 66 13 22.6 | 9.72 | 1 | vF; S; iR | 2 |
| 1615 | 483, a | ..... | R. nova | 7 54 32.6 | 3.273 | ... | 80 7 43.3 | 9.71 | ... | γ in Lord Rosse's diagram .. | 0* |
| 1616 | ..... | ..... | D'Arrest, 51 | 7 54 40.8 | 3.27 | [2] | 80 12 48 | 9.70 | [2] | eF; III. 512 f10s.5; n50" ... | 0 |
| 1617 | 483 | III. 512 | ..... | 7 54 47.2 | 3.273 | 2 | 80 11 58.3 | 9.71 | 2 | F; S; R; psmbM; r | 3 |
| 1618 | 484 | III. 7 | ..... | 7 54 48.7 | 3.255 | 1 | 81 4 16.3 | 9.71 | 1 | F; vS; vIE; 2 st p | 3 |
| 5066 | ..... | ..... | ..... | 7 55 12.5 | ..... | ... | 65 25 19.4 | ..... | ... | See No. 5066. | |
| 1619 | 3111 | ..... | ..... | 7 56 1.4 | 1.004 | 6 | 150 29 10.5 | 9.75 | 6 | Cl; vB; vL; pRi; st 7...13... | 6 |
| 1620 | 3110 | ..... | ..... | 7 56 17.4 | 2.825 | 1 | 101 54 45.3 | 9.81 | 1 | F; vS; R; bet 3 st 13, 14 ... | 1 |
| 1621 | 3112 | ..... | ..... | 7 56 48.9 | 2.457 | 1 | 117 47 40.5 | 9.85 | 1 | Cl; B; pRi; pC | 1 |
| 1622 | 485 | ..... | ..... | 7 57 22.1 | 4.938 | 1 | 31 49 50.5 | 9.95 | 1 | pF; pL; R; psbM; *9, np 3'. | 1 |
| 1623 | 486 | III. 877 | ..... | 7 59 0.5 | 2.845 | 1 | 101 2 6.9 | 10.03 | 1 | cF; pL; R; vglbM; am st... | 2 |
| 1624 | 488 | VIII. 30 | ..... | 7 59 28.2 | 2.461 | (2) | 117 46 23.5 | 10.05 | 1 | Cl; vL; pRi; iC; st 10...15... | 3 |
| 1625 | 487 | III. 752 | ..... | 7 59 54.2 | 3.451 | 1 | 71 46 29.0 | 10.10 | 1 | eF; iE; vS *n | 2 |
| 1626 | 489 | II. 726 | ..... | 8 1 15.2 | 3.857 | 2 | 55 38 18.6 | 10.22 | 2 | pB; pL; R; vglbM; r; 2 st nf | 4 |
| 1627 | 3113 | ..... | ..... | 8 1 22.2 | 2.419 | 2 | 119 29 53.7 | 10.19 | 2 | Cl; pL; Ri; C; st 9, 13...14... | 2 |
| 1628 | 490 | III. 840 | ..... | 8 1 50.7 | 4.775 | 1 | 33 55 30.7 | 10.29 | 1 | pF; pL; R; psbM; *8, 164° 3 | 2 |
| 1629 | 491 | IV. 55 | ..... | 8 3 18.1 | 4.271 | 1 | 43 35 28.4 | 10.38 | 1 | ⊕; pB; pL; R; rrr st 20..... | 3 |
| 1630 | 3114 | VII. 11 | ..... | 8 4 7.8 | 2.819 | 2 | 102 24 59.0 | 10.40 | 2 | Cl; vL; Ri; iC; st 11...13 ... | 3 |
| 1631 | 492 | III. 710 | ..... | 8 4 26.2 | 4.404 | 1 | 40 30 20.4 | 10.48 | 1 | F; L; E; vgbM | 2 |
| 1632 | 3115 | ..... | B.A.C. 3073 | 8 4 42.2 | 2.817 | 1 | 102 30 54.5 | 10.45 | 1 | Nebulous * 6.7 | 1 |
| 1633 | 493 | II. 719 | ..... | 8 4 51.0 | 3.919 | 1 | 53 19 26.7 | 10.49 | 1 | F; pL; iR; vgbM; * nr | 3* |
| 1634 | 494 | II. 627 | ..... | 8 6 2.9 | 3.524 | 1 | 68 13 36.1 | 10.57 | 1 | F; S; iE 45°; *8, np 4' | 4 |
| 1635 | 3116 | ..... | Δ. 563 | 8 6 26.4 | 2.215 | 3 | 126 58 24.1 | 10.57 | 3 | Cl; B; L; iC; iE; st 9...12... | 3 |
| 1636 | 3117 | ..... | Δ. 411 | 8 6 31.6 | 1.769 | 2 | 138 51 3.1 | 10.57 | 2 | Cl; B; L; iC; st 7...16 | 2 |
| 1637 | 496 | VI. 22 | C. H. | 8 6 50.1 | 2.964 | 2 | 95 22 30.6 | 10.62 | 3 | Cl; vL; pRi; pmC; st 9...13. | 7 |
| 1638 | 495 | ..... | ..... | 8 7 37.5 | 4.892 | 1 | 31 46 48.9 | 10.73 | 1 | pB; S; mE 0°; psmbM | 1 |
| 1639 | ..... | III. 711 | ..... | 8 8 46.0 | 4.438 | 1 | 39 32 33.9 | 10.73 | 1 | eF; cL; iE 45° ± | 1 |
| 1640 | 497 | II. 303 | ..... | 8 10 33.7 | 3.568 | 1 | 66 6 1.0 | 10.90 | 1 | F; S; R; mbM; r | 4 |
| 1641 | 498 | III. 256 | ..... | 8 10 43.9 | 3.094 | 1 | 88 48 46.3 | 10.91 | 1 | vF; cS; iF; 3Sst inv? | 3 |
| 1642 | 499 | III. 606 | ..... | 8 11 6.8 | 3.500 | 1 | 69 3 9.5 | 10.95 | 1 | vF; S; R; sbM; stellar | 3 |
| 1643 | 3118 | ..... | ..... | 8 11 21.1 | 2.499 | 1 | 117 2 10.9 | 10.93 | 1 | F; pL; gmbM; am 60 st | 1 |
| 1644 | ..... | ..... | D'Arrest, 52 | 8 11 42 | 3.51 | [3] | 68 34 36 | 10.98 | [3] | pL | 0 |
| 1645 | 500 | III. 607 | ..... | 8 12 13.6 | 3.512 | 1 | 68 26 14.6 | 11.02 | 1 | vF; cS; R | 2 |
| 1646 | 501 | II. 634 | ..... | 8 12 26.5 | 3.510 | 1 | 68 30 37.2 | 11.04 | 1 | cF; S; R; bM | 2 |
| 1647 | 3119 | ..... | ..... | 8 12 27.9 | 2.633 | 1 | 111 22 33.6 | 11.02 | 1 | vF; S; R; gbM; am 60 ± st.. | 1 |
| 1648 | ..... | III. 288 | ..... | 8 12 48.8 | 2.549 | 1 | 115 1 53.2 | 11.04 | 1 | vF; cL; er | 1 |
| 1649 | { 503 = 3120 } | VII. 64 | ..... | 8 12 58.1 | 2.421 | 3 | 120 12 19.8 | 11.06 | 3 | { Cl; pL; pRi; iC; iR; } st 11...14. | 4 |
| 1650 | ..... | ..... | D'Arrest, 53 | 8 13 10 | 3.50 | [2] | 68 41 48 | 10.98 | [2] | vF; cE; 3vSst f | 0 |
| 1651 | 502 | VI. 39 | ..... | 8 13 15.1 | +2.444 | 1 | 119 18 33.1 | 11.07 | 1 | Cl; vL; cRi; iC; st 9, ... | 3 |
| 1652 | 3176 | ..... | ..... | 8 13 25.4 | -140.624 | 1 | 179 41 7.5 | 7.74 | 1 | F; S; R; glbM; Polariss. Austr. | 1* |
| 1653 | ..... | II. 259 | ..... | 8 14 16.8 | +3.543 | 1 | 66 57 59.4 | 11.18 | 1 | F; S; iF; r | 1 |
| 1654 | 3121 | III. 902 | ..... | 8 14 49.0 | 2.818 | 2 | 102 52 35.0 | 11.20 | 2 | F; vIE; gbM; r; am 50 st ... | 3 |
| 1655 | 3122 | ..... | ..... | 8 15 35.1 | 2.272 | 4 | 125 46 36.2 | 11.24 | 4 | * = h. 4083 in pS neb; am 70 st. | 4 |
| 1656 | 3123 | ..... | ..... | 8 15 44.3 | 2.435 | 1 | 119 52 8.5 | 11.25 | 1 | Cl; cL; pRi; pC; R; st 12... | 1 |
| 1657 | 504 | III. 753 | ..... | 8 17 3.0 | 3.488 | 2 | 69 13 21.1 | 11.37 | 3 | vF; pS; R; glbM; * p 75"... | 4 |
| 1658 | 3124 | ..... | ..... | 8 17 39.0 | 2.461 | 1 | 119 2 32.8 | 11.46 | 1 | Cl; pmCM; iF; st 9, 10...13. | 1 |
| 1659 | 3125 | ..... | ..... | 8 17 39.2 | 2.369 | 1 | 122 31 10.1 | 11.47 | 1 | Cl; F; S; R; gbM; st 15 ... | 1 |
| 1660 | 505 | II. 315 | ..... | 8 18 41.2 | 3.615 | 1 | 63 35 7.7 | 11.49 | 1 | pF; S; R; vsbM* | 2 |
| 1661 | 506 | III. 599 | | 8 19 34.0 | 3.511 | 1 | 68 3 46.8 | 11.56 | 1 | vF; pL; iF; r; * sp 2' | 2 |
| 1662 | 507 | III. 234 | | 8 23 58.8 | +3.529 | 1 | 66 58 8.1 | +11.87 | 1 | vF; S; stellar | 2 |

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|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 1663 | 3126 | ..... | ..... | 8 24 27.7 | +0.438 | 1 | 157° 39' 23.2" | +11".84 | 1 | F; pS; R; gbM | 1 |
| 1664 | 508 | ..... | ..... | 8 24 32.8 | 4.510 | 2 | 36 41 28.9 | 11.93 | 2 | eF; S; R; *95°; p of 2 | 2 |
| 1665 | 509 | III. 292 | ..... | 8 24 48.6 | 3.691 | 1 | 59 59 13.9 | 11.93 | 2 | vF; pL; R; lbM; r; *nr ... | 4 |
| 1666 | 510 | ..... | ..... | 8 25 8.2 | 4.500 | 2 | 36 44 52.5 | 12.05 | 2 | cF; S; R; f of 2; *310° | 2 |
| 1667 | 510, a | ..... | R. nova | 8 25 8.2 | 4.500 | :: | 36 40 52.5 | 12.05 | :: | Place from 510 h. by MS. ... | 0* |
| 1668 | 510, b | ..... | R. nova | 8 25 + | ..... | ... | 36 44 + | ..... | ... | No description or place | 0 |
| 1669 | 511 | ..... | ..... | 8 25 27.2 | 3.628 | 1 | 62 32 51.4 | 11.98 | 1 | eF | 1 |
| 1670 | 512 | II. 318 | ..... | 8 26 43.8 | 3.661 | 2 | 61 3 35.1 | 12.07 | 2 | F; vLE; mbM; r | 3 |
| 1671 | 3130 | ..... | ..... | 8 26 48.7 | 1.170 | 2 | 150 38 29.3 | 12.01 | 2 | Cl; pS; lRi; IC | 2 |
| 1672 | { 513 = 3127 } | IV. 35 | ..... | 8 26 57.1 | 2.771 | 2 | 105 39 51.8 | 12.06 | 2 | F; S; att to *13; *7 nf, 10 ^s ... | 3 |
| 1673 | 3128 | ..... | ..... | 8 27 10.4 | 2.830 | 1 | 102 41 44.4 | 12.08 | 1 | B; S; E; psbM; bet 2 st..... | 1 |
| 1674 | 3129 | II. 266 | ..... | 8 27 14.9 | 2.628 | 3 | 112 29 47.4 | 12.08 | 3 | cB; L; vmE 110° 3 | 5 |
| 1675 | 515 | III. 257 | ..... | 8 28 48.7 | 3.093 | 1 | 88 48 50.0 | 12.20 | 1 | eF; pL; iF | 2 |
| 1676 | 514 | II. 319 | ..... | 8 29 0.5 | 3.662 | 3 | 60 49 18.6 | 12.22 | 3 | F; pS; R; bM; r..... | 4 |
| 1677 | 3131 | ..... | ..... | 8 30 27.5 | 2.178 | 3 | 130 11 3.7 | 12.29 | 3 | *9 inv in pB, pL, R, neb ... | 3† |
| 1678 | { 516 = 3132 } | VII. 63 | ..... | 8 31 28.3 | 2.476 | 2 | 119 28 1.1 | 12.37 | 2 | Cl; cL; pRi; pC; st 11...13.. | 4 |
| 1679 | ..... | III. 982 | H. O. N. | 8 31 32.3 | 6.536 | 1 | 16 45 45.1 | 12.47 | 1 | vF; S; stellar | 1 |
| 1680 | ..... | III. 235 | ..... | 8 31 51.1 | 3.539 | 1 | 65 57 15.6 | 12.42 | 1 | eF; S | 1 |
| 1681 | 517 | ..... | M. 44 | 8 32 9.0 | 3.462 | 1 | 69 32 36.2 | 12.44 | 1 | Præsepe Cancri | 3 |
| 1682 | ..... | III. 983 | H. O. N. | 8 32 33.3 | 6.501 | 1 | 16 51 47.2 | 12.54 | 1 | vF; S; stellar | 1 |
| 1683 | 3133 | ..... | ..... | 8 32 58.2 | 2.357 | 1 | 124 16 9.1 | 12.47 | 1 | Cl; pmC; irr Δ; st 13 | 1 |
| 1684 | 518 | I. 204 | ..... | 8 33 37.9 | 4.342 | 4 | 39 17 45.8 | 12.56 | 4 | cB; S; E 130° ±; psmbM*?.. | 5 |
| 1685 | 3134 | ..... | ..... | 8 33 41.5 | 1.596 | 2 | 144 37 47.0 | 12.50 | 2 | pB; S; R; 3 or 4 vS st p nr... | 2 |
| 1686 | 519 | ..... | ..... | 8 34 20.5 | 3.005 | 1 | 93 37 53.4 | 12.50 | 1 | vF; pL; gbM; r; 2 pB st s, sf | 1 |
| 1687 | 3136 | ..... | ..... | 8 34 20.5 | 2.000 | 1 | 135 43 55.5 | 12.55 | 1 | Cl; S; st L & S | 1 |
| 1688 | { 521 = 3135 } | III. 49 | ..... | 8 34 51.4 | 3.345 | 3 | 75 13 2.6 | 12.62 | 3 | F; S; vLE 135° ±; psbM..... | 5 |
| 1689 | 522 | II. 727 | ..... | 8 35 17.8 | 3.802 | 2 | 54 47 16.5 | 12.65 | 3 | F; L; R; r | 4 |
| 1690 | ..... | II. 908 | ..... | 8 35 58.9 | 6.024 | 1 | 19 11 53.8 | 12.76 | 1 | pB; pL; iF; er | 1 |
| 1691 | 520 | I. 288 | ..... | 8 37 4.6 | 8.188 | 1:: | 11 15 26.7 | 12.89 | 1 | vB; cL; IE 90° ±; g, svmbM. | 2 |
| 1692 | 523 | ..... | ..... | 8 37 28.1 | 4.503 | 1 | 35 36 46.6 | 12.82 | 1 | eF; psbM | 1 |
| 1693 | 4017 | ..... | Δ. 609 | 8 37 45.6 | 2.423 | 1 | 122 9 4.7 | 12.79 | 1 | Cl; pS; lRi; IC; viF; st 12, 13 | 1 |
| 1694 | 3137 | ..... | ..... | 8 37 50.2 | 2.060 | 2 | 134 27 15.7 | 12.79 | 2 | Cl; L; Ri; pmE; st 11...14... | 2 |
| 1695 | 3138 | ..... | ..... | 8 38 1.3 | 1.977 | 2 | 136 42 16.0 | 12.80 | 2 | Cl; pS; mC; iR; gbM; st 13...15. | 2 |
| 1696 | ..... | III. 50 | ..... | 8 38 43.9 | 3.309 | 1 | 76 54 43.4 | 12.88 | 1 | eF; cL; R; lbM | 1* |
| 1697 | 3139 | ..... | ..... | 8 38 59.6 | 2.800 | 1 | 104 47 19.7 | 12.89 | 1 | vF; vS; R; bM; *15m nr ... | 1 |
| 1698 | 524 | ..... | ..... | 8 39 29.7 | 3.309 | 1 | 76 53 9.2 | 12.94 | 1 | Cl; st 9...10 | 1 |
| 1699 | ..... | D'Arrest, 54 | ..... | 8 40 20 | 3.43 | [1] | 70 27 48 | 12.99 | [1] | eF | 0 |
| 1700 | 525 | ..... | ..... | 8 40 20.3 | 4.183 | 1 | 42 25 39.3 | 13.01 | 1 | Cl; IC | 1 |
| 1701 | 3140 | ..... | ..... | 8 40 50.8 | 1.694 | 1:: | 143 27 29.7 | 12.99 | 1:: | Cl; L; P; IC; st 10...13 | 1 |
| 1702 | 3142 | ..... | ..... | 8 41 3.4 | 1.928 | 1 | 138 16 31.0 | 13.00 | 1 | Cl; pL; P; IC; st 13 | 1 |
| 1703 | 3141 | ..... | Δ. 489? 490? | 8 41 7.1 | 2.174 | 1 | 131 22 30.3 | 13.01 | 1 | Cl; pRi; lCM; st 12...13 ... | 1 |
| 1704 | 526 | II. 80 | ..... | 8 41 23.5 | 3.432 | 3 | 70 24 45.8 | 13.06 | 3 | B; pL; IE 10° or biN; mbM* | 5 |
| 1705 | 526 a | ..... | R. nova | 8 41 23 ± | ..... | ... | 70 24 ± | ..... | ... | Nearly in contact with h. 526 (see description of h. 526). | ? |
| 1706 | ..... | ..... | D'Arrest, 55 | 8 41 52 | 4.46 | [1] | 35 58 48 | 13.11 | [1] | vF; R; *15 p 12 ^s , 270° | 0 |
| 1707 | 527 | II. 48 | ..... | 8 42 1.3 | 3.430 | 1 | 70 28 19.0 | 13.10 | 1 | eeF; pL; lbM; r | 2* |
| 1708 | 528 | VIII. 10 | ..... | 8 42 32.9 | 3.283 | 3 | 78 8 45.2 | 13.14 | 4 | Cl; vIC; P | 5 |
| 1709 | 529 | III. 294 | ..... | 8 42 59.4 | 3.685 | 1 | 58 36 38.1 | 13.17 | 1 | pF; vS; R; bM | 2 |
| 1710 | 529, a | ..... | R. nova | 8 43 ± | ..... | ... | 58 36 ± | ..... | ... | Makes e close D neb with h. 529. | 0 |
| 1711 | 530 | I. 242 | ..... | 8 43 26.1 | 4.348 | 2 | 38 9 35.3 | 13.21 | 2 | vB; L; vg, svmbM*10 | 3 |
| 1712 | 531 | | M. 67 | 8 43 34.3 | 3.291 | 4 | 77 40 36.0 | 13.20 | 5 | !; Cl; vB; vL; eRi; IC; st 10...15. | 8* |
| 1713 | 532 | I. 200 | | 8 43 58.0 | +3.746 | 3 | 56 3 38.9 | +13.23 | 3 | vB; vL; vmE 40° 9; gmbM.. | 5 |

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| 1714 | h. 533 | H. III. 712 | | h m s 8 45 2.1 | s +4.247 | 2 | 40° 18' 38".6 | +13.32 | 2 | F; pL; R; gbM; 4 S st nr ... | 3 |
| 1715 | 533, a | | R. 3 novæ | 8 45 ± | | ... | 40 18 ± | | ... | 4 (incl h. 533) nearly in a line | 0 |
| 1716 | | | | | | | | | | | |
| 1717 | | | | | | | | | | | |
| 1718 | ..... | II. 658 | ..... | 8 45 42.6 | 3.909 | 1 | 49 55 12.8 | 13.36 | 1 | pF; vS; mbM | 1 |
| 1719 | 534 | III. 831 | ..... | 8 46 48.6 | 4.366 | 1 | 37 23 56.2 | 13.44 | 1 | vF; S; R; psbM | 2 |
| 1720 | 535 | II. 823 | ..... | 8 46 53.6 | 4.333 | 1 | 38 7 1.2 | 13.44 | 1 | pB; mE 0° ±; psmbM | 2* |
| 1721 | 536 | II. 280 | ..... | 8 47 20.4 | 3.027 | 1 | 92 32 2.2 | 13.44 | 1 | pF; cS; E 90° ±; bet 2 st ... | 2† |
| 1722 | 536, a | ..... | R. 3 novæ | 8 47 ± | ..... | ... | 92 32 ± | 13.48 | ... | No description | 0 |
| 1723 | | | | | | | | | | | |
| 1724 | | | | | | | | | | | |
| 1725 | 536, b | ..... | R. nova | 8 48 0.0 | 3.025 | ... | 92 28 2.2 | ..... | ... | MS. No description | 0 |
| 1726 | 538 | ..... | ..... | 8 48 33.4 | 3.025 | 1 | 92 39 34.6 | 13.52 | 1 | vF; pS; R; r; *9 p | 1 |
| 1727 | ..... | ..... | D'Arrest, 56 | 8 48 43 | 3.025 | [2] | 92 34 48 | 13.53 | [2] | vF; S; R; *15 p, 44" n; h. 538 nr. | 0 |
| 1728 | 537 | IV. 66 | ..... | 8 48 46.5 | 4.438 | 1 | 35 41 54.1 | 13.57 | 1 | pB; fan-shaped; *11 att | 2† |
| 1729 | ..... | III. 625 | ..... | 8 48 54.1 | 3.892 | 1 | 50 7 22.8 | 13.56 | 1 | vF; vS | 1 |
| 1730 | ..... | II. 281 | ..... | 8 48 58.2 | 3.022 | 2 | 92 50 24.5 | 13.55 | 1 | vF; pS, R | 2 |
| 1731 | ..... | III. 841 | ..... | 8 49 15.0 | 4.536 | 1 | 33 46 55.0 | 13.60 | 1 | vF; S | 1 |
| 1732 | 540 | ..... | ..... | 8 50 3.8 | 4.065 | 1 | 44 33 26.5 | 13.65 | 1 | pB; L; E; vgbM *18 | 1 |
| 1733 | 3143 | ..... | ..... | 8 50 5.7 | 1.451 | 1 | 148 41 21.4 | 13.58 | 1 | eF; S; R; psbM | 1 |
| 1734 | 3144 | ..... | ..... | 8 50 52.5 | 2.632 | 2 | 114 8 0.1 | 13.67 | 2 | pF; S; R; vgpmbM | 2 |
| 1735 | 542 | ..... | ..... | 8 51 19.6 | 3.189 | ?? | 83 7 51.0 | 13.70 | 1:: | F; pL; R | 1* |
| 1736 | ..... | II. 557 | ..... | 8 51 19.6 | 3.189 | 1 | 83 9 32.0 | 13.70 | 1 | F; pL; mE | 1* |
| 1737 | 541 | III. 540 | ..... | 8 51 25.7 | 3.785 | 1 | 53 44 3.6 | 13.72 | 1 | vF; S; E 110° ±; 2 vF st inv. | 4 |
| 1738 | 539 | ..... | ..... | 8 51 28.6 | 8.388 | 1: | 10 14 54.9 | 13.83 | 1:: | pB; S; E 45° ±; *nf | 1 |
| 1739 | 543 | II. 529 | ..... | 8 51 59.2 | 2.997 | 2 | 94 21 30.2 | 13.74 | 2 | cF; pL; R; vgbM | 3 |
| 1740 | ..... | III. 264 | ..... | 8 52 29.4 | 3.017 | 2 | 93 11 6.1 | 13.77 | 2 | vF; vS; stellar | 2 |
| 1741 | 544 | ..... | ..... | 8 53 6.7 | 3.781 | 1 | 53 42 41.9 | 13.83 | 1 | eF; S; stellar | 1 |
| 1742 | 545 | II. 834 | ..... | 8 53 51.4 | 4.769 | 1 | 29 30 44.0 | 13.90 | 1 | cF; pS; iR; er | 2* |
| 1743 | 546 | ..... | ..... | 8 54 2.0 | 3.023 | 1 | 92 50 15.1 | 13.87 | 1 | vF; L; R; bM | 1* |
| 1744 | 547 | ..... | ..... | 8 55 0.5 | 3.018 | 1:: | 93 10 51.9 | 13.93 | 1 | eF; R | 1 |
| 1745 | 3145 | ..... | ..... | 8 55 30.8 | 2.097 | 1 | 135 20 55.2 | 13.94 | 1 | !; eeF; vL; vvmE 19° | 1† |
| 1746 | ..... | ..... | D'Arrest, 57 | 8 55 58 | 3.47 | [2] | 67 28 48 | 14.00 | [2] | D neb; pB; S, not R; comes s 4'. | 0 |
| 1747 | ..... | ..... | D'Arrest, 58 | 8 55 59 | 3.46 | [2] | 67 32 48 | 14.00 | [2] | vF; vS | 0 |
| 1748 | 549 | ..... | ..... | 8 56 5.6 | 4.305 | 1 | 37 41 23.9 | 14.03 | 1 | 4S st in neb | 1 |
| 1749 | 549, a | ..... | R. nova | 8 56 | ..... | ... | 37 41 | ..... | ... | Makes D neb with h. 549 ... | 0 |
| 1750 | 550 | I. 249 | ..... | 8 56 26.3 | 4.788 | 1 | 28 58 21.8 | 14.06 | 1 | cB; cL; E 90° ±; er | 3 |
| 1751 | ..... | III. 608 | ..... | 8 56 34.0 | 3.527 | 1 | 64 26 53.5 | 14.05 | 1 | eF; S; R; vlbM | 1 |
| 1752 | 551 | III. 60 | ..... | 8 56 43.6 | 3.399 | 2 | 70 59 30.5 | 14.05 | 2 | vF; S; R; r; *nr | 3 |
| 1753 | 548 | ..... | ..... | 8 57 9.1 | 7.170 | 1: | 12 56 4.8 | 14.16 | 1:: | pB; pL; E; vglbM | 1 |
| 1754 | 552 | III. 825 | ..... | 8 57 15.0 | 3.760 | 4 | 54 3 51.7 | 14.09 | 4 | eF; S; R; vglbM; *12. 345°, 50". | 5 |
| 1755 | ..... | ..... | D'Arrest, 59 | 8 57 28 | 3.39 | [4] | 71 7 5 | 14.09 | [4] | pF; S; R; bMN=*15 | 0 |
| 1756 | ..... | III. 291 | ..... | 8 57 34.4 | 3.514 | 3 | 64 0 27.3 | 14.11 | 3 | vF; cL; R; bMN; 2 c st p ... | 3* |
|  |  | ..... | D'Arrest, 60 | 8 57 35 | 3.53 | [2] | 64 0 24 | 14.10 | [2] | *15.16 inv in pB; pL neb 40" diam. | 0* |
| 1757 | ..... | ..... | D'Arrest, 61 | 8 57 55 | 3.53 | [1] | 64 6 12 | 14.12 | [1] | vF; vS | 0 |
| 1758 | ..... | III. 626 | ..... | 8 58 51.7 | 3.928 | 2 | 47 44 29.7 | 14.19 | 2 | vF; S; iF; lbM; r | 2 |
| 1759 | 553 | II. 828 | ..... | 8 58 52.0 | 4.387 | 1 | 35 35 23.3 | 14.21 | 1 | pB; pS; E; vgbM | 2 |
| 1760 | 554 | III. 647 | ..... | 8 59 32.7 | 3.811 | 1 | 51 48 43.9 | 14.23 | 1 | vF; cS; R | 3 |
| 1761 | 560 | III. 275 | ..... | 9 0 13.6 | 2.820 | 1 | 104 56 21.5 | 14.25 | 1 | vF; pS; bM; S* 30" n | 2 |
| 1762 | 557 | III. 236 | ..... | 9 0 16.2 | 3.450 | 1 | 67 59 30.1 | 14.27 | 1 | cF; vS; R; er; bet 2 pB st ... | 3 |
| 1763 | 558 | II. 520 | ..... | 9 0 16.9 | 3.136 | 1 | 86 2 37.8 | 14.26 | 1 | vF; pL; E; gbM; er | 3 |
| 1764 | 556 | ..... | ..... | 9 0 29.6 | 4.225 | 1 | 39 2 40.0 | 14.30 | 1 | eF; sbM *15; 1st of 3 | 1 |
| 1765 | 555 | I. 250 | ..... | 9 0 41.1 | 4.728 | 1 | 29 23 40.6 | 14.32 | 1 | cB; cL; 1E; psmbMLBN ... | 2 |
| 1766 | 559 | ..... | ..... | 9 0 51.3 | 4.224 | 2 | 39 0 48.6 | 14.32 | 2 | pF; S; E; psbM; 2nd of 3 ... | 2 |
| 1767 | 559, a | ..... | R. nova | 9 0 ± | ..... | ... | 39 ± | ..... | ... | One of 4 (h. 556, 559, 561); one vF; one E. | 0 |
| 1768 | 562 | II. 490 | ..... | 9 0 56.7 | +3.694 | 3 | 56 18 26.3 | +14.31 | 3 | F; L; mE 150°; r; 2 st n | 4 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 1769 | h. 561 | H. | | h m s | s | | 39° 4' 21.1" | +14.27 | 2 | vF; vS; lE; 3rd of 3 | 2 |
| 1770 | 3146 | ..... | ..... | 9 1 0.0 | +4.226 | 2 | 113 5 19.6 | 14.32 | 1 | eF; lE; lbM? | 1 |
| 1771 | 564 | I. 2 | ..... | 9 1 27.6 | 2.671 | 1 | 82 23 38.9 | 14.43 | 2 | cB; cL; R; vg, vsmbM; r? | 7 |
| 1772 | 563 | ..... | ..... | 9 2 52.2 | 3.195 | 2 | 44 28 15.5 | 14.45 | 1 | pB; L; R; vgbM; r | 1 |
| 1773 | 565 | III. 61 | ..... | 9 2 55.9 | 4.014 | 1 | 71 44 55.2 | 14.44 | 1 | vF; S; R; am 5S st; (PD 70°) | 2* |
| 1774 | 566 | II. 564 | ..... | 9 3 1.4 | 3.377 | 1 | 54 24 3.7 | 14.49 | 4 | pB; S; R; psmbM | 6 |
| 1775 | 566, a | ..... | R. nova | 9 3 44.1 | 3.732 | 4 | 54 24 | ..... | ... | eF; companion of h. 566, 567. | 0 |
| 1776 | 567 | III. 826 | ..... | 9 3 | ..... | ... | 54 29 46.3 | 14.51 | 1 | vF; S; R; S* 7.5 p | 2 |
| 1777 | { 569 = 3147 } | I. 66 | ..... | 9 4 3.5 | 3.728 | 1 | 104 14 58.2 | 14.54 | 2 | B; S; pmE 90°±; psmbM... | 3 |
| 1778 | 568 | I. 167 | ..... | 9 4 50.4 | 2.837 | 2 | 49 21 24.4 | 14.58 | (1) | cB; R; mbMBN | 2 |
| 1779 | ..... | III. 295 | ..... | 9 5 16.1 | 3.858 | (1) | 59 23 25.4 | 14.58 | 1 | vF; vS; R; 2pB st sp | 1 |
| 1780 | { 571 = 3148 } | I. 59 | ..... | 9 5 21.2 | 3.613 | 1 | 113 36 36.3 | 14.61 | 3 | B; L; mE63°7; gmbM | 5 |
| 1781 | 570 | I. 216 | ..... | 9 6 5.8 | 2.670 | 3 | 20 12 11.7 | 14.69 | 1 | B; pL; lE90°±; mbM; r; vS*sf inv. | 4 |
| 1782 | 3150 | ..... | ..... | 9 6 25.9 | 5.535 | 1 | 157 21 50.0 | 14.60 | 1 | vF; vS; mE105° | 1 |
| 1783 | 3149 | ..... | ..... | 9 6 36.0 | 0.866 | 1:: | 131 51 37.1 | 14.67 | 3 | !; O; pB=*9; vS; R; am st. | 4 |
| 1784 | 572 | ..... | ..... | 9 7 10.6 | 2.253 | 3 | 54 59 4.8 | 14.76 | 2 | vF; S; R; * pl ^s , n5' | 2 |
| 1785 | 573 | III. 296 | ..... | 9 8 11.6 | 3.705 | 2 | 58 31 50.8 | 14.76 | 1 | eF; S; R; lbM | 2 |
| 1786 | 575 | III. 62 | ..... | 9 8 17.0 | 3.624 | 1 | 70 27 55.8 | 14.76 | 1 | vF; S; R; r | 2 |
| 1787 | 575 | III. 63 | ..... | 9 8 21.5 | 3.392 | (1) | 70 28 25.8 | 14.76 | 1 | vF; S; R; r | 2 |
| 1788 | ..... | II. 708 | ..... | 9 8 21.8 | 3.392 | (1): | 47 27 36.4 | 14.78 | 1 | pB; S; stellar | 1* |
| 1789 | 574 | III. 832 | ..... | 9 8 31.6 | 3.899 | 1 | 36 54 12.0 | 14.80 | 1 | vF; S; lE; * att; * inv | 2 |
| 1790 | ..... | III. 878 | ..... | 9 8 39.8 | 4.271 | 1 | 25 18 38.6 | 14.82 | 2 | vF; L; R; mbM | 2 |
| 1791 | 577 | ..... | ..... | 9 8 45.5 | 4.971 | 2 | 69 13 19.7 | 14.79 | 1 | vF; S; R; np of 2 | 1* |
| 1792 | ..... | ..... | D'Arrest, 62 | 9 8 54.8 | 3.413 | [1] | 69 22 9 | 14.80 | [3] | vF; vS; h. 578 f7.5; Δ.P.D. 118". | 0* |
| 1793 | 3152 | ..... | Δ. 265 | 9 9 5 | 3.34 | [3] | 154 17 18.8 | 14.76 | 4 | !; ⊕; vL; eRi; vgeCM; 45°d; st 13...15. | 4 |
| 1794 | 578 | ..... | ..... | 9 9 9.9 | 1.185 | 4 | 69 21 43.3 | 14.81 | 1 | vF; S; R; sf of 2 | 1 |
| 1795 | ..... | III. 749 | ..... | 9 9 12.3 | 3.410 | 1: | 17 34 40.4 | 14.88 | 1 | F; cS; bM | 2 |
| 1796 | { 580 = 3151 } | II. 505 | ..... | 9 9 35.0 | 5.953 | 1 | 105 43 14.6 | 14.82 | 2 | pB; pS; E 45°±; psmbM | 3 |
| 1797 | ..... | II. 868 | ..... | 9 9 37.1 | 2.817 | 2 | 25 9 42.1 | 14.87 | (1) | F; S; iF; 1st of 2 | 1 |
| 1798 | 576 | II. 869 | ..... | 9 9 39.0 | 4.975 | (1) | 25 10 11.1 | 14.87 | 1 | F; S; E; 2nd of 2 | 2 |
| 1799 | 3153 | III. 242 | ..... | 9 9 41.2 | 4.974 | 1 | 113 2 16.5 | 14.85 | 1 | F; S; lE; gbm | 3 |
| 1800 | 579 | ..... | ..... | 9 10 3.6 | 2.688 | 1 | 28 57 59.7 | 14.89 | 1 | F; pmE | 1 |
| 1801 | 3154 | ..... | Δ. 564 | 9 10 17.0 | 4.684 | 1 | 126 1 53.8 | 14.86 | 2 | !; OpB; pL; R; vglbM; in L, C, Cl. | 2† |
| 1802 | 3155 | ..... | ..... | 9 10 21.5 | 2.417 | 2 | 116 14 46.4 | 14.88 | 1 | eF; *11 att | 1 |
| 1803 | 3156 | ..... | ..... | 9 10 39.7 | 2.628 | 1 | 159 3 42.5 | 14.85 | 1 | pF; vS; R; glbM | 1 |
| 1804 | 581, a | ..... | R. nova | 9 10 41.4 | 0.713 | 1:: | 55 49 34.9 | 14.88 | :: | R.MS. No description | 0* |
| 1805 | 581, b | ..... | R. nova | 9 10 43.8 | 3.680 | :: | 55 19 34.9 | 14.88 | :: | R.MS. No description | 0* |
| 1806 | 581 | ..... | ..... | 9 10 43.8 | 3.680 | :: | 55 40 39.3 | 14.91 | 2 | vF; E; l. 113 f | 2* |
| 1807 | ..... | ..... | D'Arrest, 63 | 9 10 50.9 | 3.680 | 1 | 55 47 48 | 14.91 | [2] | vF; vS; R; h. 581, 6' n | 0* |
| 1808 | 581, c | ..... | R. nova | 9 10 52 | 3.68 | [2] | 55 29 4.9 | 14.92 | :: | R.MS. No description | 0* |
| 1809 | 581, d | ..... | R. nova | 9 10 53.4 | 3.680 | :: | 55 47 34.9 | 14.93 | :: | R.MS. No description | 0* |
| 1810 | 582, a | ..... | R. nova | 9 10 58.4 | 3.680 | :: | 55 28 34.9 | 14.93 | :: | R.MS. No description | 0* |
| 1811 | 582 | I. 113 | ..... | 9 11 3.1 | 3.680 | :: | 55 39 34.9 | 14.93 | 2 | cB; cL; lE; mbf; 3 st s | 4* |
| 1812 | 582, b | ..... | R. nova | 9 11 12.9 | 3.680 | 2 | 55 40 20.3 | 14.92 | :: | β in Lord R.'s diag. } v nr l. | 0* |
| 1813 | 582, c | ..... | R. nova | 9 11 14.5 | 3.680 | :: | 55 27 34.9 | 14.92 | :: | α in Lord R.'s diag. } | 0* |
| 1814 | 582, d | ..... | R. nova | 9 11 16.0 | 3.680 | :: | 55 27 34.9 | 14.92 | :: | R.MS. No description | 0* |
| 1815 | 582, e | ..... | R. nova | 9 11 17.6 | 3.680 | :: | 55 42 29.3 | 14.92 | :: | ε of Lord R.'s diagram | 0* |
| 1816 | 3157 | ..... | ..... | 9 11 32.6 | 3.680 | :: | 158 45 49.0 | +14.90 | 1 | F; pS; R; glbM | 1 |
| | | | | 9 11 41.7 | +0.760 | 1 | | | | | |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 1817 | 582, f | ..... | R. 2 novæ | 9 11 ± | ..... | ... | 55 40 ± | ..... | ... | 2 of 15 seen..... | 0* |
| 1818 | | | | | | | | | | | |
| 1819 | 585 | ..... | ..... | 9 11 45.3 | +2.817 | 1 | 105 53 11.2 | +14.94 | 1 | eF; R; bM; *f8 ^s .5..... | 1 |
| 1820 | 583 | III. 627 | ..... | 9 11 50.3 | 3.813 | 1 | 50 7 15.1 | 14.97 | 1 | vF; vS; R | 3 |
| 1821 | 582, g | ..... | R. nova | 9 12 6.0 | 3.680 | :: | 55 46 35.3 | 14.98 | :: | ζ of Lord R.'s diagram | 0* |
| 1822 | 586 | III. 827 | ..... | 9 12 13.5 | 3.714 | 1 | 54 2 26.7 | 14.99 | 1 | cF; S; R; *10 np 2' | 3 |
| 1823 | 584 | I. 205 | ..... | 9 12 19.6 | 4.187 | 1 | 38 25 33.3 | 15.01 | 1 | vB; L; vmE 150° 8; vsmbM = *10. | 3 |
| 1824 | 3158 | ..... | ..... | 9 12 29.8 | 1.357 | 1 | 152 28 51.8 | 14.96 | 1 | F; vS; bet 2 st..... | 1 |
| 1825 | ..... | III. 64 | ..... | 9 12 41.2 | 3.385 | 1 | 70 28 52.3 | 15.01 | 1 | S* and neb | 1 |
| 1826 | ..... | III. 628 | ..... | 9 12 53.2 | 3.832 | 1 | 49 15 51.9 | 15.03 | 1 | cF; cS | 1 |
| 1827 | 3159 | ..... | ..... | 9 13 2.9 | 2.392 | 1 | 127 25 37.3 | 15.01 | 1 | vF; S; R; *12 att sf | 1 |
| 1828 | 587, a | ..... | R. nova | 9 13 30 | ..... | ... | 105 55 | ..... | ... | np 587 h.; close | 0 |
| 1829 | 587 | III. 488 | ..... | 9 13 30.4 | 2.819 | 1 | 105 55 14.5 | 15.05 | 1 | vF; cL; E 45° ±; glbM; *11 sf 9 ^s . | 2 |
| 1830 | 3160 | ..... | ..... | 9 13 52.9 | 2.330 | 1 | 129 57 21.8 | 15.06 | 1 | eF; cL; R; vglbM rr | 1 |
| 1831 | 588 | III. 629 | ..... | 9 14 20.7 | 3.826 | 1 | 49 16 29.6 | 15.12 | 1 | vF; cS; R; *10 p 2'; 1st of 2 | 2 |
| 1832 | 590 | III. 630 | ..... | 9 14 24.2 | 3.827 | 1 | 49 14 39.6 | 15.12 | 1 | vF; S; vgbM; 2nd of 2 | 2* |
| 1833 | 589 | III. 714 | ..... | 9 14 30.9 | 4.108 | 2 | 40 11 39.9 | 15.13 | 2 | cF; cS; vLE; pglbM; 1st of 2 | 3 |
| 1834 | 589, a | ..... | R. nova | 9 14 ± | ..... | ... | 40 11 ± | ..... | ... | Seen with h. 589, 591 | 0 |
| 1835 | 592 | I. 132 | ..... | 9 14 41.5 | 2.895 | 1 | 101 18 57.6 | 15.12 | 1 | pB; pL; R; gmbMN | 4 |
| 1836 | 591 | III. 713 | ..... | 9 14 44.2 | 4.108 | 2 | 40 9 20.2 | 15.14 | 2 | cF; cS; lE; bM; 2nd of 2 ... | 3 |
| 1837 | 593 | I. 137 | ..... | 9 15 45.1 | 3.684 | 3 | 54 53 13.7 | 15.19 | 3 | vB; pL; R; smbM | 4 |
| 1838 | 594 | III. 520 | ..... | 9 16 48.2 | 2.920 | 1 | 99 50 3.2 | 15.24 | 1 | cF; S; E; bet 2 st 12, 16 ... | 2 |
| 1839 | ..... | II. 57 | ..... | 9 17 8.3 | 3.259 | 1 | 77 46 1.8 | 15.26 | 1 | F; vS, p of 2 | 1 |
| 1840 | ..... | II. 58 | ..... | 9 17 11.2 | 3.258 | 1 | 77 46 16.1 | 15.27 | 1 | pF; S, f of 2 | 1 |
| 1841 | 3161 | ..... | ..... | 9 17 11.3 | 2.710 | 2 | 112 34 33.8 | 15.26 | 2 | B; S; R; gbM..... | 2 |
| 1842 | 3162 | ..... | ..... | 9 17 21.9 | 2.016 | 1 | 140 30 21.5 | 15.25 | 1 | Cl; lC | 1 |
| 1843 | 3163 | ..... | ..... | 9 17 28.1 | 1.694 | 7 | 147 42 57.5 | 15.25 | 7 | !!; O = *8; vS; R; *15, 59° 13, 13'. | 8 |
| 1844 | 595 | III. 846 | ..... | 9 17 37.9 | 4.454 | 1 | 32 1 44.8 | 15.26 | 1 | cF; S; E; vglbM | 2 |
| 1845 | 597 | II. 546 | ..... | 9 18 8.2 | 3.255 | 5 | 77 57 53.6 | 15.32 | 6 | pF; pS; R; bM; p of 2, 109° | 7 |
| 1846 | 597, a | ..... | R. nova | 9 18 | ..... | ... | 77 58 | ..... | ... | Forms Δ with 2 E neb | 0 |
| 1847 | 598 | II. 547 | ..... | 9 18 13.1 | 3.255 | 6 | 77 58 34.9 | 15.33 | 6 | vF; pL; R; bM; f of 2 | 7 |
| 1848 | 596 | I. 260 | ..... | 9 18 33.5 | 4.758 | 2 | 26 54 27.1 | 15.37 | 2 | B; cS; R; mbM; am st | 3 |
| 1849 | 3164 | ..... | ..... | 9 19 30.4 | 2.502 | 1 | 123 29 36.4 | 15.38 | 1 | vF; S; vglbM; rrr; st 11m... | 1 |
| 1850 | 599 | ..... | ..... | 9 19 42.4 | 3.445 | 1:: | 66 22 59.3 | 15.41 | 1 | eF; vS; E 90° ± | 1 |
| 1851 | 3165 | ..... | ..... | 9 20 8.5 | 2.740 | 1 | 111 8 37.6 | 15.42 | 1 | eeF; pL | 1 |
| 1852 | 3168 | ..... | ..... | 9 20 11.4 | 1.370 | 2 | 153 12 29.0 | 15.40 | 3 | F; S; R; pmbM; B*nr | 3 |
| 1853 | 3166 | ..... | ..... | 9 20 12.5 | 2.627 | 2 | 117 25 24.9 | 15.43 | 2 | cF; S; R; gmbM | 2 |
| 1854 | 600 | II. 555 | ..... | 9 20 24.7 | 2.904 | 1 | 101 2 12.2 | 15.44 | 1 | pF; pS; vLE; vglbM; r | 2 |
| 1855 | 3167 | ..... | ..... | 9 20 41.0 | 2.688 | 1 | 114 11 43.5 | 15.45 | 1 | F; S; R; bM | 1 |
| 1856 | 602 | III. 297 | ..... | 9 21 59.9 | 3.562 | 2 | 59 49 57.2 | 15.54 | 2 | vF; S; R; vsbM*12 | 3 |
| 1857 | 603 | III. 8 | ..... | 9 22 2.3 | 3.195 | 1 | 81 39 42.2 | 15.54 | 1 | vF; E; er; 2 or 3 st inv | 4 |
| 1858 | 601 | ..... | ..... | 9 22 12.0 | 4.421 | 1 | 31 54 24.1 | 15.57 | 1 | vF; vS; R; vgbM; *7' s ... | 1 |
| 1859 | 3169 | ..... | ..... | 9 22 42.2 | 1.839 | 1 | 145 30 15.5 | 15.55 | 1 | F; pL; R; gmbM; am 80 st .. | 2 |
| 1860 | ..... | III. 276 | ..... | 9 24 5.4 | 2.861 | 1 | 104 6 31.2 | 15.64 | 1 | vF; vS; stellar..... | 1 |
| 1861 | 604.1 | I. 56 | ..... | 9 24 14.6 | 3.409 | 2 | 67 53 46.8 | 15.66 | 3 | cB; vL; E; gmbM; r; sp of 2 | 4+ |
| 1862 | 3170 | ..... | ..... | 9 24 15.4 | 2.592 | 1 | 119 46 47.5 | 15.65 | 1 | F; S; lE; psbM | 1 |
| 1863 | 604.2 | I. 57 | ..... | 9 24 16.3 | 3.410 | 2: | 67 52 50.1 | 15.67 | 2: | vF; cL; R; psbM; r; nf of 2 | 4+ |
| 1864 | 606 | II. 495 | ..... | 9 24 37.6 | 3.203 | 2 | 80 57 11.4 | 15.68 | 2 | F; pS; lE; gbM | 3 |
| 1865 | 607 | II. 506 | ..... | 9 25 2.9 | 2.830 | 1 | 106 7 27.0 | 15.70 | 1 | pF; S; lE 90...180; mbsf ... | 2 |
| 1866 | ..... | III. 977 | ..... | 9 25 15.9 | 7.880 | 1 | 9 37 30.0 | 15.80 | 1 | eF; vS | 1 |
| 1867 | 605 | ..... | ..... | 9 25 26.7 | 4.972 | 1 | 23 26 15.8 | 15.76 | 1 | eF; S; psbM | 1 |
| 1868 | 3171 | ..... | ..... | 9 25 37.0 | 1.992 | 3 | 142 17 26.0 | 15.70 | 3 | Cl; cL; pRi; pC; st 10...14. | 3* |
| 1869 | 608 | II. 40 | ..... | 9 26 15.3 | 3.228 | 1 | 79 13 53.1 | 15.77 | 1 | F; pL; R; gbM; p of 2 | 4 |
| 1870 | 609 | III. 513 | ..... | 9 26 33.1 | +3.227 | 1 | 79 16 23.4 | 15.78 | 1 | vF; S; R; bMN, f of 2 | 2 |
| 1871 | 3174 | ..... | ..... | 9 26 54.2 | -0.275 | 1 | 166 0 46.2 | 15.74 | 1 | pF; pL; R; gbM | 1 |
| 1872 | 610 | II. 260 | ..... | 9 26 57.2 | +3.408 | 2 | 67 40 32.3 | 15.81 | 2 | F; S; vLE..... | 3 |
| 1873 | 611 | III. 298 | | 9 27 24.1 | 3.589 | 1 | 57 40 57.2 | 15.84 | 1 | vF; cS; R; sbMN | 3 |
| 1874 | 3172 | | | 9 27 49.1 | +2.769 | 1:: | 110 13 55.2 | +15.84 | 1:: | eF; S; R; p of 2 | 1 |

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| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 1875 | 3173 | III. 597 | ..... | 9 28 2.3 | +2.768 | 2 | 110 17 59.8 | +15.86 | 2 | vF; pS; lE; vglbM; f of 2... | 3 |
| 1876 | 3175 | ..... | ..... | 9 28 32.8 | 2.840 | 1 | 105 46 48.4 | 15.88 | 1 | pB; S; R..... | 1 |
| 1877 | 3177 | ..... | ..... | 9 28 57.4 | 1.993 | 1 | 142 49 22.7 | 15.89 | 1 | Cl; pRi; pC; * taken..... | 1 |
| 1878 | ..... | ..... | D'Arrest, 64 | 9 29 32 | 3.43 | [1] | 66 10 24 | 15.94 | [1] | eF; vS; lE; vlbM; 1st of 3... | 0 |
| 1879 | ..... | ..... | D'Arrest, 65 | 9 29 34 | 3.43 | [1]:: | 66 12 12 | 15.94 | [1] | eF; S; 2nd of 3 | 0 |
| 1880 | ..... | ..... | D'Arrest, 66 | 9 29 42 | 3.43 | [1] | 66 8 18 | 15.95 | [1] | eF; vS; 3rd of 3 | 0 |
| 1881 | 3179 | ..... | ..... | 9 30 6.6 | 2.221 | 1:: | 136 18 58.8 | 15.96 | 1:: | Cl; eL; vRi; st L & S | 1 |
| 1882 | 3178 | II. 556 | ..... | 9 30 13.5 | 2.768 | 2 | 110 30 23.1 | 15.97 | 2 | pB; pS; vLE; gmbM | 5 |
| 1883 | 612 | III. 963 | ..... | 9 30 28.4 | 6.574 | 1 | 12 47 47.8 | 16.06 | 1 | eF; S; iFig; * f 3' | 2 |
| 1884 | 614 | III. 4 | ..... | 9 30 39.3 | 3.215 | 2 | 79 51 27.0 | 16.00 | 3 | vF; S; vLE; bM; Δ st nf..... | 5 |
| 1885 | 613 | ..... | ..... | 9 30 42.6 | 3.626 | 2 | 55 21 52.3 | 16.01 | 2 | F; pL; vLE 0°; vglbM..... | 2 |
| 1886 | 3180 | ..... | ..... | 9 31 15.5 | 2.756 | 2 | 111 24 53.9 | 16.03 | 2 | F; S; R; glbM; 2 or 3 S st nr | 2 |
| 1887 | 615 | III. 519 | ..... | 9 31 34.7 | 3.178 | (1) | 82 24 1.5 | 16.05 | 1:: | vF; pL; vgbM | 2 |
| 1888 | 616 | IV. 68 | ..... | 9 32 17.7 | 4.410 | 2 | 30 31 15.3 | 16.11 | 2 | eF; vS; R; vgvmbMN | 3 |
| 1889 | 3182 | ..... | ..... | 9 32 38.7 | 3.291 | 1:: | 74 32 3.3 | 16.11 | 1:: | eeF; susp | 1 |
| 1890 | 3181 | ..... | ..... | 9 32 44.3 | 3.292 | 1 | 74 26 8.3 | 16.11 | 1 | vF; S; R; n of 2 | 1 |
| 1891 | 620 | III. 541 | ..... | 9 32 45.9 | 3.659 | 1 | 53 29 0.6 | 16.12 | 1 | eF; pS; iR; glbM; r | 4 |
| 1892 | 617 | ..... | ..... | 9 33 7.8 | 5.746 | 1 | 16 22 12.4 | 16.18 | 1 | eF; *13 nr | 1 |
| 1893 | 618 | ..... | ..... | 9 33 12.5 | 5.149 | 1 | 20 45 24.1 | 16.17 | 1 | F; pL; R; vglbM; * n | 1 |
| 1894 | 621 | ..... | ..... | 9 33 24.7 | 3.131 | 1 | 85 46 2.7 | 16.19 | 1 | vF; R; gbm | 1 |
| 1895 | 619 | III. 315 | ..... | 9 33 39.4 | 5.734 | 1 | 16 23 43.3 | 16.21 | 1 | vF; vS; R; bM | 2 |
| 1896 | 622 | I. 114 | ..... | 9 34 34.3 | 3.571 | 4 | 57 31 54.6 | 16.22 | 3 | B; vL; lE; vgbM; p of 2 ... | 5 |
| 1897 | 623 | III. 751 | ..... | 9 34 46.9 | 3.660 | 1 | 53 6 33.9 | 16.23 | 1 | eF; vS; R; bM; r | 3 |
| 1898 | 626 | II. 275 | ..... | 9 34 49.3 | 3.084 | 1 | 89 1 56.6 | 16.22 | 2 | pF; pL; R; vglbM | 4 |
| 1899 | 624 | II. 491 | ..... | 9 34 51.5 | 3.572 | 4 | 57 25 34.9 | 16.23 | 4 | pB; pL; lE; vglbM; f of 2... | 5 |
| 1900 | 628 | III. 527 | ..... | 9 34 59.1 | 2.961 | 1 | 97 57 26.9 | 16.23 | 1 | vF; pS; iR; vglbM..... | 3 |
| 1901 | 627 | ..... | ..... | 9 35 7.4 | 3.573 | 1 | 57 21 1.2 | 16.24 | 1 | F; nf of 3..... | 1 |
| 1902 | 3183 | ..... | Δ. 397 | 9 35 16.9 | 2.143 | 1 | 139 41 32.9 | 16.23 | 1 | Cl; S; lRi; pC; st 13 | 1 |
| 1903 | 4018 | ..... | ..... | 9 35 22.9 | 2.628 | 1 | 119 24 42.2 | 16.24 | 1 | eF; pS; B*8m f | 1 |
| 1904 | 630 | I. 61 | ..... | 9 35 27.7 | 3.029 | 1 | 93 4 16.5 | 16.25 | 1 | B; cS; iR; bM; *9 sp 3°..... | 3 |
| 1905 | 625 | I. 285 | ..... | 9 35 35.6 | 5.048 | 1 | 21 26 21.7 | 16.29 | 1 | B; vL; mE 152° 4; st inv ... | 2 |
| 1906 | ..... | I. 282 | ..... | 9 35 47.6 | 6.111 | 1 | 14 15 5.9 | 16.33 | 1 | eB; pL; vF | 1 |
| 1907 | 631 | III. 521 | ..... | 9 36 17.2 | 2.937 | 1 | 99 44 57.7 | 16.29 | 1 | pF; pS; lE; psbM..... | 2 |
| 1908 | 632 | III. 528 | ..... | 9 36 18.4 | 2.948 | 1 | 98 58 2.7 | 16.29 | 1 | vF; pS; lE 0°±; vglbM..... | 3 |
| 1909 | 629 | I. 78 | ..... | 9 36 41.2 | 5.576 | 1 | 17 4 29.8 | 16.36 | 1 | vB; eL; R; psmbM; * inv f.. | 3 |
| 1910 | 3184 | ..... | ..... | 9 36 52.2 | 2.330 | 1 | 133 33 40.3 | 16.31 | 1 | Cl; P; E; st 10...11 | 1 |
| 1911 | 3185 | III. 289 | ..... | 9 37 7.5 | 2.791 | 1 | 109 49 54.9 | 16.33 | 1 | F; pS; R; bM; r; stellar ... | 4* |
| 1912 | 633 | III. 34 | ..... | 9 37 23.0 | 3.231 | (1) | 78 20 10.5 | 16.35 | 2:: | eF; vS; R; bM (? P.D. 15').. | 3 |
| 1913 | ..... | II. 311 | ..... | 9 38 10.3 | 2.780 | 3 | 110 37 58.7 | 16.39 | 3 | pB; pS; iR; mbM | 3 |
| 1914 | ..... | II. 624 | ..... | 9 38 39.5 | 3.156 | 1 | 83 41 19.3 | 16.41 | 1 | F; pS; lE 90°± | 1 |
| 1915 | 3186 | ..... | ..... | 9 38 52.0 | 2.825 | 1 | 107 44 26.6 | 16.42 | 1 | F; R; gbm; * f | 1 |
| 1916 | 634, a | ..... | R. nova | 9 38 | ..... | ... | 67 20 | ..... | ... | Makes a D neb with h. 634; which follows it. | 0 |
| 1917 | 634 | ..... | ..... | 9 38 55.9 | 3.391 | 1 | 67 20 5.9 | 16.43 | 1 | F; vS; bM; sp of 2 | 1 |
| 1918 | 635 | III. 277 | ..... | 9 38 58.1 | 2.884 | 1 | 103 41 8.9 | 16.43 | 1 | eF; S; R; bM; stellar; p of 2 | 2 |
| 1919 | 637 | III. 278 | ..... | 9 39 4.6 | 2.884 | 1 | 103 43 23.9 | 16.43 | 1 | eF; S; R; bM; stellar; f of 2 | 2 |
| 1920 | 636 | ..... | ..... | 9 39 18.1 | 3.391 | 1 | 67 16 32.5 | 16.45 | 1 | F; S; R; bM; nf of 2..... | 1 |
| 1921 | 3189 | ..... | ..... | 9 39 21.6 | 2.008 | 1 | 144 8 1.9 | 16.43 | 1 | Cl; P; lC; st mm..... | 1 |
| 1922 | 3187 | ..... | ..... | 9 39 28.0 | 2.778 | 1 | 110 56 47.5 | 16.45 | 1 | vF; S; * 20 f 1' | 1 |
| 1923 | 3188 | V. 50 | ..... | 9 39 32.5 | 2.619 | 2 | 120 32 50.5 | 16.45 | 2 | l; vF; vL; vg, vsbMN 4'; 19° 5 d. | 3 |
| 1924 | 638 | II. 717 | ..... | 9 40 2.0 | 3.823 | 1 | 45 15 27.0 | 16.50 | 1 | pF; pL; iR; bM; r..... | 2 |
| 1925 | 638, a | ..... | R. nova | 9 40 4.8 | 3.823 | ... | 45 16 27.0 | 16.48 | ... | RMS | 0 |
| 1926 | 638, b | ..... | R. nova | 9 40 4.8 | 3.823 | ... | 45 16 57.0 | 16.48 | ... | Suspected; MS | 0 |
| 1927 | 3191 | ..... | Δ. 397 | 9 40 5.0 | 2.167 | 1? | 139 47 14.1 | 16.47 | 1? | Cl; S; lRi; iF; st 12...15 ... | 1 |
| 1928 | 638, c | ..... | R. nova | 9 40 7.6 | 2.823 | ... | 45 12 27.0 | 16.48 | ... | MS | 0 |
| 1929 | 3190 | ..... | ..... | 9 40 10.4 | 2.634 | 1 | 119 48 2.4 | 16.48 | 1 | F; S; R; *12 att 320° | 1 |
| 1930 | 638, d | ..... | R. nova | 9 40 13.3 | 3.823 | ... | 45 21 27.0 | 16.49 | ... | MS | 0 |
| 1931 | 639 | V. 26 | ..... | 9 40 15.0 | 3.584 | 1 | 55 56 14.0 | 16.50 | 1 | l; eB; L; vimE 90°..... | 3+ |
| 1932 | 638, e | | R. nova | 9 40 30.2 | 3.823 | ... | 45 13 27.0 | 16.52 | ... | MS | 0 |
| 1933 | 640 | | | 9 41 1.2 | +3.825 | 1 | 45 1 50.5 | +16.55 | 1 | pF; R; bM; r; p of 2..... | 1 |

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| | h. | H. | | h m s | s | | | | | | |
| 1934 | 638, f | | R. nova | 9 41 4.0 | +3.823 | ... | 45° 15' 27.0 | +16.55 | ... | MS | 0 |
| 1935 | 641 | | | 9 41 7.2 | 3.825 | 1 | 45 0 16.5 | 16.55 | 1 | F; psbM; rr; f of 2..... | 1 |
| 1936 | 641, a | ..... | R. novæ | 9 41 ± | ..... | ... | 45 0 ± | ..... | ... | Several near | 0 |
| 1937 | | | | | | | | | | | |
| 1938 | ..... | ..... | D'Arrest, 67 | 9 41 32 | 3.49 | [1] | 54 38 7 | 16.56 | [1] | vF; pL; R; cometary | 0 |
| 1939 | 642 | ..... | ..... | 9 41 32.1 | 3.251 | 1 | 76 32 0.8 | 16.56 | 1 | F; pL; R; glbM | 1 |
| 1940 | 642, a | ..... | R. nova | 9 41 | ..... | ... | 76 32 | ..... | ... | 3 "novæ," with 642 (Vide h. 646, 648). | 0 |
| 1941 | 644 | ..... | ..... | 9 42 3.2 | 3.011 | 1 | 94 33 38.4 | 16.58 | 1 | eF; L; p of 2 | 1 |
| 1942 | 646 | III. 51 | ..... | 9 42 31.0 | 3.250 | 3 | 76 31 58.3 | 16.61 | 3 | eF; vS; R; *9 s | 4 |
| 1943 | 647 | ..... | ..... | 9 42 38.9 | 3.012 | 1 | 94 31 9.3 | 16.61 | 1 | F; R; vglbM; f of 2 | 1 |
| 1944 | 645 | I. 115 | ..... | 9 42 39.6 | 3.579 | 2 | 55 47 35.6 | 16.62 | 2 | pB; pS; vLE; mbM; *10 sf 100°. | 4 |
| 1945 | 648 | III. 52 | ..... | 9 42 54.1 | 3.249 | 1 | 76 36 18.9 | 16.63 | 1 | eF; pL; E; r | 2 |
| 1946 | 3192 | ..... | ..... | 9 42 58.1 | 2.782 | 1 | 111 5 19.6 | 16.62 | 1 | eF; vS; R; *9 s | 1 |
| 1947 | 643 | V. 23 | ..... | 9 43 9.9 | 5.466 | 1 | 17 8 23.4 | 16.68 | 1 | vF; vL; IE; r | 3 |
| 1948 | 3193 | ..... | ..... | 9 43 17.7 | 2.821 | 1 | 108 31 38.2 | 16.64 | 1 | F; S; R; lbM | 1 |
| 1949 | 649 | ..... | M. 81 | 9 43 48.9 | 5.066 | 1 | 20 16 10.0 | 16.70 | 1 | !; eB; eL; E 156°0; g, svmbMBrN. | 4 |
| 1950 | ..... | IV. 79 = 4H. ON | M. 82 | 9 43 52.3 | 5.142 | 1 | 19 34 16.3 | 16.71 | 1 | vB; vL; vmE "a beautiful ray." | 2* |
| 1951 | 650 | ..... | ..... | 9 44 0.3 | 3.497 | 2 | 60 7 7.4 | 16.68 | 2 | F; S; sbM *12; bet 2B st ... | 2 |
| 1952 | 3194 | ..... | B. 2686 | 9 44 1.8 | 1.975 | 2 | 145 45 42.8 | 16.66 | 2 | Cl; pL; pRi; iF; st 11...12 ... | 2 |
| 1953 | ..... | W. H. nova? | M. 81?? | 9 44 38.0 | 5.064 | 1 | 20 12 18.9 | 16.73 | 1 | vB; eL; mE; 5 or 6 st (?) inv | 1* |
| 1954 | 3197 | ..... | ..... | 9 45 5.8 | 1.674 | 1 | 152 2 12.3 | 16.71 | 1 | Cl; eL; IC | 1 |
| 1955 | 3195 | ..... | ..... | 9 45 6.2 | 2.705 | 1 | 116 22 6.6 | 16.72 | 1 | F; pS; R; lbM | 1 |
| 1956 | 3196 | II. 98 | ..... | 9 45 25.6 | 3.300 | 1 | 72 39 56.5 | 16.75 | 1 | ⊕; F; L; R; vglbM; rr; 2B st sp. | 4 |
| 1957 | 651 | II. 835 | ..... | 9 46 19.3 | 4.327 | 2 | 30 2 40.3 | 16.81 | 2 | eF; pS; IE; vgbM; *10 n 7' | 4 |
| 1958 | 652 | III. 254 | ..... | 9 46 26.5 | 3.097 | 1 | 87 55 58.0 | 16.80 | 1 | vF; vL; vmE 111°5 | 3 |
| 1959 | 3198 | ..... | ..... | 9 46 38.8 | 2.834 | 1 | 107 59 3.0 | 16.80 | 1 | vF; pS; R; lbM | 1* |
| 1960 | 3199 | ..... | ..... | 9 47 1.9 | 2.704 | 1 | 116 40 25.6 | 16.82 | 1 | pF; R | 1* |
| 1961 | 3201 | ..... | ..... | 9 47 41.3 | 2.707 | 1 | 116 37 56.5 | 16.85 | 1 | pF; S; R; gbM | 1* |
| 1962 | 3202 | III. 272 | ..... | 9 47 50.8 | 2.836 | 1 | 107 58 44.8 | 16.86 | 1 | F; pL; R; glbM | 2* |
| 1963 | 3200 | III. 600 | ..... | 9 47 53.6 | 3.293 | 1 | 72 54 4.1 | 16.87 | 1 | vF; S; vLE; gbM | 2 |
| 1964 | 656 | VI. 4 | ..... | 9 47 59.1 | 3.133 | 2 | 85 4 19.1 | 16.87 | 2 | F; pL; vLE; vgbM; rr; *7f90°. | 4 |
| 1965 | 3203 | ..... | ..... | 9 48 15.8 | 2.692 | 2 | 117 38 37.4 | 16.88 | 2 | pB; S; R; vgmbM; *11 att 203°8. | 2 |
| 1966 | ..... | III. 978 | ..... | 9 48 24.1 | 7.497 | 1 | 9 3 41.8 | 16.96 | 1 | eF; pL; vlbM; 2 S st s | 1 |
| 1967 | 3205 | ..... | ..... | 9 48 31.2 | 0.647 | 1 | 163 16 15.5 | 16.85 | 1 | F; L; iR; glbM; S * inv ... | 1 |
| 1968 | 3204 | III. 601 | ..... | 9 48 39.8 | 3.297 | 1 | 72 30 4.3 | 16.91 | 1 | vF; cS; vLE; er | 2 |
| 1969 | 654 | II. 333 | ..... | 9 48 42.7 | 5.376 | 1 | 17 9 25.2 | 16.94 | 1 | pF; vS; R; bM; *11 nr..... | 3 |
| 1970 | 653 | II. 903 | ..... | 9 48 44.4 | 6.102 | 1 | 13 10 9.5 | 16.95 | 1 | vF; pL; r | 2 |
| 1971 | 655 | II. 334 | ..... | 9 48 57.4 | 5.366 | 1 | 17 12 16.5 | 16.95 | 1 | vF; vS; vglbM | 3 |
| 1972 | ..... | II. 909 | H. ON 5 | 9 49 50.5 | 5.382 | 1 | 17 12 24.7 | 16.99 | 1 | F; pL; R; 3rd of 3..... | 1 |
| 1973 | 657 | II. 492 | ..... | 9 50 7.9 | 3.533 | 3 | 56 57 50.4 | 16.98 | 3 | pB; pL; E 90 ±; gbM; *9 nf | 4 |
| 1974 | ..... | III. 293 | ..... | 9 50 32.8 | 3.474 | 1 | 60 21 51.7 | 16.99 | 1 | eeF; eS; stellar (?)..... | 1* |
| 1975 | 659 | II. 59 | ..... | 9 50 39.1 | 3.209 | 1 | 78 58 42.7 | 16.99 | 1 | pB; pS; R; gmbMN; 3 st nr | 2 |
| 1976 | 3206 | III. 273 | ..... | 9 50 47.0 | 2.831 | 2 | 108 40 49.7 | 16.99 | 2 | vF; pS; IE; glbM | 3 |
| 1977 | ..... | III. 853 | ..... | 9 51 10.7 | 4.126 | 1 | 33 42 23.9 | 17.03 | 1 | vF; S; vglbM | 1 |
| 1978 | 660 | III. 542 | ..... | 9 51 18.7 | 3.585 | 1 | 53 55 47.9 | 17.03 | 1 | vF; pL; iR; vglbM | 4 |
| 1979 | 3207 | ..... | ..... | 9 51 19.5 | 3.261 | 1 | 74 53 56.9 | 17.03 | 1 | vvF; *14 att; *11 f | 1 |
| 1980 | 3208 | ..... | ..... | 9 51 32.2 | 2.848 | 1 | 107 30 25.9 | 17.03 | 1 | eF; S; R | 1 |
| 1981 | 3209 | II. 268 | ..... | 9 52 4.6 | 2.731 | 1 | 116 15 22.5 | 17.05 | 1 | pB; S; R; mbM | 2 |
| 1982 | 658 | I. 286 | ..... | 9 52 7.4 | 4.925 | (2) | 20 35 17.7 | 17.09 | 1 | eB; cL; mbM; R with ray... | 3 |
| 1983 | ..... | V. 47 | ..... | 9 52 24.3 | 4.119 | 1 | 33 38 27.7 | 17.09 | 1 | vB; L; mE 135° ± | 1 |
| 1984 | ..... | III. 934 | ..... | 9 52 34.6 | 3.241 | 1 | 76 19 59.7 | 17.09 | 1 | vF | 1 |
| 1985 | ..... | III. 596 | ..... | 9 52 37.0 | 2.786 | 2 | 112 7 58.4 | 17.08 | 2 | vF; cS; lbM; ΔS st np | 2 |
| 1986 | 3210 | | | 9 52 40.5 | 2.671 | 1 | 119 41 50.4 | 17.08 | 1 | vF; S; R; * att | 1 |
| 1987 | 3211 | | | 9 52 45.4 | +2.722 | 1 | 116 28 7.7 | +17.09 | 1 | vF; S; R; *13 att sf | 1 |

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| | h. | H. | | h m s | s | | | | | | |
| 1988 | 3212 | | | 9 52 50.7 | +2.832 | 1 | 108° 50' 56.7 | +17.09 | 1 | vF; S; R | 1 |
| 1989 | 3213 | | | 9 53 4.5 | 2.607 | 1 | 123 33 46.0 | 17.10 | 1 | pB; S; R; pmbM; bet 2 st... | 1 |
| 1990 | 661 | III. 24 | ..... | 9 53 17.7 | 3.367 | 1 | 66 55 52.6 | 17.12 | 1 | vF; S | 2 |
| 1991 | 3214 | ..... | ..... | 9 53 19.7 | 2.705 | 1 | 117 38 50.3 | 17.11 | 1 | pF; pS; R; vS st inv | 1 |
| 1992 | 3215 | II. 293 | ..... | 9 53 38.9 | 2.831 | 1 | 108 57 52.9 | 17.13 | 1 | pB; pS; iR; bM; p of 2..... | 2 |
| 1993 | 3216 | ..... | ..... | 9 53 53.3 | 2.655 | 1 | 120 52 53.2 | 17.14 | 1 | F; L; E; vgvbM | 1 |
| 1994 | 3217 | ..... | ..... | 9 54 2.5 | 2.832 | 1 | 108 57 58.5 | 17.15 | 1 | eF; R; lbM; f of 2..... | 1 |
| 1995 | 663 | ..... | ..... | 9 54 22.3 | 3.398 | 2 | 64 37 15.1 | 17.17 | 2 | pB; S; mE 90°±; psbMN... | 2 |
| 1996 | 664 | III. 478 | ..... | 9 54 25.4 | 3.525 | 1 | 56 37 10.4 | 17.18 | 1 | eF; S | 3 |
| 1997 | 3218 | ..... | ..... | 9 54 27.6 | 2.655 | 1 | 120 59 37.8 | 17.16 | 1 | pB; pS; R; gpmbM | 1 |
| 1998 | 662 | III. 916 | ..... | 9 54 36.7 | 4.298 | 1 | 29 13 26.7 | 17.19 | 1 | vF; vS; R; bM; *11, 142°-2 | 2 |
| 1999 | 665 | IV. 48 | ..... | 9 55 19.4 | 3.675 | 1 | 48 35 27.3 | 17.21 | 1 | eF; pL; E 45°±; vF * inv... | 2 |
| 2000 | 3219 | ..... | ..... | 9 55 46.4 | 2.120 | 2 | 144 6 16.3 | 17.21 | 2 | Cl; C; lE; st 13...16 | 2 |
| 2001 | 666 | II. 320 | ..... | 9 55 58.4 | 3.504 | 1 | 58 8 19.2 | 17.24 | 1 | F; S; R; sbM..... | 2 |
| 2002 | 3220 | ..... | ..... | 9 56 17.6 | 2.660 | 2 | 121 0 33.2 | 17.24 | 2 | F; S; R; glbM | 2 |
| 2003 | 3221 | ..... | ..... | 9 56 40.1 | 2.746 | 2 | 115 29 25.8 | 17.26 | 2 | cF; vL; vmE 82°-3; lbM ... | 2+ |
| 2004 | ..... | II. 898 | ..... | 9 56 54.3 | 3.242 | 1 | 75 49 0.4 | 17.28 | 1 | F; L red * n 3' | 1 |
| 2005 | 667 | ..... | ..... | 9 57 14.8 | 3.818 | 3 | 42 3 28.0 | 17.30 | 3 | pB; S; R; SmbM *12 | 3 |
| 2006 | 3222 | ..... | ..... | 9 58 3.2 | 2.716 | 1 | 117 46 13.6 | 17.32 | 1 | eF; L; Δ 2 st 8m | 1 |
| 2007 | 3224 | ..... | Δ. 297 | 9 58 11.2 | 1.934 | 3 | 149 26 46.6 | 17.32 | 3 | Cl; eL; IC; B; st 9...14..... | 3 |
| 2008 | 668 = 3223 | I. 163 | ..... | 9 58 14.3 | 2.988 | 2 | 97 2 32.9 | 17.33 | 2 | vB; L; vmE 45°; vg, vsmbMEN. | 3 |
| 2009 | 3225 | ..... | ..... | 9 59 14.8 | 2.627 | 1 | 123 32 36.4 | 17.38 | 1 | F; pS; R; gbM | 1 |
| 2010 | ..... | ..... | Auw. N. 26 | 9 59 18.4 | 3.247 | ... | 74 55 35.7 | 17.39 | ... | F; (Lassell, Mar. 31, 1848)... | 0 |
| 2011 | ..... | II. 305 | ..... | 9 59 26.0 | 3.003 | 1 | 95 51 17.9 | 17.43 | 1 | F; S; lE; er | 2 |
| 5067 | ..... | ..... | ..... | 9 59 51.1 | ..... | ... | 89 15 7.3 | ..... | ... | See No. 5067. | ... |
| 2012 | 3226 | ..... | ..... | 10 0 2.2 | 2.848 | 1 | 108 33 36.3 | 17.41 | 1 | F; pL; R; lbM; * s | 1 |
| 2013 | 3227 | ..... | ..... | 10 0 14.8 | 2.700 | 2 | 119 15 12.6 | 17.42 | 2 | cF; S; R; vgbM..... | 2 |
| 2014 | 669 | III. 65 | ..... | 10 0 40.4 | 3.299 | (1) | 70 53 43.5 | 17.45 | 1:: | eF; cS; vLE; r | 2* |
| 2015 | 670 | ..... | ..... | 10 0 45.2 | 3.195 | 1 | 79 20 43.5 | 17.45 | 1 | eF; S; psbM; 31 Leon sf 100" | 1 |
| 2016 | 671 | ..... | ..... | 10 0 54.9 | 3.296 | 1 | 71 4 49.8 | 17.46 | 1 | pB; pS; pmE; gbM | 1 |
| 2017 | 3228 | ..... | ..... | 10 1 8.2 | 2.523 | 4 | 129 45 5.5 | 17.45 | 4 | ll; O; vB; vL; lE; *9M; 4°-0 d. | 4+ |
| 2018 | 3229 | ..... | ..... | 10 1 46.2 | 1.540 | 1? | 156 41 44.1 | 17.47 | 1? | B; R; bM | 1 |
| 2019 | 672 | ..... | ..... | 10 2 9.8 | 3.759 | 1 | 43 21 12.6 | 17.52 | 1 | F; S; R; gbM | 1* |
| 2020 | 3231 | ..... | ..... | 10 2 9.9 | 1.545 | 2 | 156 41 30.4 | 17.48 | 2 | pB; pS; R; gbM; * 13 n ... | 2 |
| 2021 | 3230 | ..... | ..... | 10 2 30.4 | 2.719 | 1 | 118 22 22.3 | 17.51 | 1 | vF; S; lE | 1 |
| 2022 | 3232 | ..... | ..... | 10 3 9.9 | 2.982 | 1 | 97 47 52.5 | 17.55 | 1 | F; R | 1 |
| 2023 | 673 | III. 518 | ..... | 10 3 17.7 | 2.936 | 1 | 101 44 15.8 | 17.56 | 1 | F; pL; R; vg, slbM; f of 2... | 4 |
| 2024 | 674 | I. 79 | ..... | 10 4 47.5 | 5.285 | 1 | 15 54 35.5 | 17.65 | 1 | vB; L; R; vg, vsmbM..... | 2 |
| 2025 | 675 | ..... | ..... | 10 4 48.3 | 3.861 | 1 | 38 49 21.9 | 17.63 | 1 | * 7 m in photosphere 2' or 3' d | 1 |
| 2026 | 677 | III. 53 | ..... | 10 5 8.4 | +3.222 | 1 | 76 38 47.9 | 17.63 | 1 | eF; pL; vLE; r; st inv | 1 |
| 2027 | 3234 | ..... | ..... | 10 5 10.7 | -0.511 | 1 | 169 43 54.4 | 17.58 | 1 | F; S; lE; vlbM; * 15 inv ... | 3 |
| 2028 | 680 | III. 255 | ..... | 10 5 25.3 | +3.113 | 1 | 86 10 27.2 | 17.64 | 1 | F; cS; R; psbM; Δ B st f ... | 3 |
| 2029 | 3233 | ..... | ..... | 10 5 27.7 | 2.700 | 1 | 120 16 4.2 | 17.64 | 1 | vF; pS; E; * 8.9 sp | 1 |
| 2030 | 678 | II. 639 | ..... | 10 5 31.3 | 3.592 | 1: | 50 33 28.5 | 17.65 | 1: | eB; cS; R; psbM; r | 2 |
| 2031 | 678, a | ..... | R. 2 novæ | 10 5 ± | ..... | ... | 50 33 ± | ..... | ... | 3 seen; one(? which)=h.678 | 0 |
| 2032 | | | | | | | | | | | |
| 2033 | 676 | ..... | ..... | 10 5 42.7 | 5.424 | 1? | 14 53 50.7 | 17.69 | 1:: | vF; S; R | 1 |
| 2034 | 682 | II. 43 | ..... | 10 5 43.5 | 3.345 | 2 | 66 34 30.8 | 17.66 | 3 | pF; cL; R; vglbM; r; S * inv | 5 |
| 2035 | 681 | II. 640 | ..... | 10 5 48.2 | 3.589 | 1: | 50 40 11.1 | 17.67 | 1: | F; S; R; gbM..... | 2 |
| 2036 | 679 | ..... | ..... | 10 5 49.2 | 4.054 | 1 | 32 38 47.1 | 17.67 | 1 | eF; S; R; vglbM | 1 |
| 2037 | 684, a | ..... | R. nova | 10 6 15.4 | 3.116 | :: | 85 56 15.7 | 17.69 | :: | vvF; mE 0°± | 0 |
| 2038 | 684 | I. 3 | ..... | 10 6 29.6 | 3.116 | 3 | 85 52 53.7 | 17.69 | 4 | B; pS; R; psmbM; p of 2... | 8 |
| 2039 | ..... | ..... | D'Arrest, 68 | 10 6 36 | 3.34 | [1] | 59 42 7 | 17.69 | [1] | F; S; ?? Cl of vS st | 0 |
| 2040 | 683 | ..... | ..... | 10 6 45.3 | 4.194 | 1 | 29 4 36.3 | 17.71 | 1 | F; psbM; stellar; * 7.8 np 5' | 1 |
| 2041 | 685 | I. 4 | ..... | 10 6 58.5 | 3.116 | 3 | 85 50 20.3 | 17.71 | 4 | B; pL; vLE; pgmbM; * 11, 78°-2, 80°. | 8 |
| 2042 | 686 | ..... | ..... | 10 7 32.0 | 3.745 | 1 | 42 42 39.2 | 17.74 | 1 | F; S; R | 1 |
| 2043 | 250 | ..... | ..... | 10 8 7.9 | +87.502 | 1:: | 0 6 46.2 | +19.47 | 1:: | vF; R; gbM; *11, 2' s; <i>Polarissima Borealis</i> . | 1* |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 2044 | 3235 | ..... | ..... | 10 8 9.4 | +2.754 | 1 | 116 59 43.5 | +17.75 | 1 | eF; S; R; 2 B st f | 1 |
| 2045 | ..... | III. 964 | ..... | 10 8 16.1 | 5.415 | 1 | 14 38 38.0 | 17.80 | 1 | cF; S; stellar; S * f nr | 1 |
| 2046 | 3236 | ..... | ..... | 10 8 18.9 | 2.738 | 2 | 118 11 3.8 | 17.76 | 2 | cB; L; mE 50°5; vglbM ... | 2 |
| 2047 | 687 | III. 25 | ..... | 10 8 51.5 | 3.318 | 3 | 68 10 42.7 | 17.79 | 3 | cF; S; R; psBM..... | 4 |
| 2048 | 3237 | ..... | ..... | 10 9 23.5 | 2.905 | 1 | 105 5 56.0 | 17.80 | 1 | pB; pL; gpmbM..... | 1 |
| 2049 | 688, a | ..... | R. nova | 10 9 44.5 | 3.623 | ... | 47 53 13.9 | 17.83 | ... | MS; no description..... | 0 |
| 2050 | 688, b | ..... | R. nova | 10 9 47.2 | 3.623 | ... | 47 54 1.9 | 17.83 | ... | MS; no description..... | 0 |
| 2051 | ..... | I. 265 | ..... | 10 9 47.5 | 4.082 | 1 | 31 5 44.2 | 17.84 | 1 | cB; cL; iR; vgbM..... | 1 |
| 2052 | 688 | I. 168 | ..... | 10 9 49.9 | 3.623 | 1 | 47 53 1.9 | 17.83 | 1 | pB; vL; R; vgbM | 4 |
| 2053 | 689 | ..... | ..... | 10 9 53.3 | 3.627 | 1 | 47 41 6.2 | 17.84 | 1 | pF; vL; R; vgbM; 12°5 d; * 11 n 2'. | 1 |
| 2054 | 692, a | ..... | D'Arrest, 69 | 10 9 57 | 3.32 | [2] | 67 35 48 | 17.83 | [2] | pF; pL; gmbM (δ in Lord R.'s diagram). | 0 |
| 2055 | 692, b | ..... | R. nova | 10 10 4.7 | 3.324 | ... | 67 25 19.5 | 17.85 | ... | Marked γ in Lord R.'s diagr. | 0 |
| 2056 | 690 | III. 910 | ..... | 10 10 17.0 | 4.047 | 1 | 31 53 7.8 | 17.86 | 1 | vF; pL; r | 2 |
| 2057 | 692, c | ..... | R. nova | 10 10 | ..... | ... | 67 28 | ..... | ... | mE, parallel to h. 692, with which it forms D neb. | 0 |
| 2058 | 692 | II. 44 | ..... | 10 10 23.3 | 3.324 | 3 | 67 28 10.5 | 17.85 | 3 | B; pS; E; psbMN; sp of 2 | 4+ |
| 2059 | 691 | ..... | ..... | 10 10 25.8 | 3.726 | 1 | 42 51 47.8 | 17.86 | 1 | F; S; R; bM | 1 |
| 2060 | ..... | III. 704 | ..... | 10 10 27.6 | 3.728 | 1 | 42 43 44.8 | 17.86 | 1 | eF; vS; (?) | 1 |
| 2061 | 693 | II. 45 | ..... | 10 10 41.6 | 3.324 | 3 | 67 24 24.8 | 17.86 | 3 | B; S; vLE; psbM; r; * 9, 352°0, 75" nf of 2. | 4 |
| 2062 | ..... | III. 695 | ..... | 10 10 46.8 | +5.391 | 1 | 14 29 43.0 | 17.90 | 1 | vF; vS..... | 1 |
| 2063 | 3241 | ..... | ..... | 10 10 51.5 | -0.506 | 2 | 170 10 11.6 | 17.82 | 2 | !; ○; pB; S; lE; 13°0 d; 3S st nr. | 2+ |
| 2064 | 694 | III. 348 | ..... | 10 10 53.6 | +3.398 | 1: | 61 38 27.1 | 17.87 | 1: | eeF; pS; lE..... | 2 |
| 2065 | ..... | III. 966 | ..... | 10 10 57.9 | 6.114 | 1 | 11 4 53.6 | 17.92 | 1 | vF; vS..... | 1 |
| 2066 | 695 | I. 199 | ..... | 10 11 14.4 | 3.702 | 1 | 43 44 15.7 | 17.89 | 1 | pB; vL; mE 45°+; vgbM... | 3 |
| 2067 | 3239 | ..... | ..... | 10 11 46.1 | 2.128 | 4 | 147 15 39.7 | 17.89 | 4 | !; vB; vL; falcate; * N..... | 4+ |
| 2068 | 3238 | ..... | Δ. 445 | 10 11 52.8 | 2.452 | 2 | 135 42 6.0 | 17.90 | 2 | ⊕; vL; iR; lCM; gbM; st 13...16. | 2 |
| 2069 | 696 | II. 720 | ..... | 10 12 5.3 | 3.643 | 1:: | 46 18 42.6 | 17.92 | 1: | cF; S; R; vgbM; 1st of 3... | 2 |
| 2070 | 3240 | ..... | ..... | 10 12 5.5 | 2.777 | 2 | 116 0 17.3 | 17.91 | 2 | pB; S; cE; gbM..... | 2 |
| 2071 | 698 | ..... | ..... | 10 12 12.9 | 3.396 | 1 | 61 28 54.6 | 17.92 | 1 | eF; pL; gbM | 1 |
| 2072 | 699 | II. 721 | ..... | 10 12 21.7 | 3.641 | 1 | 46 20 50.2 | 17.94 | 1 | cF; S; R; vgbM; 2nd of 3... | 2 |
| 2073 | 697 | I. 266 | ..... | 10 12 30.9 | 4.011 | 1 | 32 22 5.2 | 17.94 | 1 | pB; cL; E; vglbM..... | 2 |
| 2074 | 700 | II. 722 | ..... | 10 12 33.3 | 3.641 | 1 | 46 18 50.2 | 17.94 | 1 | cF; S; R; stellar; 3rd of 3... | 2 |
| 2075 | 701 | ..... | ..... | 10 12 47.0 | 3.365 | 1 | 63 47 46.5 | 17.95 | 1 | F; S; R; has a * | 1 |
| 2076 | 3242 | ..... | ..... | 10 13 17.6 | 1.946 | 2 | 151 58 35.5 | 17.95 | 2 | ○; = * 10 m; R; am 150 st | 2 |
| 2077 | ..... | III. 979 | H. ON | 10 13 34.0 | 6.559 | 1 | 9 27 5.6 | 18.02 | 1 | Stellar; 1st of 3 | 1 |
| 2078 | ..... | III. 980 | H. ON | 10 13 34.2 | 6.565 | 1 | 9 26 5.6 | 18.02 | 1 | vF; S; 2nd of 3 | 1 |
| 2079 | ..... | III. 981 | H. ON | 10 13 34.3 | 6.571 | 1 | 9 25 5.9 | 18.03 | 1 | vF; S; 3rd of 3 | 1 |
| 2080 | 702 | III. 330 | ..... | 10 13 55.0 | 3.342 | 1 | 65 21 53.7 | 17.99 | 1 | vF; pS; R; bM | 2 |
| 2081 | ..... | I. 283 | ..... | 10 14 23.0 | 5.297 | 1 | 14 37 52.9 | 18.03 | 1 | cB; cL; eF | 1 |
| 2082 | ..... | III. 911 | ..... | 10 14 26.4 | 3.998 | 1 | 32 15 55.6 | 18.02 | 1 | vF; cL; iF | 1 |
| 2083 | ..... | ..... | D'Arrest, 70 | 10 14 39 | 3.31 | [2] | 67 42 12 | 18.01 | [2] | eF; mE; a ray | 0 |
| 2084 | ..... | ..... | Auw. N. 27 | 10 14 55.0 | 3.288 | ... | 69 24 42.6 | 18.02 | ... | F; lbMr (Winnecke, June 1855). | 0 |
| 2085 | 3243 | ..... | ..... | 10 15 20.5 | 2.683 | 1 | 123 32 59.9 | 18.03 | 1 | pB; vL; vLE; psbMN | 1 |
| 2086 | 3244 | ..... | ..... | 10 15 27.7 | 2.677 | 1 | 123 59 28.2 | 18.04 | 1 | vF; pS; R; vgmbM | 1 |
| 2087 | 703 | II. 882 | ..... | 10 15 43.0 | 4.028 | 1 | 31 9 19.1 | 18.07 | 1 | cF; pL; lE; vgbM | 2 |
| 2088 | ..... | II. 28 | ..... | 10 15 55.1 | 3.289 | 1 | 69 23 27.8 | 18.06 | 1 | vF; cL; R } D neb; 45°, 2' { | 1* |
| 2089 | ..... | II. 29 | ..... | 10 15 58.5 | 3.289 | 1 | 69 22 28.1 | 18.07 | 1 | vF; cL; R } | 1* |
| 2090 | 3245 | ..... | Δ. 386 | 10 16 10.6 | 2.352 | 1:: | 141 1 1.8 | 18.06 | 1:: | Cl; 9 L & a few S st | 1 |
| 5068 | ..... | ..... | ..... | 10 16 14.1 | ..... | ... | 89 13 46.0 | ..... | ... | See No. 5068. | |
| 2091 | 705 | ..... | ..... | 10 16 15.7 | 3.207 | 3 | 76 44 21.4 | 18.08 | 3 | !; * or ** in neb | 3 |
| 2092 | 704 | ..... | ..... | 10 16 25.6 | 4.456 | 1 | 22 29 6.0 | 18.10 | 1 | Cl; cL; P; lC; st 10...12 ... | 1 |
| 2093 | ..... | ..... | D'Arrest, 71 | 10 16 33 | 3.39 | [1] | 61 16 42 | 18.09 | [1] | eeF; * 11 p, ls, 150" p of 2... | 0 |
| 2094 | 706 | ..... | ..... | 10 17 5.1 | 3.374 | 1 | 62 16 5.0 | 18.10 | 1 | pB; pS; R; psbM | 1* |
| 2095 | | | D'Arrest, 72 | 10 17 7 | 3.38 | [2] | 61 16 12 | 18.11 | [2] | F; S; f of 2 | 0 |
| 2096 | 707 | | | 10 17 16.6 | +4.142 | 1 | 28 1 16.9 | +18.13 | 1 | eF; vS; psbM; 2 st 11, 12, f | 1 |

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| 2097 | h. 709 | H. 631 | | h m s 10 17 27.7 | s +3.556 | 1: | 49 39 49.9 | +18.13 | 1: | vF; vS; R; pgbM | 3 |
| 2098 | 708 | III. 883 | | 10 17 28.5 | 3.980 | 1 | 32 4 25.9 | 18.13 | 1 | F; S; R; psbM | 2 |
| 2099 | $\left\{ \begin{array}{l} 710 \\ = \\ 3246 \end{array} \right\}$ | IV. 10 | ..... | 10 17 31.0 | 3.255 | 3 | 72 8 18.9 | 18.13 | 3 | vF; *9 inv nr M | 5 |
| 2100 | 3247 | ..... | ..... | 10 17 53.2 | 2.851 | 2 | 111 4 56.9 | 18.13 | 2 | eF; S; R; * nr | 2 |
| 2101 | 3249 | ..... | ..... | 10 17 56.8 | 2.717 | 1 | 121 45 28.9 | 18.13 | 1 | F; pmE; glbM; *11 np ... | 1 |
| 2102 | 3248 | IV. 27 | Lal. 20204 | 10 18 2.2 | 2.886 | 4 | 107 55 50.2 | 18.14 | 4 | !; O; vB; lE, 135°; 32'' d±; blue. | 7+ |
| 2103 | 4019 | ..... | ..... | 10 19 20.9 | 2.612 | 1 | 129 6 23.4 | 18.18 | 1 | vF; *11 m 90'' n | 1 |
| 2104 | 711 | I. 86 | ..... | 10 19 24.9 | 3.385 | 4 | 60 47 1.7 | 18.19 | 5 | vB; pL; E; smbMEN | 6 |
| 2105 | 712 | ..... | ..... | 10 19 26.0 | 3.116 | 1 | 85 26 24.7 | 18.19 | 2 | eF; S; R; 2 st Δ; *6, 300°, 8' | 3 |
| 2106 | 3250 | ..... | ..... | 10 19 37.9 | 2.196 | 1:: | 147 10 35.7 | 18.19 | 1 | st inv in neb | 3 |
| 2107 | 713 | II. 347 | ..... | 10 20 2.0 | 3.314 | 1 | 66 26 28.6 | 18.22 | 3 | pB; S; R; psbM | 4 |
| 2108 | 3251 | ..... | ..... | 10 20 6.9 | 2.690 | 1 | 124 14 38.3 | 18.21 | 1 | eF; pL; R; vglbM | 1 |
| 2109 | 3252 | ..... | ..... | 10 20 25.6 | 2.625 | 4 | 129 13 45.9 | 18.23 | 4 | pB; pL; R; vg, psbM; *13, 45°. | 5 |
| 2110 | ..... | ..... | D'Arrest, 73 | 10 20 29 | 3.35 | [1] | 63 11 42 | 18.23 | [1] | vF; pL; 3 B st sp | 0 |
| 2111 | ..... | III. 316 | ..... | 10 20 51.1 | 5.054 | 1 | 15 27 11.9 | 18.27 | 1 | eF; pS; mE; r | 1* |
| 2112 | 714 | I. 72 | ..... | 10 21 27.2 | 3.392 | 2 | 59 47 27.1 | 18.27 | 3 | cB; L; E 45°±; psmbMN... | 5 |
| 2113 | 3253 | ..... | ..... | 10 21 32.2 | 2.111 | 1 | 149 57 49.8 | 18.26 | 1 | Cl; pS; vC; st 15 | 1 |
| 2114 | 3254 | ..... | ..... | 10 21 53.0 | 2.553 | 1 | 133 11 7.1 | 18.27 | 1 | cB; S; R; gmbM | 2 |
| 2115 | 3255 | ..... | ..... | 10 22 29.8 | 2.689 | 3 | 124 56 49.0 | 18.30 | 2 | vF; vS; R; psbM; 1st of 4... | 3 |
| 2116 | 3256 | ..... | ..... | 10 22 36.9 | 2.689 | 4 | 124 53 9.0 | 18.30 | 4 | eF; S; R; psbM; 2nd of 4... | 4 |
| 2117 | 715 | II. 870 | ..... | 10 22 42.9 | 4.272 | 1 | 24 14 50.9 | 18.33 | 1 | F; S; R; gbM | 2 |
| 2118 | 3257 | ..... | ..... | 10 22 52.7 | 2.689 | 4 | 124 52 39.0 | 18.32 | 4 | vvF; vS; R; psbM; 3rd of 4 | 4 |
| 2119 | 3258 | ..... | ..... | 10 23 3.0 | 2.546 | 1 | 133 56 12.6 | 18.32 | 1 | F; S; R; am st | 1 |
| 2120 | 3260 | ..... | ..... | 10 23 8.2 | 2.554 | 1 | 133 29 7.6 | 18.32 | 1 | eF; S; R | 1 |
| 2121 | 3259 | ..... | ..... | 10 23 11.4 | 2.692 | 2 | 124 53 48.9 | 18.33 | 2 | vF; vS; R; psbM; 4th of 4 | 2 |
| 2122 | 3261 | ..... | ..... | 10 23 13.8 | 2.556 | 1 | 133 24 32.9 | 18.33 | 1 | F; S; mE 280°±; psbM ... | 1 |
| 2123 | 718 | III. 349 | ..... | 10 23 15.9 | 3.377 | 1 | 60 29 34.9 | 18.33 | 1 | pF; S; R; psbM; *sf nr ... | 5 |
| 2124 | 716 | ..... | ..... | 10 23 18.3 | 3.895 | 1 | 33 11 37.5 | 18.35 | 1 | eF; bet 2 S st | 1 |
| 2125 | 717 | II. 871 | ..... | 10 23 29.5 | 4.246 | 1 | 24 32 16.8 | 18.36 | 1 | cF; vS; R; psmbM * | 2 |
| 2126 | 3262 | ..... | ..... | 10 23 33.9 | 2.696 | 1:: | 124 38 10.2 | 18.34 | 1:: | eF; vS; R; 1st of 4 | 1 |
| 2127 | 3263 | ..... | ..... | 10 23 37.9 | 2.697 | 2? | 124 39 10.2 | 18.34 | 2? | F; S; R; 2nd of 4 | 2 |
| 2128 | 3264 | ..... | ..... | 10 23 41.1 | 2.699 | 1 | 124 30 10.5 | 18.35 | 2 | F; S; R; bM; 3rd of 4 | 3 |
| 2129 | 719 | III. 331 | ..... | 10 23 44.1 | 3.329 | 1 | 64 24 28.5 | 18.35 | 1 | cF; vS; E; glbM | 2 |
| 2130 | 3265 | ..... | ..... | 10 23 45.9 | 2.697 | 1 | 124 39 3.5 | 18.35 | 1 | pF; S; E; pmbM; 4th of 4... | 2 |
| 2131 | 720 | II. 358 | ..... | 10 24 27.7 | 3.360 | 4 | 61 36 59.4 | 18.38 | 4 | F; pL; R; glbM; *f | 5 |
| 2132 | 3266 | ..... | ..... | 10 24 34.0 | 2.681 | 2 | 126 1 22.1 | 18.37 | 2 | F; L; vLE; psbM | 3 |
| 2133 | 3267 | ..... | ..... | 10 24 57.7 | 2.635 | 1 | 129 13 51.7 | 18.39 | 1 | F; S; *8 p | 1 |
| 2134 | 721 | II. 359 | ..... | 10 25 4.1 | 3.369 | 3 | 60 46 20.7 | 18.39 | 3 | cB; cS; R; pgmbM | 4 |
| 2135 | 3268 | ..... | ..... | 10 25 26.1 | 2.637 | 3 | 129 13 52.0 | 18.40 | 3 | F; S; R; *nf | 2 |
| 2136 | 3269 | ..... | ..... | 10 25 34.3 | 2.711 | 1 | 124 8 4.3 | 18.41 | 1 | eF; pL; E; glbM | 1 |
| 2137 | 3271 | ..... | ..... | 10 26 51.1 | 2.536 | 1 | 135 22 3.5 | 18.45 | 1 | pF; S; R; gbM | 1 |
| 2138 | ..... | III. 912 | ..... | 10 26 58.6 | 3.944 | 1 | 30 44 23.1 | 18.47 | 1 | eF; vS | 1 |
| 2139 | 3270 | ..... | ..... | 10 27 1.3 | 2.808 | 4 | 116 44 11.8 | 18.46 | 4 | pB; S; lE; gbM; 1st of 9 ... | 4 |
| 2140 | 722 | III. 917 | ..... | 10 27 9.3 | 3.945 | 1 | 30 40 11.4 | 18.45 | 1 | vF; pS; R; psbM | 2 |
| 2141 | ..... | ..... | D'Arrest, 74 | 10 27 11 | 3.28 | [2] | 67 37 18 | 18.47 | [2] | F; pL; *p 24', 225'' s | 0 |
| 2142 | 723 | III. 918 | ..... | 10 27 12.7 | 3.942 | 1 | 30 43 31.4 | 18.48 | 1 | eF; cS; R; vglbM | 2 |
| 2143 | 3272 | ..... | ..... | 10 27 47.4 | 2.713 | 1 | 124 34 31.4 | 18.48 | 1 | eF; vS; R | 1 |
| 2144 | 3276 | ..... | ..... | 10 28 7.7 | 2.258 | 1:: | 147 28 14.7 | 18.49 | 1:: | Cl; B; Ri; pL | 1* |
| 2145 | 724 | I. 164 | ..... | 10 28 12.8 | 3.474 | 1 | 51 57 17.3 | 18.51 | 1 | cB; L; mE 135°±; glbM ... | 4 |
| 2146 | 725 | III. 767 | ..... | 10 28 44.6 | 3.698 | 1 | 39 9 51.9 | 18.53 | 1 | vF; pS; lE | 2 |
| 2147 | 726 | III. 54 | ..... | 10 28 57.8 | 3.193 | 1 | 76 34 38.9 | 18.53 | 1 | eF; cL; R; vgbM; r | 2 |
| 2148 | $\left\{ \begin{array}{l} 727 \\ = \\ 3273 \end{array} \right\}$ | III. 55 | ..... | 10 29 10.6 | 3.206 | 3 | 75 6 29.2 | 18.54 | 3 | cF; cS; R; pmbM; r; am B st | 5 |
| 2149 | ..... | II. 46 | ..... | 10 29 13.4 | 3.285 | 1 | 67 15 27.2 | 18.54 | 1 | pF; S; r; Δ pB st n | 1 |
| 2150 | 728 | II. 46?? | | 10 29 18.1 | 3.283 | 2 | 67 23 45.2 | 18.54 | 2 | cB; S; lE; psbM; r | 3 |
| 2151 | 3274 | | | 10 29 20.3 | +2.757 | 1 | 121 37 4.2 | +18.54 | 1 | eF; S; R | 1 |

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| | h. | H. | | h m s | s | | | | | | |
| 2152 | 3275 | | | 10 29 22.6 | +2.756 | 1 | 121 38 41.2 | +18.54 | 1 | vF; S; R..... | 1 |
| 2153 | 730 | III. 66 | | 10 29 27.1 | 3.245 | 2 | 71 8 48.2 | 18.54 | 2 | vF; vS; vIE; glbM; r..... | 3 |
| 2154 | 729 | III. 615 | ..... | 10 29 33.9 | 3.470 | 2 | 51 49 25.5 | 18.55 | 2 | vF; cS; psbM; er..... | 4 |
| 2155 | 3277 | ..... | ..... | 10 29 38.5 | 2.818 | 1 | 116 26 17.5 | 18.55 | 1 | vF; S; R; 2nd of 9..... | 1 |
| 2156 | 3278 | ..... | ..... | 10 29 41.3 | 2.813 | 1 | 116 52 38.5 | 18.55 | 1 | eeF; 3rd of 9..... | 1 |
| 2157 | 3279 | ..... | ..... | 10 29 48.4 | 2.816 | 4 | 116 42 50.5 | 18.55 | 4 | F; S; R; 4th of 9..... | 4 |
| 2158 | 731 | IV. 60 | ..... | 10 29 59.7 | 3.770 | 1 | 35 45 49.1 | 18.55 | 1 | ○? cB; pL; R; vg, vsmbMN 15". | 3+ |
| 2159 | 3280 | ..... | ..... | 10 30 1.1 | 2.815 | 2 | 116 48 5.8 | 18.56 | 2 | B; L; R; p of D neb; 5th of 9 | 3 |
| 2160 | 3281 | ..... | ..... | 10 30 9.5 | 2.815 | 1: | 116 49 17.1 | 18.57 | 1: | B; L; R; f of D neb; 6th of 9 | 1 |
| 2161 | 3282 | ..... | ..... | 10 30 28.7 | 2.815 | 2 | 116 53 42.1 | 18.57 | 2 | cF; E; gbM; 7th of 9..... | 2 |
| 2162 | 3283 | ..... | ..... | 10 30 39.9 | 2.815 | 1 | 116 56 48.4 | 18.58 | 1 | 8th of 9..... | 1 |
| 2163 | 3284 | ..... | ..... | 10 30 59.8 | 2.817 | 3 | 116 52 45.7 | 18.59 | 3 | F; S; R; bM; 9th of 9..... | 3 |
| 2164 | 3285 | ..... | ..... | 10 31 6.1 | 2.636 | 2 | 130 54 24.7 | 18.59 | 2 | cF; pL; pmE; lbM..... | 2 |
| 2165 | ..... | III. 700 | ..... | 10 31 7.4 | 3.526 | 1 | 47 36 30.3 | 18.61 | 1 | cF; L; iE; mb, s of M..... | 1 |
| 2166 | 732 | II. 745 | ..... | 10 31 12.8 | 3.626 | 2 | 41 51 29.3 | 18.61 | 2 | F; pS; mE 0...90°; *10 nf. | 4 |
| 2167 | 3286 | ..... | Δ. 322? | 10 32 2.9 | 2.277 | 1 | 147 53 48.6 | 18.62 | 1 | pB; vvL; iF; * inv..... | 1 |
| 2168 | 734 | II. 348 | ..... | 10 32 17.5 | 3.299 | 2 | 65 11 2.2 | 18.64 | 2 | vF; S; R; gbM; vS * att ... | 3 |
| 2169 | 733 | ..... | ..... | 10 32 34.7 | 5.264 | 3 | 12 26 32.4 | 18.68 | 3 | pB; S; iE; psmbM..... | 3 |
| 2170 | ..... | I. 272 | ..... | 10 32 34.7 | 3.158 | 1: | 79 59 19.5 | 18.65 | 1: | B; S; iR; mbMBN..... | 2 |
| 2171 | 3287 | ..... | Δ. 355 | 10 33 1.6 | 2.409 | 1 | 143 24 4.5 | 18.65 | 1 | Cl; P; st 9..... | 1 |
| 2172 | 3288 | ..... | ..... | 10 33 26.3 | 2.729 | 1 | 125 19 17.0 | 18.70 | 1 | eF; vS; mE; *15 att..... | 1 |
| 2173 | 735 | II. 641 | ..... | 10 33 28.5 | 3.451 | 1 | 51 58 16.4 | 18.68 | 1 | cF; vS; R; bM..... | 4 |
| 2174 | 3289 | ..... | ..... | 10 33 43.6 | 2.823 | 1 | 117 1 41.4 | 18.68 | 1 | vF; pL; iE; glbM..... | 1 |
| 2175 | 737 | II. 77 | ..... | 10 34 42.7 | 3.195 | 2 | 75 31 44.6 | 18.72 | 2 | F; cL; E; vgbM; r; *7p10s | 4 |
| 2176 | 736 | III. 317 | ..... | 10 35 17.6 | 4.724 | 1 | 15 54 50.5 | 18.75 | 1 | pF; S; R; gbM..... | 2 |
| 2177 | ..... | III. 5 | ..... | 10 35 25.5 | 3.157 | 1 | 79 49 40.2 | 18.74 | 1 | eF; eS..... | 1 |
| 2178 | 739 | I. 81 | ..... | 10 35 49.5 | 3.298 | 1 | 64 20 20.5 | 18.75 | 1 | cF; L; gbM; *inv; 2st f ... | 3 |
| 2179 | 740 | I. 26 | ..... | 10 36 8.6 | 3.178 | 1 | 77 16 41.8 | 18.76 | 1 | cB; pL; E; mbM..... | 2 |
| 2180 | 3290 | V. 7 | ..... | 10 36 10.9 | 3.203 | 1 | 74 23 11.8 | 18.76 | 1 | cF; vL; R; vglbM; er..... | 2 |
| 2181 | 3291 | ..... | ..... | 10 36 23.8 | 2.732 | 4 | 125 37 46.8 | 18.76 | 3 | pF; S; mE 0°±; vsymbM; 1st of 3. | 4 |
| 2182 | 738 | I. 80 | ..... | 10 36 29.0 | 4.648 | 1 | 16 25 22.7 | 18.79 | 1 | B; S; iE; psbM; *11, 281°8, 20s.0. | 2 |
| 2183 | 742 | ..... | ..... | 10 36 33.7 | 3.358 | 1 | 58 32 21.1 | 18.77 | 1 | eF; vS; 2st 9.10, s..... | 1 |
| 2184 | 743 | ..... | M. 95 | 10 36 36.7 | 3.175 | 2 | 77 34 22.1 | 18.77 | 4 | B; L; R; pgmbMrN..... | 8 |
| 2185 | 741 | III. 842 | ..... | 10 36 39.2 | 3.782 | 1 | 33 18 30.6 | 18.78 | 1 | F; cS; R; pgbM; *s 90" ... | 2 |
| 2186 | 3292 | ..... | ..... | 10 36 41.4 | 2.734 | 4 | 125 38 53.1 | 18.77 | 3 | F; S; vIE; psbM; 2nd of 3... | 4 |
| 2187 | 744 | III. 107 | ..... | 10 36 53.2 | 3.133 | 2 | 82 30 48.4 | 18.78 | 2 | vF; pS; R; bM; *9, 150" ... | 4 |
| 2188 | 3293 | ..... | ..... | 10 37 11.7 | 2.735 | ... | 125 38 59.7 | 18.79 | ... | cF; vS; vIE; vS*att; 3rd of 3 | 2 |
| 2189 | 745 | V. 52 | ..... | 10 37 21.0 | 4.018 | 1 | 26 2 25.3 | 18.81 | 1 | pB; L; E 0°; glbM..... | 2* |
| 2190 | 746 | III. 318 | ..... | 10 37 57.1 | 4.583 | 1 | 16 49 37.9 | 18.83 | 1 | vF; L; R; vgbM; r; *sf ... | 2 |
| 2191 | 747 | ..... | ..... | 10 38 59.5 | 3.091 | 1 | 87 28 32.5 | 18.85 | 1 | eF; L; eE; vglbM; a ray... | 1 |
| 2192 | 3294 | ..... | ..... | 10 39 4.1 | 2.644 | 1? | 132 58 43.5 | 18.85 | 1 | F; E; gbM; *6, 7 v nr..... | 1* |
| 2193 | 748 | II. 78 | ..... | 10 39 10.5 | 3.189 | 2 | 75 31 1.5 | 18.85 | 2 | pB; cL; iR; vglbM; r; 1st of 3 | 5 |
| 2194 | 749 | ..... | M. 96 | 10 39 20.4 | 3.173 | 4 | 77 26 55.8 | 18.86 | 4 | vB; vL; iE; vsymbM; r..... | 8 |
| 2195 | 750 | II. 81 | ..... | 10 39 34.8 | 3.219 | 2 | 71 59 40.1 | 18.87 | 2 | cB; pL; vIE; gbM; r..... | 3 |
| 2196 | 751 | ..... | ..... | 10 39 37.3 | 3.188 | 1 | 75 28 25.1 | 18.87 | 1 | F; R; 2nd of 3..... | 1 |
| 2197 | 3295 | ..... | Δ. 309 | 10 39 36.8 | 2.313 | 3 | 148 56 44.8 | 18.86 | 3 | η Argūs. The great neb ... | Mon.† |
| 2198 | 753 | ..... | ..... | 10 39 49.3 | 3.187 | 1 | 75 35 15.1 | 18.87 | 1 | F; R; 3rd of 3..... | 1 |
| 2199 | 752 | III. 701 | ..... | 10 39 49.4 | 3.506 | 1 | 46 4 18.4 | 18.88 | 1 | vF; cS; iR..... | 2 |
| 2200 | ..... | ..... | D'Arrest, 75 | 10 40 12 | 3.12 | [1] | 83 12 24 | 18.88 | [1] | vF; S..... | 0 |
| 2201 | 754 | II. 99 | ..... | 10 40 16.7 | 3.189 | 2 | 75 16 24.7 | 18.89 | 2 | vB; cL; R; vsymbMBN..... | 5* |
| 2202 | 3296 | ..... | ..... | 10 40 22.4 | 2.702 | 3 | 129 17 2.7 | 18.89 | 3 | cF; S; R; glbM..... | 4 |
| 2203 | 757 | I. 17 | Mechain. | 10 40 25.7 | 3.177 | 3 | 76 41 10.7 | 18.89 | 3 | vB; cL; R; psbM; r..... | 8 |
| 2204 | 755 | II. 360 | ..... | 10 40 27.4 | 3.323 | 5 | 60 39 47.7 | 18.89 | 5 | pB; pS; R; sbM..... | 6 |
| 2205 | 756 | II. 565 | ..... | 10 40 33.2 | 3.390 | 2 | 54 33 18.7 | 18.89 | 2 | pF; cL; iR; vglbM; 1st of 3 | 3 |
| 2206 | 3297 | ..... | ..... | 10 40 39.5 | 2.874 | 2 | 113 41 36.7 | 18.89 | 2 | F; pL; iR; glbM..... | 2 |
| 2207 | 758 | I. 18 | ..... | 10 40 52.2 | 3.177 | 3 | 76 38 27.0 | 18.90 | 3 | vB; L; R; psmbM; 2nd of 3 | 8 |
| 2208 | 759 | ..... | ..... | 10 40 54.9 | 3.116 | 1 | 84 15 58.0 | 18.90 | 1 | vF; R..... | 1 |
| 2209 | 760 | ..... | ..... | 10 40 55.7 | +3.116 | 2 | 84 20 22.0 | +18.90 | 2 | F; S; iE; bM..... | 2 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ′ ″ | ″ | | | |
| 2210 | 762 | ..... | ..... | 10 41 2.5 | +3.116 | 1 | 84 18 1.3 | +18.91 | 1 | Suspected; *nr | 1 |
| 2211 | 761 | II. 41 | ..... | 10 41 3.8 | 3.176 | 2 | 76 43 38.3 | 18.91 | 2 | F; L; E 90°±; vglbM; 3rd of 3. | 9 |
| 2212 | 3298 | ..... | ..... | 10 41 32.5 | 2.807 | 1 | 120 48 44.6 | 18.92 | 1 | F; S; pmE 0° | 1 |
| 2213 | 763 | III. 881 | ..... | 10 41 36.0 | 4.082 | 1 | 23 28 40.9 | 18.93 | 1 | vF; S; psbM; st nr | 2 |
| 2214 | 3299 | ..... | ..... | 10 41 41.8 | 2.870 | 3 | 114 25 38.6 | 18.92 | 3 | F; S; R; psbM; 2st 10f | 3 |
| 2215 | 764 | II. 872 | ..... | 10 41 59.8 | 4.075 | 1 | 23 30 51.2 | 18.94 | 1 | cB; S; IE; vgbM | 2 |
| 2216 | 765 | I. 116 | ..... | 10 42 2.4 | 3.364 | 2 | 56 16 38.2 | 18.94 | 2 | cB; pS; iE; 1st of 2 | 4† |
| 2217 | 766 | I. 117 | ..... | 10 42 7.5 | 3.364 | 2 | 56 15 59.2 | 18.94 | 2 | pB; pS; iE; 2nd of 2 | 4† |
| 2218 | ..... | I. 284 | ..... | 10 42 34.7 | 5.103 | 1 | 11 57 49.1 | 18.97 | 1 | cB; vS; iF | 1 |
| 2219 | ..... | III. 792 | ..... | 10 42 57.4 | 3.717 | 1 | 33 49 54.1 | 18.97 | 1 | vF; S; E; er | 1 |
| 2220 | 768 | II. 361 | ..... | 10 43 2.3 | 3.314 | 3 | 60 47 45.1 | 18.97 | 3 | pF; S; R; bM | 4 |
| 2221 | 767 | II. 335 | ..... | 10 43 15.4 | 4.609 | 1 | 15 34 35.7 | 18.97 | 1 | pF; L; iE; vgbM | 2 |
| 2222 | 771 | ..... | ..... | 10 43 17.6 | 3.619 | 1 | 38 13 52.4 | 18.98 | 1 | pB; R; pgbM | 1 |
| 2223 | 769 | III. 919 | ..... | 10 43 20.3 | 3.884 | 1 | 27 53 7.4 | 18.98 | 1 | vF; vS; R; vS* nr | 2 |
| 2224 | 770 | III. 913 | ..... | 10 43 21.3 | 3.792 | 1 | 30 49 46.4 | 18.98 | 1 | vF; cS; R; 2pB st s | 2 |
| 2225 | 772 | II. 718 | ..... | 10 43 33.3 | 3.496 | 1 | 45 32 51.4 | 18.98 | 1 | pB; S; vLE; stellar; 3S st nr. | 3 |
| 2226 | 772, a | ..... | R. nova | 10 43 ± | ..... | ... | 45 ± | ..... | ... | 3' dist. from h. 772 | 0 |
| 2227 | 773 | II. 362 | ..... | 10 43 33.5 | 3.307 | 4 | 61 17 10.4 | 18.98 | 4 | B; pL; R; mbM | 5 |
| 2228 | 776 | III. 522 | ..... | 10 43 28.5 | 2.982 | (3) | 102 6 30.0 | 19.00 | 1: | F; S; R; lbM | 4 |
| 2229 | 774 | I. 27 | ..... | 10 43 29.8 | 3.180 | 2 | 75 50 51.4 | 18.98 | 2 | B; S; IE 135°±; smbMN ... | 5 |
| 2230 | 775 | II. 363 | ..... | 10 43 41.7 | 3.308 | 2 | 61 9 14.7 | 18.99 | 4 | cF; S; R; bM | 5 |
| 2231 | ..... | IV. 6 | ..... | 10 43 49.0 | 3.117 | 4 | 83 26 44.4 | 18.99 | 4 | B; vL; R; bM; r | 5* |
| 2232 | ..... | II. 131 | ..... | 10 43 52.8 | 3.355 | 1 | 56 29 54.7 | 18.99 | 1 | F; S | 1 |
| 2233 | ..... | II. 493 | ..... | 10 43 54.7 | 3.327 | 1 | 57 16 54.7 | 18.99 | 1 | cB; cL; iR; mbM (758° P.D.). | 1* |
| 2234 | 777 | III. 88 | ..... | 10 43 57.2 | 3.121 | 3 | 83 25 0.7 | 18.99 | 3 | F; vL; R; vgbM; rr | 5* |
| 2235 | 778 | II. 494 | ..... | 10 44 1.8 | 3.356 | 1 | 56 21 52.0 | 19.00 | 1 | pF; pL; IE; sp of 3 | 3 |
| 2236 | 779 | I. 118? | ..... | 10 44 27.8 | 3.355 | 1 | 56 18 10.3 | 19.01 | 1 | pB; L; iE; gbM; 2nd of 3... | 2* |
| 2237 | ..... | III. 108 | ..... | 10 44 33.7 | 3.141 | 1 | 80 44 57.3 | 19.01 | 1 | eF; eS; R | 1 |
| 2238 | 780 | I. 172 | ..... | 10 44 35.5 | 3.395 | 2 | 52 38 29.3 | 19.01 | 2 | pB; pL; vmE 42°5; *inv? | 3* |
| 2239 | 782 | ..... | ..... | 10 44 40.7 | 3.356 | 1:: | 56 10 30.3 | 19.01 | 1:: | pB; nf of 3 in a line | 1 |
| 2240 | 783 | III. 20 | ..... | 10 44 40.7 | 3.156 | 1 | 79 6 47.3 | 19.01 | 1 | vF; vL; R; vgbM | 2 |
| 2241 | 784 | III. 497 | ..... | 10 44 43.3 | 3.105 | 1 | 85 28 16.3 | 19.01 | 1 | F; pS; R; vglbM | 3 |
| 2242 | 781 | II. 887 | ..... | 10 44 54.9 | 3.865 | 1 | 27 58 21.6 | 19.02 | 1 | cF; pS; IE; vgbM | 2 |
| 2243 | 786 | II. 47 | ..... | 10 44 59.2 | 3.257 | 2 | 66 19 33.6 | 19.02 | 3 | pB; pL; IE 120°; gbM | 5 |
| 2244 | 785 | III. 914 | ..... | 10 45 10.9 | 3.740 | 1 | 32 8 27.9 | 19.03 | 1 | vF; S; IE | 2 |
| 2245 | 787 | I. 267 | ..... | 10 45 58.4 | 3.730 | 1 | 32 16 18.5 | 19.05 | 1 | cB; pL; iR; vglbM; *10nf2' | 2 |
| 2246 | 3301 | ..... | ..... | 10 45 58.5 | 2.660 | 2 | 134 24 21.2 | 19.04 | 2 | Cl; pL; P; IC; iF; st 9...13 | 2 |
| 2247 | 3300 | ..... | ..... | 10 45 59.6 | 3.203 | 1 | 72 29 30.5 | 19.05 | 1 | eF; vL; vglbM; B *sp ... | 1 |
| 2248 | 788 | I. 233 | ..... | 10 46 5.2 | 3.666 | 1 | 34 56 48.5 | 19.05 | 1 | B; pL; mgE 67°0; gbM | 3 |
| 2249 | 3302 | ..... | ..... | 10 46 20.2 | 2.809 | 1 | 122 10 58.5 | 19.05 | 1 | F; S; R; *6.7 sf | 1 |
| 2250 | 3303 | ..... | ..... | 10 46 25.7 | 2.919 | 1 | 110 6 14.5 | 19.05 | 1 | vF; L; R; vglbM; r | 1 |
| 2251 | 789 | II. 364 | ..... | 10 46 40.2 | 3.291 | 4 | 62 1 7.1 | 19.07 | 4 | F; pL; vLE; vlbM | 5 |
| 2252 | 3304 | ..... | ..... | 10 46 52.3 | 2.912 | 1 | 111 2 13.1 | 19.07 | 1 | F; S; R; bM | 1 |
| 2253 | 790 | ..... | ..... | 10 47 1.0 | 3.206 | 1 | 71 54 33.4 | 19.08 | 1 | pF; IE; np of 2 | 1 |
| 2254 | 791 | II. 82 | ..... | 10 47 3.0 | 3.205 | 1 | 71 58 7.4 | 19.08 | 2 | pF; S; E; gbM; r; sf of 2... | 3 |
| 2255 | 792 | IV. 29 | ..... | 10 47 11.5 | 2.958 | 1 | 105 16 57.4 | 19.08 | 1 | eF; att to *12f | 2 |
| 2256 | 793 | ..... | ..... | 10 47 21.7 | 3.207 | 1 | 71 38 54.7 | 19.09 | 1 | 2 or 3 S st & neb | 1 |
| 2257 | ..... | I. 268 | ..... | 10 47 23.7 | 3.721 | 1 | 32 8 1.7 | 19.09 | 1 | vB; vS; R; stellar | 1 |
| 2258 | 794 | II. 16 | ..... | 10 48 2.0 | 3.132 | 1 | 81 33 42.0 | 19.10 | 1 | vF; vS; iE; psbM | 5 |
| 2259 | 3305 | ..... | ..... | 10 48 29.5 | 2.879 | 1 | 115 23 58.3 | 19.11 | 1 | F; S; R; glbM | 1 |
| 2260 | 795 | ..... | ..... | 10 48 57.1 | 4.652 | 2 | 14 3 47.2 | 19.14 | 2 | eF; pL; R; vglbM; *nf ... | 2 |
| 2261 | 796 | ..... | ..... | 10 48 57.6 | 3.146 | 1 | 79 30 48.9 | 19.13 | 1 | vF; *9, 90°; p of 2 | 1 |
| 2262 | 798 | ..... | ..... | 10 49 26.2 | 3.145 | 1 | 79 29 49.2 | 19.14 | 1 | vF; R; vsmB*12; f of 2... | 1 |
| 2263 | 797 | III. 632 | ..... | 10 49 33.9 | 3.425 | 2 | 48 18 8.2 | 19.14 | 2 | F; eS; R; bM | 4 |
| 2264 | 3306 | ..... | ..... | 10 49 58.9 | 2.976 | 1 | 103 33 21.5 | 19.15 | 1 | eeF; S | 1 |
| 2265 | 799 | II. 888 | ..... | 10 50 5.6 | 3.759 | 1 | 29 44 47.8 | 19.16 | 1 | vF; S; R; vgbM | 2 |
| 2266 | ..... | III. 972 | ..... | 10 50 15.1 | 3.819 | 1 | 27 39 6.1 | 19.17 | 1 | vF; S; R; bM | 1 |
| 2267 | ..... | III. 67 | ..... | 10 50 35.3 | +3.197 | 1 | 72 9 7.1 | +19.17 | 1 | vF; E; bet 2 st | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
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| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 2268 | 800 | III. 332 | ..... | 10 50 49.8 | +3.253 | 1 | 65 1 18.4 | +19.18 | 1 | vF; R; gbM; *13 { H. 1'n h. 2's } | 2 |
| 2269 | 801 | III. 705 | ..... | 10 51 18.6 | 3.485 | 1 | 43 8 17.7 | 19.19 | 1 | cF; S; R..... | 2 |
| 2270 | 3308 | ..... | ..... | 10 52 16.3 | 2.675 | 1 | 135 49 22.3 | 19.21 | 1 | eF; S; R; gbM..... | 1 |
| 2271 | 3307 | ..... | ..... | 10 52 17.7 | 2.869 | 1 | 117 43 48.3 | 19.21 | 1 | pF; S; R; bM; am st..... | 1 |
| 2272 | 802 | ..... | ..... | 10 52 29.0 | 4.670 | 1 | 13 25 47.9 | 19.23 | 1 | Very doubtful object..... | 1 |
| 2273 | { 804 = 3309 } | II. 100 | ..... | 10 52 37.6 | 3.178 | 4 | 74 24 56.6 | 19.22 | 4 | F; L; R; glbM; r..... | 5 |
| 2274 | 805 | I. 87 | ..... | 10 52 44.4 | 3.288 | 10 | 60 16 20.6 | 19.22 | 10 | cB; cL; R; gmbM..... | 13 |
| 2275 | 803 | I. 269 | ..... | 10 52 50.3 | 3.686 | 1 | 31 34 53.9 | 19.23 | 1 | { H. eF; } vLE; pS; *13s att h. cB; } | 2 |
| 2276 | 806 | II. 101 | ..... | 10 52 56.1 | 3.170 | 2 | 75 20 58.9 | 19.23 | 2 | vB; pL; lE 80°+; smbMN. | 4* |
| 2277 | 807 | III. 21 | ..... | 10 53 14.5 | 3.158 | 1 | 77 5 16.2 | 19.24 | 1 | eF; cS; R; bMN..... | 3 |
| 2278 | 808 | ..... | ..... | 10 53 49.7 | 3.274 | 2 | 61 32 11.5 | 19.25 | 2 | vF; R; bM; *sp..... | 2 |
| 2279 | 809 | III. 498 | ..... | 10 54 0.3 | 3.100 | 3 | 85 37 30.5 | 19.25 | 3 | vF; pL; mE..... | 4 |
| 2280 | 3310 | ..... | ..... | 10 54 11.7 | 2.432 | 1 | 149 34 46.5 | 19.25 | 1 | Cl; pL; pRi; lC; st 13..... | 1 |
| 2281 | ..... | III. 824 | ..... | 10 54 29.4 | 2.945 | 1 | 108 43 14.1 | 19.27 | 1 | vF; vS; iR; glbM..... | 1 |
| 2282 | ..... | III. 75 | ..... | 10 54 30.4 | 3.171 | 1 | 74 52 13.1 | 19.27 | 1 | eF; pL..... | 1 |
| 2283 | ..... | III. 793 | ..... | 10 54 45.6 | 3.636 | 1 | 33 2 13.4 | 19.28 | 1 | vF; vS; stellar..... | 1 |
| 2284 | { 967 968 } | III. { 967 968 } | ..... | 10 55 9.9 | 4.582 | 1 | 13 27 12.0 | 19.30 | 1 | { vF eF }; D neb; v near..... | 1 |
| 2285 | | | | | | | | | | | |
| 2286 | 3311 | ..... | ..... | 10 55 32.8 | 2.457 | 1 | 149 5 48.7 | 19.29 | 1 | 3S st 10 m in vF neb..... | 1 |
| 2287 | 810 | I. 88 | ..... | 10 55 33.8 | 3.271 | 5 | 61 16 22.7 | 19.29 | 6 | B; L; E; mbMN; rr; p of 2 | 8 |
| 2288 | 3312 | ..... | ..... | 10 55 50.2 | 2.976 | 1 | 104 44 26.0 | 19.30 | 1 | pF; S; R; glbM; *14 nr..... | 1 |
| 2289 | 811 | III. 22 | ..... | 10 55 53.7 | 3.147 | 3 | 78 10 23.0 | 19.30 | 3 | vF; cS; R; vglbM..... | 4 |
| 2290 | 812 | IV. 7 | ..... | 10 55 59.3 | 3.195 | 2 | 71 6 42.0 | 19.30 | 2 | cF; pL; R; sbMS*; *9 att 25°. | 4 |
| 2291 | 814 | II. 507 | ..... | 10 56 3.9 | 2.970 | 1 | 105 32 3.0 | 19.30 | 1 | F; { H. S h. vL }; bM; *nf inv..... | 2 |
| 2292 | ..... | III. 598 | ..... | 10 56 5.4 | 3.106 | 1 | 84 28 16.3 | 19.31 | 1 | eF; S; lE; ?..... | 1 |
| 2293 | 813 | II. 365 | ..... | 10 56 6.3 | 3.277 | 2 | 60 21 55.3 | 19.31 | 2 | F; L; cE; *7, 310° 8'..... | 5 |
| 2294 | ..... | V. 39 | ..... | 10 56 27.4 | 2.923 | 2 | 112 21 17.3 | 19.31 | 2 | vF; vL; mE..... | 2 |
| 2295 | 815 | II. 366 | ..... | 10 56 28.0 | 3.269 | 1 | 61 11 48.3 | 19.31 | 1 | F; pS; R; pgbM, f of 2..... | 2 |
| 2296 | ..... | V. 40 | ..... | 10 56 43.8 | 2.923 | 2 | 112 29 17.6 | 19.32 | 2 | vF; vL; mE..... | 2 |
| 2297 | 3313 | ..... | ..... | 10 56 50.2 | 2.955 | 1 | 108 1 41.6 | 19.32 | 1 | vF; pL; R; vglbM..... | 1 |
| 2298 | 816 | II. 336 | ..... | 10 57 1.2 | 4.248 | 1 | 16 40 22.2 | 19.34 | 1 | pB; vS; iR; psmbM*..... | 2 |
| 2299 | 817 | II. 884 | ..... | 10 57 13.1 | 3.622 | 1 | 32 43 27.2 | 19.34 | 1 | cF; S; R; vglbM..... | 2 |
| 2300 | 3314 | ..... | ..... | 10 58 19.3 | 2.446 | 1 | 150 36 38.5 | 19.35 | 1 | Cl; pRi; pC..... | 1 |
| 2301 | 818 | I. 13 | ..... | 10 58 38.7 | 3.076 | 1 | 89 16 57.8 | 19.36 | 1 | cB; cL; mE 140°+; vsmbMN | 4 |
| 2302 | ..... | II. 904 | ..... | 10 59 4.5 | 4.481 | 1 | 13 33 18.7 | 19.39 | 1 | F; pL; lB..... | 1 |
| 2303 | 819 | III. 23 | ..... | 10 59 13.5 | 3.145 | 2 | 77 51 22.4 | 19.38 | 3 | F; S; lE; psbM; 2st np in line. | 5 |
| 2304 | 820 | III. 350 | ..... | 10 59 41.3 | 3.263 | 3 | 60 43 33.7 | 19.39 | 3 | eF; S; *10 p 60''..... | 5 |
| 2305 | 3316 | ..... | ..... | 11 0 17.4 | 2.956 | 1 | 108 43 4.0 | 19.40 | 1 | F; S; R; psbM; p of 2..... | 1 |
| 2306 | 3317 | ..... | ..... | 11 0 19.9 | 2.956 | 1 | 108 47 19.0 | 19.40 | 1 | eF; S; R; vlbM; f of 2..... | 1 |
| 2307 | 821 | III. 915 | ..... | 11 0 20.6 | 3.609 | 1 | 32 1 29.0 | 19.40 | 1 | vF; S; R; pgbM..... | 2 |
| 2308 | 3315 | ..... | Δ. 323 | 11 0 33.8 | 2.530 | 2 | 147 55 1.0 | 19.40 | 2 | !!; Cl; eL; R; lC; st 8...12... | 4 |
| 2309 | 3318 | ..... | ..... | 11 0 45.4 | 2.823 | 1 | 126 25 0.3 | 19.41 | 1 | eeF; vS*att..... | 1 |
| 2310 | 823 | III. 111 | ..... | 11 1 17.1 | 3.104 | 1 | 84 24 45.6 | 19.42 | 1 | cF; vS; R; bM; r..... | 2* |
| 2311 | 822 | ..... | ..... | 11 1 18.9 | 3.260 | 1 | 60 47 14.0 | 19.40 | 1 | F; S; R; bM..... | 1 |
| 2312 | 825 | ..... | ..... | 11 1 31.1 | 3.258 | 1 | 60 34 29.9 | 19.43 | 1 | eF..... | 1 |
| 2313 | 824 | ..... | ..... | 11 1 32.2 | 3.319 | 1 | 53 12 44.9 | 19.43 | 1 | vF; R; psbM; *7 p 7'..... | 1 |
| 2314 | 826 | III. 920 | ..... | 11 2 29.3 | 3.683 | 1 | 27 54 1.5 | 19.45 | 1 | eF; vS; E 0°±; r..... | 2 |
| 2315 | 828 | II. 42 | ..... | 11 2 38.9 | 3.137 | 1 | 78 30 58.5 | 19.45 | 1 | F; S; lE; vlbM..... | 2* |
| 2316 | 827 | ..... | ..... | 11 2 40.8 | 3.314 | 1 | 53 12 35.5 | 19.45 | 1 | eF; S; *8, p..... | 1 |
| 2317 | ..... | I. 220 | ..... | 11 2 44.9 | 3.518 | 2 | 35 51 45.8 | 19.46 | 2 | cB; cL; cE 160°..... | 2 |
| 2318 | 831 | V. 46 | ..... | 11 3 3.0 | 3.554 | 1 | 33 34 44.1 | 19.47 | 1 | cB; vL; vmE 79°0; pbM; r. | 3 |
| 2319 | 829 | III. 351 | ..... | 11 3 3.7 | 3.254 | 5 | 60 28 50.8 | 19.46 | 6 | !; F(? var); S; R; bM; *9 f1'; 1st of 4. | 8* |
| 2320 | 832 | III. 352 | ..... | 11 3 9.6 | +3.253 | 3 | 60 33 4.1 | +19.47 | 3 | eF; vS; 2nd of 4..... | 5 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
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| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 2321 | 833 | ..... | ..... | 11 3 12.0 | +3.253 | 1 | 60° 36' 21.1" | +19.47 | 2 | vF; pS; R; bM; 3rd of 4 ... | 2 |
| 2322 | 3319 | ..... | ..... | 11 3 19.8 | 2.830 | 2 | 126 46 48.1 | 19.47 | 2 | B; S; R; pgmbM; 1st of 3... | 2 |
| 2323 | ..... | III. 79 | ..... | 11 3 25.7 | 3.144 | 1 | 77 19 26.1 | 19.47 | 1 | eF; pS; lE; r | 1 |
| 2324 | 834 | ..... | ..... | 11 3 26.1 | 3.139 | 1 | 78 3 34.1 | 19.47 | 1 | F; S; R; gbM..... | 1 |
| 2325 | 830 | II. 337 | ..... | 11 3 30.4 | 4.167 | 1 | 16 22 0.4 | 19.48 | 1 | pF; pS; lE; gbM; *15, 22° 1, 70 ^h . | 2 |
| 2326 | 835 | ..... | ..... | 11 3 36.1 | 3.252 | 3 | 60 32 50.1 | 19.47 | 3 | vF; pL; 4th of 4 | 3 |
| 2327 | 3320 | ..... | ..... | 11 3 56.5 | 2.832 | 2 | 126 46 43.4 | 19.48 | 2 | pF; S; R; bM; 2nd of 3..... | 2 |
| 2328 | 836 | III. 89 | ..... | 11 4 2.4 | 3.108 | 2 | 83 25 3.4 | 19.48 | 2 | eF; R; sbM; r | 3 |
| 2329 | 3321 | ..... | ..... | 11 4 9.7 | 2.835 | 1 | 126 42 10.4 | 19.48 | 2 | vF; pL; R; *inv; 3B st nr... | 2 |
| 2330 | ..... | II. 819 | ..... | 11 4 32.1 | 2.972 | 1 | 107 31 27.7 | 19.49 | 1 | pF; pL; iF; bM | 1 |
| 2331 | 3323 | ..... | ..... | 11 4 32.5 | 2.534 | 1 | 149 28 52.7 | 19.49 | 1 | Cl; pRi; lC | 1 |
| 2332 | 3322 | ..... | ..... | 11 4 39.9 | 2.842 | 1 | 126 5 31.7 | 19.49 | 1 | eF; S; R; glbM; 3 st 11 f ... | 1 |
| 2333 | 3324 | ..... | ..... | 11 5 52.5 | 2.522 | 1 | 150 36 57.3 | 19.51 | 1 | F; lE; 1st of 6 | 1+ |
| 2334 | ..... | III. 723 | ..... | 11 5 53.4 | 3.424 | 1 | 40 53 27.6 | 19.52 | 1 | eF; vS; p of 2 | 1 |
| 2335 | 837 | ..... | ..... | 11 5 54.4 | 2.988 | 1 | 105 11 45.6 | 19.52 | 1:: | Neb (?) | 1 |
| 2336 | 3325 | ..... | ..... | 11 5 56.2 | 2.526 | 2 | 150 28 3.6 | 19.52 | 2 | F; lE; sbM; 2nd of 6..... | 2+ |
| 2337 | 3326 | ..... | ..... | 11 6 3.2 | 2.526 | 2 | 150 32 58.6 | 19.52 | 2 | *12 with fan-shaped neb att; 3rd of 6. | 2+ |
| 2338 | 3327 | ..... | ..... | 11 6 14.4 | 2.528 | 2 | 150 30 34.6 | 19.52 | 2 | B; bM*; 4th of 6 | 2+ |
| 2339 | ..... | II. 728 | ..... | 11 6 18.3 | 3.422 | 2 | 40 51 28.9 | 19.53 | 2 | pB; pL; R; vgmbM | 2 |
| 2340 | 3329 | ..... | ..... | 11 6 21.4 | 2.541 | 2 | 150 26 42.6 | 19.52 | 2 | F; L; E0°; bM; 5th of 6 ... | 2+ |
| 2341 | 3328 | II. 269 | ..... | 11 6 28.1 | 2.923 | 2 | 115 59 51.9 | 19.53 | 2 | B; pL; E; vsmbMN; 2 BstΔ | 4 |
| 2342 | 3330 | ..... | ..... | 11 6 31.0 | 2.540 | 2 | 150 35 29.9 | 19.53 | 2 | eF; S; E160°±; 6th of 6 ... | 2+ |
| 2343 | 838 | ..... | M. 97 | 11 6 34.8 | 3.514 | 1 | 34 13 38.2 | 19.54 | 1 | !!; O; vB; vL; R; vvg, vsbMO; 19° 0 d. | 4+ |
| 2344 | 839 | III. 921 | ..... | 11 6 51.9 | 3.621 | 1 | 28 32 29.2 | 19.54 | 1 | vF; L; E; vgmbM; in Δ of L st | 2 |
| 2345 | 3332 | ..... | ..... | 11 6 59.1 | 2.546 | 1 | 150 2 19.2 | 19.54 | 1 | Cl; pRi; C; E..... | 1 |
| 2346 | 3331 | III. 529 | ..... | 11 7 4.5 | 3.000 | 1 | 103 19 48.2 | 19.54 | 1 | vF; S; iR; lbM | 3 |
| 2347 | 840 | I. 29 | ..... | 11 7 16.1 | 3.144 | 3 | 76 25 29.5 | 19.55 | 3 | B; cL; E90°±; psmbM..... | 4 |
| 2348 | ..... | III. 770 | ..... | 11 7 26.0 | 3.520 | 1 | 33 29 29.5 | 19.55 | 1 | vF; vS; stellar..... | 1 |
| 2349 | ..... | III. 706 | ..... | 11 7 30.1 | 3.404 | 2 | 41 45 30.5 | 19.55 | 2 | vF; vS; vLE; stellar; cB* n... | 2 |
| 2350 | 841 | II. 102 | ..... | 11 7 43.8 | 3.154 | 1 | 74 26 53.8 | 19.56 | 2 | pF; L; R; glbM | 2 |
| 2351 | 3333 | ..... | ..... | 11 7 49.1 | 2.946 | 1 | 112 57 42.8 | 19.56 | 1 | vF; pS; R; bM | 1 |
| 2352 | 843 | II. 49 | ..... | 11 8 4.2 | 3.172 | 1 | 71 7 42.8 | 19.56 | 1 | B; pS; R; pgmbM | 2 |
| 2353 | 842 | II. 709 | ..... | 11 8 6.6 | 3.339 | 1 | 47 38 28.8 | 19.56 | 1 | pF; S; lE0°±; vgmbM | 4 |
| 2354 | 3334 | ..... | ..... | 11 9 7.0 | 2.558 | 1 | 150 29 39.4 | 19.58 | 1 | ⊕ and neb; st 15...18 | 2 |
| 2355 | ..... | II. 626 | ..... | 11 9 7.9 | 3.098 | 1 | 84 42 34.4 | 19.58 | 1 | pB; S; lE; mbM..... | 1 |
| 2356 | 844 | III. 27 | ..... | 11 9 21.8 | 3.169 | 2 | 71 14 8.7 | 19.59 | 2 | F; S; R; sp of 3 | 3 |
| 2357 | 3335 | ..... | ..... | 11 9 29.9 | 2.885 | 1 | 123 3 54.7 | 19.59 | 1 | eF; S; R; gbM | 1 |
| 2358 | 845 | II. 50 | ..... | 11 9 30.6 | 3.169 | 2 | 71 11 38.7 | 19.59 | 2 | vB; L; R; vmbM; 2nd of 3.. | 3 |
| 2359 | 846 | II. 51 | ..... | 11 9 35.3 | 3.169 | 2 | 71 5 49.7 | 19.59 | 2 | B; pL; R; psbM; 3rd of 3 ... | 3 |
| 2360 | 847 | I. 270 | ..... | 11 10 11.5 | 3.548 | 3 | 30 27 29.0 | 19.60 | 3 | vB; pS; lE90°±; vsvmbMSN. | 5 |
| 2361 | 849 | II. 521 | ..... | 11 10 16.1 | 3.098 | 2 | 84 40 50.0 | 19.60 | 2 | pF; cS; iR; psmbM; *10, 330°, 3'. | 5 |
| 2362 | 848 | I. 271 | ..... | 11 10 20.9 | 3.533 | 1 | 31 14 40.3 | 19.61 | 1 | vB; cL; mE305° 0; smbMN | 2 |
| 2363 | 850 | II. 729 | ..... | 11 10 29.9 | 3.366 | 1 | 43 29 5.3 | 19.61 | 1 | F; pL; lE90°±; glbM; r ... | 3 |
| 2364 | 851 | III. 333 | ..... | 11 10 39.5 | 3.197 | 1 | 65 49 46.3 | 19.61 | 1 | cF; vS; smbM; stellar; p of 2 | 2 |
| 2365 | 851, a | ..... | R. nova | 11 10 ± | ..... | ... | 65 49 ± | ..... | ... | F; S; bM; place from MS ... | 0 |
| 2366 | ..... | III. 76 | ..... | 11 10 53.0 | 3.149 | 1 | 74 29 36.6 | 19.62 | 2 | eF; pL..... | 1 |
| 2367 | 3336 | ..... | ..... | 11 10 59.5 | 2.939 | 1 | 115 21 55.6 | 19.62 | 1 | F; S; R; gbM..... | 1 |
| 2368 | ..... | III. 334 | ..... | 11 11 0.0 | 3.197 | 1 | 65 42 34.6 | 19.62 | 1 | vF; S; f of 2 | 1 |
| 2369 | 852 | I. 244 | ..... | 11 11 9.6 | 3.520 | 1 | 31 30 10.6 | 19.62 | 1 | cB; cL; R; vgmbM | 3 |
| 2370 | 3338 | ..... | ..... | 11 11 21.4 | 1.992 | 1 | 165 27 17.6 | 19.62 | 1 | F; pS; pmE; gbM | 1 |
| 2371 | 3337 | I. 241 | Δ. 617 | 11 11 29.6 | 2.899 | 1 | 122 2 45.9 | 19.63 | 1 | cB; vL; E160°±; am 4 st... | 2 |
| 2372 | 853 | II. 879 | ..... | 11 11 32.8 | 3.745 | 1 | 21 59 31.9 | 19.63 | 1 | pB; S; R; gbM | 2 |
| 2373 | 854 | ..... | M. 65 | 11 11 36.7 | 3.139 | 3 | 76 8 46.9 | 19.63 | 3 | B; vL; mE165°±; gbMBN. | 8*+ |
| 2374 | 855 | ..... | ..... | 11 11 40.5 | 3.111 | 1 | 81 42 52.9 | 19.63 | 1 | eF | 1 |
| 2375 | | II. 885 | | 11 12 17.2 | 3.512 | 1 | 31 22 36.2 | 19.64 | 1 | F; S; lE; 135°± | 1 |
| 2376 | 856 | II. 52 | | 11 12 43.1 | +3.164 | 1 | 70 52 55.5 | +19.65 | 1 | B; S; vLE; sbM | 2 |

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|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 2377 | h. 857 = 875? | H. | M. 66 | h m s 11 12 48.3 | s +3.137 | 2 | ° ' " 76 15 17.5 | " +19.65 | 3 | B; vL; mE150°; mbM; 2stnp | 9*† |
| 2378 | 859 | V. 8 | ..... | 11 12 57.4 | 3.140 | 4 | 75 38 28.5 | 19.65 | 4 | pB; vL; vmE102°0 | 8† |
| 2379 | 858 | I. 226 | ..... | 11 13 1.7 | 3.435 | 1 | 36 4 6.5 | 19.65 | 1 | pB; L; R; svmbMrN | 2† |
| 2380 | 860 | II. 338 | ..... | 11 13 3.3 | 3.211 | 7 | 62 16 12.5 | 19.65 | 7 | cF; L; R; vgvbM | 9 |
| 2381 | 861 | ..... | ..... | 11 13 5.2 | 3.089 | 2 | 86 16 11.5 | 19.65 | 2 | pB; S; R; smbMN | 3 |
| 2382 | ..... | II. 30 | ..... | 11 13 6.1 | 3.163 | 1 | 71 4 37.5 | 19.65 | 1 | pB; *inv. | 1* |
| 2383 | 862 | II. 550 | ..... | 11 13 21.8 | 3.027 | 2 | 99 30 44.8 | 19.66 | 2 | F; vS; R; lbM; *7 f; p of 2. | 4 |
| 2384 | 863 | II. 551 | ..... | 11 13 36.0 | 3.028 | 2 | 99 28 56.8 | 19.66 | 2 | F; vS; R; psbM; *7p; f of 2 | 4 |
| 2385 | 856, a | ..... | R. nova | 11 13 46.1 | 3.164 | :: | 70 52 55.5 | 19.66 | :: | pF; S; R; vlbM; foll h. 856, 15'. | 0 |
| 2386 | 864 | II. 33 | ..... | 11 13 53.9 | 3.090 | 1 | 85 59 53.1 | 19.67 | 1 | B; pL; R; psbM | 3 |
| 2387 | 865 | I. 245 | ..... | 11 14 10.0 | 3.515 | 4 | 30 9 43.1 | 19.67 | 4 | pB; pL; R; vgbM | 7 |
| 2388 | 867 = 861? | II. 32 | ..... | 11 14 20.6 | 3.088 | 1? | 86 16 50.1 | 19.67 | 1? | pB; S; E; bM | 1* |
| 2389 | 866 | III. 15 | ..... | 11 14 20.9 | 3.170 | 2 | 69 4 20.4 | 19.68 | 2 | cF; cL; IE; gbM; sp of 2 ... | 3 |
| 2390 | 868 | ..... | ..... | 11 14 51.7 | 3.290 | 1 | 49 22 36.7 | 19.69 | 1 | pB; S; pmE; bMN=close? | 1 |
| 2391 | 869 | III. 16 | ..... | 11 14 52.5 | 3.169 | 2 | 69 1 43.7 | 19.69 | 2 | vF; pS; R; gbM; nf of 2 ... | 3 |
| 2392 | 870 | III. 335 | ..... | 11 15 1.4 | 3.190 | 1 | 64 56 3.7 | 19.69 | 1 | cF; vS; R; bM; np of 2 ... | 2 |
| 2393 | 872 | III. 336 | ..... | 11 15 6.1 | 3.190 | 1 | 64 57 48.7 | 19.69 | 1 | vF; vS; sf of 2 | 2 |
| 2394 | 871 | II. 775 | ..... | 11 15 6.6 | 3.274 | 1 | 51 27 49.7 | 19.69 | 1 | pF; cL; IE; vgbM | 2 |
| 2395 | ..... | II. 880 | ..... | 11 15 24.0 | 3.766 | 2 | 19 47 39.0 | 19.70 | 2 | F; S; IE15°± | 2 |
| 2396 | 873 | I. 5 | ..... | 11 15 33.5 | 3.150 | 3 | 72 38 30.0 | 19.70 | 3 | pB; pS; iR; bM; r | 5 |
| 2397 | 874 | II. 782 | ..... | 11 15 40.7 | 3.423 | 1 | 35 23 23.0 | 19.70 | 1 | pB; S; R; vgbM; *12p | 2 |
| 2398 | 876 | III. 768 | ..... | 11 15 58.6 | 3.409 | 1 | 36 18 44.3 | 19.71 | 1 | cF; vS; R; stellar | 3 |
| 2399 | 878 | II. 53 | ..... | 11 16 22.1 | 3.154 | 1 | 71 25 28.3 | 19.71 | 1 | cF; S; IE; r | 3 |
| 2400 | 877 | IV. 59 | ..... | 11 16 23.3 | 3.273 | 1: | 50 42 2.3 | 19.71 | 1: | { H. cB; S; R; svmbMN } h. F; R; *17M. | 3 |
| 2401 | ..... | II. 635 | ..... | 11 16 27.0 | 3.037 | 1 | 97 52 41.3 | 19.71 | 1 | F; pL; iR; vgbM | 1 |
| 2402 | 3339 | III. 530 | ..... | 11 16 37.0 | 3.014 | 1 | 103 3 31.3 | 19.71 | 1 | F; S; R; stellar; p of 2 | 2 |
| 2403 | 879 | IV. 4 | ..... | 11 16 39.9 | 3.070 | 1 | 90 19 53.3 | 19.71 | 1 | vF; S; att to *13 m | 3 |
| 2404 | 881 | I. 219 | ..... | 11 17 10.2 | 3.271 | 2 | 50 28 40.6 | 19.72 | 2 | cB; cL; iR; pgmbM | 3 |
| 2405 | 882 | I. 20 | ..... | 11 17 11.3 | 3.123 | 3 | 77 53 21.6 | 19.72 | 3 | F; E90°±; B* f34s | 5* |
| 2406 | 3340 | III. 531 | ..... | 11 17 11.8 | 3.015 | 2 | 103 4 29.6 | 19.72 | 1 | pF; pL; iR; vlbM | 4 |
| 2407 | 880 | II. 845 | ..... | 11 17 14.0 | 3.569 | 1 | 25 47 2.9 | 19.73 | 1 | F; pS; iR; gbM; *9np | 4 |
| 2408 | 883 | II. 829 | ..... | 11 17 24.4 | 3.462 | 1 | 31 30 53.9 | 19.73 | 1 | vF; pL; pmE135°±; er | 3 |
| 2409 | 884 | III. 337 | ..... | 11 17 25.2 | 3.182 | 1 | 65 16 34.9 | 19.73 | 1 | vF; vS; R; | 2 |
| 2410 | 885 | III. 922 | ..... | 11 17 54.2 | 3.503 | 1 | 28 45 10.2 | 19.74 | 1 | vF; vS; 2 vS st inv | 2 |
| 2411 | 886 | I. 131 | ..... | 11 17 58.3 | 3.034 | 1 | 99 1 48.9 | 19.73 | 2 | pB; L; E0°±; gbM | 3* |
| 2412 | 3341 | ..... | ..... | 11 18 20.4 | 2.956 | 1 | 115 58 29.2 | 19.74 | 1 | F; vL; gvlbM; *7s6' | 1 |
| 2413 | 887 | I. 194 | ..... | 11 18 26.4 | 3.301 | 2 | 45 38 32.2 | 19.74 | 2 | vB; cL; vmE0°±; vsmbMN; st p. | 4 |
| 2414 | 888 | ..... | ..... | 11 18 34.5 | 3.328 | 2 | 42 14 27.2 | 19.74 | 2 | cF; S; R; vsbM*; 2st11 nf. | 2 |
| 2415 | ..... | II. 886 | ..... | 11 18 36.9 | 3.442 | 1 | 32 6 42.5 | 19.75 | 1 | pF; iF | 1 |
| 2416 | 889 | ..... | ..... | 11 18 47.7 | 3.199 | 1 | 61 21 44.5 | 19.75 | 1 | vF; S; R; psbM; *12 nf | 1 |
| 2417 | ..... | III. 112 | ..... | 11 18 51.5 | 3.051 | 2? | 95 4 52.5 | 19.75 | 2? | cF; cL; R; r (v near vB*) | 3* |
| 2418 | 3342 | ..... | Δ. 481 | 11 18 56.6 | 2.858 | 2 | 132 27 50.5 | 19.75 | 2 | Cl; cL; pRi; lC; st 10...14... | 2 |
| 2419 | { 891 = 3343 } | II. 159 | ..... | 11 19 10.3 | 3.145 | 4 | 72 22 2.5 | 19.75 | 4 | B; pS; R; bM | 5 |
| 2420 | 890 | I. 262 | ..... | 11 19 19.3 | 3.618 | 1 | 22 38 33.8 | 19.76 | 1 | cB; S; iR; spmbMN | 2 |
| 2421 | 892 | I. 246 | ..... | 11 19 32.8 | 3.431 | 1 | 32 20 57.8 | 19.76 | 1 | cB; pL; E | 3 |
| 2422 | 893 | ..... | ..... | 11 19 52.5 | 3.144 | 2 | 72 12 19.8 | 19.76 | 3 | pB; pL; E; vgbM | 3 |
| 2423 | 894 | { II. 160 = III. 28 } | ..... | 11 20 23.8 | 3.144 | 2 | 72 0 27.1 | 19.77 | 2 | pB; L; vIE; vgbM; r | 5 |
| 2424 | 895 | II. 770 | | 11 20 32.3 | 3.202 | 5 | 59 42 52.1 | 19.77 | 5 | pB; pS; R; lbM; r | 6 |
| 2425 | 896 | I. 247 | | 11 20 44.8 | +3.441 | 1 | 30 40 47.4 | +19.78 | 2 | pB; pS; vIE80°±; pgbM; Sst sf nr. | 4 |

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| | h. | H. | | h m s | s | | | | | | |
| 2426 | 897 | II. 339 | | 11 20 45.7 | +3.182 | 1 | 63° 34' 36".4 | +19.78 | 1 | pB; pL; lE; bM | 2 |
| 2427 | 898 | II. 54 | | 11 20 49.6 | 3.142 | 2 | 72 18 40.4 | 19.78 | 2 | F; pS; lE; r | 4 |
| 2428 | ..... | II. 152 | ..... | 11 20 59.6 | 3.111 | 1 | 79 41 44.4 | 19.78 | 1 | F; mE; r | 1 |
| 2429 | 3334 | III. 532 | ..... | 11 21 9.0 | 3.023 | 1 | 102 24 55.4 | 19.78 | 1 | cF; S; E; gbM | 2 |
| 2430 | 899 | ..... | ..... | 11 21 22.8 | 3.231 | 1 | 53 48 40.7 | 19.79 | 1 | cF; S; R; sbM*? | 1 |
| 2431 | 900 | ..... | ..... | 11 21 30.0 | 3.158 | 1 | 68 25 51.7 | 19.79 | 1 | eF; vS; E90° | 1 |
| 2432 | 3345 | ..... | ..... | 11 21 33.5 | 2.706 | 1 | 149 11 3.7 | 19.79 | 1 | B; pL; iR; pgpmbM | 1 |
| 2433 | 901 | II. 349 | ..... | 11 22 5.3 | 3.171 | 1 | 65 7 52.0 | 19.80 | 1 | pF; pL; lE | 2 |
| 2434 | 902 | II. 13 | ..... | 11 22 53.7 | 3.109 | 1 | 79 57 4.3 | 19.81 | 1 | pF; pL; R; vsmbM; r | 4 |
| 2435 | 3346 | ..... | ..... | 11 22 53.9 | 2.920 | 3 | 125 37 34.3 | 19.81 | 3 | pB; cS; R; psmbM | 3 |
| 2436 | 903 | ..... | ..... | 11 23 0.3 | 3.109 | 1:: | 79 52 19.3 | 19.81 | 1 | pB; cS; E90° | 1 |
| 2437 | 904 | II. 350 | ..... | 11 23 43.7 | 3.161 | 1 | 66 27 39.6 | 19.82 | 1 | F; S; *7.8 nf 5' | 2 |
| 2438 | 905 | ..... | ..... | 11 24 15.2 | 3.185 | 1 | 60 44 5.6 | 19.82 | 1 | F; vS; R; smbM | 2 |
| 2439 | 906 | II. 367 | ..... | 11 24 17.1 | 3.183 | 3 | 61 4 23.6 | 19.82 | 3 | F; cS; R; sbMN | 4 |
| 2440 | 907 | III. 353 | ..... | 11 24 28.7 | 3.183 | 3 | 60 52 0.9 | 19.83 | 3 | F; S; R; psbM | 5* |
| 2441 | 3347 | II. 562 | ..... | 11 24 29.0 | 3.024 | 2 | 103 27 38.9 | 19.83 | 2 | pF; S; R; vglbM | 5 |
| 2442 | 3348 | ..... | ..... | 11 24 36.6 | 2.958 | 2 | 119 29 4.9 | 19.83 | 2 | pB; S; mE; *13 att | 2 |
| 2443 | 908 | I. 221 | ..... | 11 24 46.4 | 3.342 | 2 | 36 9 21.9 | 19.83 | 2 | pB; vL; R; vglbM | 4 |
| 2444 | 909 | II. 836 | ..... | 11 25 43.2 | 3.442 | 2 | 27 21 32.2 | 19.84 | 2 | cF; S; R; vglbM; r | 3 |
| 2445 | 910 | II. 730 | ..... | 11 25 44.5 | 3.284 | 2 | 42 10 57.2 | 19.84 | 2 | pB; vL; lE0°; vsmbM*15; *11 n. | 3+ |
| 2446 | 912 | II. 351 | ..... | 11 26 2.1 | 3.162 | 1 | 64 46 58.5 | 19.85 | 1 | F; S; R; bM | 2 |
| 2447 | 911 | I. 222 | ..... | 11 26 2.3 | 3.333 | 1 | 36 5 47.5 | 19.85 | 1 | pB; pL; lE0°±; gbM; *12nr | 3 |
| 2448 | ..... | III. 80 | ..... | 11 27 5.9 | 3.115 | 1 | 76 43 50.8 | 19.86 | 1 | vF; vS; R | 1 |
| 2449 | 913 | II. 552 | ..... | 11 27 8.0 | 3.042 | 2 | 99 3 46.8 | 19.86 | 2 | F; S; R; psbM; *14 sp 225° | 3 |
| 2450 | ..... | III. 771 | ..... | 11 27 10.4 | 3.340 | 1 | 34 23 50.8 | 19.86 | 1 | eF; S; iR; L* in field | 1 |
| 2451 | 3349 | III. 935 | ..... | 11 27 37.1 | 3.038 | 1 | 103 19 8.1 | 19.87 | 1 | eF; S; R; gbM | 2 |
| 2452 | 914 | I. 287 | ..... | 11 27 44.4 | 3.602 | 1 | 18 41 33.1 | 19.87 | 1 | pB; L; mE130°4; mbM ... | 2 |
| 2453 | ..... | III. 772 | ..... | 11 27 44.9 | 3.340 | 1 | 34 15 51.1 | 19.87 | 1 | vF; stellar | 1 |
| 2454 | ..... | II. 783 | ..... | 11 28 6.8 | 3.331 | 1 | 34 41 52.1 | 19.87 | 1 | pB; pL; bM | 1 |
| 2455 | 915 | III. 847 | ..... | 11 28 23.8 | 3.387 | 1 | 29 15 14.4 | 19.88 | 1 | vF; vS; R; vgbM | 2 |
| 2456 | 916 | ..... | ..... | 11 28 33.7 | 3.255 | 1 | 43 56 23.4 | 19.88 | 1 | vF; S; R; vgbM | 1 |
| 2457 | 3350 | ..... | ..... | 11 28 37.1 | 2.938 | 2 | 127 10 35.4 | 19.88 | 2 | pF; pL; vLE; glbM | 2 |
| 2458 | ..... | III. 969 | ..... | 11 28 56.6 | 3.748 | 1 | 14 14 50.7 | 19.89 | 1 | eF; S | 1 |
| 2459 | 3351 | ..... | ..... | 11 28 59.4 | 2.939 | 2 | 127 12 45.4 | 19.88 | 2 | F; cS; lE; gvlbM | 2 |
| 2460 | 917 | II. 905 | ..... | 11 29 3.2 | 3.784 | 1 | 13 56 57.4 | 19.88 | 1 | pB; pL | 2 |
| 2461 | 918 | II. 784 | ..... | 11 29 4.5 | 3.319 | 1 | 34 55 43.7 | 19.89 | 1 | pF; L; lE | 2* |
| 2462 | 920 | ..... | ..... | 11 29 4.7 | 3.203 | 1 | 52 49 3.7 | 19.89 | 1 | eF; pL; pmE; gbM | 1 |
| 2463 | 919 | III. 843 | ..... | 11 29 8.5 | 3.360 | 1 | 30 49 18.7 | 19.89 | 1 | vF; R; stellar; vS*1 d sf ... | 1 |
| 2464 | ..... | ..... | D'Arrest, 78 | 11 29 16 | 3.14 | [1] | 67 24 12 | 19.88 | [1] | B; pS; mbMN=*13; *11 p 4s, s 175". | 0 |
| 2465 | 921 | II. 837 | ..... | 11 29 29.6 | 3.398 | 1 | 27 29 1.7 | 19.89 | 1 | F; lE; gbM | 2 |
| 2466 | ..... | ..... | D'Arrest, 79 | 11 29 39 | 3.13 | [2] | 71 20 42 | 19.89 | [2] | F; S; R | 0 |
| 2467 | 922 | ..... | ..... | 11 29 41.9 | 3.150 | 1 | 65 7 26.7 | 19.89 | 1 | vF; S; R | 1 |
| 2468 | 3352 | ..... | Δ. 289 | 11 29 42.0 | 2.764 | 2 | 150 49 29.7 | 19.89 | 2 | Cl; pL; pRi; pC; st 8...13 .. | 2 |
| 2469 | 923 | III. 29 | ..... | 11 29 54.8 | 3.128 | 1 | 71 23 48.7 | 19.89 | 1 | vF; eS; stellar | 2 |
| 2470 | 924 | ..... | ..... | 11 29 55.8 | 3.125 | 1 | 72 20 37.7 | 19.89 | 1 | vF; S; bM | 1 |
| 2471 | 925 | II. 731 | ..... | 11 30 10.0 | 3.262 | 2 | 41 19 6.0 | 19.90 | 2 | pB; S; pmE | 4 |
| 2472 | 926 | II. 838 | ..... | 11 30 13.1 | 3.364 | 2 | 29 36 37.0 | 19.90 | 2 | pF; S; R; gbM; r | 3 |
| 2473 | 927 | II. 352 | ..... | 11 30 27.9 | 3.143 | 2 | 66 32 34.0 | 19.90 | 2 | vF; S; E; r | 4 |
| 2474 | 928 | III. 81 | ..... | 11 30 58.4 | 3.109 | 1 | 77 6 36.3 | 19.91 | 1 | cF; cS; R; psbM | 4 |
| 2475 | 3353 | ..... | ..... | 11 31 34.0 | 2.881 | 1 | 139 55 51.3 | 19.91 | 1 | eF; S; R; am 50 Sst | 1 |
| 2476 | 929 | I. 227 | ..... | 11 31 41.7 | 3.315 | 2 | 32 57 27.3 | 19.91 | 2 | pF; L; vLE; vgbM; r | 4 |
| 2477 | 930 | II. 732 | ..... | 11 32 1.9 | 3.241 | 1 | 42 45 34.6 | 19.92 | 1 | F; S; att to *15; another * cont. | 2 |
| 2478 | 3354 | ..... | ..... | 11 32 6.8 | 2.954 | 1 | 126 57 46.6 | 19.92 | 2 | cB; R; sbMN*; *9 sf | 2 |
| 2479 | 931 | ..... | ..... | 11 32 18.7 | 3.171 | 3 | 57 18 46.6 | 19.92 | 3 | pB; pL; pmE; gbM; p of 2... .. | 3 |
| 2480 | 932 | ..... | ..... | 11 32 21.7 | 3.171 | 3 | 57 17 20.6 | 19.92 | 3 | cB; pL; pmE0°; pgbM | 3 |
| 2481 | 933 | III. 109 | ..... | 11 32 29.4 | 3.123 | 2 | 71 31 5.6 | 19.92 | 2 | cF; vS; pmE; sbM; 2 Sst f; 1st of 3. | 3 |
| 2482 | 935 | III. 609 | ..... | 11 32 35.2 | +3.048 | 1 | 98 35 14.6 | +19.92 | 1 | vF; vS; R; gbM; *8 s 6' ... | 2 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 2483 | ..... | III. 773 | ..... | 11 32 45.1 | +3.305 | 1 | 32 59 54.6 | +19.92 | 1 | cF; pS; vS*v nr | 1 |
| 2484 | ..... | III. 844 | ..... | 11 32 47.4 | 3.327 | 1 | 30 36 24.9 | 19.93 | 1 | vF; S; mE | 1 |
| 2485 | 937 | II. 839 | ..... | 11 32 47.9 | 3.345 | 2 | 28 56 14.9 | 19.93 | 2 | F; cS; R; mbM | 3 |
| 2486 | 934 | ..... | ..... | 11 32 54.0 | 3.116 | 2 | 73 53 41.9 | 19.93 | 3 | cF; R; p of 2 | 3+ |
| | 3355 | ..... | ..... | 11 32 54.0 | 3.116 | 2 | 73 53 41.9 | 19.93 | 3 | cF; R; p of 2 | 3+ |
| 2487 | 938 | II. 340 | ..... | 11 32 54.5 | 3.144 | 1 | 64 31 35.9 | 19.93 | 1 | F; cS; lE; stellar; r | 3 |
| 2488 | 936 | ..... | ..... | 11 32 57.8 | 3.116 | 4 | 73 52 36.9 | 19.93 | 6 | F; pS; E; pglbM; r; f of 2... | 8+ |
| | 3356 | II. 103 | ..... | 11 32 57.8 | 3.116 | 4 | 73 52 36.9 | 19.93 | 6 | F; pS; E; pglbM; r; f of 2... | 8+ |
| 2489 | 936, a | ..... | R. nova | 11 33 ± | ..... | ... | 73 52 ± | ..... | ... | Smaller than h. 936 | 0 |
| 2490 | 939 | II. 161 | ..... | 11 33 0.4 | 3.122 | 3 | 71 29 46.9 | 19.93 | 3 | pF; pL; R; bM; r; 2nd of 3 | 4 |
| 2491 | 939, a | } | R. 3 novæ | 11 33 ± | ..... | ... | 71 29 ± | ..... | ... | No description (for 939, c, see No. 5069). | 0 |
| 2492 | 939, b | | | | | | | | | | |
| 5069 | ..... | ..... | ..... | 11 33 ± | ..... | ... | 71 29 ± | ..... | ... | No description (for 939, c, see No. 5069). | 0 |
| 2493 | 940 | III. 30 | ..... | 11 33 5.0 | 3.122 | 3 | 71 27 36.9 | 19.93 | 2 | vF; pS; r; 2 vB st p; 3rd of 3 | 4 |
| 2494 | ..... | II. 830 | ..... | 11 33 23.7 | 3.300 | 1 | 32 58 24.9 | 19.93 | 1 | pB; E | 1 |
| 2495 | 941 | III. 375 | ..... | 11 33 26.1 | 3.129 | 1 | 68 53 9.9 | 19.93 | 1 | cB; cS; R; bM; r | 3 |
| 2496 | ..... | ..... | D'Arrest, 80 | 11 33 29 | 3.12 | [1] | 71 25 42 | 19.93 | [1] | F; pL; *9.10, s 5' | 0 |
| 2497 | ..... | III. 338 | ..... | 11 33 35.4 | 3.135 | 1 | 66 46 41.9 | 19.93 | 1 | vF; vS | 1 |
| 2498 | 942 | II. 737 | ..... | 11 33 45.6 | 3.237 | 2 | 41 30 46.9 | 19.93 | 2 | F; S; vIE; glbM | 4 |
| 2499 | 943 | I. 21 | ..... | 11 33 45.7 | 3.104 | 3 | 77 45 10.9 | 19.93 | 4 | B; L; vIE | 8 |
| 2500 | 944 | III. 320 | ..... | 11 33 48.3 | 3.142 | 1 | 64 24 10.9 | 19.93 | 1 | cF; vS; R; p of 2; *6 sf 3' | 3 |
| 2501 | 945 | I. 94 | ..... | 11 33 53.4 | 3.183 | 3 | 52 40 24.2 | 19.94 | 3 | cB; pL; pmE 90°±; bM | 5* |
| 2502 | 946 | III. 339 | ..... | 11 34 20.2 | 3.140 | 1 | 64 25 31.2 | 19.94 | 1 | cF; S; f of 2 | 2 |
| 2503 | 947 | ..... | ..... | 11 34 40.4 | 3.099 | 1 | 78 55 43.2 | 19.94 | 1 | F; 1st of 4 | 1 |
| 2504 | 948 | III. 284 | ..... | 11 34 47.6 | 3.058 | 1 | 95 23 14.2 | 19.94 | 1 | F; pS; R; psbM | 3 |
| 2505 | 950 | ..... | ..... | 11 34 51.9 | 3.099 | 1 | 78 54 43.2 | 19.94 | 1 | vF; 2nd of 4 | 1 |
| 2506 | 949 | III. 376 | ..... | 11 34 52.5 | 3.126 | 2 | 68 54 26.5 | 19.95 | 2 | vF; cS; R; bM; bet 2st. | 5 |
| 2507 | 951 | II. 153 | ..... | 11 34 58.4 | 3.099 | 1 | 78 57 13.5 | 19.95 | 1 | pF; pS; 3rd of 4 | 2 |
| 2508 | 3357 | ..... | ..... | 11 35 9.4 | 3.039 | 1 | 103 4 35.5 | 19.95 | 1 | F; cS; lE; psbM | 1 |
| 2509 | 952 | III. 774 | ..... | 11 35 10.2 | 3.258 | 1 | 36 26 51.5 | 19.95 | 1 | vF; cS; pmE | 3 |
| 2510 | 953 | II. 154 | ..... | 11 35 11.4 | 3.099 | 1 | 78 58 3.5 | 19.95 | 1 | pF; pS; 4th of 4 | 2 |
| 2511 | 954 | II. 341 | ..... | 11 35 14.4 | 3.143 | 3 | 62 44 1.5 | 19.95 | 3 | pF; S; R; psbM; stellar | 4 |
| 2512 | ..... | ..... | D'Arrest, 81 | 11 35 21 | 3.12 | [1] | 70 22 42 | 19.94 | [1] | F; S; lbM | 0 |
| 2513 | 955 | III. 775 | ..... | 11 35 51.3 | 3.253 | 1 | 36 29 51.5 | 19.95 | 1 | vF; vS | 2 |
| 2514 | 956 | ..... | ..... | 11 35 56.5 | 3.141 | 1 | 62 43 32.5 | 19.95 | 1 | eF | 1 |
| 2515 | 957 | ..... | ..... | 11 36 11.6 | 3.043 | 1 | 102 5 22.8 | 19.96 | 1 | F; vS; R; bM | 1 |
| 2516 | ..... | III. 340 | ..... | 11 36 15.0 | 3.130 | 1 | 66 24 56.8 | 19.96 | 1 | vF; pL; 2 suspected neb nr | 1 |
| 2517 | ..... | III. 102 | ..... | 11 36 15.9 | 3.097 | 1 | 79 6 56.8 | 19.96 | 1 | eF; pS | 1 |
| 2518 | ..... | ..... | D'Arrest, 82 | 11 36 21 | 3.12 | [1] | 70 7 42 | 19.95 | [1] | vF; vS; slbMN*13 m | 0 |
| 2519 | 958 | ..... | ..... | 11 36 24.4 | 3.306 | 2 | 29 6 47.8 | 19.96 | 2 | pB; E; gbM; *8 nf 5' | 1 |
| 2520 | 959 | II. 831 | ..... | 11 36 29.2 | 3.286 | 2 | 31 16 21.8 | 19.96 | 2 | pB; cS; E; psbM*12 | 3 |
| 2521 | 960 | ..... | ..... | 11 36 32.6 | 3.121 | 2 | 69 15 52.8 | 19.96 | 2 | cF; S; R; 1st of 5 | 1 |
| 2522 | ..... | ..... | ..... | 11 36 32.6 | 3.121 | 2 | 69 15 52.8 | 19.96 | 2 | cF; S; R; 1st of 5 | 1 |
| 2523 | 960, a | ..... | R. 4 novæ | 11 36 ± | ..... | ... | 69 15 ± | ..... | ... | 8 "knots" (vide h. 960, 1, 2, 3) | 0 |
| 2524 | | | | | | | | | | | |
| 2525 | | | | | | | | | | | |
| 2526 | 961 | ..... | ..... | 11 36 39.1 | 3.120 | 2 | 69 20 12.8 | 19.96 | 2 | cF; S; R; 2nd of 5 | 1 |
| 2527 | 962 | III. 377 | ..... | 11 36 44.2 | 3.120 | 3 | 69 17 13.8 | 19.96 | 3 | F; S; R; vglbM; 3rd of 5 | 5 |
| 2528 | 963 | ..... | ..... | 11 36 46.7 | 3.120 | 1 | 69 14 9.8 | 19.96 | 1 | vF; pS; 4th of 5 | 1 |
| 2529 | 964 | ..... | ..... | 11 36 53.3 | 3.264 | 1 | 33 34 40.8 | 19.96 | 1 | F; pL; R; vgbM | 1 |
| 2530 | 965 | ..... | ..... | 11 36 53.6 | 3.159 | 1 | 55 42 18.8 | 19.96 | 1 | F; S; R; psbM | 1 |
| 2531 | ..... | III. 35 | ..... | 11 36 57.9 | 3.098 | 1 | 78 55 57.8 | 19.96 | 1 | eF; vS | 1 |
| 2532 | ..... | III. 776 | ..... | 11 37 2.1 | 3.265 | 1 | 33 19 56.8 | 19.96 | 1 | eF; pL; lE | 1 |
| 2533 | 966 | III. 378 | ..... | 11 37 6.3 | 3.120 | 1 | 69 15 33.8 | 19.96 | 1 | eF; vS; R; 5th of 5 | 3 |
| 2534 | ..... | III. 36 | ..... | 11 37 11.9 | 3.098 | 1 | 78 55 57.8 | 19.96 | 1 | eF; vS | 1 |
| 2535 | ..... | III. 386 | ..... | 11 37 37.2 | 3.118 | 1 | 69 27 57.1 | 19.97 | 1 | vF; vS; r | 1 |
| 2536 | 970 | ..... | ..... | 11 37 45.7 | 3.118 | 1 | 69 14 20.1 | 19.97 | 1 | F; S; R; bM(?) | 1 |
| 2537 | ..... | III. 385 | ..... | 11 37 53.2 | 3.117 | 1 | 69 35 57.1 | 19.97 | 1 | vF; vS; r | 1 |
| 2538 | 971 | ..... | D'Arrest | 11 38 30.2 | +3.096 | 2 | 78 23 56.4 | +19.98 | 2 | F; S; iR; psbM | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ′ ″ | ″ | | | |
| 2539 | 972 | III. 833 | ..... | 11 38 34.3 | +3.218 | 3 | 39 1 19.4 | +19.98 | 3 | cF; cS; R; psbM | 4 |
| 2540 | 967 | ..... | ..... | 11 38 34.6 | 3.152 | 1? | 56 6 59.4 | 19.98 | 1? | eF; R; gbM; 1st of 4 | 1* |
| 2541 | 973 | II. 104 | ..... | 11 38 35.6 | 3.102 | 3 | 75 27 32.4 | 19.98 | 3 | B; S; R; smbM* | 5 |
| 2542 | ..... | III. 104 | ..... | 11 38 36.0 | 3.091 | 1 | 80 40 29.4 | 19.98 | 1 | vF; vS; suspected | 1 |
| 2543 | ..... | III. 387 | ..... | 11 38 37.2 | 3.116 | 1 | 69 27 58.4 | 19.98 | 1 | vF; vS; r | 1 |
| 2544 | ..... | III. 103 | ..... | 11 38 37.6 | 3.093 | 1 | 80 1 58.4 | 19.98 | 1 | vF; r | 1 |
| 2545 | ..... | I. 201 | ..... | 11 38 55.9 | 3.202 | 2 | 41 43 58.4 | 19.98 | 2 | B; L; mE 25°± | 2 |
| 2546 | 974 | ..... | ..... | 11 38 56.4 | 3.150 | 1 | 56 1 20.4 | 19.98 | 1 | vF; R; 2nd of 4 | 1 |
| 2547 | ..... | II. 881 | ..... | 11 39 0.8 | 3.391 | 1 | 19 49 57.4 | 19.98 | 1 | F; pL; mE 105°± | 1 |
| 2548 | { 968 | ..... | ..... | 11 39 1.4 | 3.150 | 2 | 56 3 20.4 | 19.98 | 2 | vF; R; gbM; 3rd of 4 | 2 |
| | = | | | | | | | | | | |
| | { 975 | | | | | | | | | | |
| 2549 | { 969 | ..... | ..... | 11 39 14.9 | 3.149 | 2 | 56 7 5.4 | 19.98 | 2 | vF; R; gbM; 4th of 4 | 2 |
| | = | | | | | | | | | | |
| 2550 | 976 | ..... | ..... | 11 39 16.6 | 2.903 | 2 | 145 36 20.4 | 19.98 | 2 | vF; lE; 2 st inv | 1 |
| 2551 | 3358 | ..... | ..... | 11 39 21.8 | 3.112 | 1 | 68 35 58.4 | 19.98 | 1 | vF; cL | 1 |
| 2552 | 977 | III. 372 | ..... | 11 39 30.9 | 3.116 | 1 | 68 49 39.4 | 19.98 | 1 | cF; S; iR; gbM; r; *7 sp 6' | 4 |
| 2553 | 3359 | III. 828 | ..... | 11 39 45.1 | 3.014 | 2 | 117 8 33.7 | 19.99 | 2 | cF; vS; vLE; bM; vF*sf ... | 2 |
| 2554 | { 979 | I. 120 | ..... | 11 39 56.8 | 3.040 | 2 | 106 4 52.7 | 19.99 | 2 | pB; L; iR; vgpmbM | 3 |
| | = | | | | | | | | | | |
| 2555 | 3360 | ..... | ..... | 11 39 56.8 | 3.040 | 2 | 106 4 52.7 | 19.99 | 2 | pB; L; iR; vgpmbM | 3 |
| 2555 | 978 | II. 785 | ..... | 11 40 6.3 | 3.238 | 2 | 33 15 24.7 | 19.99 | 2 | pB; S; lE; pgbM | 3 |
| 2556 | 980 | II. 723 | ..... | 11 40 45.5 | 3.136 | 3 | 58 51 30.7 | 19.99 | 3 | pB; S; bM | 4 |
| 2557 | { 981 | II. 553 | ..... | 11 40 53.3 | 3.053 | 2 | 100 10 27.7 | 19.99 | 2 | pB; pL; R; gbM; r | 4 |
| | = | | | | | | | | | | |
| 2558 | 3361 | ..... | ..... | 11 40 53.3 | 3.053 | 2 | 100 10 27.7 | 19.99 | 2 | pB; pL; R; gbM; r | 4 |
| 2558 | ..... | III. 940 | ..... | 11 40 54.2 | 3.462 | 1 | 14 52 59.0 | 20.00 | 1 | vF; S; R; bM | 1 |
| 2559 | 982 | II. 738 | ..... | 11 41 12.9 | 3.192 | 1 | 40 30 26.0 | 20.00 | 1 | B; pL; R; mbM | 2+ |
| 2560 | 983 | I. 248 | ..... | 11 41 18.7 | 3.250 | 2 | 29 48 43.0 | 20.00 | 2 | B; pL; iR; pgmbM; p of 2 .. | 4 |
| 2561 | 984 | II. 832 | ..... | 11 41 29.7 | 3.248 | 1 | 29 47 51.0 | 20.00 | 1 | pF; pL; vLE; gbM; f of 2 ... | 3 |
| 2562 | ..... | II. 739 | ..... | 11 41 36.1 | 3.189 | 1 | 40 30 59.0 | 20.00 | 1 | F; vS | 1 |
| 2563 | 986 | II. 408 | ..... | 11 41 41.5 | 3.144 | 3 | 54 11 35.0 | 20.00 | 3 | F; S; R; bM | 5 |
| 2564 | 985 | I. 228 | ..... | 11 41 45.6 | 3.224 | 4 | 33 8 26.0 | 20.00 | 4 | B; pL; lE; svmbM | 6 |
| 2565 | 987 | ..... | ..... | 11 41 51.5 | 3.123 | 1 | 62 46 31.0 | 20.00 | 1 | pB; R; smbM | 1 |
| 2566 | 988 | I. 82 | ..... | 11 41 53.3 | 3.124 | 5 | 62 11 43.0 | 20.00 | 5 | B; pL; vLE 0°±; bMN | 8 |
| 2567 | ..... | III. 970 | ..... | 11 41 58.8 | 3.564 | 1 | 11 7 57.0 | 20.00 | 1 | pF; pL; r | 1 |
| 2568 | 989 | III. 321 | ..... | 11 42 1.2 | 3.122 | 2 | 63 5 50.0 | 20.00 | 2 | F; pS; lE; vglbM | 3 |
| 2569 | 3362 | ..... | ..... | 11 42 1.4 | 2.998 | 2 | 126 44 21.0 | 20.00 | 2 | pB; cS; vLE; lbM | 2 |
| 2570 | 3363 | II. 864 | ..... | 11 42 9.2 | 3.019 | 1 | 118 32 27.0 | 20.00 | 1 | pB; S; R; mbM | 2 |
| 2571 | ..... | III. 715 | ..... | 11 42 11.9 | 3.185 | 1 | 40 48 0.0 | 20.00 | 1 | eF; pL | 1 |
| 2572 | 990 | ..... | ..... | 11 42 19.8 | 3.065 | 1 | 90 19 7.0 | 20.00 | 1 | eF; S; psbM | 1 |
| 2573 | 3364 | ..... | ..... | 11 42 34.3 | 2.967 | 1 | 137 29 23.0 | 20.00 | 1 | Cl; vL; lC; st 9...14 | 2 |
| 2574 | 991 | III. 341 | ..... | 11 42 42.2 | 3.117 | (1) | 64 17 48.0 | 20.00 | 1: | vF; S; p of 2 | 2 |
| 2575 | 992 | II. 342 | ..... | 11 42 49.0 | 3.120 | 3 | 62 44 0.3 | 20.01 | 3 | F; pL; R; pgbM | 4 |
| 2576 | ..... | II. 786 | ..... | 11 43 0.7 | 3.209 | 1 | 33 53 0.3 | 20.01 | 1 | F; E | 1 |
| 2577 | ..... | III. 113 | ..... | 11 43 4.8 | 3.066 | 1 | 94 21 0.3 | 20.01 | 1 | eF; cS; bet 2 st | 1* |
| 2578 | 993 | II. 787 | ..... | 11 43 20.3 | 3.206 | 1 | 34 4 32.3 | 20.01 | 1 | eF; R; gbM | 2 |
| 2579 | 994 | ..... | ..... | 11 43 20.4 | 3.190 | 1 | 37 23 43.3 | 20.01 | 1 | F; L; vmE; vgbM | 1 |
| 2580 | 995 | III. 90 | ..... | 11 43 20.5 | 3.084 | 2 | 82 38 55.3 | 20.01 | 3 | F; vS; R; lbM; *13 np 80' | 4 |
| 2581 | 3365 | ..... | ..... | 11 43 23.9 | 2.934 | 4 | 146 24 8.3 | 20.01 | 5 | ○; l; S; R; blue; =*7m; 1*5=d. | 6 |
| 2582 | 996 | ..... | ..... | 11 43 33.5 | 3.115 | 1:: | 64 17 48.3 | 20.01 | 1 | Neb; f of 2 | 1 |
| 2583 | ..... | II. 824 | ..... | 11 43 36.9 | 3.193 | 1 | 36 21 30.3 | 20.01 | 1 | pB; L; mE | 1 |
| 2584 | 997 | II. 788 | ..... | 11 43 37.1 | 3.203 | 1 | 34 8 32.3 | 20.01 | 1 | vF; S; R; pspmbM | 2 |
| 2585 | ..... | III. 716 | ..... | 11 43 47.7 | 3.180 | 1 | 39 1 0.3 | 20.01 | 1 | pF; vS | 1 |
| 2586 | 3366 | I. 259 | ..... | 11 43 57.8 | 3.025 | 2 | 118 3 5.3 | 20.01 | 2 | B; pL; lE; gmbM; r; vS*sp inv. | 3 |
| 2587 | ..... | II. 825 | ..... | 11 43 59.4 | 3.189 | 1 | 39 8 0.3 | 20.01 | 1 | pB; S; iF; bM | 1 |
| 2588 | ..... | ..... | D'Arrest, 83 | 11 44 6 | 3.11 | [1] | 67 19 48 | 20.01 | [1] | vF; vS | 0 |
| 2589 | 998 | III. 379 | ..... | 11 44 11.2 | +3.108 | 1 | 67 12 20.3 | +20.01 | 1 | eF; cS; vLE; er; st nr..... | 4 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 2590 | 999 | II. 740 | ..... | 11 44 24.7 | +3.170 | 1 | 40 31 56.6 | +20.02 | 1 | pF; S; R; pspmbM | 2 |
| 2591 | 1000 | III. 616 | ..... | 11 44 29.7 | 3.139 | 2 | 51 13 20.6 | 20.02 | 2 | eF; cL; iF; glbM; *6n5'; *7f | 4* |
| 2592 | ..... | III. 769 | ..... | 11 44 39.8 | 3.182 | 1 | 37 16 0.6 | 20.02 | 1 | eF; S | 1 |
| 2593 | ..... | ..... | D'Arrest, 84 | 11 44 49 | 3.17 | [1] | 40 35 48 | 20.01 | [1] | vF; v diffie; H. II. 740 np ... | 0 |
| 2594 | 1001 | ..... | ..... | 11 45 8.9 | 3.124 | 3 | 56 48 50.6 | 20.02 | 3 | pF; S; IE; psbM | 3 |
| 2595 | 3367 | ..... | ..... | 11 45 19.8 | 3.033 | 1 | 116 7 21.6 | 20.02 | 1 | vF; cL; vmE 59° 3' | 1 |
| 2596 | 1003 | III. 389 | ..... | 11 45 28.9 | 3.103 | 1 | 68 35 6.6 | 20.02 | 1 | vF; cS; R | 2 |
| 2597 | 1002 | I. 203 | ..... | 11 45 30.5 | 3.150 | 2 | 45 5 35.6 | 20.02 | 2 | R; vL; R; bMpBN; er | 3†* |
| 2598 | ..... | III. 971 | ..... | 11 45 31.1 | 3.378 | 1 | 14 7 0.6 | 20.02 | 1 | eF; vS; R | 1 |
| 2599 | 1004 | III. 380 | ..... | 11 45 34.2 | 3.103 | 1 | 68 14 0.6 | 20.02 | 1 | vF; cS; R | 3 |
| 2600 | 1005 | I. 173 | ..... | 11 45 38.3 | 3.132 | 3 | 52 13 50.6 | 20.02 | 3 | vB; pL; R; smbM*9 | 4 |
| 2601 | 1007 | III. 322 | ..... | 11 45 50.3 | 3.111 | 3 | 63 0 39.6 | 20.02 | 3 | pF; pS; R; psbM | 4 |
| 2602 | 1006 | I. 251 | ..... | 11 45 50.5 | 3.211 | 2 | 28 33 14.6 | 20.02 | 2 | B; pL; R; gmbM; r; *f. | 3 |
| 2603 | 1008 | II. 403 | ..... | 11 46 7.9 | 3.101 | 1 | 68 28 0.6 | 20.02 | 2 | F; pS; iE; lbM; *p | 5 |
| 2604 | 1009 | I. 202 | ..... | 11 46 21.7 | 3.155 | 2 | 41 21 59.9 | 20.03 | 2 | cB; pL; pmE; vgbM | 4* |
| 2605 | 1010 | III. 342 | ..... | 11 46 22.4 | 3.105 | 1 | 65 49 28.6 | 20.02 | 1 | vF; cS; vIE | 2 |
| 2606 | 1011 | V. 45 | ..... | 11 46 27.4 | 3.169 | 1 | 36 53 3.9 | 20.03 | 1 | cB; L; E 0° ±; vsbMLrN ... | 3† |
| 2607 | 1012 | III. 612 | ..... | 11 46 28.1 | 3.068 | 2 | 93 13 23.9 | 20.03 | 2 | cF; cS; IE 90° ±; bM; r ... | 4 |
| 2608 | 1013 | III. 381 | ..... | 11 46 30.0 | 3.101 | 1 | 68 20 44.9 | 20.03 | 1 | eF; R | 2* |
| 2609 | ..... | II. 623 | ..... | 11 46 53.7 | 3.043 | 2 | 112 24 0.9 | 20.03 | 2 | cF; S; E 170° ±; lbs | 2 |
| 2610 | 3368 | III. 290 | ..... | 11 46 56.8 | 3.047 | 1 | 109 47 29.9 | 20.03 | 1 | cF; pL; pmE 56° 8' | 2 |
| 2611 | ..... | II. 294 | ..... | 11 46 58.4 | 3.048 | 1 | 108 47 0.9 | 20.03 | 1 | F; S; E; r | 1 |
| 2612 | 1014 | II. 833 | ..... | 11 47 1.8 | 3.188 | 2 | 30 51 20.9 | 20.03 | 2 | pF; pS; pmE; vgbM | 3 |
| 2613 | 1015 | IV. 67 | ..... | 11 47 27.9 | 3.184 | 2 | 30 43 51.9 | 20.03 | 2 | pF; cL; R; vg, sbM | 3 |
| 2614 | 3369 | ..... | Δ. 349 | 11 47 29.3 | 2.976 | 1:: | 144 56 21.9 | 20.03 | 1 | Cl; pL; pRi; gplmbM; st 13 | 3 |
| 2615 | ..... | III. 905 | ..... | 11 47 31.4 | 3.254 | 1 | 19 54 0.9 | 20.03 | 1 | eF; vS | 1 |
| 2616 | 3370 | I. 67 | ..... | 11 47 32.4 | 3.056 | 2 | 103 11 30.9 | 20.03 | 2 | cB; pL; iR; gmbM; Δ 2 st... | 6 |
| 2617 | 1016 | ..... | ..... | 11 47 39.1 | 3.108 | 2 | 60 57 8.9 | 20.03 | 2 | vF; S; E; *10nf att | 3 |
| 2618 | ..... | II. 789 | ..... | 11 48 4.2 | 3.166 | 1 | 33 54 0.9 | 20.03 | 1 | pB; E | 1 |
| 2619 | ..... | II. 790 | ..... | 11 48 4.2 | 3.166 | 1 | 33 54 0.9 | 20.03 | 1 | F; S | 1 |
| 2620 | 1017 | IV. 62 | ..... | 11 48 6.5 | 3.165 | 1 | 34 6 0.9 | 20.03 | 1 | B; pL; R; g, sbM disc | 2 |
| 2621 | 1018 | II. 162 | ..... | 11 48 16.5 | 3.086 | 2 | 77 15 16.9 | 20.03 | 2 | pB; L; iR; bM; *10, 25°, 5' | 4 |
| 2622 | 1018, a | ..... | R. nova | 11 48 + | ..... | ... | 77 15 - | ..... | ... | nf h. 1018 | 0 |
| 2623 | 1020 | ..... | ..... | 11 48 18.9 | 3.060 | 1 | 101 15 54.9 | 20.03 | 1 | F; S; R; psbM; p of 2 | 1 |
| 2624 | 1019 | II. 724 | ..... | 11 48 20.0 | 3.109 | 1 | 59 13 39.9 | 20.03 | 1 | pF; vS; R; bM | 2 |
| 2625 | 1021 | ..... | ..... | 11 48 32.4 | 3.060 | 1 | 101 12 44.9 | 20.03 | 1 | vF; S; R; bM; f of 2 | 1 |
| 2626 | 1022 | II. 132 | ..... | 11 48 45.9 | 3.079 | 3 | 82 28 4.2 | 20.04 | 3 | B; pL; cE 30°; vsmbMN ... | 4 |
| 2627 | 1023 | II. 840 | ..... | 11 48 54.9 | 3.178 | 2 | 28 42 30.2 | 20.04 | 2 | cF; S; IE; bM; *8, 90°, 6' | 3 |
| 2628 | ..... | III. 274 | ..... | 11 49 3.7 | 3.052 | 1 | 109 7 1.2 | 20.04 | 1 | vF; pL; iF | 1 |
| 2629 | 1024 | III. 343 | ..... | 11 49 10.1 | 3.098 | 1 | 65 20 55.2 | 20.04 | 1 | cF; cS; R; psbM | 2 |
| 2630 | 1026 | ..... | ..... | 11 49 23.3 | 3.104 | 1 | 60 13 26.2 | 20.04 | 1 | eF; S; R; bM | 1 |
| 2631 | 1025 | III. 707 | ..... | 11 49 23.7 | 3.136 | 1 | 40 52 57.2 | 20.04 | 1 | vF; cS; another suspected ... | 3 |
| 2632 | 1027 | ..... | ..... | 11 49 30.3 | 3.107 | 3 | 57 11 59.2 | 20.04 | 3 | pF; S; pmE 90° ±; *11 nr... | 1 |
| 2633 | 1028 | ..... | ..... | 11 50 9.6 | 3.100 | 1 | 61 20 43.2 | 20.04 | 1 | vF; S; R; bM*; p of 2 | 2 |
| 2634 | 1029 | II. 791 | ..... | 11 50 14.3 | 3.147 | 1 | 33 46 31.2 | 20.04 | 1 | pF; S; IE; psbM | 2 |
| 2635 | 1030 | IV. 61 | ..... | 11 50 15.6 | 3.142 | 1 | 35 50 34.2 | 20.04 | 1 | cB; vL; pmE; sbMBrN | 3 |
| 2636 | 1032 | ..... | ..... | 11 50 34.2 | 3.085 | 3 | 74 55 29.2 | 20.04 | 2 | vF; pL; R; 2 st f. | 3 |
| 2637 | 1031 | I. 229 | ..... | 11 50 34.3 | 3.145 | 1 | 33 46 21.2 | 20.04 | 1 | cB; pS; R; vg, smbM | 2 |
| 2638 | 1033, a | ..... | R. 3 novæ | 11 50 ± | ..... | ... | 63 57 ± | ..... | ... | one S, R; the other two E ... | 0 |
| 2640 |  | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2641 | | III. 323 | ..... | 11 50 36.1 | 3.095 | 1 | 63 57 34.2 | 20.04 | 1 | pF; vS; E 25° bet 2 st | 2 |
| 2642 | 1040, a | ..... | R. nova | 11 50 44.7 | 3.121 | :: | 41 54 13.2 | 20.04 | :: | S; R; 7' np h. 1040 | 0 |
| 2643 | 1034 | III. 344 | ..... | 11 50 45.6 | 3.093 | 1 | 66 0 39.2 | 20.04 | 1 | vF; vS; R; n of 2 | 2 |
| 2644 | 1035 | III. 345 | ..... | 11 50 45.6 | 3.093 | 1 | 66 4 59.2 | 20.04 | 1 | vF; vS; R; s of 2 | 2 |
| 2645 | 1036 | III. 354? | ..... | 11 50 52.9 | 3.097 | 2 | 61 20 22.2 | 20.04 | 2 | F; vS; R; *12 near | 3 |
| 2646 | ..... | III. 324 | ..... | 11 50 53.4 | 3.095 | 1 | 63 53 51.2 | 20.04 | 1 | eF; suspected | 1 |
| 2647 | 1037 | ..... | ..... | 11 50 56.3 | 3.070 | 1 | 91 21 8.2 | 20.04 | 1 | F; S; R; bM; *11 nf | 1 |
| 2648 | ..... | III. 325 | ..... | 11 50 57.6 | 3.087 | 1 | 66 6 2.2 | 20.04 | 1 | eF; vS | 1 |
| 2649 | 1038 | II. 368 | ..... | 11 51 3.0 | 3.097 | 4 | 61 1 33.2 | 20.04 | 3 | pB; pS; R; psbM; r | 5 |
| 2650 | 1039 | ..... | ..... | 11 51 4.6 | +3.097 | 1 | 61 10 ± ? | +20.04 | 0 | vB; mE; mbM (?P.D.) | 1* |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 2651 | 1040 | ..... | ..... | 11 51 14.4 | +3.121 | 1 | 41 59 10.2 | +20.04 | 1 | F; pL; mE; vglbM | 1 |
| 2652 | 1041 | II. 733 | ..... | 11 51 19.2 | 3.116 | 2 | 45 17 9.2 | 20.04 | 2 | B; cL; mE 62° 3; vsvmbM*10 | 3*+ |
| 2653 | 1042 | ..... | ..... | 11 51 24.9 | 3.086 | 2 | 73 2 32.2 | 20.04 | 2 | pB; pS; R; psbM | 2* |
| 2654 | 1043, a | ..... | R. nova | 11 51 33 | 3.095 | : | 61 39 50 | 20.04 | : | vF | 0 |
| 2655 | 1043 | II. 369 | ..... | 11 51 33.0 | 3.095 | (1) | 61 44 50.2 | 20.04 | 2 | F; L; E; gbfM | 4 |
| 2656 | 1044 | ..... | ..... | 11 51 42.8 | 3.083 | 1 | 75 0 46.2 | 20.04 | 1 | eF; *9 sf 5' | 1 |
| 2657 | 1045 | II. 725 | ..... | 11 51 43.9 | 3.097 | 1 | 58 47 57.5 | 20.05 | 1 | pB; pL; E 19° 5; biN | 2 |
| 2658 | ..... | II. 295 | ..... | 11 51 56.2 | 3.059 | 1 | 107 35 2.5 | 20.05 | 1 | F; vS; iF; bM | 1 |
| 2659 | 1046 | III. 617 | ..... | 11 51 57.7 | 3.104 | 1 | 51 24 39.5 | 20.05 | 1 | eF; pL; R | 3 |
| 2660 | 1047 | I. 223 | ..... | 11 52 6.8 | 3.122 | 1 | 38 15 44.5 | 20.05 | 1 | vB; cL; mE 160° ±; vsvmbMBN. | 3 |
| 2661 | 3371 | II. 296 | ..... | 11 52 23.1 | 3.059 | 1 | 108 29 25.5 | 20.05 | 1 | ⊕; pF; pL; R; rr; st 16 ... | 2 |
| 2662 | ..... | III. 3 | ..... | 11 52 45.0 | 3.083 | 2 | 73 0 1.5 | 20.05 | 2 | vF; vS; vL; r | 2 |
| 2663 | 1048 | I. 121 | ..... | 11 53 12.3 | 3.072 | 2 | 90 19 7.5 | 20.05 | 2 | cB; L; vL; psmbM; B st nr | 4 |
| 2664 | 1049 | II. 404 | ..... | 11 53 21.0 | 3.084 | 6 | 69 8 34.5 | 20.05 | 6 | pF; pL; R; gbM; *12 nf... | 7 |
| 2665 | ..... | II. 508 | ..... | 11 53 21.4 | 3.062 | 1 | 107 3 2.5 | 20.05 | 1 | pB; S; iE; bM | 1 |
| 2666 | ..... | III. 903 | ..... | 11 53 45.4 | 3.155 | 1 | 19 52 1.5 | 20.05 | 1 | eF; S; iF; gvlbM | 1 |
| 2667 | 3372 | III. 279 | ..... | 11 53 50.5 | 3.064 | 1 | 105 10 13.5 | 20.05 | 1 | eF; pL; *945° + | 2 |
| 2668 | 1050 | I. 253 | ..... | 11 54 12.4 | 3.125 | 1 | 27 19 59.5 | 20.05 | 1 | { H. vb; vL; E } { h. pB; 25°; R } | 2* |
| 2669 | 1051 | III. 77 | ..... | 11 54 13.1 | 3.079 | 2 | 75 49 13.5 | 20.05 | 2 | eF; pL; R; r | 3 |
| 2670 | 1052 | IV. 28.1 | ..... | 11 54 43.7 | 3.064 | 1 | 108 5 11.5 | 20.05 | 1 | pB; cL; R; vgbM | 2+ |
| 2671 | 1053 | IV. 28.2 | ..... | 11 54 43.7 | 3.064 | 1 | 108 7 11.5 | 20.05 | 1 | pF; pL | 2+ |
| 2672 | 1054 | I. 252 | ..... | 11 54 58.6 | 3.117 | 2 | 27 5 10.5 | 20.05 | 2 | B; cL; R; g, psymbMrN ... | 3 |
| 2673 | 1055 | ..... | ..... | 11 55 10.9 | 3.074 | 1 | 84 52 38.5 | 20.05 | 2 | pF; S; R; psbM; * f 30° ... | 2 |
| 2674 | 1056 | III. 491 | ..... | 11 55 18.9 | 3.072 | 1 | 89 25 53.5 | 20.05 | 1 | eF; cS; R; bM | 3 |
| 2675 | 1057 | II. 276 | ..... | 11 55 32.9 | 3.072 | 1 | 87 14 48.5 | 20.05 | 1 | pF; L; R; sbM; *sf | 4 |
| 2676 | 1058 | II. 741 | ..... | 11 55 36.5 | 3.095 | 1 | 40 35 7.5 | 20.05 | 1 | pB; pS; R | 2 |
| 2677 | 1059 | ..... | ..... | 11 55 38.9 | 3.079 | 2 | 71 12 12.5 | 20.05 | 2 | vF; vS; R; psbM | 2 |
| 2678 | 1060 | III. 390 | ..... | 11 55 41.8 | 3.079 | 1 | 70 28 21.5 | 20.05 | 3 | eF; pS; R; glbM | 4 |
| 2679 | ..... | II. 509 | ..... | 11 55 47.7 | 3.066 | 1 | 105 36 2.5 | 20.05 | 1 | F; cL; iR; lbM | 1 |
| 2680 | 1061 | IV. 56 | ..... | 11 55 58.3 | 3.089 | 4 | 44 41 3.5 | 20.05 | 4 | B; vL; E; vg, vsmbM * 11... | 5+ |
| 2681 | 3373 | ..... | ..... | 11 55 59.6 | 3.039 | 1 | 152 24 13.5 | 20.05 | 1 | Cl; pRi; IC | 1 |
| 2682 | ..... | III. 794 | ..... | 11 56 8.6 | 3.099 | 1 | 31 18 2.5 | 20.05 | 1 | eF; S | 1 |
| 2683 | 1062 | ..... | ..... | 11 56 32.1 | 3.078 | 1 | 68 10 1.5 | 20.05 | 1? | pB. P.D. very doubtful ... | 1* |
| 2684 | 1063 | ..... | ..... | 11 56 36.6 | 3.078 | 1:: | 68 8 1.5 | 20.05 | 1? | pB. P.D. very doubtful ... | 1* |
| 2685 | 1064 | ..... | ..... | 11 56 40.6 | 3.078 | 1:: | 67 55 1.5 | 20.05 | 1? | pB. P.D. very doubtful ... | 1* |
| 2686 | 1065 | ..... | ..... | 11 56 51.4 | 3.077 | 3 | 68 59 39.5 | 20.05 | 3 | vF; S; R; D neb pos 70° ... | 3* |
| 2687 | 1066 | I. 174 | ..... | 11 56 53.2 | 3.080 | 4 | 57 19 32.5 | 20.05 | 4 | pB; vL; mE 97°; vgbM..... | 5 |
| 2688 | ..... | ..... | D'Arrest, 85 | 11 56 57 | 3.07 | [1] | 70 46 42 | 20.06 | [1] | B; E; gbM * 17 p, 82' dist.. | 0 |
| 2689 | 1067 | ..... | ..... | 11 56 57.5 | 3.077 | 2 | 68 59 58.5 | 20.05 | 2 | pF; R | 2* |
| 2690 | 1068 | ..... | ..... | 11 56 59.7 | 3.076 | 4 | 68 51 54.5 | 20.05 | 4 | pB | 4* |
| 2691 | 1069 | III. 37 | ..... | 11 57 1.0 | 3.074 | 5 | 78 21 53.5 | 20.05 | 5 | F; pS; R; gbM | 6 |
| 2692 | ..... | II. 781 | ..... | 11 57 1.6 | 3.087 | 2 | 36 40 2.5 | 20.05 | 2 | pF; S; stellar | 2 |
| 2693 | 1070 | III. 392 | ..... | 11 57 1.7 | 3.076 | 1 | 68 53 38.5 | 20.05 | 1 | vF; vS | 2* |
| 2694 | 1071 | III. 391 | ..... | 11 57 2.0 | 3.076 | 2 | 68 49 13.5 | 20.05 | 2 | F; vS | 2* |
| 2695 | 3374 | ..... | ..... | 11 57 4.9 | 3.046 | 1 | 156 31 32.5 | 20.05 | 1 | vF; vS; R; bM*; am st ... | 1 |
| 2696 | 1072 | II. 277 | ..... | 11 57 17.2 | 3.072 | 4 | 87 19 26.5 | 20.05 | 4 | F; pS; R; pgbM; np of 2 ... | 7 |
| 2697 | 1073 | III. 393 | ..... | 11 57 20.8 | 3.076 | 1 | 68 54 1.5 | 20.05 | 1 | eF; vS | 2* |
| 2698 | 1074 | ..... | ..... | 11 57 20.9 | 3.072 | 1 | 87 9 8.5 | 20.05 | 1 | F; S; R | 1 |
| 2699 | 1075 | III. 394 | ..... | 11 57 24.7 | 3.076 | 1 | 69 3 31.8 | 20.06 | 1 | vF; vS | 2* |
| 2700 | 1076 | III. 258 | ..... | 11 57 29.5 | 3.072 | 1 | 87 26 4.8 | 20.06 | 1 | eF; cS; vL; bM; sf of 2 ... | 3 |
| 2701 | ..... | III. 395 | ..... | 11 57 32.3 | 3.075 | 2? | 69 7 1.8 | 20.06 | 2? | vF; vS | 1* |
| 2702 | ..... | III. 396 | ..... | 11 57 32.3 | 3.075 | 2? | 69 7 1.8 | 20.06 | 2? | vF; vS | 1* |
| 2703 | 1077 | ..... | ..... | 11 57 38.1 | 3.072 | 1 | 91 36 8.8 | 20.06 | 1 | F; L; R; * 10 n 60" | 1 |
| 2704 | 1078 | III. 355 | ..... | 11 57 42.0 | 3.076 | 4 | 62 13 27.8 | 20.06 | 4 | cF; pS; E; gbM | 5 |
| 2705 | ..... | ..... | D'Arrest, 86 | 11 58 13 | 3.08 | [1] | 38 54 7 | 20.06 | [1] | F; iE; I. 206 nr | 0 |
| 2706 | 3375 | III. 754 | ..... | 11 58 24.4 | 3.070 | 1 | 115 44 43.8 | 20.06 | 1 | pB; S; R; bM | 2 |
| 2707 | ..... | I. 224 | ..... | 11 58 40.3 | 3.074 | 2 | 38 56 2.8 | 20.06 | 2 | B; pL; pmE; vsbM | 2 |
| 2708 | ..... | I. 206 | ..... | 11 58 42.2 | 3.074 | 3 | 38 42 22.8 | 20.06 | 3 | B; cL; pmE 135° ±; lbM ... | 3 |
| 2709 | 3376 | ..... | ..... | 11 58 44.2 | +3.072 | 1 | 103 45 28.8 | +20.06 | 1 | eF; L; pmE; vgbM; 2 st 11 nr | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
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| | h. | H. | | h m s | s | | | | | | |
| 2710 | 1079 | III. 382 | | 11 58 45.3 | +3.072 | 1 | 68 38 1.8 | +20.06 | 2 | vF; vS..... | 4 |
| 2711 | 1081 | I. 207 | | 11 58 51.9 | 3.072 | 1 | 41 44 34.8 | 20.06 | 1 | pB; vL; mE 32°0 | 4 |
| 2712 | 1080 | III. 400 | ..... | 11 58 53.1 | 3.072 | 2 | 52 21 4.8 | 20.06 | 2 | eF; vS; R; stellar; *10 sp 2' | 6 |
| 2713 | 1082 | III. 383 | ..... | 11 58 54.0 | 3.072 | 2 | 68 36 5.8 | 20.06 | 3 | eF; eS; R; bM | 5 |
| 2714 | ..... | III. 384 | ..... | 11 58 57.0 | 3.072 | 1 | 68 35 2.8 | 20.06 | 1 | eF; eS..... | 2 |
| 2715 | 1084 | III. 717 | ..... | 11 58 59.8 | 3.072 | 1 | 39 38 47.8 | 20.06 | 1 | pB; vL; vmE 166°5; vglbM | 3 |
| 2716 | 1083 | III. 326 | ..... | 11 59 0.1 | 3.072 | 2 | 63 39 44.8 | 20.06 | 2 | eF; vS; R; vgbM | 3 |
| 2717 | 1085 | I. 225 | ..... | 11 59 15.4 | 3.070 | 1 | 36 30 34.8 | 20.06 | 1 | B; pS; R; bMBrN; *12 sp, v, nr | 3 |
| 2718 | 3377 | ..... | Δ. 291 | 11 59 28.0 | 3.077 | 3 | 150 27 56.8 | 20.06 | 3 | Cl; pL; pC; iR; st 10...14... | 3 |
| 2719 | 1086 | II. 370 | ..... | 11 59 28.8 | 3.070 | 6 | 61 2 37.8 | 20.06 | 6 | pB; pS; lE; bM | 7 |
| 2720 | 3378 | II. 865 | ..... | 11 59 29.4 | 3.074 | 2 | 119 0 26.8 | 20.06 | 2 | pF; pS; R; psbM; r; p of 2 | 3 |
| 2721 | 3379 | II. 866 | ..... | 11 59 34.4 | 3.074 | 2 | 119 0 41.8 | 20.06 | 2 | pF; pS; R; pgbM; f of 2 | 3 |
| 2722 | 1087 | ..... | ..... | 11 59 39.8 | 3.062 | 1 | 22 3 42.8 | 20.06 | 1 | B; S; R; gbM | 1 |
| 2723 | 1088 | I. 195 | ..... | 11 59 52.9 | 3.067 | 2 | 46 9 26.8 | 20.06 | 2 | vB; pS; mE 151°0 | 4 |
| 2724 | 3380 | ..... | ..... | 11 59 55.8 | 3.077 | 2 | 129 25 18.8 | 20.06 | 2 | F; S; vIE; glbM; 3Bst nr... | 2 |
| 2725 | 1089 | ..... | ..... | 12 0 0.5 | 3.068 | 1 | 55 13 46.8 | 20.06 | 1 | eF | 1 |
| 2726 | 3381 | III. 533 | ..... | 12 0 0.9 | 3.074 | 1 | 102 24 23.8 | 20.06 | 1 | eF; S; iR; gbM | 2 |
| 2727 | 1090 | ..... | ..... | 12 0 1.7 | 3.070 | 1 | 74 49 13.8 | 20.06 | 1 | eF; suspected | 1 |
| 2728 | 1092, a | ..... | R. nova | 12 0 19.8 | 3.072 | ... | 86 30 33.5 | 20.06 | ... | Hook-shaped; h. 1092 is nf 45°; 14' dist. | 0 |
| 2729 | 1091 | III. 708 | ..... | 12 0 26.9 | 3.064 | 1:: | 46 12 1.8 | 20.06 | 1:: | vF; vS..... | 2 |
| 2730 | ..... | II. 14 | ..... | 12 0 42.1 | 3.070 | 1 | 79 41 2.5 | 20.05 | 1 | lE..... | 1* |
| 2731 | ..... | III. 904 | ..... | 12 0 56.3 | 3.040 | 1 | 19 38 2.5 | 20.05 | 1 | eF; vS; E | 1 |
| 2732 | 1093 | ..... | ..... | 12 0 59.2 | 3.064 | 1 | 56 13 7.5 | 20.05 | 1 | eF; vS; R; mbM | 1 |
| 2733 | 1092 | V. 4 | ..... | 12 0 59.4 | 3.072 | 2 | 86 20 39.5 | 20.05 | 2 | eF; vL; E 90°±; bM *16... | 4† |
| 2734 | 1094 | { I. 33 = II. 60 } | ..... | 12 1 1.2 | 3.070 | 2 | 78 50 36.5 | 20.05 | 3 | pB; pL; mE 120°; bM; r ... | 5 |
| 2735 | ..... | ..... | Auw. N. 28 | 12 1 3.1 | 3.045 | ... | 24 2 50.6 | 20.05 | ... | pB; pL; eE; mbMN (Hind, Jan. 5, 1850). | 0 |
| 2736 | 1095 | III. 68 | ..... | 12 1 28.2 | 3.067 | 1 | 73 5 11.5 | 20.05 | 1 | vF; S; R; psbM; bet 2 vS st | 2 |
| 2737 | 1096 | I. 279 | ..... | 12 1 29.2 | 3.005 | 2 | 12 25 10.5 | 20.05 | 2 | F; pL; vIE; glbM | 4 |
| 2738 | ..... | I. 263 | ..... | 12 1 33.2 | 3.032 | 1 | 20 25 2.5 | 20.05 | 1 | cB; lE; bM | 1 |
| 2739 | { 1097 = 3382 } | II. 548 | ..... | 12 1 42.3 | 3.074 | 3 | 98 15 19.5 | 20.05 | 3 | F; pL; pmE 95°±; vglbM | 4 |
| 2740 | 1098 | III. 356 | ..... | 12 1 47.9 | 3.063 | 2 | 59 56 7.5 | 20.05 | 2 | eF; S; R; 1st of 3 | 3 |
| 2741 | 1099 | III. 357 | ..... | 12 1 52.9 | 3.063 | 3 | 59 58 57.5 | 20.05 | 3 | eF; S; iR; 2nd of 3 | 4 |
| 2742 | 1100 | I. 278 | ..... | 12 1 59.4 | 3.003 | 2 | 14 19 20.5 | 20.05 | 2 | pB; cL; R; gmbM | 3 |
| 2743 | 1101 | II. 371 | ..... | 12 2 1.4 | 3.062 | 2 | 60 3 7.5 | 20.05 | 2 | pF; pL; lE; 3rd of 3 | 4 |
| 2744 | 1108 | II. 321 | ..... | 12 2 6.7 | 3.061 | 1 | 59 18 5.5 | 20.05 | 1 | F; vL; vgbM | 3 |
| 2745 | ..... | I. 196 | ..... | 12 2 23.2 | 3.053 | 2 | 45 32 32.5 | 20.05 | 2 | B; pL; lE; vgbM; * np | 2 |
| 2746 | 1102 | III. 795 | ..... | 12 2 29.8 | 3.037 | 1 | 30 22 0.5 | 20.05 | 1 | vF; pS; lE; gbM; r | 3 |
| 2747 | 1103 | III. 814 | ..... | 12 2 31.4 | 3.044 | 1 | 36 6 6.5 | 20.05 | 1 | vF; S; iF; vglbM; er | 2* |
| 2748 | 1104 | IV. 54 | ..... | 12 2 43.5 | 3.051 | 1:: | 46 44 3.5 | 20.05 | 1 | cB; R; vg; vsbMN | 2 |
| 2749 | 1107 | II. 747 | ..... | 12 2 54.1 | 3.047 | 2 | 42 46 19.5 | 20.05 | 2 | pF; cL; vmE 109°0; vgbM | 3 |
| 2750 | 1105 | I. 169 | ..... | 12 2 54.5 | 3.053 | 1 | 49 20 37.5 | 20.05 | 1 | B; vL; vglbM | 2 |
| 2751 | 1106, a | ..... | R. nova | 12 2 ± | ..... | ... | 70 40 ± | ..... | ... | S; prec h. 1106 | 0 |
| 2752 | 1106 | I. 19 | ..... | 12 2 55.5 | 3.064 | 3 | 70 40 17.5 | 20.05 | 3 | ⊕; vB; pL; R; gbM; rrr | 4 |
| 2753 | ..... | III. 327 | ..... | 12 2 56.8 | 3.060 | 1 | 62 48 2.5 | 20.05 | 1 | vF; pS | 1 |
| 2754 | 1109 | II. 802 | ..... | 12 3 22.6 | 3.030 | 1 | 30 56 13.5 | 20.05 | 1 | F; S; E | 2 |
| 2755 | 1110 | I. 73 | ..... | 12 3 26.7 | 3.057 | 1 | 58 49 5.5 | 20.05 | 1 | B; S; R; pgmbM | 3 |
| 2756 | 1111 | I. 165 | ..... | 12 3 27.0 | 3.050 | 2 | 49 49 31.5 | 20.05 | 2 | vB; S; R; vsmbMBN; p of 2 | 4† |
| 2757 | 1112 | II. 83 | ..... | 12 3 28.7 | 3.064 | 3 | 73 11 28.5 | 20.05 | 3 | pB; pL; R; pgmbM; r | 4 |
| 2758 | ..... | I. 11 | ..... | 12 3 36.9 | 3.063 | 1 | 70 52 2.5 | 20.05 | 1 | B; pL; E; bM | 1 |
| 2759 | ..... | III. 845 | ..... | 12 3 42.6 | 3.026 | 1 | 30 53 2.5 | 20.05 | 1 | vF; S; E 90°± | 1 |
| 2760 | 1113 | II. 642 | ..... | 12 3 46.5 | 3.049 | 2: | 49 45 45.5 | 20.05 | 2: | pF; S; E; vgbM; f of 2 | 4† |
| 2761 | 1114 | I. 208 | ..... | 12 4 0.9 | 3.036 | 1 | 38 43 54.5 | 20.05 | 1 | pF; cL; vmE 60°± | 4 |
| 2762 | 1115 | II. 405 | ..... | 12 4 4.2 | 3.061 | 1 | 69 2 58.5 | 20.05 | 1 | F; pS; lE; bM; pB* nf | 3 |
| 2763 | 1116 | III. 941 | ..... | 12 4 4.7 | 2.945 | 1 | 13 5 48.5 | 20.05 | 1 | eF; pS; R; Δ 2 st | 2 |
| 2764 | ..... | II. 803 | ..... | 12 4 39.4 | +3.018 | 2 | 31 27 2.5 | +20.05 | 2 | F; S; R | 2 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | | | | |
| 2765 | 1117 | II. 353 | ..... | 12 4 46.9 | +3.057 | 1 | 65 5 49.5 | +20.05 | 1 | B; L; iE; bM..... | 2 |
| 2766 | ..... | III. 399 | ..... | 12 4 56.4 | 3.046 | 2 | 53 2 2.5 | 20.05 | 2 | vF; pL; vIE; er | 2 |
| 2767 | 1118 | ..... | ..... | 12 5 4.5 | 3.045 | 1 | 52 43 3.5 | 20.05 | 1 | F; pL; R; vgbM; * sp 10'.. | 1 |
| 2768 | 1119 | II. 105 | ..... | 12 5 8.6 | 3.063 | 1 | 76 1 5.5 | 20.05 | 1 | pB; pL; iF; psbM; r; * inv | 3 |
| 2769 | 1120 | III. 358 | ..... | 12 5 14.5 | 3.051 | 2 | 60 3 17.5 | 20.05 | 2 | F; S; 1st of 4 | 4 |
| 2770 | 1123 | II. 792 | ..... | 12 5 16.6 | 3.016 | 1 | 33 2 58.5 | 20.05 | 1 | F; S; iE; gbM | 2 |
| 2771 | 1121 | II. 372 | ..... | 12 5 17.2 | 3.051 | 2 | 60 0 1.5 | 20.05 | 1: | F; S; 2nd of 4 | 4* |
| 2772 | 1122 | III. 359 | ..... | 12 5 18.7 | 3.051 | 2 | 60 5 31.5 | 20.05 | 2 | F; S; 3rd of 4 | 4 |
| 2773 | 1124 | III. 360 | ..... | 12 5 27.2 | 3.050 | 2 | 60 3 31.5 | 20.05 | 2 | F; eS; 4th of 4 | 4* |
| 2774 | 3383 | III. 534 | ..... | 12 5 30.9 | 3.081 | 1 | 103 14 38.5 | 20.05 | 1 | vF; pL; R; vgbM | 2 |
| 2775 | 1125 | ..... | ..... | 12 5 35.2 | 2.993 | 1 | 78 22 7.5 | 20.05 | 2 | vF; vL; E 45°±; *7 f | 2 |
| 2776 | 1126 | I. 9 | ..... | 12 5 42.9 | 3.070 | 1 | 87 55 28.5 | 20.05 | 1 | pB; pS; pmE 135°±; bMN | 5 |
| 2777 | 1127 | II. 133 | ..... | 12 5 53.0 | 3.067 | 3 | 82 11 3.5 | 20.05 | 3 | pF; S; iE 0°±; r | 5 |
| 2778 | ..... | III. 777 | ..... | 12 6 4.8 | 3.016 | 1 | 36 20 2.5 | 20.05 | 1 | eF; S; stellar | 1 |
| 2779 | 1128 | III. 697 | ..... | 12 6 13.1 | 3.031 | 2 | 45 32 36.5 | 20.05 | 2 | vF; cL; mE 170°± | 5 |
| 2780 | 3384 | ..... | ..... | 12 6 14.4 | 3.152 | 1 | 151 56 12.2 | 20.04 | 1 | Cl; mC; st eS | 1 |
| 2781 | 1129 | II. 373 | ..... | 12 6 15.1 | 3.048 | 3 | 60 42 57.2 | 20.04 | 3 | cF; L; R; gbM | 5 |
| 2782 | ..... | II. 813 | ..... | 12 6 28.8 | 3.018 | 1 | 38 30 2.2 | 20.04 | 1 | pB; S; iE | 1 |
| 2783 | 1131 | II. 106 | ..... | 12 6 38.7 | 3.061 | 1 | 75 48 11.2 | 20.04 | 1 | F; L; iE; vglbM; r | 3 |
| 2784 | 1133 | II. 409 | ..... | 12 6 39.4 | 3.038 | 1 | 52 35 28.2 | 20.04 | 1 | cF; pS; R; vglbM; r | 3 |
| 2785 | 1130 | ..... | ..... | 12 6 39.6 | 3.066 | 4 | 82 1 3.2 | 20.04 | 4 | cF; R; bM; near S* | 4 |
| 2786 | 1132 | ..... | M. 98 | 12 6 40.0 | 3.060 | 3 | 74 19 1.2 | 20.04 | 4 | B; vL; vmE 152°1; vsvmbM | 7 |
| 2787 | 1134 | II. 163 | ..... | 12 6 44.6 | 3.061 | 1 | 76 3 5.2 | 20.04 | 1 | vF; pL; E; vgbM | 2 |
| 2788 | 1135 | II. 867 | ..... | 12 7 6.6 | 3.004 | 1 | 34 40 46.2 | 20.04 | 1 | pB; vS; vsbM *12 | 2 |
| 2789 | ..... | III. 796 | ..... | 12 7 8.8 | 2.988 | 1 | 29 34 2.2 | 20.04 | 1 | eF | 1 |
| 2790 | 1136 | II. 374 | ..... | 12 7 26.4 | 3.045 | 4 | 60 48 15.2 | 20.04 | 4 | pB; S; R; vsmbM * | 5 |
| 2791 | 1137 | II. 134 | ..... | 12 7 28.5 | 3.066 | 1 | 83 24 54.2 | 20.04 | 1 | pF; pmE; vgbM | 2 |
| 2792 | 1139 | II. 793 | ..... | 12 7 29.7 | 2.997 | 1 | 33 12 18.2 | 20.04 | 1 | pF; pS; iE; gbM | 3 |
| 2793 | ..... | III. 797 | ..... | 12 7 32.0 | 2.983 | 2 | 29 16 2.2 | 20.04 | 2 | vF; S | 2 |
| 2794 | 1138 | II. 164 | ..... | 12 7 32.7 | 3.061 | 2 | 77 3 13.2 | 20.04 | 2 | cF; { H. vmE h. R, 2 obs. } lbM ... | 3 |
| 2795 | ..... | II. 165 | ..... | 12 7 44.7 | 3.060 | 1 | 76 4 2.2 | 20.04 | 1 | F; vmE | 1 |
| 2796 | 1140 | I. 175 | ..... | 12 8 1.5 | 3.037 | 2 | 56 1 26.2 | 20.04 | 2 | vB; S; R; psmbM | 3 |
| 2797 | 1141 | III. 397 | ..... | 12 8 8.0 | 3.051 | 1 | 68 33 36.2 | 20.04 | 2 | vF; cL; iR; vgbM | 4 |
| 2798 | ..... | ..... | D'Arrest, 87 | 12 8 9 | 2.96 | [1] | 25 25 42 | 20.04 | [1] | pB; pS; R; *12 f; ln | 0 |
| 2799 | 1142 | II. 107 | ..... | 12 8 19.4 | 3.058 | 1 | 75 19 25.2 | 20.04 | 1 | vF; pL; R; gbM | 2 |
| 2800 | ..... | II. 375 | ..... | 12 8 21.7 | 3.041 | 1 | 60 43 22.2 | 20.04 | 1 | F; pS | 1 |
| 2801 | 1143 | III. 850 | ..... | 12 8 23.4 | 2.945 | 1 | 23 14 29.2 | 20.04 | 1 | pF; pS; R; vgbM | 2 |
| 2802 | 1144 | II. 108 | ..... | 12 8 31.3 | 3.057 | 2 | 75 19 1.2 | 20.04 | 2 | B; L; E 90°±; g, sbM; r ... | 3 |
| 2803 | 1145 | II. 354 | ..... | 12 8 31.6 | 3.047 | 1 | 65 13 59.2 | 20.04 | 1 | cF; vS; R | 2 |
| 2804 | 1146 | I. 95 | ..... | 12 8 36.0 | 3.030 | 1 | 52 54 3.2 | 20.04 | 1 | cB; cL; iE; biN | 3+ |
| 2805 | 1147 | II. 135 | ..... | 12 8 44.8 | 3.065 | 3 | 32 49 9.2 | 20.04 | 3 | B; pS; E; sbM *11 | 4 |
| 2806 | 1148 | I. 35 | ..... | 12 8 46.7 | 3.058 | 2 | 76 4 2.2 | 20.04 | 3 | vB; vL; vmE 17°±; sbMN | 5+ |
| 2807 | 1149 | II. 748 | ..... | 12 8 49.1 | 3.009 | 4 | 42 8 55.2 | 20.04 | 5 | pF; L; mE 45°0; * n, p of 2 | 6+ |
| 2808 | ..... | III. 718 | ..... | 12 8 55.0 | 3.006 | 1 | 41 5 2.2 | 20.04 | 1 | vF; vS | 1 |
| 2809 | 3385 | ..... | ..... | 12 9 7.3 | 3.126 | 4 | 132 32 44.2 | 20.04 | 4 | pF; pL; pmE; vglbM | 4 |
| 2810 | 1150 | ..... | ..... | 12 9 9.1 | 2.931 | 1 | 22 59 24.2 | 20.04 | 1 | pB; S; R; psbM | 1 |
| 2811 | 1151 | I. 209 | ..... | 12 9 12.9 | 3.005 | 1 | 41 20 34.2 | 20.04 | 1 | cB; pL; pmE 134°4; psbM.. | 3 |
| 2812 | 1152 | II. 137 | ..... | 12 9 17.5 | 3.065 | 1: | 82 31 31.9 | 20.03 | 1 | pF; pL; R; r (? R.A. 10 ^m)... | 3 |
| 2813 | 1153 | II. 136 | ..... | 12 9 21.7 | 3.063 | 2 | 81 45 38.9 | 20.03 | 2 | pB; pS; iE; gb, not M; r ... | 4 |
| 2814 | ..... | II. 109 | ..... | 12 9 23.0 | 3.057 | 1 | 76 8 1.9 | 20.03 | 1 | r | 1* |
| 2815 | 1154 | ..... | ..... | 12 9 25.1 | 3.084 | 1 | 101 31 49.9 | 20.03 | 1 | F; eS; R; *170°, 60° | 1 |
| 2816 | 1155 | ..... | ..... | 12 9 28.9 | 3.005 | 1 | 42 12 32.9 | 20.03 | 1 | F; S; iE; f of 2 | 1 |
| 2817 | 1156 | II. 518 | ..... | 12 9 31.4 | 3.030 | 2 | 55 42 6.9 | 20.03 | 2 | F; vS; vIE; psbM; sp of 2... | 4 |
| 2818 | 1157 | ..... | ..... | 12 9 32.3 | 3.026 | 1 | 52 53 41.9 | 20.03 | 1 | vF; L; R; gbM | 1 |
| 2819 | 1158 | II. 519 | ..... | 12 9 36.9 | 3.030 | 2 | 55 39 37.9 | 20.03 | 2 | cF; vS; iE; psbM; nf of 2... | 4 |
| 2820 | 3386 | ..... | ..... | 12 9 41.0 | 3.160 | 1 | 144 31 20.9 | 20.03 | 1 | Cl; F; pL; iF; st 13...15 ... | 1 |
| 2821 | 1159 | II. 17 | ..... | 12 9 58.6 | 3.063 | 2 | 82 1 40.9 | 20.03 | 2 | pB; pL; pmE; iM; p of 2 ... | 5 |
| 2822 | 1160 | ..... | ..... | 12 9 59.5 | 3.067 | 1 | 85 32 30.9 | 20.03 | 1 | pB; L; R; gbM | 1 |
| 2823 | 1161 | II. 496 | ..... | 12 9 59.5 | 3.063 | 1 | 81 35 59.9 | 20.03 | 1 | pF; R; vsbMSN | 2 |
| 2824 | 1162 | II. 11 | ..... | 12 10 3.8 | +3.054 | 2 | 73 54 23.9 | +20.03 | 2 | pB; pL; iE; vgbM; r | 5 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1830, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 2825 | 1163 | V. 51 | ..... | 12 10 4.1 | +2.894 | 1 | 19 48 0.9 | +20.03 | 1 | vF; eL; mE 160°±; vgbM.. | 3 |
| 2826 | 1164 | III. 851 | ..... | 12 10 5.7 | 2.939 | 1 | 25 48 56.9 | 20.03 | 1 | vF; pS; iR; vglbM..... | 2 |
| 2827 | ..... | III. 719 | ..... | 12 10 13.6 | 2.999 | 1 | 41 44 31.9 | 20.03 | 1 | vF; vS; n of D neb | 1 |
| 2828 | ..... | III. 720 | ..... | 12 10 13.6 | 2.999 | 1 | 41 45 31.9 | 20.03 | 1 | vF; vS; s of D neb..... | 1 |
| 2829 | 1165 | III. 480 | ..... | 12 10 17.5 | 3.063 | 2 | 82 32 50.9 | 20.03 | 2 | vF; L; vgbM; *7 s | 3 |
| 2830 | 1166 | III. 725 | ..... | 12 10 20.5 | 3.003 | 2 | 43 35 49.9 | 20.03 | 2 | vF; cL; iR; vgbM; r..... | 4 |
| 2831 | 1167 | V. 41 | ..... | 12 10 27.9 | 3.019 | 2 | 51 24 39.9 | 20.03 | 2 | pB; vL; eE 43°±; vgbM ... | 3 |
| 2832 | 1168 | I. 74 | ..... | 12 10 32.5 | 3.033 | 3 | 59 36 54.9 | 20.03 | 3 | cB; pL; vLE; smbM; r | 5 |
| 2833 | ..... | III. 91 | ..... | 12 10 43.7 | 3.063 | 1 | 82 6 1.9 | 20.03 | 1 | eF | 1 |
| 2834 | 1169 | II. 742 | ..... | 12 10 48.8 | 2.995 | 2 | 41 49 7.9 | 20.03 | 2 | vF; S; pmE; psbM..... | 4 |
| 2835 | 1170 | I. 264 | ..... | 12 10 57.2 | 2.864 | 1 | 18 25 17.9 | 20.03 | 1 | pB; S; R; pgbM | 2 |
| 2836 | 1171 | I. 89 | ..... | 12 11 3.5 | 3.034 | 2 | 61 2 42.9 | 20.03 | 3 | vB; S; E; vsvmbMN; *6.7 f 90°. | 4 |
| 2837 | 1172 | III. 702 | ..... | 12 11 30.9 | 3.029 | 1:: | 59 23 0.9 | 20.03 | 1:: | vF; vS; R | 2 |
| 2838 | 1173 | ..... | M. 99 | 12 11 41.8 | 3.052 | 3 | 74 48 7.6 | 20.02 | 4 | !!; {(H. h.)B; L; R; gbM; r} (L) 3-branched spiral | 6+ |
| 2839 | 1174 | II. 846 | ..... | 12 11 56.0 | 2.898 | 1 | 23 19 23.6 | 20.02 | 1 | pB; L; cE 38°±; bMBN ... | 2 |
| 2840 | ..... | ..... | D'Arrest, 88 | 12 12 1 | 3.06 | [1] | 83 29 42 | 20.02 | [1] | vF pS; R; *18 s 2' | 0 |
| 2841 | 1175 | V. 43 | ..... | 12 12 1.7 | 2.988 | 3 | 41 55 40.6 | 20.02 | 4 | vB; vL; vmE 0°; sbMBN... | 8+ |
| 2842 | 1176 | II. 139 | ..... | 12 12 4.6 | 3.063 | 1 | 83 23 51.6 | 20.02 | 1 | F; pS; R; gbM | 4 |
| 2843 | 1177 | II. 138 | ..... | 12 12 12.9 | 3.063 | 2 | 83 9 22.6 | 20.02 | 2 | pB; E; psbM | 5 |
| 2844 | 1178 | ..... | ..... | 12 12 13.0 | 3.064 | 1 | 83 53 0.6 | 20.02 | 1 | neb; "1st of 5" | 1 |
| 2845 | 1179 | II. 110 | ..... | 12 12 22.0 | 3.051 | 1 | 74 20 51.6 | 20.02 | 1 | B; S; R; r | 3 |
| 2846 | ..... | III. 535 | ..... | 12 12 26.0 | 3.090 | 1 | 101 28 31.6 | 20.02 | 1 | vF; pL; iF | 1* |
| 2847 | 1180 | II. 140 | ..... | 12 12 26.3 | 3.063 | 1 | 83 22 30.6 | 20.02 | 1 | F; pS; R; gbM | 4 |
| 2848 | 1181 | II. 166 | ..... | 12 12 38.0 | 3.053 | 2 | 76 26 0.6 | 20.02 | 2 | pB; vS; R; vsmbM..... | 3 |
| 2849 | ..... | ..... | D'Arrest, 89 | 12 12 41 | 3.06 | [2] | 83 12 42 | 20.02 | [2] | pF; S; R; *9 f 18.7, n 85"... | 0* |
| 5070 | ..... | ..... | ..... | 12 12 41 | ..... | ... | 83 46 42 | ..... | ... | See No. 5070 | 0 |
| 2850 | 1182 | III. 299 | ..... | 12 12 45.0 | 3.024 | 1 | 58 52 49.6 | 20.02 | 1 | cF; S; iR; gmbM | 3 |
| 2851 | 1185 | I. 75 | ..... | 12 12 47.4 | 3.025 | 1 | 59 36 15.6 | 20.02 | 1 | vB; vL; E 90°±; mbMN ... | 3 |
| 2852 | 1183 | II. 568? | ..... | 12 12 48.2 | 3.064 | 1 | 83 53 1.6 | 20.02 | 1 | B; L; E; gbM | 1* |
| 2853 | ..... | II. 804 | ..... | 12 12 48.3 | 2.946 | 1 | 32 29 1.6 | 20.02 | 1 | pB; pL; iF | 1 |
| 2854 | 1184 | II. 376 | ..... | 12 12 49.1 | 3.029 | 1 | 61 36 0.6 | 20.02 | 2 | F; S; vLE; gbM; *15 nr ... | 3 |
| 2855 | 1186 | I. 90 | } | 12 13 3.4 | 3.025 | 2 | 59 56 25.6 | 20.02 | 2 | vB; pL; R; mbM; r; p of 2 | 5* |
| | | II. 322 | | | | | | | | | |
| 2856 | ..... | II. 571?? | ..... | 12 13 8.7 | 3.062 | 1 | 82 51 1.6 | 20.02 | 1 | 4 neb sc about. Place of the last (see note). | 1* |
| 2857 | 1187 | II. 573 | } | 12 13 12.5 | 3.063 | 1 | 83 50 34.6 | 20.02 | 1 | vB; vL; R; pgbM; "3 more seen." | 3* |
| | | II. 569? | | | | | | | | | |
| 2858 | 1188 | II. 323 | ..... | 12 13 18.6 | 3.024 | 2 | 59 54 20.6 | 20.02 | 2 | B; S; R; bM; 2nd of 3 | 4 |
| 2859 | ..... | II. 377 | ..... | 12 13 23.0 | 3.025 | 1 | 60 0 39.6 | 20.02 | 1 | ..... | 1* |
| 2860 | ..... | III. 798 | ..... | 12 13 25.7 | 2.933 | 1 | 31 6 1.6 | 20.02 | 1 | cF; lE; p of 2..... | 1 |
| 2861 | ..... | III. 300 | ..... | 12 13 35.7 | 3.023 | 2 | 59 51 31.3 | 20.01 | 2 | vF | 2 |
| 2862 | 1189 | II. 570? | ..... | 12 13 35.9 | 3.063 | 1:: | 83 54 0.6 | 20.02 | 1:: | vF; S | 1* |
| 2863 | 1188, a | ..... | R. nova? | 12 13 38.6 | 3.024 | ... | 59 51 20.6 | 20.02 | ... | Most probably = H. III. 300 | 0? |
| 2864 | 1191 | III. 726 | ..... | 12 13 41.0 | 2.980 | 3 | 42 56 17.3 | 20.01 | 3 | vF; pS; R; vgbM; r | 5 |
| 2865 | 1190 | II. 571? | ..... | 12 13 46.0 | 3.063 | 1 | 83 52 34.3 | 20.01 | 1 | vB; R; central of 4..... | 1* |
| 2866 | 1193 | II. 805 | ..... | 12 13 48.1 | 2.930 | 1 | 31 7 37.3 | 20.01 | 1 | pB; L; R; gmbM | 2 |
| 2867 | 1195 | V. 5 | ..... | 12 14 4.2 | 3.042 | 2 | 70 50 17.3 | 20.01 | 2 | F; vL; E; lbM; r | 3 |
| 2868 | 1192 | I. 275 | ..... | 12 14 4.8 | 2.720 | 3 | 13 51 7.3 | 20.01 | 4 | pB; vS; R; lbM; 3 st f | 6 |
| 2869 | 1194 | ..... | ..... | 12 14 6.1 | 3.063 | 2 | 83 49 57.3 | 20.01 | 2 | B; pL; lE; bM; 4th of 4..... | 3* |
| 2870 | 1196 | ..... | ..... | 12 14 6.1 | 3.064 | 1 | 84 38 4.3 | 20.01 | 2 | F; S; R; vglbM; B*340°, 60" | 2+ |
| 2871 | 1197 | II. 61 | ..... | 12 14 8.4 | 3.053 | 4 | 77 42 56.3 | 20.01 | 4 | F; L; mE 135°±; bi-N; p of 2 | 6 |
| 2872 | ..... | III. 92 | ..... | 12 14 23.6 | 3.061 | 2 | 82 34 1.3 | 20.01 | 2 | vF; vS..... | 2 |
| 2873 | ..... | III. 93 | ..... | 12 14 23.6 | 3.061 | 2 | 82 34 1.3 | 20.01 | 2 | eF; eS | 2 |
| 2874 | 1198 | II. 111 | ..... | 12 14 24.9 | 3.048 | 2 | 74 36 52.3 | 20.01 | 2 | F; L; E 0°±; vgbM, p of 2 | 4 |
| 2875 | 1200 | II. 62 | ..... | 12 14 32.7 | 3.053 | 2 | 77 43 1.3 | 20.01 | 2 | F; L; lE; vgbM; f of 2 | 4 |
| 2876 | 1201 | II. 572 | ..... | 12 14 33.1 | 3.063 | 1 | 83 50 23.3 | 20.01 | 1 | F; lE; vgbM | 2 |
| 2877 | 1199 | II. 112 | ..... | 12 14 33.2 | +3.047 | 2 | 74 36 53.3 | +20.01 | 2 | L; vmE 0°±; f of 2 | 4 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 2878 | 1202 | I. 139 | M. 61 | 12 14 45.1 | +3.064 | 2 | 84 44 55.3 | +20.01 | 2 | vB; vL; vsbM*; biN | 5* |
| 2879 | 3387 | ..... | ..... | 12 14 51.8 | 3.132 | 1 | 122 41 54.3 | 20.01 | 1 | vF; vL; R; vgvbM; r | 1 |
| 2880 | 1203 | ..... | ..... | 12 14 56.7 | 3.050 | 1 | 76 29 35.3 | 20.01 | 1 | vF; R | 1 |
| 2881 | 1204 | I. 76 | ..... | 12 15 23.5 | 3.016 | 1 | 59 19 46.0 | 20.00 | 1 | cB; L; E 150°±; sbM; * np | 3 |
| 2882 | 1205 | II. 378 | ..... | 12 15 24.5 | 3.017 | 1:: | 60 0 34.0 | 20.00 | 2 | B; cL; IE; np of 2 | 3 |
| 2883 | 1206 | ..... | ..... | 12 15 24.5 | 3.017 | 1 | 60 1 8.0 | 20.00 | 1 | F; sf of 2 | 1 |
| 2884 | 1202, a | ..... | R. nova? | 12 15 30 | 3.06 | ... | 84 35 40 | 20.00 | ... | F; E; 10' nf h. 1202 | 0+* |
| 2885 | 1207 | II. 63 | ..... | 12 15 30.2 | 3.051 | 2 | 77 26 25.0 | 20.00 | 2 | vF; L; E 135°±; r | 4 |
| 2886 | 1209 | II. 628 | ..... | 12 15 31.6 | 3.044 | (1) | 73 40 57.0 | 20.00 | 1 | pB; cL; E; gbM | 2 |
| 2887 | ..... | II. 324 | ..... | 12 15 34.9 | 3.011 | 1 | 58 11 0.0 | 20.00 | 1 | F; S | 1 |
| 2888 | 1210 | I. 276 | ..... | 12 15 36.3 | 2.686 | 3 | 13 53 59.0 | 20.00 | 3 | pB; pS; vLE; sbM | 5 |
| 2889 | 1208 | ..... | ..... | 12 15 37.4 | 3.057 | 1 | 81 1 20.0 | 20.00 | 1 | eF; *8 n 5' | 1 |
| 2890 | 1211 | ..... | M. 100 | 12 15 50.6 | 3.043 | 3 | 73 23 54.0 | 20.00 | 4 | !!; { (H, h) pF; vL; R; vg, psbMrN } (L) 2-branched spiral | 5 |
| 2891 | 1212 | II. 85 | ..... | 12 16 1.2 | 3.041 | 1 | 72 30 5.0 | 20.00 | 1 | pB; S; R; psbM | 2 |
| 2892 | ..... | ..... | D'Arrest, 90 | 12 16 2 | 3.06 | [4] | 83 58 42 | 19.99 | [4] | pB; R or IE; bM | 0* |
| 2893 | 1213 | II. 141 | ..... | 12 16 2.0 | 3.060 | 1 | 83 8 51.0 | 20.00 | 1 | vF; S; R; bM; 1st of 3 | 2 |
| 2894 | ..... | II. 84 | ..... | 12 16 4.6 | 3.043 | 1 | 73 25 0.0 | 20.00 | 1 | F; S; R; r | 1 |
| 2895 | 1216 | II. 847 | ..... | 12 16 6.6 | 2.843 | 1 | 23 22 43.0 | 20.00 | 1 | pF; S; vLE; vgbM | 2 |
| 2896 | 1214 | ..... | ..... | 12 16 8.6 | 3.093 | 1 | 101 45 29.0 | 20.00 | 1 | vF; vS; R; bMN | 1 |
| 2897 | 1217 | II. 806 | ..... | 12 16 8.9 | 2.905 | 2 | 30 47 2.0 | 20.00 | 2 | pB; S; E; gbM | 3 |
| 2898 | 1220 | III. 942 | ..... | 12 16 11.2 | 2.637 | 1 | 13 3 7.0 | 20.00 | 1 | eF; E 0°± | 2 |
| 2899 | 1215 | II. 142 | ..... | 12 16 12.5 | 3.060 | 1 | 83 11 1.0 | 20.00 | 1 | F; pS; R; bM; 2nd of 3 | 2 |
| 2900 | 1218 | ..... | ..... | 12 16 16.0 | 3.058 | 1 | 81 45 7.0 | 20.00 | 1 | pF; S; R; * v nr | 1 |
| 2901 | 1219 | II. 406 | ..... | 12 16 21.1 | 3.035 | 2 | 69 48 9.0 | 20.00 | 2 | vF; pL; iR; biN? | 4 |
| 2902 | 3388 | ..... | ..... | 12 16 23.3 | 3.231 | 1 | 147 20 30.0 | 20.00 | 1 | Cl; pRi; IC; st 12...14 | 1 |
| 2903 | 1221 | II. 86 | ..... | 12 16 23.7 | 3.040 | 1 | 72 31 5.0 | 20.00 | 1 | cB; vS; mE; vsbM | 2 |
| 2904 | 1222 | II. 143 | ..... | 12 16 26.6 | 3.059 | 3 | 83 8 10.0 | 20.00 | 3 | B; pL; R; bM; 3rd of 3 | 4 |
| 2905 | ..... | III. 95 | ..... | 12 16 29.8 | 3.058 | 2 | 82 14 31.0 | 20.00 | 2 | eF; vS; R | 2 |
| 2906 | ..... | III. 96 | ..... | 12 16 29.8 | 3.058 | 2 | 82 14 31.0 | 20.00 | 2 | eF; vS; R | 2 |
| 2907 | 1223 | III. 94 | ..... | 12 16 30.1 | 3.060 | 1 | 82 16 59.0 | 20.00 | 1 | pF; S; E; ? D | 3 |
| 2908 | 1224 | III. 31 | ..... | 12 16 32.7 | 3.038 | 1 | 71 41 1.0 | 20.00 | 1 | vF; pS; R; vglbM; Δ 2 st ... | 2 |
| 2909 | 1200, a | ..... | R. nova | 12 16 34.7 | 3.053 | :: | 77 43 1.3 | 20.00 | :: | vF; vME | 0 |
| 2910 | 1225 | I. 210 | ..... | 12 16 34.8 | 2.960 | 5 | 42 14 8.0 | 20.00 | 6 | vF; S; mE100°±; vsmbMBN | 8+ |
| 2911 | 1226 | II. 625 | ..... | 12 16 43.1 | 3.077 | 1 | 92 40 18.0 | 20.00 | 1 | F; pL; E 70°±; vlbM | 4 |
| 2912 | 3389 | ..... | Δ. 292 | 12 16 49.2 | 3.262 | 3 | 151 7 11.0 | 20.00 | 3 | Cl; vB; vL; IC; st 12...14... | 3 |
| 2913 | ..... | III. 481 | ..... | 12 17 3.3 | 3.055 | 1 | 80 42 0.7 | 19.99 | 1 | vF | 1 |
| 2914 | 1230 | III. 799 | ..... | 12 17 9.0 | 2.896 | 1 | 30 50 31.7 | 19.99 | 1 | cF; cS; IE (? 18 ^m R.A.) | 2 |
| 2915 | 1228 | I. 123 | ..... | 12 17 9.3 | 3.061 | 1 | 84 17 31.7 | 19.99 | 1 | B; S; * 8.9 sf 3' | 3 |
| 2916 | 1229 | III. 648 | ..... | 12 17 10.3 | 3.006 | 1 | 57 42 34.7 | 19.99 | 1 | eF; pmE 90°; vlbM | 2 |
| 2917 | 1231 | I. 65 | ..... | 12 17 16.6 | 3.107 | 1 | 108 0 3.7 | 19.99 | 1 | vB; L; R; vsmbMn; r | 2 |
| 2918 | 1233 | III. 800 | ..... | 12 17 17.0 | 2.895 | 1 | 30 51 31.7 | 19.99 | 1 | vF; cS; R; r | 2 |
| 2919 | ..... | III. 938 | ..... | 12 17 17.6 | 2.659 | 1 | 14 17 0.7 | 19.99 | 1 | eF; pL; iF | 1 |
| 2920 | ..... | III. 801 | ..... | 12 17 18.5 | 2.894 | 1 | 30 48 59.7 | 19.99 | 1 | eF; cS; R | 1 |
| 2921 | 1232 | I. 30 | ..... | 12 17 21.3 | 3.057 | 2 | 81 54 17.7 | 19.99 | 3 | cB; pL; vLE; gl, smbM | 5 |
| 2922 | ..... | III. 97 | ..... | 12 17 23.3 | 3.057 | 1 | 81 50 0.7 | 19.99 | ... | eF | 2 |
| 2923 | ..... | III. 38 | ..... | 12 17 35.0 | 3.050 | 1 | 78 37 59.7 | 19.99 | 1 | vF; vS | 1 |
| 2924 | 1234 | I. 166 | ..... | 12 17 40.3 | 2.981 | 2 | 49 51 4.7 | 19.99 | 2 | cB; S; R; mbMN; r | 4 |
| 2925 | 1235 | I. 22 | ..... | 12 17 45.8 | 3.048 | 3 | 77 31 34.7 | 19.99 | 3 | B; pS; R; gbM | 6 |
| 2926 | 1236 | II. 144 | ..... | 12 17 46.2 | 3.057 | 2 | 81 46 52.7 | 19.99 | 2 | pF; pS; IE; bM | 3 |
| 2927 | 3390 | ..... | Δ. 67?? | 12 17 50.1 | 3.412 | 1 | 161 53 19.7 | 19.99 | 1 | ⊕; pF; L; R; st 12...16 ... | 2 |
| 2928 | 3391 | ..... | ..... | 12 17 55.9 | 3.162 | 1 | 128 58 12.7 | 19.99 | 1 | pB; S; R; pgvmbM | 1 |
| 2929 | 1227 | II. 64 | ..... | 12 17 56.9 | 3.050 | 1 | 77 59 51.7 | 19.99 | 2 | cF; cS; IE | 3 |
| 2930 | 1237 | ..... | M. 84 | 12 17 57.6 | 3.045 | 1 | 76 20 8.7 | 19.99 | 1 | vB; pL; R; psbM; r | 2 |
| 2931 | 1238 | II. 379 | ..... | 12 17 59.0 | 2.994 | 2 | 60 40 3.7 | 19.99 | 2 | F; S; R; bM; * nf 90" | 3 |
| 2932 | 1237, a | ..... | R. 9 novæ | 12 18 ± | +3.045 | ... | 76 20 ± | +19.99 | ... | "Twelve knots exam." (see h. 1237, 1244, 1250). | 0 |
| 2933 | | | | | | | | | | | |
| 2934 | | | | | | | | | | | |
| 2935 | | | | | | | | | | | |
| 2936 | | | | | | | | | | | |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|-----------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 2937 | 1237, a | ..... | R. 9 novæ (continued) | 12 18 ± | +3.045 | ... | 76 20 ± | +19.99 | ... | "Twelve knots exam." (see h. 1237, 1244, 1250). | 0 |
| 2938 | | | | | | | | | | | |
| 2939 | | | | | | | | | | | |
| 2940 | | | | | | | | | | | |
| 2941 | ..... | II. 530 | ..... | 12 18 2.6 | 3.060 | 1 | 83 29 59.7 | 19.99 | 1 | F; S..... | 1 |
| 2942 | 1239 | I. 12 | ..... | 12 18 7.3 | 3.041 | 1 | 74 27 43.7 | 19.99 | 1 | B; S; R; smbM | 4 |
| 2943 | 1240 | II. 87?? | ..... | 12 18 13.0 | 3.039 | 1 | 73 35 30.7 | 19.99 | 1 | pS; R; psbMN | 2 |
| 2944 | 1241 | ..... | ..... | 12 18 17.0 | 3.051 | 1 | 79 13 0.4 | 19.98 | 1 | vF; pL; R; lbM..... | 1 |
| 2945 | ..... | II. 743 | ..... | 12 18 19.0 | 2.940 | 1 | 40 23 59.4 | 19.98 | 1 | F; S..... | 1 |
| 2946 | 1242 | ..... | M. 85 | 12 18 19.5 | 3.033 | 2 | 71 2 10.4 | 19.98 | 2 | vB; pL; R; bM; * np | 3 |
| 2947 | 1243 | III. 879 | ..... | 12 18 22.3 | 2.910 | 2 | 34 43 1.4 | 19.98 | 2 | cF; S; iR..... | 3 |
| 2948 | 1247 | I. 277 | ..... | 12 18 36.7 | 2.609 | 2 | 13 42 3.4 | 19.98 | 2 | B; cL; lC; psmbM | 4 |
| 2949 | 1244 | ..... | ..... | 12 18 41.2 | 3.045 | 1 | 76 34 33.4 | 19.98 | 1 | vF; E; p of 2 | 1 |
| 2950 | 1245 | II. 749 | ..... | 12 18 41.2 | 2.950 | 3 | 43 32 16.4 | 19.98 | 3 | pB; pL; iE; vglbM..... | 5+ |
| 2951 | ..... | II. 87 | ..... | 12 18 43.3 | 3.039 | 1 | 73 41 59.4 | 19.98 | 1 | S; bM; r | 1* |
| 2952 | 1248 | III. 852 | ..... | 12 18 44.3 | 2.819 | 2 | 24 17 14.4 | 19.98 | 2 | cF; S; R; sbM; ** sp | 3 |
| 2953 | 1249 | III. 729 | ..... | 12 18 48.4 | 2.951 | 1 | 43 25 20.4 | 19.98 | 1 | cF; S; R; vgbM..... | 2 |
| 2954 | 1246 | III. 361 | ..... | 12 18 48.5 | 3.010 | 1: | 61 39 49.4 | 19.98 | 1 | vF; vL; iF; B * p | 2 |
| 2955 | 1250 | II. 167 | ..... | 12 18 51.3 | 3.044 | 1: | 76 29 1.4 | 19.98 | 1 | Northern of 2; no description | 2 |
| 2956 | 1250 | II. 168 | ..... | 12 18 51.3 | 3.044 | 1: | 76 29 1.4 | 19.98 | 1 | Southern of 2; E | 2 |
| 2957 | 1251 | II. 55 | ..... | 12 18 52.0 | 3.032 | 2 | 71 0 52.4 | 19.98 | 2 | pB; lE; bM..... | 3 |
| 2958 | 1252 | V. 29.1 | ..... | 12 18 52.0 | 2.993 | 1 | 55 40 35.4 | 19.98 | 1 | eF; vL; np of D neb | 3+ |
| 2959 | 1252, a | ..... | R. 2 novæ | 12 18 ± | 2.993 | ... | 55 40 ± | 19.98 | ... | ..... | 0 |
| 2960 | | | | | | | | | | | |
| 2961 | | | | | | | | | | | |
| 2962 | | | | | | | | | | | |
| 2962 | 1253 | ..... | M. 86 | 12 19 0.2 | 3.044 | 1 | 76 17 9.4 | 19.98 | 1 | vB; L; R; gbMN; r | 5* |
| 2963 | 1252 | V. 29.2 | ..... | 12 19 1.1 | 2.993 | 2 | 55 42 28.4 | 19.98 | 2 | vF; vL; pvlbM; sf of D neb | 3+ |
| 2964 | ..... | III. 755 | ..... | 12 19 2.5 | 3.086 | 1 | 96 54 29.4 | 19.98 | 1 | vF; vS; E | 1 |
| 2965 | ..... | III. 756 | ..... | 12 19 2.5 | 3.086 | 1 | 96 54 29.4 | 19.98 | 1 | vF; vS; E | 1 |
| 2966 | ..... | ..... | Auw. N. 30 | 12 19 2.6 | 3.041 | A | 76 6 32.4 | 19.98 | A | F; L; mE 90° (Auwers, Mar. 5, 1862). | 0 |
| 2966 | 1254 | II. 88 | ..... | 12 19 3.4 | 3.037 | 1 | 73 3 10.4 | 19.98 | 1 | pF; S; R; vsbM; r | 2 |
| 2967 | ..... | III. 39 | ..... | 12 19 5.0 | 3.050 | 1 | 78 42 59.7 | 19.98 | 1 | vF; B * nr | 1 |
| 2968 | 1255 | ..... | ..... | 12 19 11.1 | 3.044 | 1 | 76 34 59.4 | 19.98 | 1: | f of 2 neb | 1 |
| 2969 | 1256 | ..... | ..... | 12 19 14.6 | 3.052 | 1 | 80 12 44.4 | 19.98 | 1 | eF; vL; R; gbM..... | 1 |
| 2970 | ..... | III. 17 | ..... | 12 19 17.0 | 3.065 | 1 | 86 43 59.4 | 19.98 | 1 | vF; pS; r | 1 |
| 2971 | 1257 | II. 34 | ..... | 12 19 26.2 | 3.063 | 2 | 85 15 53.4 | 19.98 | 2 | F; pL; R; gbM; r | 6 |
| 2972 | 1258 | I. 77 | ..... | 12 19 29.4 | 2.997 | 1 | 57 30 19.4 | 19.98 | 2 | vB; L; E; g, vsmbM* | 5+ |
| 2973 | ..... | III. 482 | ..... | 12 19 30.1 | 3.053 | 1 | 80 47 0.4 | 19.98 | 1 | eF | 1 |
| 2974 | 1259 | II. 169 | ..... | 12 19 32.4 | 3.044 | 1 | 76 39 31.4 | 19.98 | 1 | cF; S; gbM; 2 st n, np | 2 |
| 2975 | 1260 | ..... | ..... | 12 19 37.2 | 3.054 | 1 | 81 18 20.1 | 19.97 | 1 | vF; L; R; * sp 5' | 1 |
| 2976 | 1261 | III. 492 | ..... | 12 19 44.6 | 3.072 | 1 | 90 6 39.1 | 19.97 | 2 | { H. vF; cL; mE } { h. F; S; R; * nr } | 3* |
| 2977 | 1262 | II. 113 | ..... | 12 19 49.3 | 3.038 | 1 | 74 10 51.1 | 19.97 | 1 | B; pmE 135°+; sbM | 3 |
| 2978 | 1263 | II. 23 | ..... | 12 19 50.7 | 3.065 | 2 | 86 43 44.1 | 19.97 | 2 | F; pL; lE; r: (?=III. 17)... | 4 |
| 2979 | ..... | II. 155 | ..... | 12 19 56.1 | 3.052 | 1 | 79 37 0.7 | 19.97 | 1 | F; pL; E; lbp | 1 |
| 2980 | 1265 | III. 114 | ..... | 12 19 59.7 | 3.083 | 2 | 95 3 10.1 | 19.97 | 2 | F; vS; R; psbM; 2S st nr ... | 5 |
| 2981 | 1264 | II. 89 | ..... | 12 19 59.8 | 3.037 | 2 | 73 45 10.1 | 19.97 | 2 | pB; pL; pgbM; B * np | 5 |
| 2982 | 1266 | II. 145 | ..... | 12 20 1.6 | 3.058 | 1 | 83 20 42.1 | 19.97 | 1 | vF; vS; E | 3 |
| 2983 | 1267 | II. 170 | ..... | 12 20 5.0 | 3.043 | 2 | 76 30 10.1 | 19.97 | 2 | pF; S; R; bM..... | 3 |
| 2984 | 1268 | II. 171 | ..... | 12 20 8.2 | 3.044 | 1 | 76 55 44.1 | 19.97 | 1 | vF; vS; cE; gbM | 2 |
| 2985 | 1269 | ..... | ..... | 12 20 16.0 | 3.088 | 1 | 97 24 14.1 | 19.97 | 1 | vF; pL..... | 1 |
| 2986 | 1270 | II. 146 | ..... | 12 20 19.4 | 3.057 | 2 | 82 58 0.1 | 19.97 | 2 | cF; L; R; gbM | 3 |
| 2987 | 1271 | II. 65 | ..... | 12 20 20.7 | 3.046 | 2 | 78 7 49.1 | 19.97 | 2 | B; L; cE; psbM; * 10 nf ... | 3 |
| 2988 | 1272 | II. 172 | ..... | 12 20 22.2 | 3.043 | 1 | 76 53 54.1 | 19.97 | 1 | cF; S; gbM..... | 2 |
| 2989 | ..... | II. 497 | ..... | 12 20 25.0 | 3.053 | 1 | 81 0 59.1 | 19.97 | 1 | pF; vS..... | 1 |
| 2990 | 1273 | ..... | ..... | 12 20 26.1 | 3.089 | 1 | 97 30 49.1 | 19.97 | 1 | pF; pL; lE | 1 |
| 2991 | 1274 | I. 28, 1 | ..... | 12 20 33.7 | 3.041 | 2 | 76 9 14.1 | 19.97 | 3 | vB; cL; R; p of 2 | 2 |
| 2992 | 1274, a | ..... | R. nova | 12 20 ± | 3.041 | ... | 76 9 ± | 19.97 | ... | See note | 0* |
| 2993 | 1276 | II. 173 | ..... | 12 20 35.2 | 3.043 | 1 | 76 55 49.1 | 19.97 | 1 | B; pS; R; bM; r | 2 |
| 2994 | 1275 | I. 28, 2 | ..... | 12 20 36.7 | 3.041 | 3 | 76 13 17.1 | 19.97 | 3 | B; cL; vLE; r; f of 2 | 5 |
| 2995 | 1275, a | ..... | R. nova | 12 20 ± | +3.041 | ... | 76 13 ± | +19.97 | ... | See note | 0* |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 2996 | 1277 | ..... | ..... | 12 20 39.3 | +3.070 | 1 | 89 5 41.1 | +19.97 | 1 | F; eE 75°; *10nf; place... that of *). | 1 |
| 2997 | 3392 | ..... | Δ. 300 ? | 12 20 45.1 | 3.287 | 1 | 149 19 6.8 | 19.96 | 1 | Cl; S; st 11...12 | 1 |
| 2998 | ..... | II. 848 | ..... | 12 20 48.0 | 2.795 | 1 | 24 25 19.8 | 19.96 | 1 | F; S; iR; bM | 2 |
| 2999 | 1279 | II. 156 | ..... | 12 20 58.0 | 3.048 | 1 | 79 24 53.8 | 19.96 | 1 | vb; pL; R; smbM | 2* |
| 3000 | 3393 | ..... | ..... | 12 21 7.5 | 3.191 | 1 | 132 29 6.8 | 19.96 | 1 | eF; L; R; vgbM..... | 1 |
| 3001 | 1280 | I. 91 | ..... | 12 21 15.0 | 2.999 | 3 | 60 36 32.8 | 19.96 | 4 | B; L; E 90°; sbM | 6 |
| 3002 | 1281 | I. 213 | ..... | 12 21 17.5 | 2.944 | 4 | 45 8 8.8 | 19.96 | 4 | vB; cL; mE 15°; rrr; * 9, 5' | 5 |
| | | II. 56 | } | | | | | | | | |
| 3003 | 1282 | = | | 12 21 24.9 | 3.030 | 6 | 72 8 33.8 | 19.96 | 7 | B; L; R; gvmbM*; r; B* nr | 10* |
| | | II. 90 | | | | | | | | | |
| 3004 | 1283 | II. 26 | ..... | 12 21 39.0 | 3.055 | 1 | 82 42 49.8 | 19.96 | 1 | F; pS; bM; r | 2 |
| 3005 | 1284 | II. 180 | ..... | 12 21 40.2 | 3.075 | 1 | 91 10 10.8 | 19.96 | 1 | F; L; R; gbM; er | 5 |
| 3006 | 1285 | II. 355 | ..... | 12 21 41.6 | 3.014 | 2 | 66 24 25.8 | 19.96 | 2 | F; L; E; gbM; 2 Bst nf..... | 3 |
| 3007 | 3394 | ..... | ..... | 12 21 43.2 | 3.147 | 1 | 119 19 41.8 | 19.96 | 1 | eeF; vS; * 13 att | 1 |
| 3008 | ..... | I. 23 | ..... | 12 21 49.1 | 3.043 | 2 | 77 32 29.8 | 19.96 | 2 | pB; S; vmE | 2* |
| 3009 | 1286 | II. 35 | ..... | 12 21 50.2 | 3.063 | 3 | 85 39 10.8 | 19.96 | 3 | cB; pS; R; smbMN | 5 |
| 3010 | 1287 | II. 121 | ..... | 12 21 51.6 | 3.039 | 1 | 75 59 6.8 | 19.96 | 1 | pB; S; R; bM; p of 2 | 2 |
| | | I. 212 | } | | | | | | | | |
| 3011 | 1289 | = | | 12 21 52.8 | 2.936 | 1 | 44 20 29.8 | 19.96 | 1 | B; pL; E 45° ±; psbM | 4* |
| | | II. 750 | | | | | | | | | |
| 3012 | 1288 | I. 161 | ..... | 12 21 54.1 | 3.037 | 2 | 75 14 55.5 | 19.95 | 2 | pB; pL; iR; bM; r; * 8 sf 2' | 3 |
| | | II. 122 | } | | | | | | | | |
| 3013 | 1290 | = | | 12 21 57.1 | 3.039 | 1 | 76 1 41.5 | 19.95 | 2 | pF; S; R; bM; f of 2..... | 4* |
| | | II. 174 | | | | | | | | | |
| 3014 | 3396 | III. 764 | ..... | 12 22 2.0 | 3.128 | 2 | 112 23 40.5 | 19.95 | 2 | pB; pS; E 130°; vbM | 3 |
| 3015 | 3395 | ..... | ..... | 12 22 3.2 | 3.350 | 1 | 154 1 1.5 | 19.95 | 1 | Cl; P; vlc | 1 |
| 3016 | 1291 | ..... | ..... | 12 22 4.3 | 2.778 | 1 | 24 25 41.5 | 19.95 | 1 | pB; R; gbM | 1 |
| 3017 | ..... | II. 630 | ..... | 12 22 15.1 | 3.037 | 1 | 75 15 58.5 | 19.95 | 1 | cL | 1 |
| 3018 | 1292 | III. 483 | ..... | 12 22 15.4 | 3.051 | 1 | 81 4 3.5 | 19.95 | 1 | F; vS; R; pgbM..... | 2 |
| 3019 | ..... | II. 157 | ..... | 12 22 25.8 | 3.049 | 1 | 80 23 58.5 | 19.95 | 1 | pF; pL; mE; bM; r | 1 |
| | | II. 18 | } | | | | | | | | |
| 3020 | 1293 | = | | 12 22 30.4 | 3.049 | 2 | 81 24 5.5 | 19.95 | 2 | F; pL; iR; bM | 6 |
| | | II. 498 | | | | | | | | | |
| 3021 | 1294 | ..... | M. 49 | 12 22 39.3 | 3.051 | 4 | 81 13 44.5 | 19.95 | 5 | vB; L; { H. E } { h. R } ; mbM | 6* |
| 3022 | 1294, a | ..... | R. 3 novæ | 12 22 ± | 3.051 | ... | 81 13 ± | 19.95 | ... | " Four found" (one being h. 1294). | 0 |
| 3023 |  | ..... |  |  |  |  |  |  |  |  |  |
| 3024 |  | ..... |  |  |  |  |  |  |  |  |  |
| 3025 | ..... | II. 115 | ..... | 12 22 43.3 | 3.016 | 2 | 75 36 0.5 | 19.95 | 2 | vB; cL..... | 2 |
| | | II. 117 | } | | | | | | | | |
| 3026 | 1295 | = | | 12 22 48.2 | 3.036 | 1 | 75 9 20.5 | 19.95 | 1 | pF; R; r | 3* |
| | | II. 629 | | | | | | | | | |
| 3027 | 1297 | III. 362 | ..... | 12 22 48.7 | 2.998 | 1 | 61 58 28.5 | 19.95 | 2 | eF; pL; R | 5 |
| 3028 | 1296 | II. 123 | ..... | 12 22 51.8 | 3.040 | 2 | 76 54 3.5 | 19.95 | 2 | F; S; R; bM; 1st of 3 | 3 |
| 3029 | ..... | II. 116 | ..... | 12 22 58.9 | 3.037 | 2 | 75 39 0.5 | 19.95 | 2 | pB; pL..... | 2* |
| 3030 | ..... | II. 114 | ..... | 12 23 1.6 | 3.037 | 2 | 75 48 33.5 | 19.95 | 2 | vF; r | 2 |
| 3031 | 1298 | II. 124 | ..... | 12 23 11.1 | 3.040 | 4 | 76 54 41.2 | 19.94 | 5 | pB; S; R; psbM; 2nd of 3... | 7 |
| 3032 | 1299 | II. 531 | ..... | 12 23 17.7 | 3.060 | 1 | 84 58 43.2 | 19.94 | 1 | pF; pS; E; bs | 3 |
| 3033 | ..... | III. 40 | ..... | 12 23 33.4 | 3.043 | 3 | 78 28 58.2 | 19.94 | 3 | eF; pL..... | 1 |
| 3034 | 1300 | ..... | ..... | 12 23 37.1 | 3.100 | 1 | 100 51 52.2 | 19.94 | 1 | pF; S; R; gbM | 1 |
| 3035 | 1301 | ..... | M. 87 | 12 23 44.0 | 3.039 | 4 | 76 50 39.2 | 19.94 | 4 | vB; vL; R; mbM | 7 |
| 3036 | ..... | II. 776 | ..... | 12 23 44.2 | 3.091 | 1 | 97 18 28.2 | 19.94 | 1 | F; vL; er..... | 1 |
| 3037 | 1302 | III. 484 | ..... | 12 23 44.6 | 3.049 | 1 | 80 51 38.2 | 19.94 | 1 | vF; vS; lE | 2 |
| 3038 | 1303 | II. 91 | ..... | 12 23 48.1 | 3.027 | 3 | 72 27 55.2 | 19.94 | 3 | pF; cS; R; gbM | 4 |
| 3039 | 1304 | III. 41 | ..... | 12 23 50.0 | 3.041 | 1 | 77 45 3.2 | 19.94 | 1 | F; L; R | 2 |
| 3040 | 1305 | II. 499 | ..... | 12 23 53.2 | 3.050 | 1 | 81 9 14.2 | 19.94 | 1 | pF; pL; vglbM; 2 st nr | 2 |
| 3041 | 1306 | I. 197 | ..... | 12 24 17.8 | 2.938 | 1 | 47 36 37.9 | 19.93 | 1 | B; pS; iR; p of 2 | 2† |
| 3042 | 1308 | I. 198 | ..... | 12 24 23.6 | 2.938 | 1 | 47 39 25.9 | 19.93 | 1 | vB; vL; mE 130°; rr | 2† |
| 3043 | 1307 | I. 83 | | 12 24 24.3 | 2.998 | 1 | 63 26 55.9 | 19.93 | 1 | vB; pL; R; vsmbMN..... | 2* |
| 3044 | 1310 | III. 301 | | 12 24 26.4 | +2.987 | 1 | 60 5 7.9 | +19.93 | 2 | pF; cS; R; pslbM | 3 |

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| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 3045 | 1309 | II. 36 | ..... | 12 24 29.8 | +3.060 | 3 | 85 17 47.9 | +19.93 | 3 | F; cL; biN or D neb | 6 |
| 3046 | ..... | III. 42 | ..... | 12 24 33.4 | 3.040 | 1 | 77 37 57.9 | 19.93 | 1 | vF | 1 |
| 3047 | 3397 | ..... | ..... | 12 24 40.2 | 3.195 | 2 | 129 12 18.9 | 19.93 | 2 | vF; L; R; vglbM | 2 |
| 3048 | 1311 | I. 234 | ..... | 12 24 41.5 | 2.827 | 1 | 31 16 14.9 | 19.93 | 1 | B; cS; E; pgbM; * 9 f 30'' .. | 3 |
| 3049 | 1312 | ..... | M. 88 | 12 24 54.5 | 3.031 | 3 | 74 48 26.9 | 19.93 | 3 | B; vL; vmE; p of D neb..... | 8 |
| 3050 | ..... | II. 118 | ..... | 12 24 + | 3.031 | ... | 74 48 - | 19.93 | ... | F; S; f of D neb (not obs by h.). | |
| 3051 | ..... | III. 69 | ..... | 12 24 57.5 | 3.024 | 1 | 72 25 57.9 | 19.93 | 1 | vF; vS | 1 |
| 3052 | 1313 | II. 66 | ..... | 12 24 58.5 | 3.040 | 2 | 78 3 15.9 | 19.93 | 2 | pB; S; R; gbM | 3 |
| 3053 | 1314 | II. 92 | ..... | 12 24 59.4 | 3.025 | 1 | 72 32 23.9 | 19.93 | 1 | vF; S | 2 |
| 3054 | 3398 | II. 771 | ..... | 12 25 4.1 | 3.090 | 1 | 96 46 40.6 | 19.92 | 1 | pB; cL; iE; gvlbM; er | 3 |
| 3055 | 1315 | III. 18 | ..... | 12 25 6.8 | 3.060 | 1:: | 85 14 53.6 | 19.92 | 1 | vF; cL; r; f of 2 | 2 |
| 3056 | 1316 | II. 631 | ..... | 12 25 6.8 | 3.034 | 1 | 75 48 23.6 | 19.92 | 1 | cF; pmE90°±; gbM; * 9 f 8s | 2 |
| 3057 | 3399 | ..... | ..... | 12 25 9.9 | 3.197 | 2 | 129 8 6.6 | 19.92 | 2 | pB; S; R; psmbM * 16 | 2 |
| 3058 | 1317 | ..... | ..... | 12 25 9.9 | 3.055 | 1 | 83 24 1.6 | 19.92 | 1 | vS; R; sbM * 13 | 1 |
| 3059 | 1318 | ..... | ..... | 12 25 14.6 | 2.974 | 1 | 57 7 59.6 | 19.92 | 1 | vF; S; R; lbM | 1 |
| 3060 | 1196, a | ..... | R. nova | 12 25 30 | 3.058 | ??? | 84 47 | 19.92 | ??? | Query R.A.; vF; 10' s of scarlet *. | 0 |
| 3061 | 1319 | III. 834 | ..... | 12 25 33.9 | 2.833 | 1 | 32 45 54.6 | 19.92 | 1 | pF; vS; iR; vgbM | 2 |
| 3062 | 1321 | ..... | ..... | 12 25 45.5 | 2.748 | 1 | 25 29 50.6 | 19.92 | 1 | pB; S; R; psbM | 1 |
| 3063 | 1320 | III. 302 | ..... | 12 25 50.1 | 2.980 | 2 | 59 30 52.6 | 19.92 | 2 | eF; vS; R; bM | 3 |
| 3064 | 1322 | ..... | ..... | 12 26 3.1 | 3.049 | 1 | 81 22 31.6 | 19.92 | 1 | F; S; R; bM | 1 |
| 3065 | 1323 | III. 78 | ..... | 12 26 3.1 | 3.029 | 1 | 74 38 42.6 | 19.92 | 1 | F; pS; R; r | 3 |
| 3066 | ..... | IV. 5 | ..... | 12 26 3.3 | 3.070 | 3 | 89 8 56.6 | 19.92 | 3 | cB; vL; vmE95°±; B * in cont. | 3 |
| 3067 | 1324 | II. 93 | ..... | 12 26 4.0 | 3.024 | 1 | 72 56 23.6 | 19.92 | 1 | F; vS; bM * | 2 |
| 3068 | ..... | II. 158 | ..... | 12 26 20.2 | 3.046 | 3 | 80 33 36.3 | 19.91 | 3 | F; pL; R; bM; r | 3 |
| 3069 | ..... | II. 849 | ..... | 12 26 23.0 | 2.732 | 1 | 25 12 55.5 | 19.91 | 1 | pB; vS; iE; sbMSN | 1 |
| 3070 | ..... | II. 757 | ..... | 12 26 24.2 | 3.091 | 2 | 96 36 57.3 | 19.91 | 2 | vF; S; 2 vS st inv | 2 |
| 3071 | 1326 | ..... | ..... | 12 26 26.9 | 2.741 | 1 | 25 37 18.3 | 19.91 | 1 | pB; S; pmE; pgbM; * 9 inv | 1 |
| 3072 | 1325 | ..... | ..... | 12 26 32.9 | 3.044 | 1 | 80 2 47.3 | 19.91 | 1 | eF; pL; iE; vlbM | 1 |
| 3073 | 1327 | ..... | ..... | 12 26 38.0 | 3.104 | 1 | 101 14 26.3 | 19.91 | 1 | vF; iF; bM | 1 |
| 3074 | 1328 | II. 325 | ..... | 12 26 53.3 | 2.975 | 1:: | 58 57 57.3 | 19.91 | 1:: | F; pL; iR; bM | 3 |
| 3075 | 1329 | I. 31 | } | 12 26 56.3 | 3.048 | 3 | 81 31 57.3 | 19.91 | 3 | vB; vL; mE120°±; psmbM; L * f; * 9 p. | 5* |
| 3076 | 1330 | I. 38 | | | | | | | | pB; L; pmE60°±; mbM ... | 4 |
| 3077 | 1331 | II. 67 | ..... | 12 27 0.4 | 3.063 | 2 | 86 34 26.3 | 19.91 | 2 | pF; cS; R; bM; * 9 f 30s ... | 5 |
| 3078 | ..... | III. 26 | ..... | 12 27 2.1 | 3.037 | 3 | 77 54 52.3 | 19.91 | 4 | eF; L | 2* |
| 3079 | 1332 | ..... | 8 Canum | 12 27 2.2 | 3.009 | 1 | 68 41 56.3 | 19.91 | 1 | Nebulous * | 4* |
| 3080 | ..... | II. 500 | ..... | 12 27 7.7 | 2.925 | 4 | 47 52 34.0 | 19.90 | 4 | vL; er | 1 |
| 3081 | 1333 | II. 175 | ..... | 12 27 8.5 | 3.047 | 1 | 81 1 56.0 | 19.90 | 1 | F; pL; R; vgbM | 3 |
| 3082 | 1334 | II. 147 | ..... | 12 27 10.6 | 3.032 | 2 | 76 9 20.0 | 19.90 | 2 | pB; pL; pmE; vgbM; r | 2 |
| 3083 | 1336 | II. 410 | ..... | 12 27 11.7 | 3.051 | 1 | 82 46 13.0 | 19.90 | 1 | cF; L; iE; vglbM; r | 4 |
| 3084 | 1335 | II. 94 | } | 12 27 13.1 | 2.952 | 2 | 53 42 9.0 | 19.90 | 2 | F; pS; bM; r | 5 |
| 3085 | 1337 | = | | | | | | | | B; vL; mE110°; sbM; er ... | 5† |
| 3086 | 1338 | II. 119 | ..... | 12 27 14.9 | 3.024 | 2 | 73 40 25.0 | 19.90 | 2 | pB; pmE | 1 |
| 3087 | 1339 | V. 2 | ..... | 12 27 19.6 | 3.064 | 1 | 87 2 47.0 | 19.90 | 1 | eF; pL; R | 1 |
| 3088 | 1340 | ..... | ..... | 12 27 32.8 | 3.015 | 1 | 71 1 23.0 | 19.90 | 1 | pF; cS; R; bM | 1 |
| 3089 | 1341 | ..... | ..... | 12 28 6.8 | 2.860 | 1 | 38 25 19.7 | 19.89 | 1 | F; L; iR; vgbM; S * nf..... | 2 |
| 3090 | 1342 | III. 493 | ..... | 12 28 12.2 | 3.052 | 1 | 83 6 37.7 | 19.89 | 1 | eF; S; R; gbM | 3 |
| 3091 | 1343 | I. 36 | ..... | 12 28 13.8 | 2.721 | 1 | 25 42 2.7 | 19.89 | 1 | vF; pS; E; vgbM; * 9 f 2'; p of 2. | 4 |
| 3092 | 1344 | III. 802 | ..... | 12 28 15.1 | 3.071 | 1:: | 89 28 3.7 | 19.89 | 1:: | vB; cL; pmE63°±; vsmbMN. | 6 |
| 3093 | 1345 | I. 37 | ..... | 12 28 15.7 | 2.783 | 2 | 30 19 21.7 | 19.89 | 2 | B; L; iE; lbM | 5 |
| 3094 | 1346 | II. 120 | ..... | 12 28 22.7 | 3.026 | 3 | 74 43 45.7 | 19.89 | 3 | eF; pS; E; f of 2 | 3 |
| 3095 | 1347 | III. 807 | ..... | 12 28 23.5 | 2.781 | 2 | 30 17 43.7 | 19.89 | 2 | pB; S; vLE; sp of 2 | 4 |
| 3096 | 1348 | I. 36 | | 12 28 24.2 | 3.033 | 2 | 77 0 46.7 | 19.89 | 3 | pB; S; R; bM; nf of 2 | 3 |
| 3096 | 1349 | I. 37 | | 12 28 32.3 | +3.033 | 2 | 76 58 38.7 | +19.89 | 2 | | |

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| | h. | H. | M. 89 | h m s | s | | ° ' " | " | | | |
| 3097 | 1348 | | | 12 28 35.2 | +3.032 | 1 | 76 40 32.7 | +19.89 | 4 | pB; pS; R; gmbM | 5* |
| 3098 | 3400 | | | 12 28 36.9 | 3.211 | 1 | 128 39 49.7 | 19.89 | 1 | F; vIE; glbM | 1 |
| 3099 | 1350 | II. 343 | ..... | 12 28 44.3 | 2.983 | 2 | 62 42 18.7 | 19.89 | 2 | B; pS; iR; vsmbM * 12 | 3 |
| 3100 | 1351 | II. 380 | ..... | 12 28 50.3 | 2.981 | 1 | 62 18 47.7 | 19.89 | 2 | F; pL | 3 |
| 3101 | 1352 | I. 92 | ..... | 12 28 59.6 | 2.980 | 3 | 61 16 7.4 | 19.88 | 3 | vB; vL; mE 150°; gbM; 3 st f | 4+ |
| 3102 | 1354 | ..... | ..... | 12 29 0.3 | 2.980 | 1 | 62 16 6.4 | 19.88 | 1 | vF; nf of 2 or ? 3 | 1 |
| 3103 | 1353 | I. 119 | ..... | 12 29 0.4 | 3.046 | 1:: | 81 33 21.4 | 19.88 | 1: | cB; pL; R; gbM | 2* |
| 3104 | 1355 | II. 407 | ..... | 12 29 5.7 | 3.008 | 2 | 69 54 20.4 | 19.88 | 2 | pB; pL; vIE; lbM; r | 4 |
| 3105 | 1356 | II. 68 | ..... | 12 29 21.6 | 3.034 | 2 | 77 47 21.4 | 19.88 | 2 | pB; S; IE; psbM | 4 |
| 3106 | 1357 | V. 24 | ..... | 12 29 22.9 | 2.993 | 4 | 63 14 30.4 | 19.88 | 4 | B; eL; eE 136° 1; vsbMN = * 10, 11. | 5+ |
| 3107 | 1360 | III. 880 | ..... | 12 29 26.1 | 2.821 | 1 | 35 0 1.4 | 19.88 | 1 | pF; S; iR; gbM | 2 |
| 3108 | { 1358 = 1363 = 1359 = 1363 } | IV. 8 | ..... | 12 29 26.5 | 3.035 | 4 | 77 59 26.4 | 19.88 | 4 | vF; L; np of D neb } pos 160° ± | 6*+ |
| 3109 | { 1358 = 1363 = 1359 = 1363 } | IV. 9 | ..... | 12 29 28.0 | 3.035 | 2 | 78 0 26.4 | 19.88 | 2 | vF; L; sf of D neb } pos 160° ± | 6*+ |
| 3110 | 1361 | I. 32 | ..... | 12 29 45.6 | 3.047 | 5 | 81 59 3.1 | 19.87 | 5 | cB; pS; mE 0° ±; sbMrN ... | 9 |
| 3111 | ..... | ..... | M. 90 | 12 29 52.8 | 3.028 | 2 | 76 4 18.1 | 19.87 | 2 | pL; bMN | 2* |
| 3112 | 1364 | III. 939 | ..... | 12 29 55.6 | 2.392 | 1 | 14 59 52.8 | 19.86 | 1 | eF; S | 2 |
| 3113 | 1362 | III. 602 | ..... | 12 29 59.1 | 3.024 | 1 | 74 58 8.1 | 19.87 | 1 | vF; L; E; vgbM; cB * att... .. | 2+ |
| 3114 | 3401 | ..... | ..... | 12 30 6.6 | 3.241 | 1 | 132 51 14.1 | 19.87 | 1 | eF; S; * 10 n 30" | 1 |
| 3115 | 3402 | ..... | ..... | 12 30 17.6 | 3.199 | 1 | 124 44 3.1 | 19.87 | 1 | vF; L; IE; vglbM | 1 |
| 3116 | 3403 | ..... | ..... | 12 30 19.4 | 3.224 | 1 | 129 45 59.1 | 19.87 | 1 | F; S; pmE; 2 st p | 1 |
| 3117 | ..... | III. 13 | ..... | 12 30 23.9 | 3.051 | 1 | 83 9 55.8 | 19.86 | 1?? | vF; vS | 1 |
| 3118 | 1365 | II. 15 | ..... | 12 30 26.2 | 3.039 | 1 | 79 40 5.8 | 19.86 | 1 | pF; pS; R; sbMN; * np ... | 3 |
| 3119 | 1366 | ..... | ..... | 12 30 26.7 | 3.039 | 1 | 79 45 21.8 | 19.86 | 1 | F; R; bM (? = II. 15 + 5° P.D.) .. | 1 |
| 3120 | 1367 | ..... | M. 91?? | 12 30 30.8 | 3.025 | 1? | 75 26 55.8 | 19.86 | 1? | np this place is a F neb; not M. 91, whose existence? .. | 1 |
| 3121 | 1368 | ..... | M. 58 | 12 30 36.6 | 3.031 | 3 | 77 24 52.8 | 19.86 | 3 | B; L; iR; vmbM; r | 6 |
| 3122 | 1369 | I. 124 | ..... | 12 30 40.5 | 3.053 | 1 | 83 51 55.8 | 19.86 | 1 | pB; L; vgbM | 3 |
| 5071 | ..... | ..... | ..... | 12 31 0.5 | ..... | ..... | 89 2 46.5 | ..... | ..... | See No. 5071. | |
| 3123 | 1370 | III. 495 | ..... | 12 31 14.1 | 2.945 | 2 | 55 46 15.8 | 19.86 | 2 | cF; S; IE; bM | 3 |
| 3124 | ..... | ..... | D'Arrest, 91 | 12 31 17 | 3.02 | [3] | 76 7 12 | 19.85 | [3] | vF; S; R | 0 |
| 3125 | 1371 | I. 125 | ..... | 12 31 18.5 | 3.056 | 2 | 84 54 40.5 | 19.85 | 2 | pB; L; E; psbM | 4 |
| 3126 | ..... | III. 98 | ..... | 12 31 45.7 | 3.047 | 1:: | 82 25 53.5 | 19.85 | 1:: | vF; eS | 1 |
| 3127 | 1374 | I. 273 | ..... | 12 31 53.3 | 2.369 | 3 | 15 2 24.5 | 19.85 | 4 | cB; L; IE; pgmbM | 7* |
| 3128 | 3404 | ..... | M. 68 | 12 32 5.1 | 3.166 | 1 | 115 58 45.2 | 19.84 | 1 | ⊕; L; eRi; vC; iR; rrr; st 12, red. | 4 |
| 3129 | 1372 | III. 504 | ..... | 12 32 6.7 | 3.050 | 1 | 83 12 29.2 | 19.84 | 1 | vF; cS | 3 |
| 3130 | 1373 | II. 31 | ..... | 12 32 8.0 | 3.072 | 1 | 89 16 17.2 | 19.84 | 1 | F; L; E 90° ±; vgbM | 4 |
| 3131 | 1375 | II. 183 | ..... | 12 32 26.6 | 3.088 | 2 | 94 34 23.2 | 19.84 | 2 | pB; cL; E; sbMN = * | 4 |
| 3132 | 1376 | I. 43 | ..... | 12 32 44.2 | 3.110 | 1 | 100 50 14.2 | 19.84 | 1 | !; vB; vL; eE 92°; vsmbMN. | 3+ |
| 3133 | 1377 | II. 632 | ..... | 12 32 49.6 | 3.016 | 3 | 73 56 8.2 | 19.84 | 4 | pF; pL; R; gbM | 5 |
| 3134 | 1378 | I. 24 | ..... | 12 32 50.8 | 3.034 | 5 | 79 2 56.2 | 19.84 | 5 | B; pS; R; gmbM; r; 3 st f... .. | 7 |
| 3135 | ..... | II. 636 | ..... | 12 32 53.7 | 3.089 | 1 | 95 2 22.9 | 19.83 | 1 | F; vL; bM | 1 |
| 3136 | ..... | III. 105 | ..... | 12 33 11.7 | 3.040 | 2 | 80 51 21.9 | 19.83 | 2 | eF; L; R; vlbM | 2 |
| 3137 | ..... | III. 509 | ..... | 12 33 13.9 | 3.065 | 1 | 88 0 51.9 | 19.83 | 1 | vF; vS | 1 |
| 3138 | 1379 | II. 577 | ..... | 12 33 14.1 | 3.059 | 2 | 86 6 33.9 | 19.83 | 2 | F; S; R; 2 st f | 3* |
| 3139 | 3405 | ..... | ..... | 12 33 23.5 | 3.242 | 1 | 130 8 57.9 | 19.83 | 1 | eF; L; R; psbM; p of 2 | 1 |
| 3140 | 1380 | II. 184 | ..... | 12 33 26.5 | 3.088 | 1 | 94 21 50.9 | 19.83 | 1 | F; vL; E; vglbM | 3 |
| 3141 | 3406 | ..... | ..... | 12 33 31.0 | 3.242 | 1 | 130 12 2.6 | 19.82 | 1 | F; L; R; vgbM; r | 1 |
| 3142 | 1381 | I. 254 | ..... | 12 33 42.8 | 2.689 | 1 | 27 36 49.6 | 19.82 | 1 | B; L; vmE 118° 6; glbM ... | 2 |
| 3143 | 1382 | III. 43 | ..... | 12 33 53.3 | 3.027 | 2 | 77 20 9.6 | 19.82 | 3 | vF; pS; E; 2 or 3 vS st inv .. | 5 |
| 3144 | 1383 | II. 69 | ..... | 12 34 10.3 | 3.033 | 2 | 79 3 58.6 | 19.82 | 2 | pB; pL; R; psbM; r; * 12 np 1'. | 4 |
| 3145 | 3407 | ..... | Δ. 272 | 12 34 13.2 | 3.463 | 1 | 152 12 8.6 | 19.82 | 1 | Cl; pL; pC; cE; st 10... .. | 1 |
| 3146 | ..... | I. 7 | ..... | 12 34 16.3 | 3.042 | 1:: | 81 24 51.6 | 19.82 | 1:: | vB; vL (no doubt a comet) .. | 1 |
| 3147 | | II. 19 | | 12 34 20.3 | 3.042 | 1 | 81 30 51.6 | 19.82 | 1 | F; vL | 2 |
| 3148 | 1384 | II. 148 | | 12 34 23.9 | +3.043 | 3 | 81 55 10.3 | +19.81 | 3 | pB; S; R; psmbM | 6* |

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| | h. | H. | | h m s | s | | | | | | |
| 3149 | 3408 | | | 12 34 44.6 | +3.247 | 1 | 129° 54' 10.3 | +19.81 | 1 | eF; vS; R; * att nf; p of 2... | 1 |
| 3150 | | II. 744 | | 12 34 46.0 | 2.815 | 2 | 38 48 50.3 | 19.81 | 2 | pF; S; iR; er | 2 |
| 3151 | 1385 | I. 178 | } | 12 34 48.0 | 2.886 | 4 | 48 4 47.3 | 19.81 | 4 | { B; L; R; mbM } D neb; pb } pos 160° | 5† |
| 3152 | | I. 179 | | | | | | | | | |
| 3153 | 1387 | ..... | ..... | 12 34 56.3 | 3.021 | 1 | 76 17 9.3 | 19.81 | 1 | vF; S; R; vgbM..... | 1 |
| 3154 | 1388 | II. 411 | ..... | 12 34 56.5 | 2.922 | 3 | 54 9 54.3 | 19.81 | 3 | F; pS; R; lbM; * 8.9 f | 5 |
| 3155 | 1386 | ..... | M. 59 | 12 34 56.9 | 3.026 | 3 | 77 34 1.3 | 19.81 | 3 | B; pL; lE; vsymbM; 2 st p .. | 5 |
| 3156 | 3409 | ..... | ..... | 12 35 3.9 | 3.249 | 1 | 129 58 30.3 | 19.81 | 1 | pF; S; R; psbM; f of 2..... | 1 |
| 3157 | 1389 | II. 149 | ..... | 12 35 3.9 | 3.041 | 1 | 81 33 55.3 | 19.81 | 1 | cF; pL; E; psbM; r | 5 |
| 3158 | 1390 | ..... | ..... | 12 35 7.3 | 3.059 | 1 | 86 10 20.3 | 19.81 | 1 | B; E | 1 |
| 3159 | 1391 | II. 659 | ..... | 12 35 8.7 | 2.935 | 1 | 56 39 40.3 | 19.81 | 1 | F; S; R; np of 2..... | 2 |
| 3160 | 1392 | II. 660 | ..... | 12 35 9.8 | 2.883 | 2 | 47 56 36.3 | 19.81 | 2 | pF; S; R..... | 3 |
| 3161 | { 1393 = 3410 1394 = 3411 } | II. 772 | ..... | 12 35 10.4 | 3.095 | 2 | 96 16 10.3 | 19.81 | 2 | vF; cS; lE; glbM | 4 |
| 3162 | | II. 773 | ..... | 12 35 11.3 | 3.095 | 2 | 96 11 25.3 | 19.81 | 2 | cF; S; E; gbM | 4 |
| 3163 | ..... | ..... | D'Arrest, 92 | 12 35 21 | 3.07 | [1] | 91 2 12 | 19.80 | [1] | pB; pL; E; lbM; ? biN | 0 |
| 3164 | 1395 | II. 532 | ..... | 12 35 21.7 | 3.055 | 1 | 85 16 24.0 | 19.80 | 1 | cF; S; R; lbM | 3 |
| 3165 | 1397 | V. 42 | ..... | 12 35 22.0 | 2.934 | 2 | 56 41 21.0 | 19.80 | 2 | !; vB; vL; eE70°±; bMN; B*nr. | 3† |
| 3166 | 1396 | I. 14 | ..... | 12 35 23.8 | 3.070 | 1 | 89 18 56.0 | 19.80 | 1 | pB; L; E45°± | 4 |
| 3167 | 1398 | III. 603 | ..... | 12 35 38.1 | 3.015 | 2 | 74 55 47.0 | 19.80 | 2 | vF; L; mE135°±; vgbM ... | 3 |
| 3168 | 1400 | ..... | ..... | 12 35 39.8 | 2.992 | 2 | 69 17 27.0 | 19.80 | 2 | vF; L; vglbM..... | 2 |
| 3169 | 1399 | II. 38 | ..... | 12 35 41.1 | 3.060 | 2 | 86 32 30.0 | 19.80 | 2 | B; L; iR; vgymbM; r | 4 |
| 3170 | 1401 | ..... | ..... | 12 35 41.9 | 3.055 | 1 | 85 32 15.0 | 19.80 | 1 | vB; cS; R; smbM | 1* |
| 3171 | 1402 | II. 70 = II. 176 | } | 12 35 43.8 | 3.026 | 1:: | 77 49 6.0 | 19.80 | 1 | F; R; gbM | 3 |
| 3172 | 1402, a | ..... | R. nova | | | | | | | | |
| 3173 | 1403 | II. 125 | ..... | 12 35 49.4 | 3.019 | 1 | 75 58 44.0 | 19.80 | 1 | pB; S; E; r; * 12 sf 1' | 2 |
| 3174 | ..... | II. 20 | ..... | 12 35 56.9 | 3.043 | 1 | 81 53 10.3 | 19.79 | 1 | vS | 1* |
| 3175 | ..... | III. 494 | ..... | 12 36 3.7 | 3.072 | 2 | 89 53 20.7 | 19.79 | 2 | vF; cS; E | 2 |
| 3176 | 1402 | I. 10 | ..... | 12 36 12.1 | 3.062 | 1 | 87 14 46.7 | 19.79 | 1 | cB; pS; lE; mbM | 5 |
| 3177 | 1406 | II. 794 No. 1 | } | 12 36 15.9 | 2.754 | 1 | 34 4 23.7 | 19.79 | 1 | vF; S; R; gbM | 1* |
| 3178 | 3412 | ..... |  |  |  |  |  |  |  |  |  |
| 3179 | 1407 | II. 794 No. 2 | } | 12 36 23.0 | 2.756 | 1 | 34 22 23.7 | 19.79 | 1 | F; S; 4 vS st sp | 2* |
| 3180 | 1405 | III. 44 | | | | | | | | | |
| 3181 | 1410 | I. 274 | ..... | 12 36 33.0 | 2.258 | 4 | 14 48 37.7 | 19.79 | 5 | vF; pL; lE115°±; np of D neb | 6*† |
| 3182 | 1408 | ..... | M. 60 | 12 36 34.8 | 3.025 | 5 | 77 40 38.4 | 19.78 | 6 | pB; cS; R; gbM; * p | 8 |
| 3183 | 3413 | ..... | ..... | 12 36 41.2 | 3.256 | 1 | 129 57 35.4 | 19.78 | 1 | vB; pL; R; f of D neb | 8† |
| 3184 | 1409 | II. 12 | ..... | 12 36 42.3 | 3.005 | 3 | 72 50 28.4 | 19.78 | 4 | vF; R; bM; r | 1 |
| 3185 | 1413 | ..... | ..... | 12 36 48.8 | 2.698 | 1 | 30 16 19.4 | 19.78 | 1 | cB; L; E90°; gbM; r | 6 |
| 3186 | ..... | III. 662 | ..... | 12 36 50.2 | 3.072 | 1 | 89 47 49.4 | 19.78 | 1 | pF; pL; gbM; 2 B st f | 1 |
| 3187 | 1411 | II. 126 | ..... | 12 36 54.0 | 3.018 | 2 | 76 7 8.4 | 19.78 | 2 | vF; pL | 1 |
| 3188 | 1412 | II. 661 | ..... | 12 36 54.5 | 2.876 | 2 | 48 12 25.4 | 19.78 | 3 | F; vL; pmE; ?D; 3 st nr ... | 4 |
| 3189 | 1414 | I. 176 | ..... | 12 37 7.8 | 2.929 | 4 | 57 3 48.4 | 19.78 | 5 | vF; vS; stellar; * 15, 16 f ... | 3 |
| 3190 | 1415 | I. 177 | ..... | 12 37 16.6 | 2.929 | 3 | 57 1 24.1 | 19.77 | 3 | !; pB; L; vmE34°3; sp of 2 | 6*† |
| 3191 | 3414 | II. 558 | ..... | 12 37 23.1 | 3.109 | 1 | 99 18 53.1 | 19.77 | 1 | !; pF; L; E90°±; nf of 2 | 6*† |
| 3192 | 1416 | II. 127 | ..... | 12 37 27.8 | 3.016 | 1 | 75 43 35.1 | 19.77 | 1 | vF; L; E; * 16 att; * 9 p ... | 2 |
| 3193 | 1417 | II. 71 | ..... | 12 37 29.4 | 3.025 | 1 | 78 2 34.1 | 19.77 | 1 | F; cS; R; bM; r | 3 |
| 3194 | 3415 | ..... | ..... | 12 37 37.9 | 2.264 | 1:: | 130 19 53.1 | 19.77 | 1:: | vB; S; vsymbMN | 2 |
| 3195 | 1418 | II. 643 | ..... | 12 37 42.5 | 2.898 | 1 | 52 5 58.1 | 19.77 | 1 | F; pL; R; gbM | 1 |
| 3196 | ..... | II. 39 | ..... | 12 37 46.2 | 3.057 | 1 | 86 0 49.1 | 19.77 | 1 | pF; pL; R; gbM; r | 2 |
| 3197 | 1419 | I. 142 | ..... | 12 37 58.3 | 3.057 | 2 | 86 11 14.8 | 19.76 | 2 | pB; 2 S st in M; S * p | 1 |
| 3198 | 1420 | I. 15 | ..... | 12 37 59.0 | 3.072 | 1 | 89 41 29.8 | 19.76 | 1 | B; pL; iR; mbM; * 10 sp... | 3 |
| 3199 | 1421 | ..... | ..... | 12 38 12.3 | +3.023 | 1 | 77 47 31.8 | +19.76 | 1 | B; vL; mE45°±; psbM ... | 4 |
| | | | | | | | | | | B; S; R; psbM | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|-----------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 3200 | ..... | III. 663 | ..... | 12 38 15.2 | +3.072 | 1 | 89 46 47.8 | +19.76 | 1 | vF; S; iF..... | 1 |
| 3201 | 1422 | III. 328 | ..... | 12 38 23.9 | 2.952 | 3 | 62 6 37.8 | 19.76 | 4 | pF; cS; R; bM; r; p of 2 ... | 6 |
| 3202 | 1423 | II. 774 | ..... | 12 38 32.4 | 3.098 | 1 | 96 18 3.8 | 19.76 | 1 | pF; S; R; psmbM | 3 |
| 3203 | 3416 | ..... | ..... | 12 38 36.0 | 3.273 | 1 | 130 56 55.5 | 19.75 | 1 | eF; S; R; vgbM..... | 1 |
| 3204 | 1424 | III. 329 | ..... | 12 38 43.7 | 2.951 | 1 | 62 10 24.5 | 19.75 | 2 | F; vS; R; sbM*10; f of 2 ... | 4 |
| 3205 | 3417 | ..... | ..... | 12 38 47.3 | 3.104 | 1 | 97 52 44.5 | 19.75 | 1 | vF; cS; R; glbM | 1 |
| 3206 | ..... | III. 778 | ..... | 12 39 11.1 | 2.733 | 2 | 34 28 43.5 | 19.75 | 2 | cF; S; lE..... | 2* |
| 3207 | 1425 | II. 326 | ..... | 12 39 17.7 | 2.928 | 1 | 58 30 6.2 | 19.74 | 1 | vF; pmE; ?biN | 3 |
| 3208 | 3418 | ..... | ..... | 12 39 18.0 | 3.274 | 1 | 130 49 55.2 | 19.74 | 1 | eF; lE; vgbM..... | 1 |
| 3209 | 3419 | ..... | ..... | 12 39 36.0 | 3.263 | 1 | 128 48 5.2 | 19.74 | 1 | eeF; pL; R | 1 |
| 3210 | 3420 | ..... | ..... | 12 39 36.4 | 3.118 | 1 | 100 52 34.2 | 19.74 | 1 | eF; S; 1 or 2 st inv | 1 |
| 3211 | 3421 | ..... | ..... | 12 39 45.5 | 3.291 | 1 | 132 34 50.2 | 19.74 | 1 | pF; S; R; gbM | 1 |
| 3212 | 3423 | III. 523 | ..... | 12 39 58.2 | 3.111 | 1 | 99 17 29.9 | 19.73 | 1 | cF; L; E 45°±; gvlbM | 2 |
| 3213 | 3422 | ..... | ..... | 12 40 2.9 | 3.279 | 1 | 130 47 24.9 | 19.73 | 1 | eF; pS; R; vgbM; S * sp ... | 1 |
| 3214 | 1426 | II. 181 | ..... | 12 40 6.3 | 3.081 | 1 | 91 58 8.9 | 19.73 | 1 | B; pL; pmE 25° | 5* |
| 3215 | 1427 | III. 398 | ..... | 12 40 13.3 | 2.984 | 3 | 69 46 52.9 | 19.73 | 3 | F; S; R; sbM*; rr | 4 |
| 3216 | 1428 | II. 795 | ..... | 12 40 16.6 | 2.728 | 1 | 34 41 11.9 | 19.73 | 1 | pF; vS; vmE; vsmbM | 3* |
| 3217 | 1430 | ..... | ..... | 12 40 39.3 | 2.897 | 1 | 53 52 53.6 | 19.72 | 1 | vF; vS; R; psbM | 1 |
| 3218 | 1429 | III. 543 | ..... | 12 40 43.4 | 3.051 | 1 | 84 53 57.6 | 19.72 | 2 | eF; pL; *9.10 p 10° | 3 |
| 3219 | 1431 | II. 128 | ..... | 12 40 44.5 | 3.010 | 3 | 75 28 34.6 | 19.72 | 3 | pB; vL; E; vglbM; r | 5 |
| 3220 | ..... | III. 664 | ..... | 12 40 48.3 | 3.076 | 1 | 90 55 44.6 | 19.72 | 1 | vF; S | 1 |
| 3221 | 1432 | II. 182 | ..... | 12 40 58.2 | 3.081 | 1 | 92 33 48.6 | 19.72 | 1 | pB; pL; E 90°±; mbM..... | 5 |
| 3222 | 1433 | II. 381 | ..... | 12 41 2.8 | 2.943 | 2 | 62 0 41.6 | 19.72 | 3 | F; cS; R; bM | 4 |
| 3223 | ..... | III. 906 | ..... | 12 41 5.5 | 2.332 | 1 | 18 3 44.6 | 19.72 | 1 | vF; pL; E | 1 |
| 3224 | 1435 | II. 796 | ..... | 12 41 9.5 | 2.731 | 1 | 34 51 21.6 | 19.72 | 1 | cF; pS; vlE; mbMN | 3* |
| 3225 | 1434 | II. 72 | ..... | 12 41 11.2 | 3.021 | 6 | 78 14 47.6 | 19.72 | 6 | pF; S; vlE | 7 |
| 3226 | 3424 | ..... | Δ. 510 ? | 12 41 12.2 | 3.282 | 1 | 130 32 29.3 | 19.71 | 1 | pB; L; R; gbM; r | 1 |
| 3227 | 1436 | I. 39 | ..... | 12 41 21.8 | 3.094 | 2 | 95 2 2.3 | 19.71 | 2 | vB; L; lE 45°±; smbMrN .. | 5 |
| 3228 | ..... | I. 8 | } = 6 | 12 41 28.1 | 3.032 | 6 | 80 44 53.3 | 19.71 | 6 | cB; pL; iR; bM; r | 6* |
| | | III. 6 | | | | | | | | | |
| 3229 | { 1437 = 3425 1438 } | I. 129 | ..... | 12 41 46.4 | 3.107 | 2 | 97 54 3.3 | 19.71 | 2 | vB; R; vmbMrN; r | 3 |
| 3230 | { 1437 = 3425 1438 3426 } | III. 524 | ..... | 12 41 49.6 | 3.119 | 2 | 100 38 16.3 | 19.71 | 2 | F; L; mE40°; vlbM; B*p ... | 4 |
| 3231 | ..... | II. 578 | ..... | 12 42 2.1 | 3.054 | 1 | 85 50 43.0 | 19.70 | 1 | F; S | 1 |
| 3232 | ..... | III. 514 | ..... | 12 42 5.8 | 3.109 | 2 | 98 21 44.0 | 19.70 | 2 | eF; cS; pmE | 2 |
| 3233 | 1439 | II. 662 | ..... | 12 42 8.9 | 2.842 | 2 | 47 18 39.0 | 19.70 | 2 | cF; S; R; gbM | 3 |
| 3234 | 3427 | ..... | ..... | 12 42 15.5 | 3.288 | 1 | 130 31 49.0 | 19.70 | 1 | vF; vS; R; psbM | 1 |
| 3235 | ..... | III. 815 | ..... | 12 42 19.7 | 2.753 | 1 | 38 2 43.0 | 19.70 | 1 | S; stellar | 1 |
| 3236 | ..... | III. 722 | ..... | 12 42 22.8 | 3.118 | 1 | 100 20 43.7 | 19.69 | 2 | eF; S | 1 |
| 3237 | 3428 | ..... | Δ. 511 | 12 42 26.6 | 3.289 | 1 | 130 36 13.7 | 19.69 | 1 | pB; cS; R; gbM..... | 1 |
| 3238 | 1440 | III. 610 | ..... | 12 42 29.3 | 3.092 | 1 | 94 26 6.7 | 19.69 | 1 | eF; pL; lE | 2 |
| 3239 | 1451, a | ..... | R. nova | 12 42 35.9 | 2.95 | :: | 63 45 13.4 | 19.69 | :: | E | 0 |
| 3240 | 1441 | II. 95 | ..... | 12 42 39.1 | 3.000 | 2 | 74 4 17.7 | 19.69 | 2 | cB; pL; vmE 28°5; sbMN .. | 4+ |
| 3241 | 1442 | ..... | ..... | 12 42 39.4 | 2.948 | 1 | 63 45 43.7 | 19.69 | 1 | vF; pL..... | 1 |
| 3242 | 1443 | II. 412 | ..... | 12 42 40.1 | 2.888 | 1 | 53 54 17.7 | 19.69 | 1 | F; S; E; glbM; er | 4 |
| 3243 | 1444 | I. 140 | ..... | 12 42 51.5 | 3.045 | 4 | 83 55 22.7 | 19.69 | 4 | pB; L; vlE; glbM | 6 |
| 3244 | 1445 | III. 536 | ..... | 12 43 1.6 | 3.130 | 2 | 102 33 51.7 | 19.69 | 2 | F; pS; R; gbM | 3 |
| 3245 | 1446 | ..... | ..... | 12 43 19.9 | 3.093 | 1 | 94 30 56.4 | 19.68 | 1 | eF; vS; bet 2 st | 1 |
| 3246 | 1448 | III. 424 | ..... | 12 43 22.9 | 2.900 | 1 | 56 4 35.4 | 19.68 | 1 | vF; stellar | 2 |
| 3247 | 1475, a | ..... | R. nova | 12 43 26 | 2.92 | :: | 60 23 ± | 19.68 | :: | E; bMN | 0 |
| 3248 | 1447 | III. 611 | ..... | 12 43 26.4 | 3.088 | 1 | 93 23 9.4 | 19.68 | 1 | eF; S; bM | 2 |
| 3249 | 1451 | I. 84 | ..... | 12 43 32.0 | 2.945 | 1 | 63 44 13.4 | 19.68 | 1 | vF; vL; E; vg; vsmbMeBN .. | 2+ |
| 3250 | 1449 | III. 280 | ..... | 12 43 34.1 | 3.135 | 1 | 103 34 27.1 | 19.67 | 1 | F; vS; R; stellar; np of 2 ... | 2 |
| 3251 | 1450 | II. 298 | ..... | 12 43 37.5 | 3.135 | 1 | 103 34 57.1 | 19.67 | 1 | F; pL; R; lbM; sf of 2 | 2 |
| 3252 | 3430 | ..... | ..... | 12 43 38.8 | 3.293 | 1:: | 130 19 50.1 | 19.67 | 1:: | neb; 1st of 3 | 1 |
| 3253 | 3431 | ..... | ..... | 12 43 38.8 | 3.293 | 1:: | 130 19 50.1 | 19.67 | 1:: | 2nd of 3 | 1 |
| 3254 | 1452 | I. 41 | ..... | 12 43 45.4 | +3.098 | 1 | 95 38 6.1 | +19.67 | 1 | vF; pL; E | 3 |

| No. of Cata- logue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|------------------------|---|------------------------------------|-----------------------|--|---|----------------------------|---|--|----------------------------|---|--|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 3255 | h. | H. II. 814 | ..... | ^h ^m ^s 12 43 53.8 | ^s +2.720 | 1 | 36° 20' 41".1 | +19.67 | 1 | F; S; vsmbM | 1 |
| 3256 | 1453 | II. 73 | ..... | 12 44 3.4 | 3.019 | 4 | 78 19 45.1 | 19.67 | 5 | cF; pL; { ^R mE90° } r; *12p. | 6* |
| 3257 | 1454 | ..... | ..... | 12 44 5.1 | 3.047 | 1 | 84 23 15.1 | 19.67 | 1 | vF; vS; R | 1 |
| 3258 | 1456 | ..... | M. 94 | 12 44 17.2 | 2.838 | 5 | 48 6 31.8 | 19.66 | 5 | vB; L; iR; vsmbMBN; r... | 10+ |
| 3259 | 1457 | III. 496 | ..... | 12 44 18.7 | 2.890 | 1: | 55 5 14.8 | 19.66 | 1 | eF; vS; pmE | 2 |
| 3260 | 1455 | III. 515 | ..... | 12 44 20.7 | 3.108 | 1 | 97 39 9.8 | 19.66 | 1 | F; pL; iE; pglbM | 2 |
| 3261 | 1458 | III. 721 | ..... | 12 44 30.1 | 2.776 | 1 | 41 33 55.8 | 19.66 | 1 | vF; S; R; psbM | 2 |
| 3262 | 3432 | I. 133 | ..... | 12 44 30.5 | 3.118 | 1 | 99 41 33.8 | 19.66 | 1 | cB; vS; vbMN=*9; *10 sf | 2 |
| 3263 | 3429 | ..... | ..... | 12 44 31.3 | 3.300 | 1 | 130 37 52.8 | 19.66 | 1 | F; R; gbM | 1 |
| 3264 | 3433 | ..... | ..... | 12 44 37.2 | 3.297 | 1 | 130 18 42.8 | 19.66 | 1 | F; L; E; gbM; 3rd of 3 | 1 |
| 3265 | 1460 | ..... | ..... | 12 44 52.3 | 3.012 | 1 | 77 9 54.5 | 19.65 | 1 | pB; mE; r | 1 |
| 3266 | ..... | II. 344 | ..... | 12 44 54.5 | 2.940 | 1 | 63 28 40.5 | 19.65 | 1 | F; pL; iE | 1 |
| 3267 | 1459 | III. 537 | ..... | 12 44 55.1 | 3.132 | 1 | 102 38 47.5 | 19.65 | 1 | F; vS; iR; gbM | 2 |
| 3268 | ..... | III. 907 | ..... | 12 44 55.5 | 2.244 | 1 | 17 36 39.8 | 19.66 | 1 | vF; cL; E 135°± | 1 |
| 3269 | 1451, b | ..... | R. nova | 12 45 0.0 | 2.95 | :: | 63 23 0.4 | 19.65 | :: | E 0° | 0 |
| 3270 | 1463 | IV. 78 | ..... | 12 45 0.2 | 2.175 | 1 | 16 21 38.5 | 19.65 | 1 | pB; L; R; vg, vsbM | 2 |
| 3271 | 3434 | ..... | ..... | 12 45 6.7 | 3.313 | 1 | 131 54 27.5 | 19.65 | 1 | B; pS; R; vg, vsmbM | 1 |
| 3272 | ..... | III. 82 | ..... | 12 45 10.2 | 3.005 | 1 | 75 44 40.5 | 19.65 | 1 | vF; S; E; r | 1 |
| 3273 | 1461 | I. 16 | ..... | 12 45 11.6 | 3.075 | 1 | 90 26 26.5 | 19.65 | 1 | cB; L; vIE; vgibM | 5 |
| 3274 | 1462 | I. 25 | ..... | 12 45 15.0 | 3.015 | 5 | 77 55 36.5 | 19.65 | 5 | B; pL; R; psbM; p of 2..... | 7 |
| 3275 | 3435 | II. 74 | ..... | 12 45 22.2 | 3.533 | 2 | 149 35 20.2 | 19.64 | 3 | Cl; vL; st vB (κ Crucis)..... | 3+ |
| 3276 | 1464 | ..... | Δ. 301 | 12 45 35.3 | 3.143 | 1: | 104 38 49.2 | 19.64 | 1: | vF; pS; r | 2 |
| 3277 | 1465 | III. 281 | ..... | 12 45 46.1 | 2.992 | 3 | 73 23 18.2 | 19.64 | 3 | vF; pL; E? | 4 |
| 3278 | 1466 | III. 70 | ..... | 12 45 53.4 | 3.015 | 4 | 78 0 38.2 | 19.64 | 4 | pB; vmE 34°0; 3B sts; f of 2 | 6+ |
| 3279 | ..... | II. 75 | ..... | 12 45 55.7 | 3.152 | 1 | 106 13 39.9 | 19.63 | 1 | vF; S; lbM | 1 |
| 3280 | 1467 | III. 489 | ..... | 12 46 6.4 | 3.048 | 1 | 84 46 58.9 | 19.63 | 1 | F; cS; R; gbM | 2 |
| 3281 | 3436 | III. 544 | ..... | 12 46 11.3 | 3.295 | 2 | 128 58 3.9 | 19.63 | 2 | B; pS; iE; mbM | 3 |
| 3282 | ..... | ..... | ..... | 12 46 12.7 | 3.115 | 1 | 98 45 39.9 | 19.63 | 1 | vF; vS | 1 |
| 3283 | 1468 | III. 525 | ..... | 12 46 13.2 | 3.063 | 1 | 87 58 25.9 | 19.63 | 1 | F; pL; mE; *9 p 90° | 2 |
| 3284 | ..... | II. 535 | ..... | 12 46 22.4 | 3.111 | 1 | 97 54 38.9 | 19.63 | 1 | vF; S | 1 |
| 3285 | 1469 | III. 516 | ..... | 12 46 22.4 | 3.058 | 2 | 87 3 50.9 | 19.63 | 2 | pF; pS; R; mbM | 5 |
| 3286 | 1471 | II. 24 | ..... | 12 46 26.5 | 2.862 | 1 | 52 25 5.9 | 19.63 | 1 | eF; cS; R; bM | 2 |
| 3287 | 1470 | III. 618 | ..... | 12 46 29.7 | 3.101 | 1 | 95 51 34.9 | 19.63 | 1 | F; cL; R; vglbM; r | 3 |
| 3288 | 3437 | II. 186 | ..... | 12 46 46.5 | 3.114 | 1 | 98 26 38.6 | 19.62 | 1 | F; S; R; vlbM; p of D neb... | 2 |
| 3289 | ..... | II. 559 | ..... | 12 46 47.5 | 3.112 | 1 | 98 1 38.6 | 19.62 | 1 | vF; S | 1 |
| 3290 | 3438 | III. 517 | ..... | 12 46 47.5 | 3.114 | 1 | 98 26 17.6 | 19.62 | 1 | vF; S; R; vlbM; f of D neb | 1 |
| 3291 | 1472 | ..... | ..... | 12 46 48.1 | 3.020 | 2 | 79 31 37.0 | 19.60 | 2 | vF; pL; R; r | 3 |
| 3292 | ..... | III. 106 | ..... | 12 47 4.9 | 3.120 | 1 | 99 46 38.3 | 19.61 | 1 | cB; vL; mE | 1 |
| 3293 | ..... | I. 134 | ..... | 12 47 15.1 | 3.131 | 2 | 101 49 8.3 | 19.61 | 2 | pF; pS; R; mbM; p of D neb | 2 |
| 3294 | ..... | I. 135 | ..... | 12 47 16.1 | 3.131 | 2 | 101 50 8.3 | 19.61 | 2 | pF; pS; R; mbM; f of D neb | 2 |
| 3295 | ..... | I. 136 | ..... | 12 47 16.9 | 3.121 | 1 | 99 51 38.3 | 19.61 | 1 | vF; eS | 1 |
| 3296 | 3439 | III. 526 | ..... | 12 47 17.2 | 3.384 | 1 | 137 58 54.3 | 19.61 | 1 | eF; S; R; glbM | 1 |
| 3297 | ..... | ..... | ..... | 12 47 17.2 | 3.384 | 1 | 137 58 54.3 | 19.61 | 1 | vF; S; R; glbM | 1 |
| 3297 | ..... | II. 187 | ..... | 12 47 21.4 | 3.102 | 2 | 96 6 8.3 | 19.61 | 2 | pB; pS; mbM; r | 2 |
| 3298 | 1473 | II. 345 | ..... | 12 47 29.9 | 2.925 | 3 | 62 9 58.3 | 19.61 | 2 | F; R; *9 att 1/n | 4 |
| 3299 | ..... | II. 560 | ..... | 12 47 31.8 | 3.120 | 1 | 99 28 38.3 | 19.61 | 1 | pF; pS; iR | 1 |
| 3300 | 1475 | I. 93 | ..... | 12 47 54.0 | 2.911 | 2 | 60 17 53.0 | 19.60 | 2 | pB; pS; iE; *8nf 1' | 4 |
| 3301 | ..... | II. 538 | ..... | 12 47 55.2 | 3.132 | 2 | 101 52 8.0 | 19.60 | 2 | vF; S; 2 or 3 st near | 2 |
| 3302 | 1474 | II. 21 | ..... | 12 47 59.1 | 3.029 | 3 | 81 10 55.0 | 19.60 | 3 | pF; pL; R; bM; r | 7 |
| 3303 | 1477 | II. 382 | ..... | 12 48 6.7 | 2.921 | 2 | 61 49 20.0 | 19.60 | 2 | pF; pS; gbM | 3 |
| 3304 | 1476 | III. 548 | ..... | 12 48 7.8 | 3.054 | 1 | 86 20 18.0 | 19.60 | 1 | cF; S; vS* att | 2 |
| 3305 | 1478 | I. 211 | ..... | 12 48 9.1 | 2.765 | 1 | 42 43 7.0 | 19.60 | 1 | pB; cS; R; psbM; *14 p ... | 5 |
| 3306 | 1479 | III. 816 | ..... | 12 48 26.6 | 2.683 | 1 | 36 8 27.7 | 19.59 | 1 | eF; S; iE | 2 |
| 3307 | ..... | IV. 40 | ..... | 12 48 33.9 | 3.136 | 1 | 102 17 37.7 | 19.59 | 1 | S; att to pB* | 1 |
| 3308 | 3440 | ..... | ..... | 12 48 39.2 | 3.230 | 1 | 118 45 0.7 | 19.59 | 1 | F; cS; R; gvlbM | 1 |
| 3309 | 1509, a | ..... | R. 2 novæ | 12 48 45 | 3.05 | :: | 86 42 ± | 19.58 | :: | { F; D neb; E at right angles to each other. | 0 |
| 3310 |  | ..... | ..... | 12 48 45 | 3.05 | :: | 86 42 ± | 19.58 | :: | { F; D neb; E at right angles to each other. | 0 |
| 3311 | 1480 | I. 141 | ..... | 12 48 53.4 | +3.047 | 1: | 84 56 47.4 | 19.58 | 1: | { H. vB } { h. pF } ; cL; E 135°± ... | 3 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
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| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 3312 | 3441 | | | 12 49 6.0 | +3.326 | 1 | 131 2 20.4 | +19.58 | 1 | eF; cS; R; gbM; p of 2..... | 1 |
| 3313 | 3442 | | | 12 49 6.1 | 3.326 | 1 | 131 3 50.4 | 19.58 | 1 | eF; S; R; gbM; f of 2 | 3 |
| 3314 | 1481 | II. 383 | ..... | 12 49 9.7 | 2.915 | 1 | 61 29 48.4 | 19.58 | 1 | vF; pL..... | 2 |
| 3315 | 1483 | I. 243 | ..... | 12 49 10.9 | 2.590 | 2 | 30 54 17.4 | 19.58 | 2 | B; pS; vIE; vgbM | 2 |
| 3316 | 1482 | II. 777 | ..... | 12 49 20.0 | 3.104 | 1 | 96 3 28.1 | 19.57 | 1 | F; S; R; bM | 2 |
| 3317 | 3443 | ..... | ..... | 12 49 23.7 | 3.680 | 3 | 154 11 48.1 | 19.57 | 3 | Cl; pL; pRi; iF; st 10 ...18 | 3 |
| 3318 | $\left\{ \begin{array}{l} 1484 \\ = \\ 3445 \end{array} \right\}$ | II. 549 | ..... | 12 49 33.0 | 3.112 | 2 | 97 46 5.1 | 19.57 | 2 | pB; L; pmE 0°; gbM | 3 |
| 3319 | 1485 | II. 384 | ..... | 12 49 48.9 | 2.917 | 1 | 62 3 50.8 | 19.56 | 1 | F; cL | 2* |
| 3320 | ..... | II. 563 | ..... | 12 49 51.1 | 3.140 | 1 | 102 54 35.8 | 19.56 | 1 | pB; iF; bM | 1 |
| 3321 | 1486 | ..... | M. 64 | 12 49 51.8 | 2.951 | 3 | 67 33 15.8 | 19.56 | 3 | !; vB; vL; vmE 120°±; bMSBN=* ?. | 10+ |
| 3322 | 3447 | ..... | ..... | 12 50 5.6 | 3.220 | 1 | 116 32 13.8 | 19.56 | 1 | F; S; R; gbM | 1 |
| 3323 | 3446 | ..... | ..... | 12 50 6.4 | 3.321 | 1 | 129 59 36.8 | 19.56 | 1 | pF; vS; R; sbM*17; *10, 70°3 | 1 |
| 3324 | 1487 | II. 346 | ..... | 12 50 6.5 | 2.917 | 1 | 62 14 32.8 | 19.56 | 1 | vF; pL; iF | 3 |
| 3325 | 3444 | ..... | Δ. 164 | 12 50 7.9 | 3.899 | 2 | 160 6 53.5 | 19.55 | 2 | ⊕; B; L; R; g; vsbM; st 12 | 2 |
| 3326 | 1488 | III. 817 | ..... | 12 50 11.1 | 2.680 | 1 | 36 56 44.8 | 19.56 | 1 | vF; S; iR; bM | 2 |
| 3327 | 3448 | ..... | ..... | 12 50 15.0 | 3.375 | 2 | 135 30 1.5 | 19.55 | 3 | F; pL; mE; vgbM | 3 |
| 3328 | 1489 | ..... | ..... | 12 50 23.4 | 2.725 | 1 | 40 26 12.5 | 19.55 | 1 | Neb; ? | 1 |
| 3329 | 1490 | ..... | ..... | 12 50 42.3 | 3.138 | 1 | 102 17 56.2 | 19.54 | 1 | vF; 3Sst sp | 1 |
| 3330 | 1491 | II. 536 | ..... | 12 50 42.5 | 3.060 | 1 | 87 40 23.5 | 19.55 | 1 | pF; pL; pmE; vgbM; *nf30° | 2 |
| 3331 | 1493 | II. 387 | ..... | 12 50 45.5 | 2.906 | 2 | 60 46 1.2 | 19.54 | 2 | pF; pL; R; vS* att | 3 |
| 3332 | 1492 | III. 613 | ..... | 12 50 47.5 | 3.087 | 1 | 92 51 26.2 | 19.54 | 1 | cF; E; er; *sf 30'' | 2 |
| 3333 | 1494 | II. 386 | ..... | 12 50 55.4 | 2.912 | 1:: | 61 49 52.2 | 19.54 | 1 | F; pL; R..... | 2 |
| 3334 | 1495 | ..... | ..... | 12 51 9.4 | 2.837 | 1 | 51 52 3.2 | 19.54 | 1 | eF | 1 |
| 3335 | 3449 | ..... | Δ. 311 | 12 51 45.5 | 3.571 | 2 | 148 50 34.2 | 19.54 | 2 | Cl; L; pRi; iR; st 10... .. | 2 |
| 3336 | 1496 | II. 385 | ..... | 12 51 48.6 | 2.908 | 2 | 61 38 24.6 | 19.52 | 2 | F; S; R; psbM | 3 |
| 3337 | 1497 | I. 68 | ..... | 12 51 59.8 | 3.151 | 1 | 104 17 25.6 | 19.52 | 2 | B; R; psmbM; *13 np | 3* |
| 3338 | ..... | II. 299 | ..... | 12 52 1.7 | 3.152 | 1 | 104 31 34.6 | 19.52 | 1 | pB; pL; mbM..... | 1* |
| 3339 | ..... | III. 908 | ..... | 12 52 1.7 | 2.172 | 1 | 19 1 32.6 | 19.52 | 1 | eF; vS; iR; vlbM | 1 |
| 3340 | 1499 | IV. 30 | ..... | 12 52 22.9 | 2.852 | 2 | 54 23 0.3 | 19.51 | 2 | vF; pL; vmE 30°±; bet 2 st | 5+ |
| 3341 | ..... | II. 644 | ..... | 12 52 24.2 | 2.832 | 1 | 51 56 32.3 | 19.51 | 1 | pB; S; R; bM | 1 |
| 3342 | 1498 | I. 162 | ..... | 12 52 28.6 | 2.990 | 6 | 75 4 23.3 | 19.51 | 6 | B; pL; mE 90°; sbMN; S* inv. | 7 |
| 3343 | 1500 | ..... | ..... | 12 52 41.1 | 2.903 | 1:: | 61 16 45.3 | 19.51 | 1:: | 1st of 5; *7 n | 1 |
| 3344 | 1501 | II. 388 | ..... | 12 52 49.6 | 2.903 | 2 | 61 17 56.0 | 19.50 | 3 | cF; S; R; *7 n; 2nd of 5 ... | 4 |
| 3345 | ..... | III. 758 | ..... | 12 52 58.9 | 3.102 | 1 | 95 20 33.0 | 19.50 | 1 | vF; vS; p of 2..... | 1 |
| 3346 | ..... | III. 759 | ..... | 12 52 58.9 | 3.102 | 1 | 95 20 33.0 | 19.50 | 1 | vF; vS; F of 2 | 1 |
| 3347 | 1502 | II. 389 | ..... | 12 53 0.1 | 2.902 | 1:: | 61 16 45.0 | 19.50 | 1:: | 3rd of 5 | 2 |
| 3348 | 1503 | III. 83 | ..... | 12 53 9.2 | 2.999 | 2 | 76 46 17.0 | 19.50 | 2 | cF; pL; R; vglbM; r..... | 3 |
| 3349 | 1504 | ..... | ..... | 12 53 17.4 | 3.106 | 1 | 96 5 50.7 | 19.49 | 1 | vF; S; E | 1 |
| 3350 | 1505 | II. 778 | ..... | 12 53 20.0 | 3.102 | 1 | 95 19 0.7 | 19.49 | 1 | pF; cS; E; psbM; *np | 2 |
| 3351 | 1507 | II. 391 | ..... | 12 53 24.0 | 2.901 | 2 | 61 15 23.7 | 19.49 | 2 | pB; pmE; bM; *7 n; 4th of 5 | 3 |
| 3352 | 1506 | III. 614 | ..... | 12 53 24.1 | 3.094 | 1 | 93 50 3.7 | 19.49 | 1 | cF; S; iR; bM | 2 |
| 3353 | 1508 | II. 390 | ..... | 12 53 28.3 | 2.908 | 1 | 62 21 3.7 | 19.49 | 1 | vF | 2 |
| 3354 | 1510 | III. 363 | ..... | 12 53 29.7 | 2.900 | 1 | 61 17 14.7 | 19.49 | 2 | pF; S; R; *7 n; 5th of 5 ... | 3 |
| 3355 | ..... | II. 300 | ..... | 12 53 33.9 | 3.147 | 2 | 103 11 32.7 | 19.49 | 2 | ..... | 2 |
| 3356 | 1509 | I. 143 | ..... | 12 53 33.9 | 3.055 | 2 | 86 45 0.7 | 19.49 | 3 | cB; cE; *10 att 135°± | 4*+ |
| 3357 | 1512 | ..... | ..... | 12 53 35.2 | 2.724 | 1 | 42 1 50.7 | 19.49 | 1 | pF; S; R; gbM | 1 |
| 3358 | 1511 | I. 69 | ..... | 12 53 37.9 | 3.150 | 1 | 103 45 56.7 | 19.49 | 1 | pB; pL; iR; st nr | 2* |
| 3359 | 3450 | ..... | ..... | 12 53 44.3 | 3.257 | 1 | 120 12 2.4 | 19.48 | 1 | vF; cS; R; * att; p of 2..... | 1 |
| 3360 | 3451 | ..... | ..... | 12 53 51.3 | 3.257 | 1 | 120 10 2.4 | 19.48 | 1 | vF; vS; R; slbM; f of 2..... | 1 |
| 3361 | ..... | II. 517 | ..... | 12 53 51.5 | 3.069 | 2 | 89 18 31.4 | 19.48 | 2 | pB; pS; R; bM | 2 |
| 3362 | 3452 | ..... | ..... | 12 54 9.0 | 3.361 | 1 | 132 0 55.1 | 19.47 | 1 | eF; 3 or 4 st 11, 12, f | 1 |
| 3363 | ..... | V. 3 | ..... | 12 54 9.5 | 3.060 | 1 | 87 35 32.4 | 19.48 | 1 | iF; vL; rr | 1* |
| 3364 | ..... | II. 392 | ..... | 12 54 10.0 | 2.899 | 1:: | 61 23 44.4 | 19.48 | 1:: | 1st of 3 | 1 |
| 3365 | 1514 | II. 645 | ..... | 12 54 10.5 | 2.823 | 2 | 51 54 16.4 | 19.48 | 2 | pB; cS; R; smbM; *17 np.. | 3 |
| 3366 | 1513 | IV. 47 | ..... | 12 54 12.7 | 3.094 | 1 | 93 47 23.4 | 19.48 | 1 | pB; S; R; bM; stellar? | 3 |
| 3367 | 1515 | ..... | ..... | 12 54 26.8 | 2.719 | 1 | 42 1 52.1 | 19.47 | 1 | eF; S; E; bM | 1 |
| 3368 | 1516 | II. 393 | ..... | 12 54 39.4 | +2.897 | 1 | 61 21 47.1 | +19.47 | 2 | F; pL; 2nd of 3 | 3 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 3369 | 1518 | II. 394 | ..... | 12 54 42.9 | +2.897 | 1 | 61 24 48.1 | +19.47 | 1 | vF; 3rd of 3..... | 2 |
| 3370 | 1517 | ..... | ..... | 12 54 50.7 | 3.154 | 2 | 104 13 10.8 | 19.46 | 2 | cF; L; vIE 45°± | 4 |
| 3371 | 1519 | II. 779 | ..... | 12 54 51.3 | 3.112 | 1 | 96 57 43.8 | 19.46 | 1 | cF; S | 2 |
| 3372 | ..... | III. 364 | ..... | 12 55 1.9 | 2.895 | 1 | 61 12 29.8 | 19.46 | 1 | vF | 1 |
| 3373 | 3453 | II. 190 | ..... | 12 55 43.0 | 3.115 | 1 | 97 19 31.2 | 19.44 | 1 | F; pS; vIE; glbM | 4 |
| 3374 | ..... | III. 760 | ..... | 12 55 51.7 | 3.115 | 1 | 97 22 30.2 | 19.44 | 1 | cF; vS; R | 1 |
| 3375 | 3454 | ..... | ..... | 12 56 14.8 | 3.358 | 1 | 130 39 45.9 | 19.43 | 1 | vF; R; Δ2st 8, 9, f | 1 |
| 3376 | ..... | III. 818 | ..... | 12 56 20.2 | 2.663 | 1 | 38 47 27.9 | 19.43 | 1 | cF; S; R; vglbM | 1 |
| 3377 | ..... | II. 191 | ..... | 12 56 27.9 | 3.136 | 1 | 100 44 59.9 | 19.43 | 1 | pB; pL; iR | 2 |
| 3378 | 3456 | ..... | ..... | 12 56 38.5 | 3.263 | 2 | 119 46 26.6 | 19.42 | 2 | pB; S; R; bM; *f 6 ^s | 1 |
| 3379 | 3455 | ..... | ..... | 12 56 42.6 | 3.425 | 1 | 136 28 2.6 | 19.42 | 1 | eeF; S; R; p of 2 | 1 |
| 3380 | 1521 | ..... | ..... | 12 56 48.3 | 2.646 | 1 | 37 55 20.6 | 19.42 | 1 | eF; R; psbM | 1 |
| 3381 | 3458 | II. 561 | ..... | 12 56 56.5 | 3.129 | 1 | 99 35 40.6 | 19.42 | 1 | pB; L; R; gmbM | 2 |
| 3382 | 3457 | ..... | ..... | 12 56 58.2 | 3.426 | 1 | 136 29 22.3 | 19.41 | 1 | F; S; R; f of 2 | 1 |
| 3383 | 1520 | I. 40 | ..... | 12 56 59.1 | 3.101 | 2 | 94 48 23.6 | 19.42 | 2 | pF; L; E; gbMBN; r | 3 |
| 3384 | ..... | III. 761 | ..... | 12 56 59.5 | 3.113 | 1 | 96 55 28.6 | 19.42 | 1 | vF; S | 1 |
| 3385 | 1522 | II. 395 | ..... | 12 57 6.0 | 2.887 | 1 | 61 3 42.6 | 19.42 | 1 | F; S; R; bM; *9 nf 1' | 2 |
| 3386 | 3459 | ..... | Δ. 411 | 12 57 14.1 | 3.455 | 1 | 138 32 6.3 | 19.41 | 1 | B; vL; vmE 38°7 | 1 |
| 3387 | 3460 | ..... | ..... | 12 57 32.1 | 3.388 | 2 | 132 50 51.0 | 19.40 | 2 | B; pS; R; gpmbM; p of 2... | 2 |
| 3388 | 3461 | ..... | ..... | 12 57 34.1 | 3.306 | 1 | 124 35 6.0 | 19.40 | 1 | F; pL; R; vglbM | 1 |
| 3389 | 3462 | ..... | ..... | 12 57 40.2 | 3.387 | 2 | 132 45 46.0 | 19.40 | 2 | eF; S; R; psbM; f of 2..... | 2 |
| 3390 | 1523 | II. 188 | ..... | 12 57 43.2 | 3.107 | (2) | 95 45 18.0 | 19.40 | 2 | F; pL; iE; r | 3 |
| 3391 | 1524 | II. 396 | ..... | 12 58 15.4 | 2.877 | 4 | 60 7 28.7 | 19.39 | 5 | F; S; R; psbM*11 | 6 |
| 3392 | 3463 | ..... | ..... | 12 58 18.4 | 3.329 | 1 | 126 48 31.4 | 19.38 | 2 | vF; pS; am 3S st..... | 2 |
| 3393 | 1527 | ..... | ..... | 12 58 23.9 | 1.656 | 2 | 13 50 36.4 | 19.38 | 2 | vF; S; R; vglbM..... | 2* |
| 3394 | 3464 | ..... | ..... | 12 58 26.1 | 3.263 | 1 | 119 0 14.4 | 19.38 | 1 | F; cS; R; gbM | 1 |
| 3395 | 1525 | II. 413 | ..... | 12 58 26.5 | 2.825 | 2 | 54 4 20.7 | 19.39 | 2 | pB; cS; R; smbM | 4 |
| 3396 | 1526 | II. 397 | ..... | 12 58 27.1 | 2.888 | 1 | 61 40 48.4 | 19.38 | 1 | F; S; R | 2 |
| 3397 | 3465 | I. 130 | ..... | 12 58 31.6 | 3.116 | 1 | 97 15 49.4 | 19.38 | 1 | vB; pS; E 0°±; bMBN..... | 3 |
| 3399 | 1528 | ..... | ..... | 12 59 2.4 | 2.840 | 1 | 56 4 6.1 | 19.37 | 2 | eF; S; R | 2 |
| 3400 | 1529 | II. 398 | ..... | 12 59 4.5 | 2.885 | 1 | 61 30 58.1 | 19.37 | 1 | F; S; iF | 2 |
| 3401 | ..... | III. 303 | ..... | 12 59 9.8 | 2.874 | 1 | 60 10 26.1 | 19.37 | 1 | eF; vS | 1 |
| 3402 | 1530 | II. 663 | ..... | 12 59 27.3 | 2.754 | 2 | 47 31 10.8 | 19.36 | 2 | F; vS; R; stellar; vS*s | 3 |
| 3403 | 1532 | III. 779 | ..... | 12 59 28.4 | 2.537 | 1 | 32 55 57.8 | 19.36 | 1 | eF; S; iE | 3 |
| 3404 | 3466 | ..... | ..... | 12 59 33.6 | 3.255 | 2 | 117 28 37.8 | 19.36 | 2 | vF; vL; cE; vglbM | 2 |
| 3405 | 1531 | III. 304 | ..... | 12 59 35.3 | 2.873 | 2 | 60 12 10.8 | 19.36 | 3 | vF; vS; vIE; vglbM; *sp... | 4 |
| 3406 | 1533 | III. 783 | ..... | 12 59 35.4 | 2.588 | 1 | 35 40 40.8 | 19.36 | 1 | vF; S; E; *att | 2 |
| 3407 | 3467 | ..... | ..... | 12 59 37.3 | 3.221 | 1 | 112 55 45.8 | 19.36 | 1 | F; pL; R; glbM | 1 |
| 3408 | ..... | III. 765 | ..... | 12 59 57.7 | 3.224 | 1 | 113 15 24.5 | 19.35 | 1 | vF; pL; iF | 1 |
| 3409 | ..... | III. 937 | ..... | 13 0 17.3 | 1.670 | 1 | 13 57 22.5 | 19.35 | 1 | vF; S; iR; bM | 1 |
| 3410 | ..... | III. 781 | ..... | 13 0 18.4 | 2.582 | 1 | 35 38 40.2 | 19.34 | 1 | vF; S | 1 |
| 3411 | ..... | III. 782 | ..... | 13 0 32.3 | 2.580 | 1 | 35 36 40.2 | 19.34 | 1 | vF; S | 1 |
| 3412 | 1534 | ..... | ..... | 13 0 36.8 | 3.099 | 1 | 94 16 0.9 | 19.33 | 1 | vF; vS; R; psbM | 1 |
| 3413 | 3468 | ..... | ..... | 13 0 40.4 | 3.480 | 1 | 138 45 23.9 | 19.33 | 1 | B; pL; R; gmbM | 1 |
| 3414 | ..... | III. 780 | ..... | 13 0 41.9 | 2.540 | 1 | 33 34 22.2 | 19.34 | 1 | cF; S | 1 |
| 3415 | 1535 | ..... | ..... | 13 0 57.8 | 2.948 | 2 | 70 50 8.9 | 19.33 | 2 | F; vS; R; sbM; stellar | 2* |
| 3416 | ..... | III. 346 | ..... | 13 1 8.2 | 2.902 | 1 | 64 29 21.6 | 19.32 | 1 | eF; pL; iE | 1 |
| 3417 | 3469 | ..... | ..... | 13 1 29.8 | 3.264 | 1 | 117 53 57.3 | 19.31 | 1 | eF; cS; R | 1 |
| 3418 | 1537 | II. 189 | ..... | 13 1 32.2 | 3.111 | 1 | 96 1 35.3 | 19.31 | 1 | B; pL; R; *9 sf | 4 |
| 3419 | ..... | III. 365 | ..... | 13 1 32.5 | 2.873 | 1 | 60 56 21.3 | 19.31 | 1 | vF | 1 |
| 3420 | 1536 | II. 301 | ..... | 13 1 33.1 | 3.168 | 2 | 104 45 42.3 | 19.31 | 2 | B; pL; R; psmbM | 3* |
| 3421 | ..... | II. 185 | ..... | 13 1 40.9 | 3.102 | 1 | 94 36 21.3 | 19.31 | 1 | F; S; iF; pB*nr | 1* |
| 3422 | 1539 | III. 654 | ..... | 13 1 50.4 | 2.743 | 1 | 47 34 57.3 | 19.31 | 1 | vF; vS; R; lbM | 2 |
| 3423 | 1538 | III. 401 | ..... | 13 1 51.4 | 2.811 | 2 | 54 3 8.3 | 19.31 | 2 | vF; S; R; stellar | 3 |
| 3424 | 1542 | II. 815 | ..... | 13 1 54.5 | 2.599 | 1 | 37 18 52.3 | 19.31 | 1 | vF; vS; stellar | 2 |
| 3425 | 3470 | ..... | ..... | 13 1 54.7 | 3.404 | 1 | 132 21 15.0 | 19.30 | 1 | vF; S; E; r | 1 |
| 3426 | ..... | ..... | Auw. N. 31 | 13 2 1.0 | 3.099 | ... | 94 38 51.0 | 19.30 | ... | A neb (Markree Obs. Apr. 9, 1852). | 0* |
| 3427 | 1541 | ..... | ..... | 13 2 6.3 | 2.993 | 1 | 77 37 1.0 | 19.30 | 1 | vF; S; iE; 2Sst s | 1 |
| 3428 | ..... | III. 766 | ..... | 13 2 11.9 | 3.225 | 1 | 112 38 21.7 | 19.29 | 1 | vF; vS | 1 |
| 3429 | 3471 | ..... | ..... | 13 2 15.9 | +3.219 | 1 | 111 48 8.7 | +19.29 | 1 | pF; cS; R; slbM; am st..... | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. 1540 = | H. | | h m s | s | | ° ' " | " | | | |
| 3430 | 3472 | I. 42 | ..... | 13 2 23.2 | +3.118 | 2 | 97 5 2.7 | +19.29 | 2 | pB; pL; R; vgpmbM; * 8 np | 6 |
| 3431 | ..... | III. 819 | ..... | 13 2 29.4 | 2.616 | 1 | 38 34 19.7 | 19.29 | 1 | vF | 1 |
| 3432 | 1543 | II. 537 | ..... | 13 2 32.9 | 3.057 | 1 | 87 35 35.7 | 19.29 | 1 | cF; pL; R; lbM; er | 2 |
| 3433 | 1544 | III. 366 | ..... | 13 3 5.6 | 2.863 | 1 | 60 20 39.4 | 19.28 | 1 | cF; pS; IE | 2 |
| 3434 | 1545 | ..... | ..... | 13 3 37.6 | 2.558 | 1 | 35 44 28.1 | 19.27 | 1 | pF; S; iR; gbM | 1 |
| 3435 | ..... | III. 655 | ..... | 13 4 15.2 | 2.704 | 1 | 47 27 18.5 | 19.25 | 1 | vF; pS; lbM | 1 |
| 3436 | 1546 | III. 305 | ..... | 13 4 20.5 | 2.852 | 1 | 59 36 40.5 | 19.25 | 2 | vF; vS; vLE | 3 |
| 3437 | 1547 | I. 96 | ..... | 13 4 28.5 | 2.781 | 2 | 52 11 9.2 | 19.24 | 2 | vB; vL; vmE 25°; vsbMN... | 4 |
| 3438 | ..... | III. 848 | ..... | 13 4 34.7 | 2.340 | 1 | 27 7 16.5 | 19.25 | 1 | vF; vS | 1 |
| 3439 | ..... | D'Arrest, 93 | ..... | 13 4 37 | 3.05 | [1] | 63 51 42 | 19.24 | [1] | pF; pL; R | 0 |
| 3440 | 1550 | III. 820 | ..... | 13 4 45.5 | 2.610 | 1 | 39 9 53.2 | 19.24 | 1 | vF; R; bet 2 vS st | 2 |
| 3441 | 1549 | I. 85 | ..... | 13 4 48.8 | 2.907 | 2 | 66 20 21.9 | 19.23 | 2 | pF; cL; E 17° 0; biN; * 9 f | 3 |
| 3442 | 1548 | ..... | ..... | 13 4 50.5 | 3.175 | 1 | 105 3 9.9 | 19.23 | 1 | vF; R; bM; * 10 np 5' | 1 |
| 3443 | 3473 | ..... | ..... | 13 4 51.7 | 3.419 | 3 | 132 21 4.9 | 19.23 | 3 | pB; cS; R; am 4 st. | 3 |
| 3444 | 1551 | II. 414 | ..... | 13 5 2.2 | 2.787 | 1 | 52 58 43.9 | 19.23 | 1 | pF; S; E; psbM | 2 |
| 3445 | 1552 | II. 637 | ..... | 13 5 7.5 | 3.097 | (1) | 93 36 2.6 | 19.22 | 1 | F; cL; iR; lbM | 2 |
| 3446 | ..... | II. 356 | ..... | 13 5 7.9 | 2.897 | 1 | 65 12 15.6 | 19.22 | 1 | pB; S | 1 |
| 3447 | 1553 | III. 669 | ..... | 13 5 28.3 | 3.183 | 1 | 106 0 52.6 | 19.22 | 1 | vF; R; bM | 2 |
| 3448 | 1554 | II. 746 | ..... | 13 5 30.7 | 3.203 | 1 | 108 46 4.3 | 19.21 | 1 | cB; S; R; mbMpBN | 2 |
| 3449 | 1555 | III. 545 | ..... | 13 5 36.5 | 3.036 | 1 | 84 31 7.3 | 19.21 | 1 | eF; vS; R; er | 2 |
| 3450 | 1556 | II. 129 | ..... | 13 5 42.5 | 2.982 | 3 | 76 39 28.3 | 19.21 | 3 | cF; cL; vLE; lbM | 4 |
| 3451 | 1557 | ..... | ..... | 13 5 46.2 | 2.663 | 1 | 43 4 1.3 | 19.21 | 1 | pF; cS; R; * 12 nf 90" | 1 |
| 3452 | 1559 | II. 664 | ..... | 13 5 55.8 | 2.692 | 2 | 45 12 45.3 | 19.21 | 2 | pF; L; mE 20°; vlbM | 4 |
| 3453 | 1558 | ..... | M. 53 | 13 6 2.0 | 2.941 | 5 | 71 5 3.0 | 19.20 | 5 | !; ⊕; vB; vC; ir; vmbM; st 12... | 12 |
| 3454 | 1560 | III. 649 | ..... | 13 6 10.1 | 2.826 | 3 | 57 26 40.0 | 19.20 | 2 | vF; S; IE; * 13 n | 4 |
| 3455 | 3474 | ..... | ..... | 13 6 13.8 | 3.425 | 3 | 132 12 57.0 | 19.20 | 3 | pB; pL; R; gbM; * 7 nf ... | 3 |
| 3456 | 1561 | ..... | ..... | 13 6 16.8 | 3.027 | 2 | 83 11 34.0 | 19.20 | 2 | vF; S; R; pgbM | 2 |
| 3457 | 1562 | ..... | ..... | 13 6 27.1 | 2.646 | 1 | 42 10 39.0 | 19.20 | 1 | F; vS; R; gbM | 1 |
| 3458 | 1563 | III. 367 | ..... | 13 6 45.9 | 2.861 | 2 | 61 27 30.7 | 19.19 | 2 | vF; pL; iR | 3 |
| 3459 | 1564 | I. 97 | ..... | 13 6 59.7 | 2.775 | 2 | 52 39 40.4 | 19.18 | 2 | vB; pl; E 166° 8; smbMvBN; * np. | 3 |
| 3460 | ..... | III. 909 | ..... | 13 7 19.4 | 1.918 | 1 | 18 36 12.4 | 19.18 | 1 | vF; vS; R | 1 |
| 3461 | 1565 | II. 510 | ..... | 13 7 33.0 | 3.185 | 2 | 105 51 1.8 | 19.16 | 2 | cF; pS; vLE; bM | 3 |
| 3462 | ..... | II. 816 | ..... | 13 7 49.8 | 2.568 | 1 | 37 58 10.8 | 19.16 | 1 | F; S; ir; vgbmM | 1 |
| 3463 | 3477 | ..... | ..... | 13 7 55.8 | 3.243 | 1 | 113 14 29.5 | 19.15 | 1 | F; L; R; vgvbM; * 9 p ... | 1 |
| 3464 | 3476 | ..... | ..... | 13 7 56.4 | 3.744 | 1 | 149 19 9.5 | 19.15 | 1 | Cl; P; E; sc st 11... .. | 1 |
| 3465 | 1566 | II. 511 | ..... | 13 7 56.9 | 3.184 | 1 | 105 38 49.5 | 19.15 | 1 | pB; pL; R; bM | 3 |
| 3466 | 3475 | ..... | ..... | 13 7 59.4 | 3.845 | 1 | 152 40 25.2 | 19.14 | 1 | Cl; vL; vRi; st 11... .. | 1 |
| 3467 | 3478 | ..... | ..... | 13 8 26.1 | 3.283 | 1 | 117 40 52.2 | 19.14 | 1 | pF; R; sp of 2 | 1 |
| 3468 | ..... | III. 670 | ..... | 13 8 26.7 | 3.185 | 1 | 105 43 13.2 | 19.14 | 1 | vF | 1 |
| 3469 | ..... | II. 512 | ..... | 13 8 31.7 | 3.185 | 2 | 105 37 43.2 | 19.14 | 2 | cF; S | 2 |
| 3470 | 3479 | ..... | ..... | 13 8 46.5 | 3.283 | 1:: | 117 35 33.9 | 19.13 | 1:: | Neb; nf of 2 | 1 |
| 3471 | 1567 | ..... | ..... | 13 9 0.0 | 2.837 | 1 | 59 33 42.9 | 19.13 | 1 | vF | 1 |
| 3472 | 1569 | VI. 7 | ..... | 13 9 30.5 | 2.938 | 1 | 71 35 10.3 | 19.11 | 2 | Cl; vF; pL; iR; vgbM; st 15... | 3 |
| 3473 | 1568 | II. 513 | ..... | 13 9 31.1 | 3.188 | 1 | 105 53 46.3 | 19.11 | 1 | F; pS; iR | 3 |
| 3474 | 1570 | ..... | M. 63 | 13 9 31.9 | 2.699 | 1 | 47 13 45.3 | 19.11 | 1 | vB; L; pmE 120° ±; vsmbMBN. | 3 |
| 3475 | 1571 | III. 306 | ..... | 13 9 38.0 | 2.823 | 1 | 58 18 9.3 | 19.11 | 1 | cF; cS; R; p of 2 | 2 |
| 3476 | 1572 | III. 307 | ..... | 13 9 52.3 | 2.821 | 1 | 58 13 16.0 | 19.10 | 1 | cF; cS; R; f of 2 | 2 |
| 3477 | 3480 | I. 138 | ..... | 13 10 27.4 | 3.274 | 1 | 116 6 47.7 | 19.09 | 1 | vB; S; R; vsmbM; * 10 f ... | 4 |
| 3478 | 3482 | ..... | ..... | 13 10 33.7 | 3.358 | 1:: | 124 41 30.4 | 19.08 | 1 | eF; vS; E; r | 1 |
| 3479 | 3481 | ..... | ..... | 13 10 33.9 | 3.357 | 1 | 124 35 15.4 | 19.08 | 1 | cF; vS; R; * nr | 1 |
| 3480 | 3483 | ..... | ..... | 13 10 46.3 | 3.519 | 1 | 137 10 22.1 | 19.07 | 1 | B; S; R; psbM | 1 |
| 3481 | 1573 | III. 308 | ..... | 13 10 57.3 | 2.817 | 1 | 58 10 2.4 | 19.08 | 1 | vF; cS | 3 |
| 3482 | ..... | III. 312 | ..... | 13 11 14.2 | 3.227 | 1 | 110 22 7.8 | 19.06 | 1 | F; L; iR; bM | 1 |
| 3483 | 1574 | III. 282 | | 13 11 54.7 | 3.178 | 1 | 104 6 53.5 | 19.05 | 1 | vF; pL; pmE 135° ± | 2* |
| 3484 | 1575 | III. 309 | | 13 11 55.9 | +2.810 | 1 | 57 47 16.5 | +19.05 | 1 | eF; vS | 3 |

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|-------------------|--|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 3485 | $\left\{ \begin{array}{l} 1576 \\ = \\ 3489 \end{array} \right.$ | III. 117 | ..... | 13 12 6.9 | +3.162 | 2 | 102 0 4.2 | +19.04 | 2 | vF; cS; R; 1st of 3 | 5 |
| 3486 | $\left\{ \begin{array}{l} 1577 \\ = \\ 3490 \end{array} \right.$ | II. 193 | ..... | 13 12 9.0 | 3.161 | 2 | 101 55 11.2 | 19.04 | 2 | pB; S; vIE; sbM; 2nd of 3... | 5 |
| 3487 | 3484 | II. 566 | ..... | 13 12 9.6 | 3.285 | 1 | 116 50 8.2 | 19.04 | 1 | pB; pS; cE; psbM; *7.8 f... | 3 |
| 3488 | $\left\{ \begin{array}{l} 1578 \\ = \\ 3491 \end{array} \right.$ | III. 118 | ..... | 13 12 14.9 | 3.162 | 2 | 101 57 46.0 | 19.04 | 2 | cF; pS; vIE; 3rd of 3..... | 5 |
| 3489 | 1578, a | ..... | R. nova | 13 12 ± | 3.162 | ... | 101 57 ± | 19.04 | ... | No description, one of a group of four. | 0 |
| 3490 | 3485 | ..... | ..... | 13 12 26.3 | 3.285 | 1 | 116 40 17.9 | 19.03 | 1 | vF; S; R; 1st of 4 | 1 |
| 3491 | 1579 | II. 313 | ..... | 13 12 42.4 | 3.236 | 1 | 111 4 37.6 | 19.02 | 1 | cB; cS; vIE 90°±; bf | 2 |
| 3492 | ..... | II. 780 | ..... | 13 12 44.0 | 3.258 | 1 | 113 40 5.6 | 19.02 | 1 | F; L; R; vglbM..... | 1 |
| 3493 | 3486 | ..... | ..... | 13 12 55.4 | 3.469 | 1 | 132 59 25.6 | 19.02 | 1 | eF; vS; R; 2nd of 4 | 1 |
| 3494 | ..... | III. 724 | ..... | 13 12 55.9 | 3.226 | 1 | 109 52 4.6 | 19.02 | 1 | cF; vS; iF | 1 |
| 3495 | 1580 | II. 327 | ..... | 13 13 3.1 | 2.818 | 2 | 59 1 33.6 | 19.02 | 2 | pF; pL; gbM | 3 |
| 3496 | 3487 | ..... | ..... | 13 13 4.2 | 3.470 | 2 | 132 58 39.3 | 19.01 | 2 | pB; pL; R; 3rd of 4 | 2 |
| 3497 | 3488 | ..... | ..... | 13 13 8.5 | 3.470 | 2 | 132 59 51.3 | 19.01 | 2 | cF; S; vIE; 4th of 4 | 2 |
| 3498 | 1583 | III. 633 | ..... | 13 13 20.1 | 2.702 | 1 | 48 51 23.3 | 19.01 | 1 | vF; S; R; lbM | 2 |
| 3499 | 1581 | III. 539 | ..... | 13 13 22.1 | 3.174 | 1 | 103 20 52.0 | 19.00 | 1 | cF; vS; R; gbM..... | 2 |
| 3500 | 1582 | ..... | ..... | 13 13 24.5 | 3.085 | 1 | 91 34 7.0 | 19.00 | 1 | vF; iR; *11 sp | 1 |
| 3501 | 1584 | III. 650 | ..... | 13 13 39.1 | 2.787 | 1 | 56 11 1.0 | 19.00 | 1 | vF; cS; R; bM; sp of 2 | 3 |
| 3502 | 1585 | ..... | ..... | 13 13 46.8 | 2.786 | 1 | 56 7 15.0 | 19.00 | 2 | vF; S; bet 2 st; nf of 2 | 2 |
| 3503 | 3493 | II. 567 | ..... | 13 14 3.7 | 3.289 | 2 | 116 41 36.7 | 18.99 | 2 | cB; pS; iE; psbM * | 4 |
| 3504 | 3492 | ..... | ..... | 13 14 4.5 | 3.385 | 1 | 125 54 9.7 | 18.99 | 1 | vB; pS; R; svmbM | 1 |
| 3505 | ..... | II. 665 | ..... | 13 14 9.9 | 2.660 | 1 | 46 10 1.7 | 18.99 | 1 | pB; cS; E | 1 |
| 3506 | ..... | II. 22 | ..... | 13 14 34.0 | 3.002 | 1 | 80 46 29.4 | 18.98 | ?? | vF; vS..... | 1* |
| 3507 | 1586 | III. 619 | ..... | 13 15 6.1 | 2.717 | 1 | 50 42 22.8 | 18.96 | 1 | vF; S; cE 0°± | 2 |
| 3508 | 3494 | ..... | ..... | 13 15 12.3 | 3.342 | 1:: | 121 36 35.5 | 18.95 | 1 | eeF; p of 2 | 1 |
| 3509 | 1588 | III. 808 | ..... | 13 15 14.4 | 2.367 | 1 | 31 37 0.8 | 18.96 | 1 | cF; S; cE | 2 |
| 3510 | 1587 | III. 119 | ..... | 13 15 32.9 | 3.168 | 2 | 102 14 3.2 | 18.94 | 2 | cF; cS; iR; glbM | 2 |
| 3511 | 1589 | II. 646 | ..... | 13 15 38.3 | 2.712 | 1 | 50 31 29.5 | 18.95 | 1 | F; L; iR; vglbM | 2+ |
| 3512 | ..... | II. 826 | ..... | 13 16 2.4 | 2.359 | 1 | 31 34 28.2 | 18.94 | 1 | F; S; E | 1* |
| 3513 | 3495 | ..... | ..... | 13 16 12.7 | 3.345 | 1 | 121 36 34.6 | 18.92 | 1 | F; iE; psbM; f of 2 | 1 |
| 3514 | 1590 | III. 368 | ..... | 13 16 19.0 | 2.841 | 2 | 62 17 27.6 | 18.92 | 2 | pF; pS; pmE; glbM; r | 3 |
| 3515 | 1592 | ..... | ..... | 13 16 19.0 | 2.827 | 1 | 60 56 38.6 | 18.92 | 1 | vF; L; Δ 2st 11 np..... | 1 |
| 3516 | 1591 | III. 925 | ..... | 13 16 24.5 | 3.018 | 1 | 82 52 33.6 | 18.92 | 1 | vF; S; R; gbM | 3 |
| 3517 | 3497 | ..... | ..... | 13 16 35.7 | 3.164 | 1 | 101 33 30.3 | 18.91 | 1 | pB; S; iE | 1 |
| 3518 | 3496 | ..... | ..... | 13 16 37.7 | 3.939 | 1 | 152 40 50.0 | 18.90 | 1 | Cl; eR; mC; st 12...16 | 1 |
| 3519 | 3498 | ..... | ..... | 13 16 46.4 | 3.409 | 2 | 126 57 18.3 | 18.91 | 2 | cB; P; R; psmbM; r..... | 2 |
| 3520 | 1594 | II. 666 | ..... | 13 16 59.8 | 2.646 | 1 | 46 10 43.3 | 18.91 | 1 | pF; S; R; gmbM | 2 |
| 3521 | 3499 | ..... | ..... | 13 17 1.9 | 3.327 | 2 | 119 34 56.0 | 18.90 | 2 | vF; S; vIE | 2 |
| 3522 | 1593 | ..... | ..... | 13 17 2.8 | 2.990 | 1 | 79 33 7.0 | 18.90 | 1 | pF; S; R; gbM | 1 |
| 3523 | 3500 | ..... | ..... | 13 17 5.0 | 3.333 | 1 | 119 36 57.0 | 18.90 | 1 | vF; vS..... | 1 |
| 3524 | 1596 | II. 328 | ..... | 13 17 15.0 | 2.790 | 2 | 57 42 15.0 | 18.90 | 3 | pB; pL; R; gmbM; *p..... | 5 |
| 3525 | 3501 | ..... | Δ. 482 | 13 17 15.1 | 3.481 | 4 | 132 17 10.7 | 18.89 | 4 | !!; vB; vL; vmE 122°5; bifid | 4+ |
| 3526 | 1595 | II. 653 | ..... | 13 17 15.9 | 2.955 | 3 | 75 17 16.7 | 18.89 | 3 | pB; vS; R; gmbM; * f..... | 4 |
| 3527 | 1597 | II. 314 | ..... | 13 17 43.5 | 3.240 | 1 | 110 23 21.4 | 18.88 | 1 | F; pS; iE; vgbM | 2* |
| 3528 | 3502 | ..... | ..... | 13 17 56.3 | 3.325 | 1 | 119 6 14.4 | 18.88 | 1 | pB; S; E..... | 1 |
| 3529 | 1598 | III. 84 | ..... | 13 17 59.6 | 2.953 | 1 | 75 31 20.4 | 18.88 | 1 | eF; vS; R; psbM | 3 |
| 3530 | 3503 | ..... | Δ. 312? | 13 18 19.5 | 3.811 | 2 | 148 16 44.8 | 18.86 | 2 | Cl; Ri; iC; st 11... | 2 |
| 3531 | 3504 | ..... | Δ. 440 | 13 18 24.0 | 3.554 | 2 | 136 34 49.8 | 18.86 | 2 | !!; ⊕; ω Centauri | 2+ |
| 3532 | 3505 | ..... | ..... | 13 18 27.3 | 3.370 | 2 | 123 9 1.8 | 18.86 | 2 | vF; S; R; glbM..... | 2 |
| 3533 | 1599 | III. 402 | ..... | 13 18 29.8 | 2.730 | 2 | 52 53 5.8 | 18.86 | 2 | cF; cS; R; vsmbM*; *12sp; sp of 2. | 3 |
| 3534 | 1600 | III. 403 | ..... | 13 18 39.8 | 2.729 | 2 | 52 50 44.8 | 18.86 | 2 | F; cS; R; vsmbM*; n of 2 | 3 |
| 3535 | 1600, a | ..... | R. nova | 13 18 39.8 | 2.729 | :: | 52 49 + | 18.86 | ::: | vF | 0 |
| 3536 | | IV. 70 | | 13 18 48.6 | 1.743 | 2 | 18 45 22.8 | 18.86 | 2 | ○?; cB; S; R; g; slbM..... | 2 |
| 3537 | 1602 | II. 667 | | 13 19 4.9 | +2.632 | 1 | 46 0 37.5 | +18.85 | 1 | pB; vS; vIE; glbM | 2 |

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| | h. | H. | | h m s | s | | | | | | |
| 3538 | | III. 115 | | 13 19 8.3 | + 3.167 | 2 | 101° 35' 25.2 | + 18.84 | 2 | vF; vS; stellar | 2 |
| 3539 | 1601 | II. 25 | | 13 19 11.5 | 3.050 | 2 | 87 9 53.2 | 18.84 | 2 | pB; pL; vIE; vsmbM * 12... | 6 |
| 3540 | 1604 | III. 404 | ..... | 13 19 47.8 | 2.730 | 2 | 53 19 49.9 | 18.83 | 2 | cF; pS; E; bM; sp of 2..... | 3 |
| 3541 | 1603 | ..... | ..... | 13 19 49.1 | 2.926 | 2 | 72 23 55.6 | 18.82 | 2 | vF; S; R; * nf | 1 |
| 3542 | 3507 | ..... | ..... | 13 19 51.7 | 3.328 | 2 | 118 50 27.6 | 18.82 | 2 | cF; S; R; pslbM; * f 2'..... | 2 |
| 3543 | 3508 | ..... | ..... | 13 20 2.9 | 3.329 | 1:: | 118 54 24.3 | 18.81 | 1:: | vF; S; R; p of D neb..... | 1 |
| 3544 | 3509 | ..... | ..... | 13 20 4.1 | 3.329 | 1 | 118 53 52.3 | 18.81 | 1 | pF; S; f of D neb | 1 |
| 3545 | 1605 | III. 405 | ..... | 13 20 7.4 | 2.728 | 2 | 53 16 40.6 | 18.82 | 2 | vF; pL; R; nf of 2..... | 3 |
| 3546 | 3506 | ..... | ..... | 13 20 8.6 | 3.977 | 1 | 152 41 27.0 | 18.80 | 1 | Cl; vRi | 1 |
| 3547 | 3510 | ..... | ..... | 13 20 17.7 | 3.594 | 2 | 138 10 46.0 | 18.80 | 2 | pB; cS; iE; glbM; r | 2 |
| 3548 | 1606 | III. 651 | ..... | 13 20 49.5 | 2.773 | 3 | 57 17 26.7 | 18.79 | 3 | F; pS; vIE; bM | 4 |
| 3549 | 1607 | ..... | ..... | 13 20 59.9 | 2.916 | 1 | 71 29 31.4 | 18.78 | 1 | vF; R | 1 |
| 3550 | ..... | ..... | D'Arrest, 94 | 13 21 13 | 3.02 | [2] | 83 16 42 | 18.78 | [2] | pF. See note..... | 0* |
| 3551 | 3511 | ..... | ..... | 13 21 19.2 | 3.373 | 1 | 122 26 25.1 | 18.77 | 1 | pF; L; vmE; pgbM; rr | 1 |
| 3552 | ..... | III. 821 | ..... | 13 21 34.6 | 2.438 | 1 | 36 28 48.1 | 18.77 | 1 | cF; stellar | 1 |
| 3553 | 1609 | III. 784 | ..... | 13 21 38.4 | 2.371 | 1 | 33 47 3.1 | 18.77 | 1 | cF; S; iR..... | 2 |
| 3554 | 1608 | ..... | ..... | 13 21 47.4 | 2.770 | 3 | 57 14 35.8 | 18.76 | 3 | pF; pL; iE; lbM; f of 2..... | 3 |
| 3555 | 3512 | ..... | ..... | 13 22 3.3 | 3.898 | 2 | 150 12 3.1 | 18.77 | 2 | Cl; vF; S; vRi; st 15..... | 2 |
| 3556 | 1611 | ..... | ..... | 13 22 8.6 | 2.560 | 1 | 42 38 21.5 | 18.75 | 1 | vF; pS; R | 1 |
| 3557 | 1610 | V. 22 | ..... | 13 22 17.6 | 3.221 | 2 | 107 14 29.2 | 18.74 | 2 | cF; L; mE 128° 8; pgbM ... | 4 |
| 3558 | 1613 | ..... | ..... | 13 22 28.5 | 2.920 | 2 | 72 13 18.2 | 18.74 | 2 | F; pL; R; gbM | 2 |
| 3559 | 1614 | III. 672 | ..... | 13 22 28.5 | 2.558 | 2 | 42 41 26.2 | 18.74 | 2 | F; vS; R; stellar..... | 5 |
| 3560 | 1612 | III. { 45 46 } | ..... | 13 22 29.1 | 2.974 | 2 | 78 16 4.2 | 18.74 | 2 | { vF; pL vF; pL } D neb | 4 |
| 3561 | | | | | | | | | | | |
| 3562 | 1615 | III. 71 | ..... | 13 22 37.1 | 2.922 | 1 | 72 26 57.9 | 18.73 | 2 | vF; S; R; am 3 st; * 7 nf... | 3 |
| 3563 | 1616 | ..... | ..... | 13 22 49.1 | 2.953 | 2 | 75 58 15.9 | 18.73 | 2 | vF; S; R..... | 2 |
| 3564 | 3513 | ..... | ..... | 13 22 51.6 | 3.321 | 2 | 117 25 21.6 | 18.72 | 2 | vF; pL; vIE; * 7 nf 10'..... | 2 |
| 3565 | 1617 | II. 679 | ..... | 13 22 54.8 | 3.081 | 1 | 90 59 58.6 | 18.72 | 1 | F; cS; iE; gbM; p of 2..... | 3 |
| 3566 | 1618 | II. 680 | ..... | 13 22 59.8 | 3.081 | 1 | 90 56 3.6 | 18.72 | 1 | pF; pL; iR; bM; f of 2..... | 3 |
| 3567 | 1619 | III. 642 | ..... | 13 23 9.3 | 2.952 | 1 | 75 54 40.6 | 18.72 | 1 | vF; S; iR | 2 |
| 3568 | 1620 | III. 652 | ..... | 13 23 21.2 | 2.774 | 1 | 58 8 37.3 | 18.71 | 2 | vF; vS; R; glbM | 3 |
| 3569 | 3515 | ..... | ..... | 13 23 31.3 | 3.400 | 2 | 124 3 45.0 | 18.70 | 2 | F; pL; vIE; vglbM | 2 |
| 3570 | 3514 | ..... | Δ. 252? | 13 23 41.0 | 4.129 | 1 | 155 15 11.7 | 18.69 | 1 | l; B; pL; cE; bM curved axis; 4 st inv. | 1† |
| 3571 | 1621 | ..... | ..... | 13 23 50.0 | 2.908 | 2 | 71 8 20.0 | 18.70 | 2 | cF; S; R; bM; ** f | 2 |
| 3572 | 1622 | ..... | M. 51 | 13 23 55.4 | 2.539 | 5 | 42 5 4.0 | 18.70 | 4 | !!!; nucl & ring(h); spiral(R) | 10† |
| 3573 | 3516 | ..... | ..... | 13 23 57.1 | 3.382 | 1 | 122 30 27.7 | 18.69 | 1 | pB; S; R; g; psbM..... | 1 |
| 3574 | 1623 | I. 186 | ..... | 13 24 4.4 | 2.536 | 4 | 42 0 50.7 | 18.69 | 3 | B; pS; R; vgbM; f of 2..... | 6 |
| 3575 | 1625 | IV. 63 | ..... | 13 24 12.2 | 2.264 | 1 | 30 51 32.7 | 18.69 | 1 | pB; cL; iR; gmbM; r | 2 |
| 3576 | ..... | II. 689 | ..... | 13 24 14.0 | 2.546 | 3 | 42 35 13.7 | 18.69 | 2 | pB; pL; R; mbM | 3 |
| 3577 | 1624 | III. 406 | ..... | 13 24 21.5 | 2.726 | 2 | 54 26 31.4 | 18.68 | 2 | vF; vS; iE | 3 |
| 5072 | ..... | ..... | ..... | 13 24 32.0 | ..... | ... | 89 18 29.7 | ..... | ... | See No. 5072. | |
| 3578 | ..... | II. 797 | ..... | 13 24 39.9 | 2.409 | 2 | 36 12 12.4 | 18.68 | 2 | pF; cS; R; vglbM | 1 |
| 3579 | 3517 | III. 507 | ..... | 13 24 52.2 | 3.142 | 1 | 98 3 15.8 | 18.66 | 1 | vF; cS; R; gbM; r | 2 |
| 3580 | 3518 | ..... | ..... | 13 25 18.7 | 3.610 | 1 | 137 24 41.2 | 18.64 | 1 | F; pL; R; vgbM | 1 |
| 3581 | 1626 | III. 643 | ..... | 13 25 21.9 | 2.945 | 1 | 75 22 53.5 | 18.65 | 1 | F; S; cE; * 11 att np..... | 2 |
| 3582 | 1627 | III. 9 | ..... | 13 25 26.6 | 3.003 | 3 | 81 57 44.2 | 18.64 | 4 | F; vS; R; psbM; p of 2..... | 6 |
| 3583 | 1628 | III. 10 | ..... | 13 25 42.8 | 3.003 | 2 | 81 57 21.2 | 18.64 | 2 | F; vS; R; stellar; f of 2..... | 4 |
| 3584 | 1629 | III. 99 | ..... | 13 25 48.2 | 3.004 | 1 | 82 6 15.9 | 18.63 | 1 | F; S; R; psbMN | 4 |
| 3585 | 1630 | ..... | ..... | 13 25 54.1 | 3.076 | 1 | 90 18 50.9 | 18.63 | 1 | pB; S; R; psmbM | 1 |
| 3586 | 1631 | ..... | ..... | 13 26 21.9 | 3.003 | 1 | 81 59 5.6 | 18.62 | 1 | eF | 1 |
| 3587 | 1632 | III. 656 | ..... | 13 26 44.5 | 2.615 | 1 | 47 24 36.3 | 18.61 | 1 | vF; S; R; lbM | 2 |
| 3588 | 1633 | III. 926 | ..... | 13 27 7.3 | 3.009 | 1 | 82 47 49.7 | 18.59 | 1 | vF; S; * 9nf inv? (? 28 ^m R.A.) | 3* |
| 3589 | 3519 | ..... | ..... | 13 27 10.2 | 3.397 | 1 | 122 45 39.4 | 18.58 | 1 | eF; eS; * S and * p | 1 |
| 3590 | 1635 | II. 841 | ..... | 13 27 14.9 | 2.075 | 1 | 26 33 53.7 | 18.59 | 1 | pB; S; vIE | 3 |
| 3591 | 1634 | ..... | ..... | 13 27 18.2 | 2.904 | 1 | 71 25 25.4 | 18.58 | 1 | vF; S; R; bM..... | 1 |
| 3592 | 1636 | II. 842 | ..... | 13 27 21.3 | 2.072 | 1 | 26 30 43.7 | 18.59 | 1 | pB; pL; R; gbM | 3 |
| 3593 | 3520 | ..... | ..... | 13 27 47.5 | 3.583 | 1? | 135 11 16.8 | 18.56 | 1:: | vF; S; R; * n, nr | 1 |
| 3594 | 3521 | ..... | ..... | 13 27 59.8 | 3.399 | 1 | 122 44 13.8 | 18.56 | 1 | vF; S; R; * 10 f..... | 1 |
| 3595 | 1637 | III. 86 | | 13 28 4.5 | 2.942 | 2 | 75 27 49.8 | 18.56 | 2 | vF; S; vIE; 1st of 3 | 4 |
| 3596 | 1638 | III. 85 | | 13 28 4.9 | + 2.943 | 3 | 75 32 20.8 | + 18.56 | 3 | cF; S; R; bM; 2nd of 3..... | 5 |

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| | h. | H. | | h m s | s | | | | | | |
| 3597 | 1639 | III. 87 | | 13 28 5.2 | +2.943 | 1 | 75° 37' 21.8" | +18.56 | 2 | cF; pL; R; glbM; 3rd of 3.. | 4 |
| 3598 | 1640 | III. 407 | | 13 28 6.2 | 2.713 | 3 | 54 34 50.8 | 18.56 | 3 | F; cS; R; * 10 p; p of 2 ... | 5 |
| 3599 | ..... | III. 822 | ..... | 13 28 9.6 | 2.422 | 1 | 37 46 37.8 | 18.56 | 1 | cF; pS; iR; lbM..... | 1 |
| 3600 | 1641 | III. 928 | ..... | 13 28 15.0 | 3.054 | (1) | 87 53 16.5 | 18.55 | 1: | vF; S; R..... | 2 |
| 3601 | 1642 | III. 408 | ..... | 13 28 16.7 | 2.711 | 2 | 54 29 21.8 | 18.56 | 2 | vF; vS; R; f of 2 | 4 |
| 3602 | 1643 | ..... | ..... | 13 28 31.7 | 2.941 | 1 | 75 35 24.2 | 18.54 | 1 | F; L; E; vgbM | 1 |
| 3603 | 1645 | III. 425 | ..... | 13 28 51.6 | 2.711 | 1 | 54 36 47.9 | 18.53 | 1 | F; S; R; vS * nr | 2 |
| 3604 | 3522 | ..... | ..... | 13 28 52.3 | 3.666 | 1 | 139 6 59.6 | 18.52 | 1 | eeF; S; lE | 1 |
| 3605 | 1644 | III. 100 | ..... | 13 28 58.3 | 3.008 | 3 | 82 41 27.9 | 18.53 | 3 | vF; pS; vLE; * 9 sp | 4 |
| 3606 | 3523 | ..... | { M. 83 = Δ. 628 } | 13 29 9.0 | 3.360 | 4 | 119 9 31.6 | 18.52 | 4 | !!; { (H, h) vB; vL; E 55° 1; esbMN (L) 3-branched spiral. } | 6+ |
| 3607 | 3524 | ..... | ..... | 13 29 20.8 | 3.539 | 4 | 132 8 2.3 | 18.51 | 4 | F; pL; cE; vglbM | 4 |
| 3608 | 1646 | III. 101 | ..... | 13 29 27.9 | 3.000 | 1 | 81 54 44.3 | 18.51 | 1 | vF; pL; R; er..... | 4 |
| 3609 | ..... | III. 823 | ..... | 13 29 26.9 | 2.410 | 1 | 37 39 33.6 | 18.52 | 1 | cF; pL; R; vlbM | 1 |
| 3610 | ..... | III. 409 | ..... | 13 29 29.9 | 2.696 | 1 | 53 43 3.3 | 18.51 | 1 | vF; pL; R; lbM..... | 1 |
| 3611 | 1647 | ..... | ..... | 13 30 0.9 | 3.041 | 1 | 86 30 48.0 | 18.50 | 1 | eF; eL | 1 |
| 3612 | 1648 | III. 620 | ..... | 13 30 4.6 | 2.654 | 2 | 50 55 41.0 | 18.50 | 2 | cF; pL; E 65°; biN? | 3 |
| 3613 | 3525 | ..... | ..... | 13 30 17.1 | 3.591 | 2 | 135 9 0.4 | 18.48 | 2 | vF; S; R; vglbM; * 13 att... | 2 |
| 3614 | 1649 | II. 297 | ..... | 13 30 30.2 | 3.234 | 2 | 107 10 3.1 | 18.47 | 2 | !!; { (H, h) cF; vL; vg, psmbMLN (L) 2-branched spiral. } | 4+ |
| 3615 | 1650 | I. 34 | ..... | 13 30 35.1 | 2.985 | 1 | 80 23 32.1 | 18.47 | 1 | B; L; E 150°; psbMrN | 3 |
| 3616 | 1651 | III. 72 | ..... | 13 30 48.6 | 2.916 | 3 | 73 18 27.1 | 18.47 | 3 | vF; S; R; bM..... | 4 |
| 3617 | ..... | II. 817 | ..... | 13 30 49.8 | 2.409 | 1 | 38 1 30.1 | 18.47 | 1 | pB; S; R; vgbM | 1 |
| 3618 | 1652 | III. 369 | ..... | 13 30 53.0 | 2.795 | 1 | 61 51 45.1 | 18.47 | 1 | vF; S; vLE | 2 |
| 3619 | 1653 | III. 505 | ..... | 13 31 11.6 | 3.025 | (1) | 84 46 14.8 | 18.46 | 1 | vF; S; R; bM..... | 4 |
| 3620 | 3526 | II. 638 | Δ. 623 | 13 31 59.9 | 3.390 | 1 | 120 55 34.6 | 18.42 | 1 | B; pL; E 45° ±; psmbM ... | 2 |
| 3621 | 3527 | ..... | ..... | 13 32 12.4 | 3.174 | 1 | 100 46 55.6 | 18.42 | 1 | pB; L; pmE; glbM | 1 |
| 3622 | ..... | III. 803 | ..... | 13 32 21.9 | 2.236 | 2 | 32 10 56.6 | 18.42 | 2 | vF; vS | 2 |
| 3623 | 1656 | III. 673 | ..... | 13 32 32.9 | 2.465 | 1 | 40 59 35.6 | 18.42 | 1 | eF; vS; R; gbM..... | 2 |
| 3624 | 1654 | II. 895 | ..... | 13 32 45.5 | 3.059 | 1 | 88 26 55.0 | 18.40 | 1 | vF; S; R; bM; p of D neb... | 2 |
| 3625 | 1655 | II. 896 | ..... | 13 32 49.9 | 3.058 | 1 | 88 27 15.0 | 18.40 | 1 | F; S; iR; f of D neb | 2 |
| 3626 | 1657 | ..... | ..... | 13 33 13.6 | 3.019 | 2 | 84 13 5.7 | 18.39 | 2 | vF; R; am pB st..... | 2 |
| 3627 | 1660 | ..... | ..... | 13 33 14.4 | 0.995 | 1 | 14 14 14.0 | 18.40 | 1 | eF; S | 1 |
| 3628 | 1658 | III. 370 | ..... | 13 33 26.7 | 2.775 | 1 | 60 53 12.4 | 18.38 | 1 | cF; S; mE 0° ±; * 9 sp..... | 2 |
| 3629 | 3528 | ..... | ..... | 13 33 43.5 | 3.374 | 1 | 119 12 28.8 | 18.36 | 1 | vF; pL; R; vlbM | 1 |
| 3630 | 1659 | III. 410 | ..... | 13 33 58.5 | 2.660 | 2 | 52 25 32.8 | 18.36 | 2 | F; cS; vLE; er..... | 3 |
| 3631 | 3529 | ..... | ..... | 13 34 27.7 | 3.665 | 2 | 137 27 41.9 | 18.33 | 2 | B; pL; vLE; vglbM; 3 st nr.. | 2 |
| 3632 | 1661 | ..... | ..... | 13 34 32.8 | 2.628 | 4 | 50 30 0.2 | 18.34 | 4 | F; S; R; gbM; S * np | 4 |
| 3633 | ..... | ..... | Auw. N. 32 | 13 34 43.9 | 3.196 | ... | 103 9 3.6 | 18.31 | ... | A nebula (Markree Obs. 1855) | 0 |
| 3634 | 3530 | ..... | ..... | 13 35 3.6 | 4.112 | 2 | 152 11 47.3 | 18.31 | 2 | Cl; P; L; iF; st 12 | 2 |
| 3635 | 1662 | ..... | ..... | 13 35 5.5 | 3.026 | 1 | 85 1 44.6 | 18.32 | 1 | eF; S; bet 2 st..... | 1 |
| 3636 | 1663 | ..... | M. 3 | 13 35 40.8 | 2.769 | 5 | 60 55 6.0 | 18.30 | 5 | !!; ⊕; eB; vL; vsmbM; st 11.. | 14 |
| 3637 | 1664 | I. 98 | ..... | 13 35 56.1 | 2.670 | 3 | 53 37 45.7 | 18.29 | 3 | cB; pL; R; g, psmbM | 4 |
| 3638 | 1664, a | ..... | R. nova | 13 36 8.6 | 2.670 | :: | 53 37 45.7 | 18.29 | :: | F; S..... | 0 |
| 3639 | 1665 | II. 798 | ..... | 13 36 24.8 | 2.248 | 2 | 33 37 25.4 | 18.28 | 2 | F; E 73° 0; D or biN; B * nf | 3 |
| 3640 | 3531 | ..... | Δ. 273 | 13 36 54.7 | 4.131 | 2 | 152 11 45.2 | 18.24 | 2 | Cl; B; S; pC; iR; st 10...12 | 2 |
| 3641 | 3532 | ..... | ..... | 13 37 15.3 | 3.985 | 1 | 148 29 24.2 | 18.24 | 1 | Cl; L; vRi; st 7...16 | 1 |
| 3642 | 3533 | ..... | Δ. 388 | 13 37 37.5 | 3.757 | 2 | 140 40 6.6 | 18.22 | 2 | ⊕; vB; pL; R; rrr; st 15... | 2 |
| 3643 | 3534 | ..... | ..... | 13 38 48.2 | 4.237 | 2 | 153 59 16.1 | 18.17 | 2 | Cl; S; C; iR; st 14..... | 2 |
| 3644 | 1666 | II. 668 | ..... | 13 39 9.3 | 2.561 | 1 | 47 47 33.4 | 18.18 | 1 | vF; vS; lE 90° ±; sbM | 2 |
| 3645 | ..... | I. 170 | ..... | 13 39 17.9 | 2.556 | 2 | 47 33 53.1 | 18.17 | 2 | cB; pL; E 90° ±; bMN | 2 |
| 3646 | 3535 | ..... | ..... | 13 39 25.8 | 3.397 | 1 | 119 41 12.8 | 18.16 | 1 | vF; R; vlbM; * p | 1 |
| 3647 | 3536 | ..... | ..... | 13 39 41.2 | 3.405 | 1 | 120 13 12.2 | 18.14 | 1 | pF; S; R; 2 st nr | 1 |
| 3648 | ..... | V. 6 | ..... | 13 39 55.7 | 2.899 | 1 | 72 59 14.2 | 18.14 | 1 | eF; vL; r..... | 1 |
| 3649 | 1667 | III. 785 | ..... | 13 39 57.1 | +2.232 | 1 | 34 0 24.5 | 18.15 | 1 | eF; 2 st att or inv | 2 |
| 3650 | ..... | III. 946 | ..... | 13 40 20.5 | -0.151 | 1 | 9 52 6.7 | 18.09 | 1 | vF; vS; R | 1* |
| 3651 | 1668, a | ..... | R. nova | 13 40 ± | +2.511 | :: | 45 28 ± | 18.13 | :: | R; bM; is sp h. 1668 | 0 |
| 3652 | 1668 | I. 180 | ..... | 13 40 31.6 | 2.511 | 1 | 45 27 31.9 | 18.13 | 1 | cB; L; pmE 142°; gbM..... | 2 |
| 3653 | 3538 | ..... | ..... | 13 40 39.5 | +3.401 | 1 | 119 44 21.3 | +18.11 | 1 | F; S; R; gbM..... | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 3654 | 3537 | ..... | ..... | 13 40 51.7 | +4.064 | 1 | 149 14 42.0 | +18.10 | 1 | Cl; vL; vRi..... | 1 |
| 3655 | 1669 | II. 533 | ..... | 13 41 9.9 | 3.026 | 2 | 85 21 35.0 | 18.10 | 2 | vF; vL; lE; vgbM | 4 |
| 3656 | 1670 | II. 688 | ..... | 13 41 13.7 | 2.456 | 1:: | 43 9 25.1 | 18.07 | 1 | cF; L; vmE | 3 |
| 3657 | 3539 | ..... | ..... | 13 41 22.7 | 3.405 | 1 | 119 47 20.4 | 18.08 | 1 | F; S; R; gbm..... | 1 |
| 3658 | 1672 | III. 681 | ..... | 13 41 40.0 | 2.605 | 1 | 51 0 17.4 | 18.08 | 1 | pF; cS; lE; F* inv | 2 |
| 3659 | 1673 | III. 621 | ..... | 13 41 51.2 | 2.612 | 2 | 51 28 9.4 | 18.08 | 1 | eF; S; R | 3 |
| 3660 | { 1671 = 3540 } | II. 306 | ..... | 13 41 51.7 | 3.139 | 2 | 96 31 46.8 | 18.06 | 2 | vF; vS; R; r | 3 |
| 3661 | 3541 | ..... | ..... | 13 42 11.8 | 3.782 | 1 | 140 30 34.2 | 18.04 | 1 | O, or vF; eS; D neb | 1+ |
| 3662 | 1674 | I. 255 | ..... | 13 42 19.9 | 1.999 | 1 | 28 18 58.8 | 18.06 | 1 | B; pL; mE 57°4; psbMBEN | 2* |
| 5073 | ..... | ..... | ..... | 13 42 38.3 | ..... | ... | 89 14 2.4 | ..... | ... | See No. 5073. | |
| 3663 | 1675 | II. 710 | ..... | 13 42 57.5 | 2.571 | 1 | 49 19 5.9 | 18.03 | 1 | cF; cS; R; sbM; p of 2 | 3 |
| 3664 | 1676 | III. 422 | ..... | 13 43 37.6 | 2.671 | 2 | 55 41 13.3 | 18.01 | 2 | vF; R; stellar; 1st of 3 | 3* |
| 3665 | 1677 | II. 711 | ..... | 13 43 45.0 | 2.567 | 2 | 49 19 42.0 | 18.00 | 2 | pB; pS; vLE; glbM; f of 2 ... | 3 |
| 3666 | 3542 | ..... | Δ. 282 | 13 44 7.0 | 4.155 | 1 | 151 9 39.1 | 17.97 | 1 | Cl; pL; pC; st 11... .. | 1 |
| 3667 | 1678 | ..... | ..... | 13 44 8.2 | 3.014 | 1 | 84 18 29.4 | 17.98 | 1 | vF; vL; R; vgbM | 1 |
| 3668 | 1679 | III. 423 | ..... | 13 44 22.4 | 2.667 | 1 | 55 36 31.1 | 17.97 | 2 | F; S; R; psbM; 2nd of 3 ... | 3* |
| 3669 | 1682 | II. 669 | ..... | 13 44 27.1 | 2.539 | 1 | 47 56 13.1 | 17.97 | 1 | cF; pL; R; gbm | 2 |
| 3670 | 1680 | ..... | ..... | 13 44 28.9 | 2.668 | 1 | 55 39 38.1 | 17.97 | 1 | eF; pL; R; svmbM* | 2 |
| 3671 | 1684 | I. 256 | ..... | 13 44 33.4 | 2.012 | 1 | 29 6 16.1 | 17.97 | 1 | vB; pL; iR; psmbM | 2 |
| 3672 | 1689 | II. 899 | ..... | 13 44 38.6 | 0.426 | 1 | 12 28 21.7 | 17.99 | 1 | vF; pS; lE 0°+ | 2 |
| 3673 | 1681 | II. 307 | ..... | 13 44 43.6 | 3.129 | 1 | 95 21 14.5 | 17.95 | 1 | cF; L; iR; bM | 3 |
| 3674 | 1685 | II. 712 | ..... | 13 44 51.4 | 2.570 | 2 | 49 44 8.8 | 17.96 | 3 | cF; S; vLE; sbM | 4 |
| 3675 | 1683 | II. 685 | ..... | 13 44 52.1 | 3.089 | 1 | 91 30 32.5 | 17.95 | 1 | F; pS; R; 2 st p | 3 |
| 3676 | 3543 | III. 923 | ..... | 13 44 56.4 | 3.388 | 2 | 117 46 54.5 | 17.95 | 2 | pB; S; R; slbM | 3 |
| 3677 | 1686 | III. 549 | ..... | 13 45 5.2 | 3.042 | 1 | 86 58 26.2 | 17.94 | 1 | F; vS; R; psbM | 2 |
| 3678 | 1687 | III. 929 | ..... | 13 45 8.1 | 3.044 | 1 | 87 12 15.2 | 17.94 | 1 | vF; S; E 0°; rr | 3 |
| 3679 | 3544 | ..... | ..... | 13 45 39.7 | 3.737 | 1 | 137 48 33.6 | 17.92 | 1 | vF; vS; R; *8 f | 1 |
| 3680 | ..... | III. 665 | ..... | 13 45 44.8 | 3.078 | 2 | 90 25 29.6 | 17.92 | 2 | cF; vL; R; lbM; r..... | 2 |
| 3681 | 1688 | ..... | ..... | 13 45 49.7 | 3.036 | 1 | 86 28 58.6 | 17.92 | 1 | F; iR | 1 |
| 3682 | 1690 | II. 670 | ..... | 13 46 20.2 | 2.494 | 1 | 46 3 51.0 | 17.90 | 1 | cF; pL; R; psbM | 2 |
| 3683 | 1691 | III. 698 | ..... | 13 46 26.0 | 2.561 | 1 | 49 37 37.0 | 17.90 | 1 | vF; S; iR; B * p..... | 3 |
| 3684 | 1694 | III. 849 | ..... | 13 46 43.8 | 2.006 | 1 | 29 25 55.7 | 17.89 | 1 | eF; vS | 2 |
| 3685 | 1692 | II. 308 | ..... | 13 46 50.5 | 3.147 | 1 | 96 54 11.4 | 17.88 | 1 | vF; S; R; lbM | 3 |
| 3686 | 1693 | II. 686 | ..... | 13 47 2.3 | 3.081 | 1 | 90 44 38.1 | 17.87 | 1 | F; S; R; bM | 3 |
| 3687 | 1695 | II. 424 | ..... | 13 47 6.9 | 2.661 | 1 | 55 49 32.1 | 17.87 | 1 | pF; cL; R; lbM | 2 |
| 3688 | 1696 | II. 713 | ..... | 13 47 25.5 | 2.544 | 2 | 48 56 20.8 | 17.86 | 2 | cF; pL; bM; B * p; 1st of 4. | 5 |
| 3689 | 1697 | II. 697 | ..... | 13 47 26.3 | 2.588 | 2 | 51 23 43.8 | 17.86 | 2 | cF; L; lE 90°; vgbM | 3 |
| 3690 | { 1697, a } | ..... | R. 2 novæ | 13 47 ± | ..... | ... | 51 23 ± | ..... | ... | { 2 neb in a line with } | 0 |
| 3691 |  | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | { h. 1697; bM. } | |
| 3692 | 1700 | II. 415 | ..... | 13 47 32.2 | 2.617 | 2 | 53 10 5.5 | 17.85 | 2 | cF; S; R; lbM; * nf 90'' ... | 3 |
| 3693 | 1698 | II. 714 | ..... | 13 47 32.9 | 2.545 | 3: | 49 2 24.5 | 17.85 | 1 | pB; S; R; 2nd of 4 | 5 |
| 3694 | 1699 | II. 715 | ..... | 13 47 33.2 | 2.545 | 3: | 49 1 24.8 | 17.86 | 1 | pF; S; R; 3rd of 4 | 5 |
| 3695 | 1702 | III. 699 | ..... | 13 47 45.1 | 2.543 | 2 | 48 57 33.2 | 17.84 | 3 | vF; pS; 4th of 4 | 3 |
| 3696 | 1701 | III. 506 | ..... | 13 47 56.1 | 3.008 | 5 | 83 58 28.9 | 17.83 | 5 | F; pL; vmE 15°; r | 7 |
| 3697 | 3546 | ..... | ..... | 13 47 58.1 | 3.422 | 1 | 119 38 52.6 | 17.82 | 1 | pF; S; R; glbM; bet 2 st 10. | 1 |
| 3698 | 1703, a | ..... | R. nova | 13 48 4.7 | 3.009 | :: | 84 2 32.4 | 17.81 | :: | F; S; E (nisi=III. 506)..... | 0 |
| 3699 | 3545 | ..... | ..... | 13 48 30.8 | 4.752 | 2 | 159 43 18.7 | 17.79 | 2 | Cl; vL; lRi; lC; st 11... .. | 2 |
| 3700 | ..... | III. 682 | ..... | 13 48 38.9 | 2.574 | 1 | 50 52 52.3 | 17.81 | 1 | eF; cS; E | 1 |
| 3701 | ..... | II. 671 | ..... | 13 48 58.8 | 2.520 | 1 | 48 3 22.0 | 17.80 | 1 | pB; pL; E | 1 |
| 3702 | 1703 | I. 6 | ..... | 13 49 5.3 | 3.009 | 4 | 84 3 32.4 | 17.78 | 4 | B; pL; R; psbM; *8 nf..... | 8 |
| 3703 | 1703, b | ..... | R. nova | 13 49 5.3 | 3.009 | : | 84 17 32.4 | 17.78 | : | vF; L | 0 |
| 3704 | 1705 | II. 534 | ..... | 13 49 12.0 | 3.011 | (1) | 84 18 20.4 | 17.78 | 2 | cF; L; R; gbm | 4 |
| 3705 | 3547 | ..... | ..... | 13 49 15.5 | 3.657 | 2 | 133 14 39.1 | 17.77 | 2 | pB; cS; R; pgbM; am st ... | 2 |
| 5074 | ..... | ..... | ..... | 13 49 18.6 | ..... | ... | 89 31 9.0 | ..... | ... | See 5074. | |
| 3706 | 3548 | ..... | ..... | 13 49 20.9 | 3.581 | 3 | 129 17 44.1 | 17.77 | 4 | l; vB; vL; vl; vsmbM * | 6+ |
| 3707 | 1706 | III. 786 | ..... | 13 49 24.0 | 2.192 | 2 | 34 58 35.4 | 17.78 | 2 | F; cS; R; stellar; *16 nf ... | 3 |
| 3708 | 1704 | III. 285 | ..... | 13 49 33.3 | 3.125 | 1 | 94 48 28.8 | 17.76 | 1 | vF; vS; R | 2 |
| 3709 | 1708 | II. 843 | ..... | 13 49 38.6 | 1.943 | 1 | 28 37 31.4 | 17.78 | 1 | F; S | 2 |
| 3710 | 1707 | II. 716 | ..... | 13 49 46.8 | +2.531 | 1 | 48 49 39.8 | +17.76 | 1 | pB; L; R; bMFN | 3 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | | | | |
| 3711 | 1709 | III. 809 | ..... | 13 49 48.6 | +2.031 | 1 | 30 39 35.1 | +17.77 | 1 | cF; S; E; ?* inv | 2 |
| 3712 | 1710 | II. 889 | ..... | 13 50 29.0 | 2.999 | 4 | 83 12 55.9 | 17.73 | 4 | cF; pL; R; vgbM; *11 np... | 5 |
| 3713 | 1711 | ..... | ..... | 13 50 36.8 | 2.715 | 3 | 60 8 59.9 | 17.73 | 3 | pB; pL; R; lbM | 3 |
| 3714 | ..... | II. 844 | ..... | 13 50 38.7 | 1.987 | 1 | 29 47 45.9 | 17.73 | 1 | pB; cL | 1 |
| 3715 | ..... | I. 238 | ..... | 13 50 40.4 | 1.986 | 3 | 29 48 15.9 | 17.73 | 3 | cB; pL; vLE; vgbM..... | 3 |
| 3716 | 1712 | I. 187 | ..... | 13 50 41.1 | 2.382 | 4 | 42 4 55.9 | 17.73 | 4 | B; L; mE40°4; smbMN ... | 5 |
| 3717 | 1713 | ..... | ..... | 13 50 47.4 | 2.576 | 1 | 51 31 33.6 | 17.72 | 1 | pB; lE; vglbM | 1+ |
| 3718 | 1714 | II. 698 | ..... | 13 50 56.6 | 2.579 | 3 | 51 42 17.3 | 17.71 | 3 | F; cS; R; smbM..... | 4 |
| 3719 | 3549 | ..... | ..... | 13 50 57.8 | 4.119 | 2 | 148 54 29.7 | 17.69 | 2 | Cl; Ri; vC; pL; st 11...12... | 2 |
| 3720 | ..... | I. 239 | ..... | 13 51 6.5 | 1.973 | 1 | 29 35 14.3 | 17.71 | 1 | pB; pS; E; mbM | 3 |
| 3721 | 1715 | III. 546 | ..... | 13 51 15.6 | 2.996 | 1 | 83 3 41.7 | 17.69 | 2 | vF; vS; r; stellar | 3 |
| 3722 | 1715, a | ..... | R. nova | 13 51 + | ..... | ... | 83 0 + | ..... | ... | F; S; R | 0 |
| 3723 | 1717 | I. 181 | ..... | 13 51 17.9 | 2.496 | 1 | 47 28 19.0 | 17.70 | 1 | cB; cL; R; gbM | 2 |
| 3724 | 1721 | ..... | ..... | 13 51 19.2 | 0.414 | 1 | 13 7 58.9 | 17.73 | 1 | Cl; P; S | 1 |
| 3725 | 1716 | III. 547 | ..... | 13 51 22.6 | 2.996 | 1 | 82 58 36.7 | 17.69 | 2 | vF; pS; biN; r; stellar | 3 |
| 3726 | 1719 | I. 240 | ..... | 13 51 30.0 | 1.968 | 1 | 29 33 27.0 | 17.70 | 1 | pB; pL; E; mbMN | 3 |
| 3727 | 1718 | ..... | ..... | 13 51 31.1 | 2.524 | 1 | 48 52 36.7 | 17.69 | 1 | F; L; vgbM; *9 nf..... | 1 |
| 3728 | 1720 | III. 666 | ..... | 13 52 10.9 | 3.101 | 1 | 92 31 21.8 | 17.66 | 1 | vF; cS; R; gbM..... | 2* |
| 3729 | 3550 | ..... | ..... | 13 52 33.0 | 3.414 | 1 | 118 11 17.2 | 17.64 | 1 | vF; S; R; glbM | 1 |
| 3730 | 1722 | I. 191 | ..... | 13 52 34.9 | 2.575 | 2 | 51 52 3.5 | 17.65 | 2 | cF; S; np of 2 | 3 |
| 3731 | 1723 | I. 190 | ..... | 13 52 38.2 | 2.575 | 3 | 51 53 52.5 | 17.65 | 3 | cF; cL; E15°0; lbM; sf of 2 | 4 |
| 3732 | ..... | III. 125 | ..... | 13 52 39.4 | 2.709 | 1 | 60 11 32.5 | 17.65 | 1 | vF; S; iR; sbM* | 1 |
| 3733 | 3551 | ..... | ..... | 13 52 55.7 | 3.492 | 1 | 123 16 22.6 | 17.62 | 1 | vF; S; R; gbM | 1 |
| 3734 | 3552 | ..... | ..... | 13 53 10.9 | 3.479 | 1 | 122 23 20.3 | 17.61 | 1 | pB; pL; R; vgbM | 1 |
| 3735 | 1724 | III. 411 | ..... | 13 53 24.5 | 2.618 | 2 | 54 32 37.3 | 17.61 | 2 | eF; vS; pmE90° | 3 |
| 3736 | ..... | III. 667 | ..... | 13 53 31.9 | 3.097 | 2 | 92 10 41.0 | 17.60 | 2 | vF; cS | 2 |
| 3737 | 1725 | III. 412 | ..... | 13 53 39.8 | 2.592 | 1 | 53 4 6.0 | 17.60 | 1 | cF; cS; E | 2 |
| 3738 | 1727 | III. 810 | ..... | 13 53 41.9 | 1.944 | 1 | 29 28 38.3 | 17.61 | 1 | vF; vS; R | 2 |
| 3739 | 1726 | III. 683 | ..... | 13 53 51.9 | 2.557 | 1 | 51 8 1.0 | 17.60 | 2 | vF; pL; iF | 4 |
| 5075 | ..... | ..... | ..... | 13 53 58.0 | ..... | ... | 89 13 53 | ..... | ... | See No. 5075. | |
| 3740 | 1728 | II. 699 | ..... | 13 54 24.3 | 2.541 | 2 | 50 24 2.1 | 17.57 | 2 | F; pS; R; lbM | 5 |
| 3741 | 1732 | III. 684 | ..... | 13 54 50.2 | 2.535 | (1) | 50 9 17.8 | 17.56 | 1 | vF; vS; R; bM; in Cl | 2 |
| 3742 | 3553 | ..... | ..... | 13 54 50.7 | 3.632 | 1 | 130 44 6.2 | 17.54 | 1 | eF; E bet 2 vS st..... | 1 |
| 3743 | 1729 | II. 672 | ..... | 13 55 0.0 | 2.498 | 1 | 48 19 36.5 | 17.55 | 1 | pF; pS; bM..... | 2 |
| 3744 | ..... | III. 56 | ..... | 13 55 0.2 | 2.958 | 1 | 79 54 37.2 | 17.54 | 1 | eF; vS; E; r | 1 |
| 3745 | 1733 | ..... | ..... | 13 55 10.5 | 1.647 | 1 | 24 24 32.5 | 17.55 | 1 | pF; pS; R; psbM | 1 |
| 3746 | 1730 | III. 11 | ..... | 13 55 17.4 | 2.974 | 4 | 81 17 11.9 | 17.53 | 4 | cF; S; R; psbM; *p | 5 |
| 3747 | 1731 | ..... | ..... | 13 55 20.0 | 2.978 | 1 | 81 38 22.9 | 17.53 | 1 | vF; R; bM | 1 |
| 3748 | 3554 | ..... | ..... | 13 55 24.3 | 3.501 | 3 | 123 17 44.6 | 17.52 | 3 | pB; pL; R; gpmbM | 3 |
| 3749 | 1736 | I. 230 | ..... | 13 55 44.4 | 2.117 | 2 | 34 9 20.6 | 17.52 | 2 | pB; S; pmE45°±; vsvmbMN. | 4 |
| 3750 | 1734 | II. 309 | ..... | 13 55 59.7 | 3.134 | 1 | 95 18 37.0 | 17.50 | 1 | pF; cL; R; gmbM; np of 2 .. | 3+* |
| 3751 | 1735 | II. 310 | ..... | 13 56 3.7 | 3.134 | 1 | 95 21 25.7 | 17.49 | 1 | pF; cL; R; sf of 2 | 3* |
| 3752 | 1738 | II. 827 | ..... | 13 56 14.1 | 1.945 | 1 | 29 58 35.3 | 17.51 | 1 | pB; S; iE; mbM..... | 2 |
| 3753 | 1737 | III. 653 | ..... | 13 56 26.8 | 2.646 | 2 | 56 49 5.4 | 17.48 | 2 | vF; cS; lE0°; bM | 3 |
| 3754 | 1739 | II. 416 | ..... | 13 56 57.7 | 2.606 | 1 | 54 33 31.8 | 17.46 | 1 | pF; cS; lE; bM; *11 sp..... | 3 |
| 3755 | 1740 | ..... | ..... | 13 57 18.2 | 2.607 | 1:: | 54 40 40.5 | 17.45 | 1 | vF; S | 3 |
| 3756 | 1741 | II. 417 | ..... | 13 57 19.7 | 2.598 | 3 | 54 11 30.5 | 17.45 | 3 | pB; pL; ivlE; vsmbM | 4 |
| 3757 | 1742 | III. 413 | ..... | 13 57 25.7 | 2.599 | 1 | 54 18 33.2 | 17.44 | 1 | F; *13 p | 2 |
| 3758 | ..... | II. 799 | H. O. N. | 13 57 26.0 | 2.080 | 1 | 33 30 33.5 | 17.45 | 1 | pL; L; E..... | 2 |
| 3759 | ..... | III. 57 | ..... | 13 57 30.0 | 2.953 | 1 | 79 42 30.9 | 17.43 | 1 | eF; cS | 1 |
| 3760 | 1744, a | III. 787? | R. nova? | 13 57 30.5 | 2.137 | ... | 35 5 18.3 | 17.44 | ... | B; S; R; gmbM; conn with M. 101. | 0 |
| 3761 | 1743 | II. 691 | ..... | 13 57 30.6 | 2.293 | 1 | 40 9 16.2 | 17.44 | 1 | pB; cL; vmE90°±; smbMN | 2 |
| 3762 | 1744, b | ..... | R. nova | 13 57 32.8 | 2.134 | ... | 35 0 28.3 | 17.44 | ... | vF; pL; gvlbM } all conn | 0* |
| 3763 | 1744, c | ..... | R. nova | 13 57 33.0 | 2.137 | ... | 35 5 51.3 | 17.44 | ... | F; pS; iR; glbM } with | 0* |
| 3764 | 1744, d | ..... | R. nova | 13 57 41.7 | +2.131 | ... | 34 57 41.3 | 17.44 | ... | vF; pL; iR; vlbM } M. 101. | 0* |
| 3765 | 1747 | III. 947 | ..... | 13 57 43.7 | -0.245 | 1:: | 11 5 51.1 | 17.47 | 1 | vF; pL; iR; vglbM | 2 |
| 3766 | ..... | III. 787 | ..... | 13 57 50.1 | +2.133 | 1 | 35 3 26.9 | 17.43 | 1 | vF; vS | 1+ |
| 3767 | 1744, e | ..... | R. nova | 13 57 59.7 | 2.131 | ... | 35 2 3.3 | 17.43 | ... | F; pL; lE; vlbM } conn with | 0* |
| 3768 | 1744, f | ..... | R. nova | 13 58 2.8 | +2.134 | ... | 35 8 16.3 | +17.43 | ... | pB; pS; R; psbM } M. 101. | 0* |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
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| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 3769 | ..... | ..... | D'Arrest, 95 | 13 58 8 | +2.92 | [2] | 77 27 4 | +17.40 | [2] | F; pS | 0 |
| 3770 | 1744 | ..... | M. 101 | 13 58 12.9 | 2.127 | 1 | 34 57 22.3 | 17.41 | 1 | pB; vL; iR; g, vsmbMBSN.. | 5* |
| 3771 | 1744, g | ..... | R. nova | 13 58 14.1 | 2.131 | ... | 35 2 42.3 | 17.41 | ... | vF; pL; R; vlbM; conn with M. 101. | 0* |
| 3772 | 3555 | ..... | Δ. 431 | 13 58 39.9 | 3.807 | 3 | 137 38 52.1 | 17.37 | 3 | Cl; vL; vLC; st 8... .. | 3 |
| 3773 | 1744, h | III. 788? | R. nova? | 13 58 49.8 | 2.125 | ... | 34 59 40.3 | 17.39 | ... | B; pS; R; psbM } conn with | 0* |
| 3774 | 1744, i | III. 789? | R. nova? | 13 58 53.9 | 2.122 | ... | 34 56 57.3 | 17.38 | ... | pB; pL; iR; gbM } M. 101. | 0* |
| 3775 | 3556 | ..... | ..... | 13 59 1.0 | 3.449 | 1 | 119 20 28.8 | 17.36 | 1 | pF; S; R; psbM | 1 |
| 3776 | 1746 | VI. 9 | ..... | 13 59 8.7 | 2.700 | 2 | 60 48 11.1 | 17.37 | 2 | Cl; L; vRi; vmC; st 11... .. | 4 |
| 3777 | 1745 | III. 286 | ..... | 13 59 14.1 | 3.129 | 1 | 94 46 56.5 | 17.35 | 1 | F; L; R; vgbM | 3 |
| 3778 | ..... | III. 788 | ..... | 13 59 19.3 | 2.120 | 1 | 34 59 23.1 | 17.37 | 1 | vF; vS; 2nd of 3 } inv in { | 1+ |
| 3779 | ..... | III. 789 | ..... | 13 59 26.2 | 2.118 | 1 | 34 57 22.8 | 17.36 | 1 | vF; vS; 3rd of 3 } M. 101. { | 1+ |
| 3780 | ..... | III. 58 | ..... | 13 59 30.1 | 2.955 | 1 | 79 57 25.5 | 17.35 | 1 | eF; S; lE..... | 1 |
| 3781 | 1745, a | ..... | R. nova | 13 59 30.2 | 3.129 | :: | 94 46 56.5 | 17.36 | :: | pB; S; E..... | 0 |
| 3782 | 1748 | I. 231 | ..... | 13 59 50.7 | 2.096 | 1 | 34 25 50.5 | 17.35 | 1 | pB; S; R; gbM | 3 |
| 3783 | ..... | I. 214 | ..... | 13 59 59.3 | 2.149 | 2 | 35 40 25.5 | 17.35 | 2 | pB; L; bM | 2 |
| 3784 | 1750 | II. 800 | ..... | 14 0 20.7 | 2.061 | 1 | 33 35 24.6 | 17.32 | 1 | pB; S; pmE; bM | 2 |
| 3785 | 1749 | ..... | ..... | 14 0 34.6 | 2.994 | 1 | 83 17 26.0 | 17.30 | 1 | F; mE; vglbM | 1 |
| 3786 | 1751 | III. 287 | ..... | 14 0 49.1 | 3.138 | (2) | 95 25 38.7 | 17.29 | 1:: | F; pS; iR | 3 |
| 3787 | ..... | III. 790 | ..... | 14 0 54.3 | 2.104 | 1 | 34 52 19.0 | 17.30 | 1 | vF; pL | 1 |
| 3788 | ..... | III. 762 | ..... | 14 0 55.8 | 3.085 | 1 | 91 1 21.4 | 17.28 | 1 | vF; vS | 1 |
| 3789 | ..... | II. 692 | ..... | 14 1 24.6 | 2.225 | 1 | 38 37 18.1 | 17.27 | 1 | F; pS; vgbM; np of 2 | 1 |
| 3790 | ..... | II. 693 | ..... | 14 1 42.5 | 2.223 | 1 | 38 37 47.8 | 17.26 | 1 | F; vS; smbM; stellar; sf of 2 | 1 |
| 3791 | ..... | III. 59 | ..... | 14 1 43.2 | 2.958 | 1 | 80 24 17.5 | 17.25 | 1 | eF; S | 1 |
| 3792 | 3557 | ..... | ..... | 14 1 46.3 | 3.704 | 1 | 132 39 20.2 | 17.24 | 1 | pF; vL; R; vgbM | 1 |
| 3793 | ..... | III. 791 | ..... | 14 2 26.5 | 2.073 | 1 | 34 19 14.9 | 17.23 | 1 | vF; S; R; p of 2 | 1 |
| 3794 | ..... | I. 232 | ..... | 14 2 26.5 | 2.073 | 1 | 34 19 14.9 | 17.23 | 1 | eB; R; vgbM; f of 2 | 1 |
| 3795 | ..... | II. 801 | ..... | 14 2 34.8 | 2.071 | 2 | 34 16 45.6 | 17.22 | 2 | F; pL | 2 |
| 3796 | 3558 | ..... | ..... | 14 2 45.6 | 3.520 | 1:: | 122 58 35.7 | 17.19 | 1:: | F; R; *8 s nr | 1 |
| 3797 | 3559 | ..... | ..... | 14 3 10.0 | 3.775 | 2 | 135 25 33.1 | 17.17 | 2 | vF; S; R; bM..... | 2 |
| 3798 | 1752 | III. 32 | ..... | 14 3 17.4 | 2.846 | 1 | 71 47 18.4 | 17.18 | 2 | cF; cS; R; sbMF * | 4 |
| 3799 | 1753 | II. 890 | ..... | 14 3 59.6 | 2.988 | 3 | 82 58 10.5 | 17.15 | 3 | pB; pS; R; gbM; r | 5 |
| 3800 | 1754 | II. 876 | ..... | 14 4 1.8 | 2.817 | 1 | 69 43 45.5 | 17.15 | 1 | pB; vS; E | 3 |
| 3801 | 1755 | IV. 46 | ..... | 14 4 12.2 | 3.126 | 1 | 94 22 49.9 | 17.13 | 1 | pB; vS; R; psmbM*; *18 inv. | 2 |
| 3802 | 3560 | ..... | ..... | 14 4 16.2 | 3.475 | 1 | 119 59 46.6 | 17.12 | 1 | pB; L; R; gbM; rr | 1 |
| 3803 | 3561 | ..... | ..... | 14 4 23.5 | 3.419 | 1 | 116 26 51.6 | 17.12 | 1 | vF; S; R; bM; *sf | 1 |
| 3804 | ..... | III. 674 | ..... | 14 5 5.6 | 2.265 | 2 | 40 46 9.3 | 17.11 | 2 | cF; cS; iR | 1 |
| 3805 | 1756 | ..... | ..... | 14 5 13.3 | 3.050 | 1 | 88 5 4.7 | 17.09 | 1 | vF; S; rr | 1 |
| 3806 | 1757 | II. 687 | ..... | 14 5 59.1 | 3.105 | 1 | 92 32 43.5 | 17.05 | 1 | pB; L; E 20° ±; lbM | 3 |
| 3807 | 1757, a | ..... | R. nova | 14 6 ± | 3.105 | ... | 92 33 ± | 17.05 | ... | 3' dist from h. 1757 | 0 |
| 3808 | 1758 | IV. 49 | ..... | 14 6 5.9 | 3.104 | 1 | 92 29 28.5 | 17.05 | 1 | cF; S; R; stellar..... | 3 |
| 3809 | 1759 | II. 877 | ..... | 14 6 36.4 | 2.801 | 1 | 68 54 40.9 | 17.03 | 1 | pB; pL; iR | 2 |
| 3810 | 1760 | III. 685 | ..... | 14 6 51.3 | 2.482 | 3 | 50 1 53.6 | 17.02 | 3 | vF; S; vLE | 5 |
| 3811 | 3562 | ..... | ..... | 14 6 54.8 | 3.848 | 2 | 137 27 28.0 | 17.00 | 2 | pF; S; R; psbM; S * nf ... | 2 |
| 3812 | ..... | III. 676 | ..... | 14 7 49.9 | 2.196 | 2 | 38 59 31.4 | 16.98 | 2 | F; S; lE; stellar | 2 |
| 3813 | 1761 | ..... | ..... | 14 8 20.7 | 3.010 | 1 | 84 56 4.5 | 16.95 | 1 | F; S; R; bM | 1 |
| 3814 | ..... | III. 644 | ..... | 14 8 23.6 | 2.871 | 1 | 74 13 59.5 | 16.95 | 1 | vF; vS; E; a D neb | 1 |
| 3815 | 1762, a | ..... | R. 3 novæ | 14 8 ± | 2.725 | ... | 64 0 ± | 16.94 | ... | 3 "knots" near h. 1762 | 0 |
| 3816 |  | ..... | ..... | 14 8 31.0 | 2.725 | 3 | 64 0 55.2 | 16.94 | 3 | F; pL; pmE 90°; *10 np ... | 5 |
| 3817 |  | ..... | R. nova | 14 8 47.0 | 2.53 | :: | 52 56 57.7 | 16.93 | :: | eeF | 0 |
| 3818 | 1762 | III. 134 | ..... | 14 8 31.0 | 2.725 | 3 | 64 0 55.2 | 16.94 | 3 | F; pL; pmE 90°; *10 np ... | 5 |
| 3819 | 1764, a | ..... | R. nova | 14 8 47.0 | 2.53 | :: | 52 56 57.7 | 16.93 | :: | eeF | 0 |
| 3820 | 1763 | III. 804 | ..... | 14 9 17.5 | 1.899 | 1 | 31 34 24.3 | 16.91 | 1 | vF; S; E; r | 3* |
| 3821 | 1764, b | III. 835 | ..... | 14 9 18.9 | 2.53 | :: | 53 6 33.7 | 16.89 | :: | vF | 0 |
| 3822 | 1764 | III. 414 | ..... | 14 9 40.1 | 2.533 | 1 | 53 7 33.7 | 16.89 | 1 | cF; pL; vmE 110° 3; vgvmbM. | 2 |
| 3823 | 3563 | ..... | ..... | 14 9 41.8 | 3.742 | 1 | 132 43 31.1 | 16.87 | 1 | !; vF; pmE; esvmbM *12 ... | 1 |
| 3824 | | | D'Arrest, 96 | 14 9 53 | 2.92 | [2] | 78 28 0 | 16.87 | [2] | F; S; R; III. 47 f 10° 4 | 0 |
| 3825 | 1765 | III. 47 | | 14 10 2.1 | +2.926 | 1 | 78 32 18.1 | +16.87 | 1 | vF; vS; R; gbM; r | 3 |

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|-------------------|---|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 3826 | 1766 | II. 418 | ..... | 14 10 10.3 | +2.549 | 3 | 53 59 51.1 | +16.87 | 3 | pB; R; vsmbM; 2 or 3 st inv | 4 |
| 3827 | 1768 | III. 731 | ..... | 14 10 40.3 | 2.462 | 1 | 49 51 34.2 | 16.84 | 1 | cF; vS; R; p of 2 | 2 |
| 3828 | 1767 | ..... | ..... | 14 10 43.5 | 2.960 | 1 | 81 10 12.2 | 16.84 | 1 | F; pL; iF; gbM | 1 |
| 3829 | ..... | III. 805 | ..... | 14 10 44.8 | 1.789 | 3 | 29 20 6.5 | 16.85 | 3 | eF; vS; R; stellar | 3 |
| 3830 | 1770, a | ..... | R. nova | 14 10 45.3 | 2.968 | :: | 81 39 52.2 | 16.85 | :: | vF | 0 |
| 3831 | 1769 | III. 732 | ..... | 14 10 48.4 | 2.459 | 3 | 49 45 41.2 | 16.84 | 4 | cF; S; R; gbM | 5 |
| 3832 | 1770, b | ..... | R. nova | 14 10 53.9 | 2.968 | : | 81 46 46.3 | 16.83 | : | vF | 0 |
| 3833 | 1771 | II. 419 | ..... | 14 11 8.5 | 2.521 | 2 | 52 46 41.6 | 16.82 | 3 | F; pS; E80°; D or biN | 4 |
| 3834 | 1771, a | ..... | R. nova | 14 11 ± | 2.521 | ... | 52 46 ± | 16.82 | ... | Makes D or biN neb with h. 1771. | 0 |
| 3835 | 1770 | ..... | ..... | 14 11 13.9 | 2.968 | 2 | 81 46 56.3 | 16.81 | 2 | pB; cS; gbM | 2 |
| 3836 | ..... | III. 551 | ..... | 14 11 29.6 | +2.970 | 2 | 81 59 ± | 16.80 | 2 | ..... | 2* |
| 3837 | ..... | III. 948 | ..... | 14 11 36.1 | -0.747 | 1 | 10 44 46.7 | 16.79 | 1 | eF; vS; E0°± | 1 |
| 3838 | 1773 | II. 194 | ..... | 14 11 38.1 | +2.720 | 2 | 64 12 39.0 | 16.80 | 2 | cF; pS; R; vsmbM* | 4 |
| 3839 | 1772 | III. 552 | ..... | 14 11 43.6 | 2.970 | 1 | 81 58 40.7 | 16.79 | 1 | vF; vS; R | 2 |
| 3840 | 1774 | ..... | ..... | 14 11 43.8 | 2.897 | 1 | 76 27 52.7 | 16.79 | 1 | vF; cS; pmE | 1 |
| 3841 | 1775 | ..... | ..... | 14 12 12.9 | 2.701 | 1 | 63 4 49.8 | 16.76 | 1 | vF; S; IE | 1 |
| 3842 | 3564 | ..... | ..... | 14 12 24.5 | 3.475 | 1 | 118 36 20.5 | 16.75 | 1 | eF; L; S* inv | 1 |
| 3843 | 1776 | I. 99 | ..... | 14 12 32.5 | 2.517 | 2 | 52 51 11.8 | 16.76 | 2 | cB; S; R; vsbM* | 4 |
| 3844 | 1777 | III. 347 | ..... | 14 12 50.8 | 2.723 | 1 | 64 32 41.9 | 16.73 | 1 | vF; S; vLE; bM | 2* |
| 3845 | 1778 | II. 579 | ..... | 14 13 1.0 | 3.013 | 2 | 85 21 16.6 | 16.72 | 2 | pF; cL; E; gbM | 3 |
| 3846 | 1779 | I. 144 | ..... | 14 13 16.5 | 3.014 | 3 | 85 25 7.3 | 16.71 | 3 | B; pL; R; psbM; r; *12 nf. | 4* |
| 3847 | 1780 | ..... | ..... | 14 13 20.8 | 2.541 | 1 | 54 13 56.6 | 16.72 | 1 | pF; R | 1 |
| 3848 | 1779, a | ..... | R. nova | 14 13 28.5 | 3.014 | ... | 85 24 7.3 | 16.72 | ... | Place from MS. | 0 |
| 3849 | 1781 | III. 12 | ..... | 14 13 31.7 | 2.967 | (1) | 81 50 21.0 | 16.70 | 2 | F; S; iR | 4 |
| 3850 | 1782 | I. 145 | ..... | 14 13 52.1 | 3.023 | 1 | 86 6 53.4 | 16.68 | 1 | pF; pS; IE; p of 2 | 2 |
| 3851 | 1783 | I. 146 | ..... | 14 14 1.1 | 3.022 | 1 | 86 5 8.4 | 16.68 | 1 | B; S; R; vsmbM; f of 2 | 2 |
| 3852 | 1784 | III. 415 | ..... | 14 14 31.5 | 2.536 | 2 | 54 9 46.8 | 16.66 | 2 | vF; cL; p of 2 | 3 |
| 3853 | 1785 | ..... | ..... | 14 14 45.4 | 2.535 | 1 | 54 8 52.2 | 16.64 | 1 | pB; S; f of 2 | 1 |
| 3854 | 1786 | II. 754 | ..... | 14 15 1.5 | 2.440 | 3 | 49 39 28.2 | 16.64 | 3 | pB; pS; R; bMFN; *sp | 5 |
| 3855 | 1783, a | ..... | R. nova | 14 15 5.4 | 3.02 | ... | 85 53 50 | 16.64 | ... | L; F; vmE | 0 |
| 3856 | 1790 | I. 235 | ..... | 14 15 18.1 | 1.909 | 1 | 32 38 5.9 | 16.63 | 1 | pF; L; iR; vgmbM; r | 3 |
| 3857 | 1787 | III. 110 | ..... | 14 15 30.3 | 2.879 | 1 | 75 26 38.0 | 16.60 | 1 | F; cS; vLE; *8 sf | 3 |
| 3858 | 1789 | ..... | ..... | 14 15 30.7 | 2.534 | 1 | 54 13 57.3 | 16.61 | 1 | vF; R; gbM; *8 sf | 1* |
| 3859 | 1788 | III. 416 | ..... | 14 15 30.8 | 2.531 | 2 | 54 5 13.3 | 16.61 | 2 | vF; S; R; np of 2 | 3* |
| 3860 | 1791 | III. 417 | ..... | 14 15 43.3 | 2.532 | 3 | 54 9 17.0 | 16.60 | 3 | cF; S; R; bM*; sf of 2 | 4* |
| 3861 | 3565 | III. 924 | ..... | 14 15 47.9 | 3.474 | 1 | 118 1 55.4 | 16.58 | 1 | F; S; E; gvlbM; r | 2 |
| 3862 | 3566 | ..... | Δ. 357 | 14 16 13.4 | 4.121 | 1 | 144 9 51.1 | 16.55 | 1 | Cl; vLRi; vLC; st 10 | 1 |
| 3863 | ..... | III. 135 | ..... | 14 16 25.3 | 2.689 | 1 | 62 58 37.8 | 16.56 | 1 | eF; vS; stellar | 1* |
| 3864 | 1792 | III. 121 | ..... | 14 16 32.5 | 3.291 | 1 | 106 5 6.5 | 16.55 | 2 | F; pL; R; vgbM; p of 2 | 4 |
| 3865 | 1795 | III. 418 | ..... | 14 16 41.3 | 2.489 | 1 | 52 14 23.5 | 16.55 | 1 | eF; S; R; stellar | 2 |
| 3866 | 1793 | III. 122 | ..... | 14 16 46.6 | 3.292 | 1 | 106 7 34.2 | 16.54 | 2 | vF; L; vLE; vglbM; f of 2 | 4 |
| 3867 | 1796 | III. 733 | ..... | 14 16 49.7 | 2.419 | 1 | 49 2 30.5 | 16.55 | 1 | F; vS; R; bM | 3 |
| 3868 | 1794 | III. 927 | ..... | 14 16 53.9 | 2.978 | 4 | 82 46 50.2 | 16.54 | 4 | F; S; IE | 5 |
| 3869 | 1797 | II. 177 | ..... | 14 17 7.8 | 2.866 | 1 | 75 43 22.6 | 16.52 | 1 | pB; pS; gbM | 3 |
| 3870 | ..... | II. 694 | ..... | 14 17 17.0 | 2.134 | 1 | 38 49 32.9 | 16.53 | 1 | pF; pS; IE; mbM | 1 |
| 3871 | 1800 | III. 734 | ..... | 14 17 24.4 | 2.414 | 2 | 48 58 44.6 | 16.52 | 2 | cF; pS; R; gbM | 3 |
| 3872 | 1799 | III. 668 | ..... | 14 17 28.1 | 3.107 | 1 | 92 34 12.0 | 16.50 | 1 | F; pS; R; vgbM*; r | 2 |
| 3873 | $\left. \begin{matrix} 1798 \\ = \\ 3569 \end{matrix} \right\}$ | III. 120 | ..... | 14 17 32.1 | 3.243 | 2 | 102 32 27.0 | 16.50 | 2 | vF; pL; R; vgbM | 3 |
| 3874 | 3568 | ..... | Δ. 313 | 14 17 36.5 | 4.345 | 1 | 148 59 58.4 | 16.48 | 1 | Cl; S; pC; st L & S | 1 |
| 3875 | ..... | II. 331 | ..... | 14 17 43.9 | 0.726 | 2 | 17 47 31.9 | 16.53 | 2 | pF; cS; iR; bM; er | 2 |
| 3876 | 1801 | II. 673 | ..... | 14 17 48.1 | 2.380 | 1 | 47 35 13.0 | 16.50 | 1 | F; pL; IE; vglbM | 2 |
| 3877 | 1802 | III. 136 | ..... | 14 18 3.6 | 2.714 | 1 | 64 45 34.4 | 16.48 | 1 | vF; S; pmE0°±; *9 f | 4 |
| 3878 | 1803 | ..... | ..... | 14 18 6.3 | 2.566 | 1 | 56 18 59.4 | 16.48 | 1 | F; S; R; bM | 1 |
| 3879 | 3567 | ..... | ..... | 14 18 9.9 | 6.643 | 1 | 167 46 0.3 | 16.41 | 1 | vF; E; gbM; r | 1 |
| 3880 | 1804 | II. 420 | ..... | 14 18 12.4 | 2.530 | 2 | 54 29 56.4 | 16.48 | 2 | pB; S; R; smbM | 3 |
| 3881 | $\left. \begin{matrix} 1804, a \\ 1804, b \\ 1804, c \end{matrix} \right\}$ | | R. 3 novæ | 14 18 ± | +2.530 | ... | 54 30 ± | +16.48 | ... | h. 1804 is D; 2 others near .. | .0 |
| 3882 | | | | | | | | | | | |
| 3883 | | | | | | | | | | | |

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| | h. | H. | | h m s | s | | | | | | |
| 3884 | 1805 | III. 419 | | 14 18 31.3 | +2.496 | 1 | 52 54 5.8 | +16.46 | 1 | vF; S; cF; vgbM; er..... | 2 |
| 3885 | 3570 | | Δ. 302 | 14 19 23.2 | 4.417 | 3 | 150 5 16.7 | 16.39 | 3 | Cl; L; pRi; pCM; st 8... | 3 |
| 3886 | ..... | III. 763 | ..... | 14 20 1.3 | 3.095 | 1 | 91 37 28.4 | 16.38 | 1 | eF; S | 1 |
| 3887 | 1806 | ..... | ..... | 14 20 15.9 | 3.000 | 1 | 84 33 53.8 | 16.36 | 1 | vF; S; R; vgbM | 1 |
| 3888 | ..... | III. 319 | ..... | 14 20 17.6 | 0.680 | 1 | 17 44 24.0 | 16.40 | 1 | eF; vS | 1* |
| 3889 | 1807 | III. 14 | ..... | 14 20 54.8 | 2.952 | 1 | 81 7 26.2 | 16.34 | 1 | eeF; L; r..... | 2 |
| 3890 | 1809 | III. 677 | ..... | 14 21 3.9 | 2.177 | 1 | 40 48 47.2 | 16.34 | 1 | vF; pS; vLE; vglbM | 2 |
| 3891 | 1808 | II. 329 | ..... | 14 21 12.5 | 2.552 | 1 | 56 7 10.9 | 16.33 | 1 | cF; S; R; vsmbM; r | 4 |
| 3892 | 1810 | ..... | ..... | 14 21 25.6 | 2.408 | 1 | 49 24 57.6 | 16.32 | 1 | vF; S; R; gbm | 1 |
| 3893 | 3571 | ..... | ..... | 14 21 35.0 | 3.508 | 1 | 119 7 31.7 | 16.29 | 1 | eF; S; R | 1 |
| 3894 | 1811 | ..... | ..... | 14 21 47.6 | 2.907 | 1 | 77 59 10.7 | 16.29 | 1 | vF; vS; R; *9sp | 1 |
| 3895 | 1812 | ..... | ..... | 14 21 59.6 | 2.685 | 2 | 63 31 30.7 | 16.29 | 2 | pF; S; R; gbm | 2 |
| 3896 | 1814 | II. 674 | ..... | 14 22 4.2 | 2.374 | 4 | 48 6 50.7 | 16.29 | 4 | F; S; E 90°±; gbm | 5 |
| 3897 | 1820 | I. 236 | ..... | 14 22 10.2 | 1.865 | 2 | 32 47 47.7 | 16.29 | 2 | B; S; R; psbMrN | 5 |
| 3898 | ..... | ..... | Auw. N. 33 | 14 22 12.0 | 3.068 | ... | 89 49 7.8 | 16.26 | ... | Neb *11f 150* (Bond, May, 1853). | 0 |
| 3899 | 1818 | I. 185 | ..... | 14 22 14.2 | 2.243 | 2 | 43 13 13.4 | 16.28 | 2 | cB; pS; R; pglbM | 4 |
| 3900 | 1813 | I. 70 | ..... | 14 22 14.9 | 3.146 | 1 | 95 20 26.8 | 16.26 | 1 | ⊕; vB; cL; R; gbm; rrr; st 19; *17 sf. | 3 |
| 3901 | 1815 | III. 132 | ..... | 14 22 20.8 | 2.657 | 1 | 61 57 59.1 | 16.27 | 1 | F; S; E; sbM | 2 |
| 3902 | 1816 | II. 580 | ..... | 14 22 34.6 | 3.020 | 1 | 86 5 58.2 | 16.24 | 1 | eF; cL; R; np of 2 | 2 |
| 3903 | 1819 | II. 357 | ..... | 14 22 35.7 | 2.728 | 2 | 66 11 4.5 | 16.25 | 2 | vF; S; R; vgbM | 3 |
| 3904 | 1817 | II. 581 | ..... | 14 22 36.3 | 3.020 | 2 | 86 8 14.2 | 16.24 | 2 | cB; pL; R; sf of 2 | 3 |
| 3905 | 1817, a | ..... | R. nova | 14 23 + | 3.020 | ... | 86 8 + | 16.24 | ... | Makes a BD neb with h. 1817 | 0 |
| 3906 | 1821 | ..... | ..... | 14 22 41.4 | +2.602 | 1 | 58 58 19.5 | 16.25 | 1 | vF; R; *7 p; *11s | 1 |
| 3907 | ..... | III. 949 | ..... | 14 23 2.9 | -1.635 | 1 | 9 18 14.0 | 16.30 | 1 | eF; S; IE | 1 |
| 3908 | 1822 | III. 126 | ..... | 14 23 11.4 | +2.608 | 2 | 59 21 35.9 | 16.23 | 2 | cF; S; * inv; *12 nf | 3 |
| 3909 | 3572 | ..... | Δ. 469 | 14 23 40.3 | 3.826 | 2 | 133 34 30.1 | 16.17 | 2 | pB; L; R; vglbM; st inv .. | 2 |
| 3910 | 1823 | II. 150 | ..... | 14 23 43.8 | 2.964 | 2 | 82 5 56.7 | 16.19 | 2 | cF; pL; iR; gbm | 5 |
| 3911 | 1824 | III. 645 | ..... | 14 23 54.1 | 2.867 | 1 | 75 22 18.4 | 16.18 | 1 | eF; vS; np of 2 | 2 |
| 3912 | ..... | ..... | Auw. N. 34 | 14 24 3.0 | 3.066 | ... | 89 42 5.1 | 16.17 | ... | Neb R (Bond, May, 1853)... | 0 |
| 3913 | 1825 | II. 891 | ..... | 14 24 4.0 | 2.982 | 2 | 83 23 45.1 | 16.17 | 2 | pB; pL; vLE; bM | 3 |
| 3914 | 1826 | II. 330 | ..... | 14 24 7.8 | 2.583 | 1 | 58 9 43.1 | 16.17 | 1 | pF; pS; R; bM | 2 |
| 3915 | 1828 | III. 420 | ..... | 14 24 14.9 | 2.478 | 1 | 53 0 46.8 | 16.16 | 1 | F; S; E?; * inv? | 2 |
| 3916 | 1827 | ..... | ..... | 14 24 17.5 | 2.868 | 1 | 75 27 56.8 | 16.16 | 1 | eeF; sf of 2 | 1 |
| 3917 | 1829 | II. 421 | ..... | 14 24 34.5 | 2.499 | 3 | 54 2 59.5 | 16.15 | 4 | pF; pL; R; mbM; r | 5 |
| 3918 | ..... | ..... | Auw. N. 35 | 14 24 48.0 | 3.067 | ... | 89 45 4.8 | 16.16 | ... | Neb; F; E (Bond, May, 1853) | 0 |
| 3919 | 1831 | ..... | ..... | 14 24 52.7 | 2.686 | 1 | 63 59 8.9 | 16.13 | 1 | eF | 1 |
| 3920 | 1832 | II. 695 | ..... | 14 24 53.3 | 2.122 | 1 | 39 45 49.2 | 16.14 | 1 | pB; L; iR; vgbM | 2* |
| 3921 | 1830 | II. 892 | ..... | 14 24 59.9 | 2.977 | 2 | 83 7 34.6 | 16.12 | 2 | vF; pS; iE | 3 |
| 3922 | 3573 | ..... | Δ. 342 | 14 25 7.9 | 4.256 | 2 | 145 56 31.0 | 16.10 | 2 | Cl; L; pRi; iC; st 9... | 2* |
| 3923 | 1833 | II. 27 | ..... | 14 25 31.6 | 2.951 | 2 | 81 18 15.0 | 16.10 | 2 | pB; pL; R; gbm; r | 5 |
| 3924 | 1834 | ..... | ..... | 14 26 19.7 | 2.916 | 1 | 78 51 33.5 | 16.05 | 1 | vF; vS; R; stellar | 1 |
| 3925 | ..... | II. 807 | ..... | 14 26 22.6 | 1.686 | 1 | 29 54 6.1 | 16.07 | 1 | pB; pS; E 0° | 1 |
| 3926 | 1835 | II. 574 | ..... | 14 26 22.9 | 3.002 | 2 | 84 55 54.5 | 16.05 | 2 | F; pS; vLE; *14 inv | 3 |
| 3927 | ..... | II. 79 | ..... | 14 26 28.2 | 2.924 | 1 | 79 28 9.2 | 16.04 | 1 | F; L; R; lbM; r | 1 |
| 3928 | 3574 | ..... | ..... | 14 26 28.4 | 3.887 | 2 | 135 20 29.9 | 16.03 | 2 | vF; S; cE; bet 2 st | 2 |
| 3929 | ..... | III. 882 | ..... | 14 26 35.4 | 0.855 | 1 | 19 44 5.4 | 16.08 | 1 | vF; pL; R; bM | 1 |
| 3930 | 1836 | III. 310 | ..... | 14 26 39.7 | 2.563 | 1 | 57 43 21.2 | 16.04 | 1 | vF; vL; iR; lbM; * p | 3 |
| 3931 | 1838 | II. 696 | ..... | 14 26 42.1 | 2.100 | 1 | 39 26 14.5 | 16.05 | 1 | F; S; cE; *15 np | 2 |
| 3932 | 1837 | II. 893 | ..... | 14 26 53.5 | 2.988 | 4 | 83 55 1.9 | 16.03 | 4 | cF; pS; R; gbm | 5 |
| 3933 | 1839 | II. 422 | ..... | 14 26 53.6 | 2.470 | 1 | 53 4 35.9 | 16.03 | 1 | F; pS; E; bM | 2 |
| 3934 | 1843 | I. 237 | ..... | 14 27 51.2 | 1.758 | 1 | 31 27 43.7 | 15.99 | 1 | B; L; iE 0°; vgbmM | 3 |
| 3935 | 1842 | I. 189 | ..... | 14 27 51.3 | 2.110 | 1 | 39 55 14.7 | 15.99 | 1 | B; L; E 45°±; pgbM; r ... | 2 |
| 3936 | 1840 | III. 283 | ..... | 14 27 55.2 | 2.678 | 1 | 63 54 56.1 | 15.97 | 1 | vF; vS; R; r; 3 st 9, 10 np... | 2 |
| 3937 | 1841 | II. 894 | ..... | 14 28 8.6 | 2.988 | 2 | 84 1 3.8 | 15.96 | 4 | vF; S; R; *12 att | 6 |
| 3938 | 1844 | III. 421 | ..... | 14 30 6.5 | 2.454 | 4 | 52 50 57.8 | 15.86 | 4 | F; cS; R; bM; p of 2 | 5 |
| 3939 | 1845 | ..... | ..... | 14 30 18.9 | 2.454 | 1 | 52 53 2.5 | 15.85 | 1 | vF; S; R; f of 2 | 2 |
| 3940 | 1849 | II. 808 | ..... | 14 30 26.8 | 1.902 | 1 | 34 53 55.5 | 15.85 | 1 | pF; S; iF; r; *10 f | 2 |
| 3941 | 3575 | ..... | ..... | 14 30 28.4 | 3.880 | 1 | 134 25 46.3 | 15.81 | 1 | F; S; vgbM; am st | 1 |
| 3942 | 1848 | I. 188 | ..... | 14 30 29.8 | +2.120 | 1 | 40 38 43.5 | +15.85 | 1 | cB; S; E 90°±; psmbM ... | 3 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | | | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|----|------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | h | m | s | s | | ° ' " | " | | | |
| 3943 | 1848, a | ..... | R. 3 novæ | 14 | 30 | ± | +2.120 | ... | 40 38 ± | +15.85 | ... | 3 novæ, one mottled | 0 |
| 3944 | | | | | | | | | | | | | |
| 3945 | | | | | | | | | | | | | |
| 3946 | 1846 | II. 582 | ..... | 14 | 30 | 39.7 | 3.032 | 1 | 87 6 6.6 | 15.82 | 3 | vF; mE or biN 140° ±; *6.7 p | 4 |
| 3947 | 1847 | II. 681 | ..... | 14 | 30 | 42.5 | 3.070 | 1 | 89 46 46.6 | 15.82 | 1 | pB; pS; IE; gbM | 3 |
| 3948 | 1851 | II. 423 | ..... | 14 | 31 | 38.1 | 2.448 | 2 | 52 49 33.4 | 15.78 | 3 | pB; cS; R; bM; r | 4 |
| 3949 | 1851, a | ..... | R. 2 novæ | 14 | 32 | ± | 2.488 | ... | 52 50 ± | 15.78 | ... | No description | 0 |
| 3950 | | | | | | | | | | | | | |
| 3951 | | | | | | | | | | | | | |
| 3952 | 1850 | II. 648 | ..... | 14 | 31 | 38.2 | 2.321 | (2) | 47 36 0.4 | 15.78 | 1 | cF; cS; R; lbM; r | 3 |
| 3953 | 1853 | II. 675 | ..... | 14 | 31 | 38.8 | 2.325 | 1:: | 47 45 53.4 | 15.78 | 1:: | F; vS; R; bM; 4B st p | 2 |
| 3954 | 1852 | II. 700 | ..... | 14 | 31 | 38.9 | 2.404 | 2 | 50 55 57.4 | 15.78 | 3 | cF; cS; IE; in Δ of st | 4 |
| 3955 | 3576 | II. 196 | ..... | 14 | 32 | 4.2 | 3.477 | 1 | 115 55 37.2 | 15.74 | 1 | cB; cS; R; psbM; r; * nr ... | 3 |
| 3956 | ..... | III. 127 | ..... | 14 | 32 | 12.5 | 2.594 | 1 | 59 53 49.2 | 15.74 | 1 | eF; vS | 1 |
| 3957 | 1854 | II. 575 | ..... | 14 | 32 | 12.8 | 2.986 | 4 | 84 1 23.2 | 15.74 | 4 | cB; pS; R; mbM; *15 p ... | 5 |
| 3958 | ..... | III. 894 | ..... | 14 | 32 | 20.6 | 2.754 | 2 | 68 53 19.9 | 15.73 | 2 | vF; vS | 1 |
| 3959 | ..... | III. 128 | ..... | 14 | 32 | 26.5 | 2.593 | 1 | 59 53 48.9 | 15.73 | 1 | vF; vS; iR | 1 |
| 3960 | 1855 | II. 649 | ..... | 14 | 32 | 26.6 | 2.351 | 1 | 48 52 33.2 | 15.74 | 1 | F; cS; IE 0° ± | 4 |
| 3961 | 1859 | ..... | ..... | 14 | 32 | 46.2 | 2.351 | 2 | 48 56 49.6 | 15.72 | 2 | F; pL; E 0° ±; gbM | 2 |
| 3962 | 1856 | III. 895 | ..... | 14 | 32 | 50.2 | 2.760 | 1 | 69 21 2.0 | 15.70 | 1 | vF; S; vgbM; * f; p of 2 ... | 2 |
| 3963 | 1858 | ..... | ..... | 14 | 32 | 55.7 | +2.761 | 1 | 69 24 52.0 | 15.70 | 1 | eF; vS; * att; f of 2 | 1 |
| 3964 | ..... | III. 950 | ..... | 14 | 32 | 57.9 | -1.318 | 1 | 10 33 44.4 | 15.78 | 1 | vF; S; R; S Cl p | 1 |
| 3965 | 1857 | I. 182 | ..... | 14 | 32 | 59.9 | +3.068 | 1 | 89 40 43.0 | 15.70 | 1 | cB; pL; R; psmbM; r | 3 |
| 3966 | 1861 | III. 675 | ..... | 14 | 33 | 2.8 | 2.175 | 1 | 42 44 30.0 | 15.70 | 1 | vF; pS; iE; * n; 1st of 3 ... | 2 |
| 3967 | 3577 | ..... | Δ. 333 | 14 | 33 | 15.1 | 4.353 | 1 | 146 56 49.8 | 15.66 | 1 | Cl; L; pRi; CM; st 11...13... | 1 |
| 3968 | ..... | VI. 8 | ..... | 14 | 33 | 16.5 | 3.198 | 1?? | 98 30 48.4 | 15.68 | 1?? | Cl; pL; eRi; vmC | 1* |
| 3969 | 1860 | III. 671 | ..... | 14 | 33 | 19.0 | 3.326 | 2 | 106 52 1.1 | 15.67 | 2 | vF; pL; R | 3 |
| 3970 | 1864 | ..... | ..... | 14 | 33 | 29.2 | 2.172 | 2 | 42 42 29.7 | 15.69 | 2 | vF; S; R; * nr; 2nd of 3 ... | 2 |
| 3971 | 1862 | III. 550 | ..... | 14 | 33 | 39.6 | 3.014 | 1 | 85 56 1.8 | 15.66 | 2 | vF; S; R; vglbM; *8.9 nf ... | 3 |
| 3972 | 1863 | II. 682 | ..... | 14 | 33 | 44.9 | 3.069 | 1 | 89 42 24.5 | 15.65 | 1 | pF; S; IE; bM | 3 |
| 3973 | 1865, a | ..... | R. 3 novæ | 14 | 34 | ± | 2.170 | ... | 42 41 ± | 15.67 | ... | h. 1865 is quadruple; ? F neb connecting. | 0 |
| 3974 | | | | | | | | | | | | | |
| 3975 | | | | | | | | | | | | | |
| 3976 | 1865 | ..... | ..... | 14 | 33 | 49.6 | 2.170 | 1 | 42 40 59.1 | 15.67 | 1 | vF; S; R; psbM; 3rd of 3 ... | 1 |
| 3977 | ..... | ..... | D'Arrest, 97 | 14 | 33 | 53 | 3.03 | [1] | 87 12 42 | 15.64 | [1] | ○?; vF; S; disc; *15 n 95''... | 0 |
| 3978 | 1866 | I. 184 | ..... | 14 | 34 | 38.1 | 3.325 | 2 | 106 38 34.0 | 15.60 | 2 | pF; pL; pmE 45° ±; mbM; *10s. | 3* |
| 3979 | 3578 | III. 508 | ..... | 14 | 34 | 40.0 | 3.197 | 2 | 98 24 7.0 | 15.60 | 2 | F; pL; E; r | 3 |
| 3980 | 1867 | III. 657 | ..... | 14 | 34 | 41.8 | 2.281 | 1 | 46 36 11.3 | 15.61 | 1 | vF; cS; E 90° ± | 2 |
| 3981 | 1868 | III. 658 | ..... | 14 | 34 | 51.9 | 2.281 | 1 | 46 37 41.0 | 15.60 | 1 | vF; cS; IE | 2 |
| 3982 | 1869 | III. 686 | ..... | 14 | 35 | 2.8 | 2.387 | 2 | 50 45 12.7 | 15.59 | 2 | vF; S; R; lbM | 3 |
| 3983 | 1870 | III. 133 | ..... | 14 | 36 | 29.1 | 2.598 | 1 | 60 40 46.3 | 15.51 | 1 | vF; L; iR; lbM | 2 |
| 3984 | 1871 | III. 896 | ..... | 14 | 36 | 42.8 | 2.773 | 1 | 70 31 5.7 | 15.49 | 1 | vF; cS; R; vglbM | 2 |
| 3985 | 1873 | I. 171 | ..... | 14 | 37 | 12.6 | 2.297 | 1 | 47 34 26.1 | 15.47 | 1 | pB; S; R; smbM; r; * nr ... | 3 |
| 3986 | 1872 | II. 538 | ..... | 14 | 37 | 17.6 | 3.039 | 1 | 87 43 15.8 | 15.46 | 1 | pB; L; iR; gbM; r | 2 |
| 3987 | 3579 | ..... | ..... | 14 | 37 | 23.1 | 3.276 | 1 | 103 20 50.5 | 15.45 | 1 | vF; S; E; psbM | 1 |
| 3988 | 1874 | I. 126 | ..... | 14 | 37 | 48.7 | 3.035 | 1 | 87 26 59.9 | 15.43 | 1 | B; L; vmE; bMBN | 2 |
| 3989 | ..... | III. 48 | ..... | 14 | 38 | 25.5 | 2.880 | 1 | 77 18 32.0 | 15.40 | 1 | eF; S | 1 |
| 3990 | 3580 | ..... | Δ. 356 | 14 | 38 | 57.4 | 4.258 | 1 | 143 56 9.2 | 15.34 | 1 | Cl; pL; pRi; IC; st 10...11... | 1 |
| 3991 | 1875 | I. 183 | ..... | 14 | 39 | 9.0 | 3.068 | 1:: | 89 38 40.5 | 15.35 | 1:: | pF; pS; vLE; r | 3 |
| 3992 | 1877 | II. 809 | ..... | 14 | 39 | 24.3 | 1.892 | 1 | 35 59 5.8 | 15.36 | 1 | F; S; vLE; Δ 2 st 10.11 ... | 2 |
| 3993 | 1878 | III. 687 | ..... | 14 | 39 | 47.5 | 2.368 | 3 | 50 40 19.9 | 15.33 | 3 | cF; cS; R; bM | 4 |
| 3994 | 3581 | ..... | ..... | 14 | 39 | 54.0 | 3.293 | 1 | 104 15 56.3 | 15.31 | 1 | pB; pL; pmE; gpmbM | 1 |
| 3995 | 1876 | III. 690 | ..... | 14 | 39 | 54.2 | 3.362 | 1 | 108 29 45.3 | 15.31 | 1 | vF; S; iR; lbM | 2 |
| 3996 | 1879 | III. 885 | ..... | 14 | 41 | 13.2 | 2.773 | 1 | 70 54 33.2 | 15.24 | 1 | vF; vS; cE 90°; vglbM | 2 |
| 3997 | 3582 | ..... | ..... | 14 | 43 | 44.7 | 4.208 | 1 | 142 5 25.1 | 15.07 | 1 | Cl; vF; vS; vC | 1 |
| 3998 | 1880 | ..... | ..... | 14 | 43 | 52.3 | 2.985 | 1 | 84 17 59.7 | 15.09 | 1 | D neb; both eF | 1 |
| 3999 | ..... | III. 373 | ..... | 14 | 44 | 58.6 | 3.104 | 3 | 91 57 9.6 | 15.02 | 3 | F; R; bMFN; S * s | 3* |
| 4000 | 1881 | II. 576 | ..... | 14 | 46 | 13.3 | 3.003 | 1 | 85 27 35.5 | 14.95 | 1 | eF; S; vLE; bM; ? biN | 4* |
| 4001 | 1882 | III. 129 | ..... | 14 | 46 | 16.8 | 2.551 | 1 | 59 35 3.5 | 14.95 | 1 | vF; S; R; pgbM | 2 |
| 4002 | 1883 | ..... | ..... | 14 | 46 | 17.5 | 2.295 | 3 | 48 49 8.8 | 14.96 | 3 | pB; pL; IE; psbM; *8 np... | 3 |
| 4003 | 1884 | III. 130 | ..... | 14 | 46 | 34.3 | +2.551 | 1 | 59 37 52.9 | +14.93 | 1 | vF; S; R; pgbM | 2 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 4003 | h. 1885, <i>a</i> | H. | R. nova | 14 46 50.9 | +3.009 | :: | 85 53 7.0 | +14.91 | : | eF; 2' p h. 1885 | 0 |
| 4004 | 1885 | III. 554 | ..... | 14 46 58.9 | 3.009 | 1 | 85 53 7.0 | 14.90 | 1 | F; pS; vmE 148° 4; gvlbM... | 4 |
| 4005 | ..... | ..... | D'Arrest, 98 | 14 47 33 | 3.02 | [1] | 86 27 8 | 14.87 | [1] | vF; pL; vlbM; *8.9p; 225'' s | 0 |
| 4006 | ..... | III. 806 | ..... | 14 47 33.0 | 1.555 | 1 | 30 26 56.7 | 14.89 | 1 | vF; vS; lE | 1 |
| 4007 | 1886 | ..... | ..... | 14 48 52.2 | 3.344 | 1 | 106 40 4.7 | 14.79 | 1 | F; S; R; bM; *16 sp..... | 1 |
| 4008 | 1887 | II. 676 | ..... | 14 49 5.8 | 2.229 | 2 | 46 52 39.0 | 14.80 | 2 | pB; S; R; smbM; stellar ... | 3 |
| 4009 | 3583 | ..... | ..... | 14 49 57.8 | 3.877 | 1 | 131 27 21.3 | 14.71 | 1:: | F; mE; L* sf | 1 |
| 4010 | 1888 | II. 677 | ..... | 14 50 2.4 | 2.227 | 1 | 46 56 4.2 | 14.74 | 1 | F; cS; R; psbM | 2 |
| 4011 | 1890 | III. 976 | ..... | 14 50 41.1 | 2.532 | 1 | 59 12 55.0 | 14.70 | 1 | eF; pS; iF | 2 |
| 4012 | 1889 | III. 691 | ..... | 14 50 51.7 | 3.382 | 1 | 108 42 27.1 | 14.67 | 1 | pF; S; R; stellar..... | 2 |
| 4013 | ..... | II. 683 | ..... | 14 51 12.5 | 3.081 | 1 | 90 31 47.8 | 14.66 | 1 | pB; pL; R; mbM; cB*npatt | 1 |
| 4014 | 1891 | ..... | ..... | 14 51 21.5 | 1.979 | 1 | 39 44 42.1 | 14.67 | 1 | pF; S; vsbM*13; 1st of 3 ... | 1 |
| 4015 | 1893 | III. 678 | ..... | 14 51 46.4 | 1.977 | 1 | 39 44 55.2 | 14.64 | 1 | F; S; vsbM*13; 2nd of 3 ... | 2 |
| 4016 | 1892 | III. 131 | ..... | 14 51 48.3 | 2.534 | 1 | 59 28 16.9 | 14.63 | 2 | F; S; R; vgbM; *nf (2 var) | 4* |
| 4017 | 3584 | ..... | ..... | 14 51 49.4 | 5.894 | 1 | 161 52 27.1 | 14.57 | 1 | eF; S; R; bM..... | 1 |
| 4018 | 3585 | ..... | ..... | 14 52 5.8 | 4.224 | 1 | 141 21 29.4 | 14.58 | 1 | Cl; pL; pRi; lC | 1 |
| 4019 | 1895 | III. 679 | ..... | 14 52 31.1 | 1.973 | 1 | 39 45 19.0 | 14.60 | 1 | vF; vS; vsmbM*13; *6 nr; 3rd of 3. | 2 |
| 4020 | 1895, <i>a</i> | ..... | R. nova | 14 52 ± | 1.973 | ... | 39 45 ± | 14.60 | ... | S | 0 |
| 4021 | 1894 | II. 539 | ..... | 14 52 53.9 | +3.034 | 1 | 87 32 48.8 | 14.56 | 1 | cB; cL; E 165° ±; sbMN ... | 2 |
| 4022 | ..... | III. 311 | ..... | 14 53 0.6 | -0.023 | 1 | 16 24 35.3 | 14.61 | 1 | vF; S; iR; bet 2 st | 1 |
| 4023 | 3586 | ..... | ..... | 14 53 11.2 | +3.296 | 1 | 103 36 47.9 | 14.53 | 1 | vF; S; E; glbM | 1 |
| 4024 | 3587 | I. 71 | ..... | 14 53 28.2 | 3.185 | 2 | 96 53 29.6 | 14.52 | 2 | cB; S; R; vsmbM | 4 |
| 4025 | ..... | II. 756 | ..... | 14 53 51.4 | 1.781 | 2 | 35 37 32.1 | 14.48 | 2 | pF; pS; iE; r | 2* |
| 4026 | 1896 | I. 127 | ..... | 14 54 5.4 | 3.037 | 1 | 87 44 16.7 | 14.49 | 1 | B; pS; R; psmbM | 2 |
| 4027 | 1897 | ..... | ..... | 14 54 15.4 | 3.038 | 1 | 87 49 46.1 | 14.47 | 1 | vF; vS; R | 1 |
| 4028 | ..... | III. 811 | ..... | 14 54 22.9 | 1.784 | 1 | 35 35 32.7 | 14.49 | 1 | eF; S; E | 1 |
| 4029 | 1898 | II. 756? | ..... | 14 54 29.9 | 1.781 | 1 | 35 32 4.1 | 14.47 | 1 | B; R; sbM; splendid * f ... | 1* |
| 4030 | 1898, <i>a</i> | ..... | R. nova | 14 54 50.6 | 1.781 | :: | 35 32 4.1 | 14.47 | :: | vF | 0 |
| 4031 | 3588 | ..... | ..... | 14 55 2.0 | 4.347 | 1 | 143 47 24.0 | 14.40 | 1 | Cl; vL; Ri; lC; st 9...12 ... | 1 |
| 4032 | 3589 | ..... | ..... | 14 55 20.2 | 4.409 | 1 | 145 2 17.4 | 14.38 | 1 | Cl; cL; Ri; lCM; st 13...14 | 1 |
| 4033 | 1899 | II. 540 | ..... | 14 57 2.4 | 3.045 | (1) | 88 14 41.0 | 14.30 | 1 | pB; S; mbM | 2 |
| 4034 | ..... | II. 332 | ..... | 14 57 32.3 | 0.165 | 2 | 17 45 19.6 | 14.32 | 1 | pB; cL; iR; bp; r | 2 |
| 4035 | 3590 | ..... | ..... | 14 57 32.5 | 6.045 | 3 | 162 19 4.3 | 14.21 | 3 | F; cS; lE; glbM; am st | 3 |
| 4036 | 1900 | ..... | ..... | 14 57 46.9 | +3.675 | 1 | 122 34 35.2 | 14.24 | 1 | eeF(?) | 1 |
| 4037 | ..... | III. 312 | ..... | 14 57 54.8 | -0.262 | 1 | 15 36 18.3 | 14.31 | 1 | eF; vS; lE; 2 st inv | 1 |
| 4038 | ..... | II. 542 | ..... | 14 58 21.5 | +3.030 | 1 | 87 21 21.6 | 14.22 | 1 | pB | 1 |
| 4039 | ..... | II. 541 | ..... | 14 58 21.9 | 3.037 | 1 | 87 49 21.6 | 14.22 | 1 | F | 1 |
| 4040 | 3592 | ..... | ..... | 14 58 41.7 | 3.755 | 2 | 125 47 8.4 | 14.18 | 2 | vF; S; lE; vlbM; r | 2 |
| 4041 | 3591 | ..... | ..... | 14 58 51.0 | 5.033 | 2 | 154 8 9.5 | 14.15 | 2 | pB; pL; R; vglbM | 2 |
| 4042 | ..... | III. 511 | ..... | 14 59 1.9 | 3.036 | 1 | 87 46 20.4 | 14.18 | 1 | vF; R; p of 2 | 1 |
| 4043 | 1901, <i>a</i> | ..... | R. 2 novæ? | 14 59 ± | 3.038 | ... | 87 51 ± | 14.16 | ... | 2 of 6 | * |
| 4044 |  | ..... | ..... | 14 59 23.5 | 3.038 | 1 | 87 50 41.8 | 14.16 | 1 | vB; pL; R; psbMN; f of 2... | 2 |
| 4046 | ..... | ..... | D'Arrest, 99 | 14 59 29 | 3.03 | [1] | 87 26 48 | 14.15 | [1] | eF; S; v close * f 7' | 0 |
| 4047 | 1902 | II. 543 | ..... | 15 0 2.6 | 3.039 | 1 | 87 54 47.6 | 14.12 | 1 | cF; S; lE; psbM | 2 |
| 4048 | ..... | III. 886 | ..... | 15 0 16.5 | 2.848 | 1 | 76 36 4.3 | 14.11 | 1 | eF; vS; np of 2 | 1* |
| 4049 | ..... | III. 887 | ..... | 15 0 16.5 | 2.848 | 1 | 76 36 4.3 | 14.11 | 1 | eF; vS; sf of 2 | 1* |
| 4050 | 1903 | II. 544 | ..... | 15 0 44.0 | 3.021 | 3 | 86 53 20.4 | 14.08 | 3 | pB; S; vLE; lbM; am st..... | 5 |
| 4051 | 1905 | II. 751 | ..... | 15 1 1.8 | 2.725 | (3) | 69 54 1.8 | 14.06 | 1:: | eF; cS; E; p of D neb | 4*+ |
| 4052 | 1905 | II. 752 | ..... | 15 1 9.2 | 2.725 | (3) | 69 56 1.8 | 14.06 | 1:: | pF; pS; E; f of D neb | 4+ |
| 4053 | 1904 | IV. 71 | ..... | 15 1 14.4 | 2.746 | 1:: | 71 1 0.5 | 14.05 | 1 | *6 in vL neb | 2 |
| 4054 | 1906 | ..... | ..... | 15 1 29.3 | 2.179 | 2 | 46 49 50.5 | 14.05 | 2 | F; S; R; psbM | 2 |
| 4055 | ..... | II. 192 | ..... | 15 1 37.4 | 3.255 | 2 | 100 46 50.6 | 14.02 | 2 | F; L; E; r | 2 |
| 4056 | 1907 | II. 585 | ..... | 15 2 30.8 | 3.013 | 3 | 86 24 19.8 | 13.96 | 3 | pF; cS; iLE; gbM; *14f ... | 4 |
| 4057 | ..... | II. 684 | ..... | 15 2 36.1 | 3.057 | 1 | 89 0 5.5 | 13.95 | 1 | pB; S; iE | 1 |
| 4058 | 1909 | I. 215 | ..... | 15 2 36.3 | 1.639 | 1 | 33 41 39.4 | 13.98 | 1 | vB; cL; pmE 146° 0; gbM... | 2+ |
| 4059 | 1909, <i>a</i> | ..... | R. nova | 15 2 ± | 1.639 | ... | 33 42 ± | 13.98 | ... | vS | 0 |
| 4060 | ..... | ..... | D'Arrest, 100 | 15 2 41 | 3.05 | [1] | 88 55 48 | 13.95 | [1] | eF; H. II. 545, s 3' 15'' | 0 |
| 4061 | 1908 | II. 545 | ..... | 15 2 41.0 | 3.057 | 1 | 88 59 25.5 | 13.95 | 1 | pF; S; E; psbM | 5 |
| 4062 | ..... | II. 755 | ..... | 15 5 10.7 | +1.792 | 1 | 36 55 21.6 | +13.82 | 1 | pB; pL; lE | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | | | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|----|------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | h | m | s | s | | | | | | |
| 4063 | h. 3593 | III. 736 | ..... | 15 | 6 | 3.3 | +3.312 | 1 | 103° 44' 18.9 | +13.73 | 1 | pB; pL; pmE0°; psmbM; *inv | 2 |
| 4064 | 1910 | II. 757 | ..... | 15 | 6 | 9.4 | 1.548 | 1 | 32 27 30.8 | 13.76 | 1 | cB; S; E; mbMRN; r | 4 |
| 4065 | ..... | II. 818 | ..... | 15 | 6 | 27.0 | 1.128 | 1 | 26 30 47.5 | 13.75 | 1 | pF; cS; R; vgbM | 1* |
| 4066 | 3594 | ..... | ..... | 15 | 7 | 19.4 | 4.059 | 2 | 135 7 30.2 | 13.64 | 2 | ○; vS; R; quite sharp | 2† |
| 4067 | 3595 | III. 116 | ..... | 15 | 7 | 30.1 | 3.238 | 1 | 99 33 7.2 | 13.64 | 1 | F; cL; R; vgbM | 2 |
| 4068 | 1911 | ..... | ..... | 15 | 7 | 38.4 | 2.199 | 1 | 48 14 58.2 | 13.64 | 1 | F; vS; R; bM | 1 |
| 4069 | 1912 | III. 659 | ..... | 15 | 7 | 58.6 | 2.198 | 1 | 48 12 57.2 | 13.64 | 1 | cF; vS; R; bM; r | 2 |
| 4070 | 1912, a | ..... | R. nova | 15 | 8 | 18.6 | 2.198 | ... | 48 8 27.2 | 13.62 | ... | vF; place from MS. | 0 |
| 4071 | 1913 | II. 678 | ..... | 15 | 8 | 29.8 | 2.175 | 1 | 47 31 15.0 | 13.60 | 1 | F; S; R; r; 3 st nr. | 2 |
| 4072 | } 1913, a | ..... | R. 2 nova | 15 | 8 | ± | 2.175 | ... | 47 31 ± | 13.60 | ... | 2 nova apparently connected. | 0 |
| 4073 |  | ..... | ..... | 15 | 8 | 37.8 | 1.353 | 2 | 29 40 9.0 | 13.60 | 2 | pF; pS; E 0°± | 2 |
| 4074 | ..... | II. 763 | ..... | 15 | 9 | 22.4 | 3.443 | 1 | 110 29 44.6 | 13.52 | 1 | ⊕; pF; L; viR; vgbM; rrr | 2 |
| 4075 | 3596 | VI. 19 | ..... | 15 | 9 | 53.3 | 3.504 | 1 | 113 31 44.7 | 13.49 | 1 | F; S; R; gbM | 4 |
| 4076 | 3597 | III. 138 | ..... | 15 | 10 | 0.6 | 2.167 | 2 | 47 26 25.3 | 13.51 | 2 | cB; pL; pmE; smbMN | 5 |
| 4077 | 1914 | II. 650 | ..... | 15 | 10 | 2.9 | 2.162 | 2 | 47 16 49.0 | 13.50 | 2 | vF; S; vLE; gbM | 3 |
| 4078 | 1915 | III. 660 | ..... | 15 | 10 | 2.9 | 2.162 | ... | 47 17 ± | 13.50 | ... | Close to 1915 pos 0° | 0 |
| 4079 | 1915, a | ..... | R. nova | 15 | 10 | 15.1 | 1.863 | 1 | 39 12 3.0 | 13.50 | 1 | vF; vS; stellar | 1 |
| 4080 | ..... | III. 737 | ..... | 15 | 10 | 24.3 | 3.505 | 2 | 113 31 3.5 | 13.45 | 2 | cF; S; R; gpmbM | 5 |
| 4081 | 3598 | III. 139 | ..... | 15 | 10 | 56.2 | 1.606 | 1 | 34 0 29.5 | 13.45 | 1 | pF; pS; iR | 1 |
| 4082 | ..... | II. 758 | ..... | 15 | 11 | 27.2 | 3.028 | 1 | 87 23 8.7 | 13.39 | 1 | !; ⊕; vB; L; eCM; st 11...15 | 11† |
| 4083 | 1916 | ..... | M. 5 | 15 | 11 | 39 | 1.568 | ... | 33 51 55 | 13.39 | ... | One of 2, 15' apart np & sf... | 0 |
| 4084 | ..... | ..... | R. nova | 15 | 11 | 57.2 | 1.606 | 1 | 34 6 25.7 | 13.39 | 1 | pF; pS; R | 1 |
| 4085 | ..... | II. 760 | ..... | 15 | 12 | ± | 15.52 | ... | 32 10 ± | 13.38 | ... | A ray, vmE, par. to h. 1917 | 0 |
| 4086 | 1917, a | ..... | R. nova | 15 | 12 | 11.7 | 1.552 | 2 | 33 10 5.4 | 13.38 | 2 | cB; vL; vmE 155°0; vg, psbMN. | 3† |
| 4087 | 1917 | II. 759 | ..... | 15 | 12 | 53 | +1.568 | ... | 34 2 31 | 13.39 | ... | One of 2, 15' apart np & sf... | 0 |
| 4088 | ..... | ..... | R. nova | 15 | 13 | 10.9 | -0.870 | 1 | 14 7 6.1 | 13.37 | 1 | vF; vS | 1 |
| 4089 | ..... | III. 943 | ..... | 15 | 13 | 15.7 | +2.681 | 2 | 68 36 53.4 | 13.28 | 2 | vF; S; er | 2 |
| 4090 | ..... | II. 400 | ..... | 15 | 13 | 35.7 | -0.876 | 1 | 14 7 4.9 | 13.33 | 1 | vF; vS | 1 |
| 4091 | ..... | III. 944 | ..... | 15 | 13 | 38.5 | +3.109 | 2 | 92 4 2.5 | 13.25 | 2 | vF; pL; vLE; r | 3 |
| 4092 | { 1915 = 3599 } | III. 374 | ..... | 15 | 13 | 51.6 | 3.297 | 1 | 102 34 48.6 | 13.22 | 1 | B; S; R; glbM; p of 2 | 1 |
| 4093 |  | ..... | ..... | 15 | 13 | 56.2 | 3.299 | 1 | 102 39 13.6 | 13.22 | 1 | F; S; IE; glbM; f of 2 | 1 |
| 4094 | 3600 | ..... | ..... | 15 | 14 | 3.2 | 3.194 | 1 | 96 51 8.3 | 13.21 | 1 | eF; vS; psbM | 1 |
| 4095 | 3601 | ..... | ..... | 15 | 14 | 36.6 | 2.018 | 2 | 43 36 42.0 | 13.20 | 2 | cF; L; pmE; glbM; * s. | 2 |
| 4096 | 1920 | ..... | ..... | 15 | 14 | 59.9 | 2.975 | 4 | 84 25 34.8 | 13.16 | 4 | cB; cL; iR; vsbM * 12; amst | 5 |
| 4097 | 1919 | I. 148 | ..... | 15 | 16 | 12.3 | 2.158 | (2) | 47 50 32.7 | 13.09 | 1 | eF; S | 2 |
| 4098 | 1922 | III. 661 | ..... | 15 | 16 | 13.2 | 2.156 | 4 | 47 46 29.7 | 13.09 | 4 | vF; pL; vLE; vgbM | 4 |
| 4099 | 1921 | ..... | ..... | 15 | 17 | 15.2 | 4.480 | 3 | 144 1 39.4 | 12.98 | 3 | Cl; vL; vRi; IC; st 11...14. | 3 |
| 4100 | 3603 | ..... | Δ. 357 | 15 | 17 | 55.5 | 4.300 | 2 | 140 10 47.2 | 12.94 | 2 | ⊕; cB; L; R; vgbM; rrr; st 15 | 2 |
| 4101 | 3604 | ..... | Δ. 389 | 15 | 19 | 40.8 | 2.729 | 1 | 71 25 32.5 | 12.85 | 1 | pB; cS; R; psbM; * 7 n. | 2 |
| 4102 | 1923 | II. 874 | ..... | 15 | 21 | 5.7 | 2.141 | 1 | 47 50 27.1 | 12.77 | 1 | vF; vS; sp of D neb | 1 |
| 4103 | 1924 | ..... | ..... | 15 | 21 | 8.7 | 2.141 | 4 | 47 50 15.1 | 12.77 | 4 | pF; pS; R; nf of D neb | 6 |
| 4104 | 1925 | II. 651 | ..... | 15 | 23 | 5.1 | 2.825 | 2 | 76 33 15.6 | 12.62 | 2 | F; pL; iR; vgbM; r | 2 |
| 4105 | ..... | II. 130 | ..... | 15 | 23 | 29.0 | 3.116 | 2 | 92 20 47.7 | 12.59 | 2 | pB; pS; R; vgbM; 3 st f. | 3 |
| 4106 | { 1926 = 3606 } | II. 401 | ..... | 15 | 23 | 30.4 | 5.466 | 1 | 156 22 34.9 | 12.53 | 1 | F; S; am st | 1 |
| 4107 |  | ..... | ..... | 15 | 25 | 20.2 | 4.334 | 2 | 140 11 14.9 | 12.43 | 2 | ⊕; cB; pL; R; vglbM; rrr; st 16. | 2 |
| 4108 | 3607 | ..... | ..... | 15 | 26 | 3.2 | 0.808 | 1 | 24 45 29.8 | 12.46 | 1 | F; S; IE 45°±; vglbM | 1 |
| 4109 | ..... | II. 906 | ..... | 15 | 27 | 17.7 | 2.782 | 1 | 74 32 25.2 | 12.34 | 1 | F; pS; E 150°± | 1 |
| 4110 | ..... | II. 654 | ..... | 15 | 28 | 2.2 | 2.777 | 1 | 74 20 50.4 | 12.28 | 1 | pB; cS; p of D neb | 4 |
| 4111 | 1927 | II. 178 | ..... | 15 | 28 | 2.2 | 2.777 | 1 | 74 20 50.4 | 12.28 | 1 | pB; cS; f of D neb | 4 |
| 4112 | 1927 | II. 179 | ..... | 15 | 28 | 57.7 | 2.483 | 1 | 60 51 21.6 | 12.22 | 1 | pF; pL; iR; bM; r. | 1 |
| 4113 | ..... | II. 399 | ..... | 15 | 29 | 26.4 | 1.445 | 1 | 33 1 16.3 | 12.21 | 1 | pF; pS; iF | 1 |
| 4114 | ..... | II. 761 | ..... | 15 | 29 | 57.4 | 1.431 | (1): | 32 50 58.1 | 12.17 | 1 | cF; cL; IE | 2 |
| 4115 | 1931 | II. 762 | ..... | 15 | 30 | 6.8 | 2.746 | 1 | 72 55 36.2 | 12.14 | 1 | pF; pL; iLE; gbM | 2 |
| 4116 | 1928 | II. 96 | ..... | 15 | 30 | 31.4 | +1.431 | ... | 32 46 22.1 | +12.14 | ... | No description | 0 |
| 4117 | 1931, a | ..... | R. nova | 15 | 30 | 31.4 | +1.431 | ... | 32 46 22.1 | +12.14 | ... | No description | 0 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 4118 | 1929 | ..... | ..... | 15 30 38.0 | +2.953 | 1 | 83 33 9.7 | +12.09 | 1 | ⊕; vF; vL; R; vgbM; rrr... | 1+ |
| 4119 | 1930 | III. 634 | ..... | 15 30 48.4 | 2.172 | 2 | 49 46 12.3 | 12.11 | 2 | vF; S; R; gbM; 2 st 8 f.... | 3 |
| 4120 | 3608 | ..... | ..... | 15 31 12.7 | 7.159 | 1 | 165 13 11.1 | 11.97 | 1 | F; pL; R; vgbM | 1 |
| 4121 | 3609 | ..... | ..... | 15 31 20.1 | 3.694 | 1 | 120 5 47.2 | 12.04 | 1 | vF; L; R; gbM; r | 1 |
| 4122 | ..... | II. 76 | ..... | 15 32 10.2 | 2.834 | 1 | 77 24 9.7 | 11.99 | 1 | pF; pL; R; rr..... | 2 |
| 4123 | 1932 | ..... | ..... | 15 33 25.5 | 2.396 | 1 | 57 46 40.6 | 11.92 | 1 | vF; vS; R; bM | 1 |
| 4124 | 1934, <i>a</i> | ..... | R. nova? | 15 34 29.2 | 1.214 | ... | 30 6 57.2 | 11.76 | ... | R; psbM (by diagram) | 0 |
| 4125 | 3610 | ..... | ..... | 15 34 53.7 | 5.014 | 2 | 150 46 24.5 | 11.75 | 3 | !; ○; pF; vS; R; r? am 150 st | 3+ |
| 4126 | 1933 | II. 655 | ..... | 15 35 0.3 | 2.759 | 1 | 73 45 35.7 | 11.79 | 1 | F; pS; E 0°..... | 2 |
| 4127 | 1934, <i>b</i> | ..... | R. nova? | 15 35 33.7 | 1.214 | ... | 30 8 46.2 | 11.77 | ... | F; mE | 0 |
| 4128 | 1934 | II. 764 | ..... | 15 36 18.6 | 1.214 | 1 | 30 11 55.2 | 11.74 | 1 | cB; S; R; psbM; r..... | 2 |
| 4129 | ..... | II. 656 | ..... | 15 36 21.3 | 2.790 | 1 | 75 20 47.7 | 11.69 | 1 | pB; S; E 135°±; bM | 1 |
| 4130 | ..... | II. 765 | ..... | 15 36 24.1 | 1.306 | 1 | 31 29 46.9 | 11.73 | 1 | pF; cS | 1 |
| 4131 | ..... | II. 766 | ..... | 15 36 32.5 | 1.215 | 1 | 30 13 46.6 | 11.72 | 1 | pB; cL; iE; r | 1* |
| 4132 | 3611 | ..... | Δ. 552 | 15 36 53.4 | 3.904 | 2 | 127 19 24.9 | 11.63 | 2 | !; ⊕; vB; L; R; vgbM; st 13...15. | 2 |
| 4133 | 1934, <i>c</i> | ..... | R. nova | 15 37 18.3 | 1.214 | ... | 30 14 28.0 | 11.62 | ... | (? if not = II. 766)..... | 0 |
| 4134 | ..... | III. 378 | ..... | 15 38 47.1 | 1.169 | 1 | 29 47 35.8 | 11.56 | 1 | vF; vS | 1 |
| 4135 | 1935 | II. 425 | ..... | 15 39 16.4 | 3.019 | 2 | 87 8 54.4 | 11.48 | 2 | vF; vS; R; gbM | 5 |
| 4136 | 1936 | III. 635 | ..... | 15 39 29.9 | 2.103 | 2 | 48 26 39.7 | 11.49 | 2 | vF; vS; R; bM; sp of 2..... | 3 |
| 4137 | 1937 | III. 636 | ..... | 15 39 33.0 | 2.102 | 1 | 48 26 5.4 | 11.48 | 1 | cF; vS; R; bM; nf of 2..... | 2 |
| 4138 | 3613 | ..... | ..... | 15 40 38.9 | 3.334 | 1 | 103 19 13.4 | 11.38 | 1 | eF; S; R; vS * p | 1 |
| 4139 | 1938 | II. 97 | ..... | 15 40 39.7 | 2.709 | 2 | 71 40 24.0 | 11.40 | 2 | pF; cS; R; r; bet 2D st..... | 4 |
| 4140 | ..... | VII. 29 | ..... | 15 40 56.1 | 3.664 | 1 | 118 10 31.5 | 11.35 | 1 | Cl; pL; pRi; st vS | 1 |
| 4141 | 3612 | ..... | Δ. 343 | 15 41 7.4 | 4.716 | 1 | 146 2 39.3 | 11.31 | 1 | Cl; L; pRi; st 12...14 | 1 |
| 4142 | 3614 | ..... | ..... | 15 41 11.3 | 3.684 | 1 | 118 57 17.9 | 11.33 | 1 | vF; S; R; sbM | 1 |
| 4143 | ..... | III. 371 | ..... | 15 42 3.8 | 2.459 | 1 | 60 54 51.7 | 11.29 | 1 | vF; S; R | 1 |
| 4144 | 3615 | ..... | Δ. 334 | 15 44 34.9 | 4.795 | 3 | 147 0 57.8 | 11.06 | 3 | Cl; pS; pRi; mC; st 16 | 3 |
| 4145 | 1939 | II. 583 | ..... | 15 47 11.0 | +3.054 | 1 | 89 1 54.3 | 10.91 | 1 | pF; S; E 90°±; gbM; r ... | 3 |
| 4146 | ..... | III. 313 | ..... | 15 47 35.7 | -0.483 | 2 | 17 24 55.8 | 10.96 | 2 | vF; S; E 90°±; vS * f | 2 |
| 4147 | ..... | II. 657 | ..... | 15 47 49.1 | +2.772 | 1 | 74 59 59.1 | 10.87 | 1 | F; bet 2 B st | 1 |
| 4148 | 1940 | ..... | ..... | 15 49 3.7 | 2.948 | 1 | 83 39 30.4 | 10.78 | 1 | pB; pL; E | 1 |
| 4149 | ..... | III. 739 | ..... | 15 49 24.0 | 0.892 | 1 | 27 15 50.0 | 10.80 | 1 | vF; pL; R; vgbM | 1 |
| 4150 | 1941 | ..... | ..... | 15 50 19.6 | 2.946 | 2 | 83 35 40.4 | 10.68 | 2 | !; vF; vS; R; g, smbM | 2 |
| 4151 | 1942 | III. 646 | ..... | 15 51 5.5 | 2.742 | 1 | 73 42 40.9 | 10.63 | 1 | vF; S; iE; p of 2 | 2 |
| 4152 | 1943 | III. 73 | ..... | 15 51 8.4 | 2.741 | 1 | 73 37 40.9 | 10.63 | 1 | eF; vS; iE; f of 2 | 3 |
| 4153 | 3516 | ..... | Δ. 304 | 15 51 50.9 | 5.056 | 4 | 150 6 0.6 | 10.52 | 4 | Cl; B; vL; pRi; iC; st 7... 4 | 4 |
| 4154 | 3617 | ..... | ..... | 15 52 18.5 | 3.846 | 1 | 124 8 38.0 | 10.50 | 1 | F; S; R; gpmbM; Δ of st np | 1 |
| 4155 | 3618 | ..... | Δ. 359 | 15 56 43.3 | 4.641 | 1 | 143 38 28.8 | 10.16 | 1 | Cl; S; mC; st 11...14 | 1 |
| 4156 | 1944 | III. 622 | ..... | 15 57 35.3 | 2.182 | 2 | 52 15 33.5 | 10.15 | 2 | vF; S; R; * 10 sf | 4 |
| 4157 | ..... | III. 33 | ..... | 15 58 43.2 | +2.658 | 1 | 70 16 11.9 | 10.14 | 1 | eF; (?) | 1 |
| 4158 | ..... | II. 873 | ..... | 15 58 43.5 | -0.284 | 1 | 18 55 6.9 | 10.13 | 1 | F; R; bM | 1 |
| 4159 | 1945 | ..... | ..... | 15 58 49.9 | +2.901 | 1 | 81 31 23.2 | 10.04 | 1 | * 7 in photosphere | 1 |
| 4160 | 1946 | III. 637 | ..... | 15 59 36.9 | 2.065 | 2 | 48 55 52.0 | 10.00 | 2 | pF; vS; R; stellar | 3+ |
| 4161 | ..... | III. 140 | ..... | 16 0 51.0 | 2.629 | 1 | 69 4 1.0 | 9.90 | 1 | vF; vS; r; pB * sf | 1 |
| 4162 | 3619 | ..... | Δ. 360 | 16 2 19.2 | +4.675 | 2 | 143 50 42.2 | 9.74 | 3 | Cl; vB; vL; vRi; iC; st 10... 3 | 3 |
| 4163 | ..... | III. 973 | ..... | 16 2 40.3 | -3.081 | 1 | 10 38 44.0 | 9.90 | 1 | vF; vS; iE 0°; r | 1 |
| 4164 | 1947 | III. 553 | ..... | 16 2 48.9 | +3.051 | 1 | 88 55 4.2 | 9.74 | 1 | F; L; pmE; vgbM; r..... | 2 |
| 4165 | ..... | III. 883 | ..... | 16 3 32.5 | -0.266 | 1 | 19 13 44.8 | 9.76 | 1 | eF; vS | 1 |
| 4166 | 3620 | ..... | ..... | 16 3 44.7 | +3.922 | 1 | 125 52 42.5 | 9.65 | 1 | pF; R; vglbM; r | 1 |
| 4167 | 1948 | III. 74 | ..... | 16 4 5.4 | +2.713 | 1: | 72 55 51.5 | 9.65 | 1 | vF; S; r | 2* |
| 4168 | ..... | III. 884 | ..... | 16 5 50.0 | -0.147 | 1 | 19 59 34.4 | 9.58 | 1 | vF; vS | 1 |
| 4169 | 3621 | ..... | ..... | 16 6 33.5 | +3.866 | 1 | 123 53 2.9 | 9.43 | 1 | eF; S; E; lbM | 1 |
| 4170 | 3622 | ..... | Δ. 326 | 16 7 16.0 | 4.936 | 2 | 147 32 42.5 | 9.35 | 2 | Cl; B; L; iC; st 7...10 ... | 2 |
| 4171 | ..... | III. 812 | ..... | 16 7 18.1 | 1.199 | 1 | 32 8 30.2 | 9.44 | 1 | vF; vS; iE | 1 |
| 4172 | 1949 | III. 889 | ..... | 16 7 18.4 | 2.293 | 1 | 56 35 35.9 | 9.33 | 1 | vF; S; R; bM | 2 |
| 417 | 3624 | ..... | M. 80 | 16 8 41.9 | +3.567 | 2 | 112 37 34.1 | 9.27 | 2 | III; ⊕; vB; L; vmbM (var *); rrr; st 14. | 2* |
| 4174 | ..... | III. 314 | ..... | 16 8 49.3 | -0.740 | 2 | 17 10 21.4 | 9.38 | 2 | vF; vS; iE | 2 |
| 4175 | 3623 | ..... | Δ. 68 | 16 9 54.3 | +6.720 | 3 | 161 51 51.0 | + 9.10 | 3 | ⊕; pF; L; iR; vgbM; rrr; st 14... | 3 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 4176 | 1950 | III. 888 | ..... | 16 10 18.4 | +2.222 | 2 | 57° 41' 3.1 | +9.17 | 2 | vF; S; R; vglbM | 3 |
| 4177 | 1951 | III. 688 | ..... | 16 11 21.9 | 2.206 | 2 | 53 56 19.0 | 9.10 | 2 | vF; S; iR | 3 |
| 4178 | 1952 | II. 151 | ..... | 16 11 58.8 | 2.911 | 1 | 82 15 5.9 | 9.03 | 1 | F; pL; iE; vgbM; r | 2 |
| 4179 | 3625 | ..... | ..... | 16 13 42.5 | 4.589 | 1 | 141 36 46.8 | 8.86 | 1 | Cl; eL; eRi..... | 1 |
| 4180 | 1953 | II. 402 | ..... | 16 14 31.8 | 3.114 | 1 | 91 56 56.9 | 8.83 | 1 | vF; cL; cE 45° ±; r | 2 |
| 4181 | 1954 | ..... | ..... | 16 14 43.9 | 2.132 | 1 | 51 52 57.9 | 8.83 | 1 | vF; eS; R | 1 |
| 4182 | 1955 | III. 623 | ..... | 16 14 50.5 | 2.133 | 2 | 51 54 7.9 | 8.83 | 2 | vF; vS; R; * nf..... | 4 |
| 4183 | ..... | ..... { | M. 4= | 16 15 3.6 | 3.665 | ... | 116 11 11.1 | 8.77 | ... | { Cl; 8 or 10 L st in line, } | 4 |
| | | { | B.A.C.5455 } | | | | | | | with 5 st; rrr. | |
| 4184 | 3626 | ..... | Δ. 514 | 16 16 1.3 | 4.097 | 1 | 130 20 6.7 | 8.69 | 1 | Cl; B; L; pRi; lCM; st 9...11 | 2 |
| 4185 | ..... | II. 810 | ..... | 16 16 4.4 | 1.154 | 1 | 32 2 48.5 | 8.75 | 1 | pF; pS; iE | 1 |
| 4186 | ..... | III. 891 | ..... | 16 16 46.1 | 2.121 | 1 | 51 40 47.1 | 8.67 | 1 | eF; vS; R; lbM | 1 |
| 4187 | 3627 | ..... | Δ. 412 | 16 17 20.5 | 4.456 | 2 | 138 49 29.1 | 8.57 | 2 | Cl; cL; pRi; lCM; st 13...15 | 2 |
| 4188 | 1956 | III. 624 | ..... | 16 18 3.7 | 2.121 | 2 | 51 44 50.1 | 8.57 | 2 | F; S; iR; bM | 4 |
| 4189 | 3628 | ..... | Δ. 536 | 16 18 14.8 | 4.037 | 3 | 128 30 59.3 | 8.51 | 4 | B; pL; R; psbM; rr | 4 |
| 4190 | ..... | III. 740 | ..... | 16 18 19.3 | 0.401 | 1 | 24 17 36.7 | 8.59 | 1 | eF; pL; iR | 1 |
| 4191 | ..... | III. 892 | ..... | 16 18 23.5 | 2.144 | 1 | 52 26 49.2 | 8.54 | 1 | eF; S; bM | 1 |
| 4192 | ..... | II. 811 | ..... | 16 18 42.4 | 1.320 | 1 | 34 34 35.2 | 8.54 | 1 | pB; iR; vgvbM..... | 1 |
| 4193 | 3629 | VI. 10 | ..... | 16 18 43.0 | 3.657 | 1 | 115 43 5.4 | 8.48 | 1 | Cl; cL; mC; gbM; rrr | 2 |
| 4194 | 1957 | ..... | ..... | 16 20 20.8 | 2.009 | 1 | 48 44 41.0 | 8.40 | 1 | F; R; bM | 1 |
| 4195 | 1958 | III. 638 | ..... | 16 20 27.2 | 2.010 | 2 | 48 47 10.4 | 8.38 | 2 | cF; vS; R; bM | 3 |
| 4196 | 1958, a | ..... | R. 2 novæ | 16 20 ± | 2.010 | ... | 48 47 ± | 8.38 | ... | 2 novæ, one eF; one S | 0 |
| 4197 |  | ..... | ..... |  |  |  |  |  |  |  |  |
| 4198 | 1959 | III. 639 | ..... | 16 21 10.4 | 2.025 | 1 | 49 13 2.9 | 8.33 | 1 | vF; vS; R | 2 |
| 4199 | 3630 | ..... | ..... | 16 21 41.1 | 7.067 | 1 | 162 57 2.8 | 8.16 | 1 | vF; vS; * 9 nr | 1 |
| 4200 | 3631 | ..... | ..... | 16 21 49.9 | 4.654 | 1 | 142 18 59.3 | 8.21 | 1 | Cl; L; iC; st L | 1 |
| 4201 | ..... | III. 680 | ..... | 16 22 6.9 | 1.623 | 2 | 39 48 49.8 | 8.26 | 2 | vF; S; R; lbM; er | 2 |
| 4202 | ..... | II. 690 | ..... | 16 22 34.5 | 1.687 | 2 | 41 17 48.6 | 8.22 | 2 | F; pS; iF; gbM | 2 |
| 4203 | 3632 | ..... | ..... | 16 22 36.1 | 5.219 | 2 | 150 18 1.9 | 8.13 | 2 | pF; pL; vIE; gbM..... | 2 |
| 4204 | 1960 | II. 652 | ..... | 16 23 0.8 | 2.004 | 2 | 48 45 15.4 | 8.18 | 2 | cF; pL; R; gbM; r | 3 |
| 4205 | ..... | II. 647 | ..... | 16 23 2.7 | 2.057 | 2 | 50 13 17.4 | 8.18 | 2 | F; S; iF | 2 |
| 4206 | 3633 | ..... | ..... | 16 23 22.7 | 4.423 | 1:: | 137 48 2.7 | 8.09 | 1:: | eF; (?); * f nr | 1 |
| 4207 | 3634 | ..... | ..... | 16 23 39.8 | 4.426 | 1 | 137 51 20.8 | 8.06 | 1 | F; cS; iE; vglbM; * p | 1 |
| 4208 | 1961 | II. 875 | ..... | 16 23 50.4 | 2.053 | 1 | 50 8 9.6 | 8.12 | 1 | pF; S; vIE; vgbmM | 2 |
| 4209 | 3635 | ..... | Δ. 400 | 16 23 50.9 | 4.506 | 1 | 139 27 48.5 | 8.05 | 1 | Cl; L; iC; iF | 1 |
| 4210 | 3636 | ..... | ..... | 16 24 7.3 | 4.246 | 1 | 133 44 18.2 | 8.04 | 1 | Cl; μ <i>Normæ</i> inv | 1 |
| 4211 | 3637 | VI. 40 | Mechain | 16 24 43.0 | 3.350 | 1 | 102 44 17.3 | 8.01 | 1 | ⊕; L; vRi; vmC; R; rrr ... | 2 |
| 4212 | 1962 | III. 640 | ..... | 16 24 58.0 | 2.004 | 1 | 48 52 16.6 | 8.02 | 2 | eF; vS; R; bM | 3 |
| 4213 | 1962, a | ..... | R. nova | 16 25 ± | 2.004 | ... | 48 52 ± | 8.02 | ... | No description; near h.1962 | 0 |
| 4214 | 1963 | III. 641 | ..... | 16 25 18.7 | 2.010 | 1 | 49 3 57.0 | 8.00 | 1 | vF; vS; R | 3 |
| 4215 | 1964 | III. 890 | ..... | 16 25 34.0 | 2.203 | 1 | 54 38 1.1 | 7.97 | 2 | vF; pL; iE; rr; * nr | 3 |
| 4216 | 3638 | ..... | ..... | 16 25 36.3 | 4.316 | 2 | 135 19 19.6 | 7.92 | 2 | Cl; B; S; st pL | 2 |
| 4217 | 1964, a | ..... | R. nova | 16 25 47.9 | 2.203 | ... | 54 35 11.1 | 7.91 | ... | No description; 4' nf 1964... | 0 |
| 4218 | ..... | II. 753 | ..... | 16 26 37.0 | 2.624 | 2 | 69 55 19.4 | 7.88 | 3 | pB; pL; vIE; pgmbM | 2 |
| 4219 | ..... | III. 813 | ..... | 16 26 50.0 | 1.264 | 1 | 34 9 56.7 | 7.89 | 1 | vF; vS; iR | 1 |
| 4220 | 3639 | ..... | ..... | 16 26 50.4 | 6.305 | 1 | 159 4 52.8 | 7.76 | 1 | vF; eS; R; gbM..... | 1 |
| 4221 | 1965 | ..... | ..... | 16 28 15.0 | 2.190 | 1 | 54 21 40.8 | 7.76 | 1 | F; S; R; gbM; * 11 np..... | 1 |
| 4222 | ..... | III. 730 | ..... | 16 28 18.6 | 2.579 | 1 | 68 9 52.2 | 7.74 | 1 | eF; vS; E | 1 |
| 4223 | 3640 | ..... | ..... | 16 29 14.5 | 4.483 | 1:: | 138 43 48.6 | 7.62 | 1:: | !; F; vL; vIE; B * inv | 1 |
| 4224 | 3641 | ..... | Δ. 483 | 16 30 29.3 | 4.233 | 2 | 133 5 18.9 | 7.53 | 2 | Cl; cL; pRi; iR; st 11...14.. | 2+ |
| 4225 | 3642 | ..... | Δ. 413 | 16 30 52.1 | 4.475 | 1 | 138 29 3.7 | 7.49 | 1 | Cl; vL; iRi; iC; rrr; F neb inv. | 1 |
| 4226 | 1966 | III. 893 | ..... | 16 31 43.6 | 2.058 | 2 | 50 41 28.4 | 7.48 | 2 | vF; S; R; gbM; bet 2 st ... | 4 |
| 4227 | 1967 | ..... | ..... | 16 32 19.0 | 2.155 | 1 | 53 31 20.9 | 7.43 | 1 | vF; vS; sbM * 12 | 1 |
| 4228 | 3643 | ..... | ..... | 16 33 50.3 | 4.420 | 1 | 137 11 50.2 | 7.24 | 1 | Cl; (in M. Way)..... | 1 |
| 4229 | 3644 | ..... | Δ. 442 | 16 36 6.6 | 4.404 | 2 | 136 45 36.8 | 7.06 | 2 | Cl; pRi; eiCM; st 11...12... | 2+ |
| 4230 | 1968 | ..... | M. 13, Halley | 16 36 41.2 | 2.140 | 3 | 53 16 19.4 | 7.08 | 3 | !!; ⊕; eB; vRi; vgeCM; st 11...20. | 14+ |
| 4231 | 1969 | II. 701 | ..... | 16 38 12.4 | 2.125 | (1) | 52 54 7.5 | 6.95 | 1 | pB; pL; E 45° ±; vgbmM... | 2 |
| 4232 | 3646 | | Δ. 364 | 16 38 18.4 | 4.776 | 3 | 143 33 29.1 | 6.87 | 3 | Cl; L; Ri; iCM; st 9...12 ... | 2 |
| 4233 | 3645 | | | 16 38 23.8 | +7.032 | 1 | 162 20 32.0 | +6.80 | 1 | vF; pL; vgvbM | 2 |

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|-------------------|------------------------------------|------------------------------|--------------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 4234 | 1970 | ..... | { Σ.5= Lal. 30510} | 16 38 36.0 | +2.513 | 1 | 65 56 10.0 | +6.90 | 1 | { O; vB; vS; R; disc and border. | 1†* |
| 4235 | 3647 | ..... | ..... | 16 39 3.5 | +5.147 | 1 | 148 44 47.7 | 6.79 | 1 | pF; R; vglbM; *5 p 79s ... | 1 |
| 4236 | ..... | I. 280 | ..... | 16 39 16.1 | -3.036 | 3 | 11 33 21.3 | 7.01 | 3 | B; cL; lE; slbM | 3 |
| 4237 | 3648 | ..... | Δ. 454 | 16 39 19.8 | +4.308 | 3 | 134 28 15.7 | 6.79 | 3 | Cl; pS; pRi; pC; st 12...15.. | 3 |
| 4238 | 1971 | ..... | M. 12 | 16 39 58.1 | 3.110 | 1 | 91 41 47.4 | 6.78 | 2 | !!; ⊕; vB; vL; iR; gmbM; rrr; st 10... | 7 |
| 4239 | 3649 | ..... | ..... | 16 40 39.6 | 5.171 | 2 | 148 58 2.1 | 6.67 | 2 | ⊕; pB; cL; R; glbM; rr ... | 3 |
| 4240 | 3650 | ..... | Δ. 456? | 16 40 41.4 | 4.311 | 1 | 134 28 33.4 | 6.68 | 1 | Cl; vL; vRi; lbM; st 12...13 | 1 |
| 4241 | ..... | ..... | D'Arrest, 101 | 16 41 24 | 0.72 | [2] | 28 9 18 | 6.72 | [2] | F; S; R; mbM | 0 |
| 4242 | ..... | ..... | D'Arrest, 102 | 16 41 47 | 0.68 | ... | 27 46 0 | 6.69 | ... | F; S; makes Δ with 2 S st 12 and 14 m. | 0 |
| 4243 | 3651 | ..... | ..... | 16 41 51.9 | 4.170 | 1 | 130 58 41.7 | 6.59 | 1 | Cl; eL; eRi (in M. Way) ... | 1 |
| 4244 | ..... | IV. 50 | ..... | 16 43 6.4 | 1.678 | 1 | 42 8 38.8 | 6.56 | 1 | vB; L; R; Disc + F, r, border | 1 |
| 4245 | 3652 | ..... | Δ. 499 | 16 44 14.5 | 4.197 | 1 | 131 33 37.7 | 6.39 | 1 | Cl; B; cL; pRi; st 10...13 .. | 1 |
| 4246 | 3653 | II. 584 | ..... | 16 45 1.0 | 3.584 | 1 | 111 55 47.5 | 6.35 | 1 | pB; cL; iR; rrr; st 14...16 .. | 2 |
| 4247 | ..... | III. 727 | ..... | 16 45 54.8 | 1.932 | 1 | 48 1 25.6 | 6.32 | 1 | eF; S; E90° | 1* |
| 4248 | ..... | III. 735 | ..... | 16 46 0.4 | 1.775 | 1 | 44 20 25.3 | 6.31 | 1 | eF; pS | 1 |
| 4249 | 3654 | ..... | Δ. 520 | 16 46 3.5 | 4.112 | 2 | 129 16 12.2 | 6.24 | 2 | Cl; B; L; Ri; st 8...11 | 3 |
| 4250 | ..... | ..... | D'Arrest, 103 | 16 47 1 | 0.56 | ... | 26 47 5 | 6.26 | ... | F; pS; irr | 0 |
| 4251 | 3655 | ..... | ..... | 16 47 33.9 | 4.327 | 2 | 134 33 17.6 | 6.12 | 2 | Cl; pRi; vLC; iF; st L & S... | 2 |
| 4252 | 3656 | ..... | ..... | 16 47 40.8 | +4.378 | 2 | 135 42 21.0 | 6.10 | 2 | Cl; L; lRi; lC; st 8...12 | 2 |
| 4253 | ..... | III. 974 | ..... | 16 47 55.2 | -6.988 | 1 | 7 9 0.3 | 6.41 | 1 | eF; S; bM; p of 2 | 1 |
| 4254 | ..... | III. 975 | ..... | 16 47 58.3 | -7.058 | 1 | 7 5 59.7 | 6.39 | 1 | vF; S; f of 2 | 1 |
| 4255 | 3657 | ..... | Δ. 374? | 16 48 3.0 | +4.734 | 1 | 142 28 51.8 | 6.06 | 1 | Cl; S; Δ ar; st 13 | 1 |
| 4256 | { 1972 = 3659} | ..... | M. 10 | 16 49 47.6 | 3.159 | 3 | 93 52 6.8 | 5.96 | 3 | !; ⊕; B; vL; R; gvmbM; rrr; st 10...15. | 7 |
| 4257 | 1973 | III. 689 | ..... | 16 49 47.6 | 2.121 | 1 | 53 16 46.7 | 5.99 | 1 | eF; cL; E90° | 2 |
| 4258 | 3658 | ..... | ..... | 16 50 8.6 | 4.032 | 2 | 126 53 32.3 | 5.91 | 2 | ⊕; vF; vL; iR; vgbM; rrr; st 20. | 2 |
| 4259 | 1974 | ..... | ..... | 16 50 11.5 | 2.008 | 1 | 50 9 37.8 | 5.96 | 1 | vF(?) | 1* |
| 4260 | 3660 | ..... | Δ. 456 | 16 50 37.1 | 4.326 | 3 | 134 26 53.8 | 5.86 | 3 | !; Cl; B; vL; vRi; st 11... | 2 |
| 4261 | 3661 | ..... | { = Δ. 627} | 16 52 18.7 | 3.810 | 5 | 119 53 42.9 | 5.73 | 5 | !; ⊕; vB; L; gmbM; rrr; st 14...16. | 5† |
| 4262 | ..... | III. 123 | ..... | 16 52 22.2 | 2.523 | 1 | 66 46 53.8 | 5.76 | 1 | vF; pL; R; lbM | 1 |
| 4263 | 3662 | ..... | Δ. 521 | 16 52 26.0 | 4.130 | 2 | 129 30 46.3 | 5.71 | 2 | Cl; B; pL; cRi; st 10 | 2 |
| 4264 | { 1975 = 3663} | ..... | M. 19 | 16 53 59.2 | 3.701 | 3 | 116 3 13.0 | 5.60 | 2 | ⊕; vB; L; R; vCM; rrr; st 16... red. | 7 |
| 4265 | 3664 | ..... | Δ. 556 | 16 55 16.3 | 4.067 | 1 | 127 40 56.4 | 5.48 | 1 | Cl; L; pRi; lC; st 9...11 ... | 1 |
| 4266 | ..... | III. 124 | ..... | 16 55 22.1 | 2.521 | 1 | 66 46 39.3 | 5.51 | 1 | vF; stellar | 1 |
| 4267 | ..... | III. 728 | ..... | 16 55 52.8 | 1.534 | 1 | 39 51 36.0 | 5.50 | 1 | vF; cS; iR | 1 |
| 4268 | { 1976 = 3665} | VI. 11 | ..... | 16 55 55.3 | 3.661 | 2 | 114 33 37.9 | 5.43 | 2 | ⊕; B; L; R; gCM; rrr; st 16. | 3 |
| 4269 | 3666 | II. 195 | ..... | 16 56 43.5 | 3.606 | 1 | 112 30 9.8 | 5.36 | 1 | ⊕; cB; L; R; gpmCM; rrr; st 16. | 3 |
| 4270 | { 1977 = 3667} | VI. 12 | ..... | 17 1 28.2 | 3.716 | 2 | 116 23 13.1 | 4.97 | 2 | ⊕; vB; L; R; psbM; rrr; st 16; F neb f. | 4 |
| 4271 | 1978 | ..... | ..... | 17 1 34.2 | 3.715 | 1 | 116 22 33.5 | 4.95 | 1 | F; S; vgbM; ⊕ p | 1 |
| 4272 | ..... | ..... | D'Arrest, 104 | 17 3 40 | 0.57 | [1] | 27 21 54 | 4.86 | [1] | vF; vS; R | 0 |
| 4273 | 3668 | ..... | ..... | 17 3 51.8 | 5.588 | 2 | 152 39 3.3 | 4.71 | 2 | F; vL; vIE; am st; 2 st inv... | 2 |
| 4274 | ..... | IV. 57 | ..... | 17 4 10.8 | 1.883 | 2 | 47 29 24.4 | 4.78 | 2 | F; stellar | 2 |
| 4275 | 3670 | I. 147 | ..... | 17 5 40.2 | 3.803 | 2 | 119 17 18.0 | 4.60 | 2 | ⊕; cB; cL; R; s, vglbM; rrr; st 16...17. | 3 |
| 4276 | 3669 | ..... | ..... | 17 5 46.4 | 5.242 | 1 | 149 0 21.5 | 4.55 | 1 | vF; vS; R; glbM | 1 |
| 4277 | | | D'Arrest, 105 | 17 6 3 | 0.73 | [1] | 29 3 54 | 4.59 | [1] | pF; vS; R; *13 nr | 0 |
| 4278 | | | D'Arrest, 106 | 17 6 15 | +0.71 | [1] | 28 49 54 | +4.58 | [1] | F; pL; lE | 0 |

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| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| 4279 | h. 3671 | H. I. 45 | | h m s 17 7 49.0 | s +3.765 | 2 | 117° 58' 27".9 | +4.43 | 2 | ⊕; cB; pS; R; gvmbM; rrr; st 16...17. | 4 |
| 4280 | 3672 | ..... | Δ. 522 | 17 8 4.2 | 4.140 | 1:: | 129 17 11.4 | 4.38 | 1:: | Cl; pL; Ri; R; gbM; st 12...14. | 1 |
| 4281 | 3673 | ..... | ..... | 17 8 45.0 | +4.279 | 2 | 132 43 29.9 | 4.33 | 2 | Cl; vL; pRi; IC (* nf taken) | 2 |
| 4282 | ..... | III. 945 | ..... | 17 9 14.5 | -2.000 | 1 | 14 23 21.1 | 4.47 | 1 | vF; S; E; S * s | 1 |
| 4283 | 3676 | ..... | ..... | 17 9 30.9 | +3.643 | 1 | 113 35 51.4 | 4.28 | 1 | pF; L; R; rr | 1 |
| 4284 | 3675 | ..... | ..... | 17 9 41.0 | 4.722 | 2 | 141 35 30.9 | 4.23 | 2 | !!!; O; pB; vS; R | 3+ |
| 4285 | 3674 | ..... | ..... | 17 9 57.7 | +5.861 | 2 | 154 51 25.4 | 4.18 | 2 | vF; vS; vLE; glbM | 2 |
| 4286 | ..... | III. 951 | ..... | 17 10 45.4 | -3.497 | ... | 11 12 41.4 | 4.38 | 1 | eF; S | 1 |
| 4287 | { 1979 = 3677 } | ..... | M. 9 | 17 10 57.6 | +3.507 | 2 | 108 22 59.8 | 4.16 | 2 | ⊕; B; L; R; eCM; rrr; st 14 | 6 |
| 4288 | 3678 | ..... | ..... | 17 11 31.9 | 4.021 | 2 | 125 54 52.0 | 4.10 | 2 | eF; vL; icE; vglbf; * 8 inv. | 2 |
| 4289 | 3679 | ..... | ..... | 17 11 35.8 | 3.828 | 1:: | 120 0 3.0 | 4.10 | 1:: | Diffused neb in patches | 1 |
| 4290 | 3680 | ..... | ..... | 17 12 40.1 | 4.109 | 3 | 128 20 0.0 | 4.00 | 3 | !!!; ⊙; eF; S; am St | 3+ |
| 4291 | ..... | II. 812 | ..... | 17 12 40.7 | +1.011 | 1 | 32 24 7.4 | 4.08 | 1 | F; S; R; vglbM | 1 |
| 4292 | 1980 | II. 767 | ..... | 17 12 44.1 | -1.062 | 1 | 17 32 6.2 | 4.14 | 1 | eF; pL; R; vgmbM | 2 |
| 4293 | ..... | I. 149 | ..... | 17 12 47.8 | +3.535 | 1 | 109 25 12.0 | 4.00 | 1 | cB; pS; lE; er | 1 |
| 4294 | ..... | ..... | M. 92 | 17 12 56.9 | 1.840 | ... | 46 43 31.2 | 4.04 | ... | ⊕; vB; vL; eCM; rrr; st S. | 8* |
| 4295 | 3681 | I. 46 | ..... | 17 15 16.2 | 3.719 | 1 | 116 12 43.4 | 3.78 | 1 | eF; L; R; gbM; rrr | 2 |
| 4296 | 3683 | I. 48 | ..... | 17 15 23.2 | 3.491 | 1 | 107 40 23.4 | 3.78 | 1 | ⊕; vB; cL; vgmbM; rrr; st 20. | 3 |
| 4297 | 3682 | ..... | ..... | 17 15 28.0 | 3.960 | 1 | 124 3 6.8 | 3.76 | 1 | F; L; E; vglbM; * inv | 1 |
| 4298 | ..... | ..... | D'Arrest, 107 | 17 16 23 | 0.61 | [1] | 28 4 54 | 3.77 | [1] | pB; S; R; bMN=*12 | 0 |
| 4299 | 3685 | ..... | ..... | 17 16 28.0 | 3.827 | 1 | 119 51 37.1 | 3.67 | 1 | Neb in patches (M. Way) | 1 |
| 4300 | 3684 | ..... | Δ. 225 | 17 17 23.3 | 6.165 | 2 | 156 55 47.9 | 3.53 | 2 | ⊕; cB; L; vgmbM; rrr; st 14...17. | 2 |
| 4301 | ..... | ..... | Auw. N. 36 | 17 20 19.2 | 3.184 | ... | 94 57 2.0 | 3.37 | ... | F; L; vlbM (Winnecke, April 12, 1860). | 0 |
| 4302 | { 1981 = 3686 } | IV. 11 | ..... | 17 20 50.4 | 3.650 | 2 | 113 37 47.3 | 3.21 | 3 | !!; ⊙; pB; S; R | 5*+ |
| 4303 | ..... | III. 137 | ..... | 17 22 2.6 | 2.412 | 1 | 63 25 22.2 | 3.24 | 1 | vF; pL; iF | 1 |
| 4304 | 3687 | ..... | ..... | 17 22 58.1 | 3.913 | 1 | 122 28 48.3 | 3.11 | 1 | Cl; S; P; B * inv | 1 |
| 4305 | 3688 | ..... | ..... | 17 24 47.4 | 4.142 | 1 | 128 58 1.5 | 2.95 | 1 | eF; pS; lE; * 9 att | 2+ |
| 4306 | 3689 | ..... | ..... | 17 25 34.1 | 3.915 | 3 | 122 28 38.7 | 2.89 | 3 | Cl; st 6-7, 13 | 2 |
| 4307 | 3690 | ..... | Δ. 457 | 17 26 3.2 | 4.380 | 2 | 134 38 32.2 | 2.84 | 2 | ⊕; vB; L; R; pg, psvmbM; rrr; st 17... | 2 |
| 4308 | ..... | II. 901 | ..... | 17 26 3.6 | 2.680 | 1 | 73 29 2.4 | 2.88 | 1 | F; S; iF; er | 1 |
| 4309 | 3691 | ..... | ..... | 17 27 57.9 | 6.657 | 2 | 159 41 19.0 | 2.60 | 2 | cF; S; R; glbM; * 13 sp | 2 |
| 4310 | 3693 | ..... | ..... | 17 28 51.0 | 3.998 | 1 | 124 54 49.0 | 2.60 | 1 | Cl; pL; lRi; IC | 1 |
| 4311 | 3692 | ..... | Δ. 366 | 17 29 17.3 | 4.871 | 2 | 143 35 5.2 | 2.54 | 2 | ⊕; B; vL; Ri; st 13 | 3 |
| 4312 | 3694 | ..... | ..... | 17 29 48.6 | 5.527 | 1 | 151 36 5.1 | 2.47 | 1 | eF; S; R; p of 2 | 1 |
| 4313 | 3696 | ..... | Δ. 568 | 17 30 1.9 | 4.067 | 1 | 126 51 8.0 | 2.50 | 1 | Cl; pL; pRi; iR; st 9...10... | 1 |
| 4314 | { 1982 = 3697 } | I. 44 | ..... | 17 30 6.9 | 3.658 | 4 | 113 48 55.0 | 2.50 | 4 | pB; pL; R; * 12 f inv | 6 |
| 4315 | { 1983 = 3698 } | ..... | M. 14 | 17 30 16.0 | 3.146 | 2 | 93 9 25.0 | 2.50 | 2 | !; ⊕; B; vL; R; eRi; vgmbM; rrr; st 15...16. | 7 |
| 4316 | 3695 | ..... | ..... | 17 30 18.8 | 5.528 | 1:: | 151 36 3.9 | 2.43 | 1 | eeF; f of 2 | 1 |
| 4317 | 4020 | h. o. n. | ..... | 17 30 26.3 | 3.939 | 1 | 123 9 16.8 | 2.46 | 1 | Cl; F; L; pRi; IC; st 13...15 | 1 |
| 4318 | 3699 | ..... | M. 6 | 17 30 55.8 | 3.905 | 1 | 122 7 4.9 | 2.43 | 1 | Cl; L; iR; IC; st 7, 10... | 4 |
| 4319 | 3700 | ..... | ..... | 17 32 15.0 | 5.436 | 1 | 150 39 39.1 | 2.27 | 1 | eF; S; R; 3 st nr | 2 |
| 4320 | ..... | ..... | D'Arrest, 108 | 17 33 56 | +0.69 | [2] | 29 6 12 | 2.26 | [2] | vS; gbM | 0 |
| 4321 | ..... | VI. 41 | ..... | 17 34 7.6 | -2.177 | 1 | 14 11 11.9 | 2.33 | 1 | ⊕; cL; R; vgbM; rr | 1 |
| 4322 | 3701' | ..... | ..... | 17 35 0.1 | +4.002 | 1:: | 124 56 32.1 | 2.07 | 1 | Nebulous portion of M. Way | 1 |
| 4323 | 3702' | ..... | Δ. 612 | 17 35 9.3 | 3.912 | 2 | 122 17 0.5 | 2.05 | 2 | Cl; vL; Ri; IC | 2 |
| 4324 | 3702' | | | 17 36 30.1 | 3.957 | 1 | 123 37 33.2 | 1.94 | 1 | Cl; vL; pRi; st 8...12 | 1 |
| 4325 | | II. 587 | | 17 37 53.6 | +2.997 | 1 | 86 44 25.5 | +1.85 | 1 | F; cL; iF | 1 |

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| | h. | H. | | h m s | s | | | | | | |
| 4326 | 3703 | | | 17 37 56.4 | +3.887 | 1 | 121° 27' 58.6 | +1.82 | 1 | Cl; pS; lRi; IC; st 10...12 .. | 1 |
| 4327 | 1984 | | | 17 38 46.0 | +3.689 | 1 | 114 49 51.5 | 1.75 | 1 | Cl; st vS | 1 |
| 4328 | 1987 | III. 741 | ..... | 17 39 11.8 | -1.069 | 1 | 17 49 22.7 | 1.69 | 1 | vF; vS; R; stellar; *8 s..... | 2 |
| 4329 | 3704 | ..... | ..... | 17 39 39.5 | +4.019 | 1:: | 125 22 49.8 | 1.66 | 1:: | Cl; F; eL; vS st+neb | 1 |
| 4330 | 3701 | ..... | ..... | 17 39 43.4 | 19.744 | 1 | 175 24 24.0 | 1.20 | 1 | pB; R; vgbM..... | 1 |
| 4331 | 1985 | I. 150 | ..... | 17 40 32.5 | 3.565 | 1 | 110 18 21.0 | 1.60 | 1 | pB; pL; R; pM | 3 |
| 4332 | 3705 | ..... | Δ. 557 | 17 40 41.6 | 4.077 | 2 | 127 0 0.1 | 1.57 | 2 | ⊕; vB; pL; R; vgmbM; rrr; st 18...20. | 2 |
| 4333 | 1986 | II. 586 | ..... | 17 40 54.7 | 3.557 | 2 | 109 58 3.8 | 1.56 | 2 | pB; pS; R; gbM; r; *15 np | 3 |
| 4334 | 3706 | ..... | Δ. 597? | 17 40 55.0 | 3.999 | 1:: | 124 48 46.5 | 1.55 | 1:: | Cl; vL; vRi; st 12...13 | 1 |
| 4335 | 3707 | VI. 13 | ..... | 17 41 40.5 | 3.847 | 2 | 120 10 12.7 | 1.49 | 2 | Cl; pL; pRi; bifid; st 12... | 3+ |
| 4336 | 3708 | ..... | ..... | 17 41 59.7 | 3.991 | 1:: | 124 34 43.8 | 1.46 | 1:: | eL; iR; pmbM; r | 1 |
| 4337 | 3709 | ..... | ..... | 17 42 37.5 | 4.018 | 1:: | 125 20 42.0 | 1.40 | 1:: | Cl; rr; st eS+neb | 1 |
| 4338 | 1988 | ..... | ..... | 17 44 16.8 | 3.705 | 1 | 115 21 32.1 | 1.27 | 1 | eF; S; (?) | 1 |
| 4339 | 3711 | ..... | ..... | 17 44 29.7 | 3.620 | 1 | 112 18 23.5 | 1.25 | 1 | Cl; pRi (in M. Way)..... | 1 |
| 4340 | 3710 | ..... | M. 7 (Lacaille) | 17 44 39.6 | 3.999 | 1 | 124 46 37.9 | 1.23 | 1 | Cl; vB; pRi; IC; st 7...12 ... | 3 |
| 4341 | 3712 | ..... | ..... | 17 44 54.5 | 3.815 | 1:: | 119 5 36.3 | 1.21 | 1:: | Neb or nebulous patch of M. Way. | 1 |
| 4342 | 3713' | ..... | ..... | 17 45 36.6 | 3.855 | 1 | 120 23 56.5 | 1.15 | 1 | Neb or nebulous patch of M. Way. | 1+ |
| 4343 | 1989 | ..... | ..... | 17 45 57.6 | 2.502 | 1 | 66 53 15.5 | 1.15 | 1 | !; vF; S; R; vsvmbMvSRN. | 1+ |
| 4344 | 3713 | ..... | ..... | 17 46 1.3 | 5.767 | 1 | 153 38 2.5 | 1.05 | 1 | F; S; E; bM; bet 2 st 10 ... | 1 |
| 4345 | 3714 | ..... | ..... | 17 48 31.2 | 6.132 | 1 | 156 24 42.9 | 0.83 | 1 | pF; S; pmE 90°; *12 f, att... | 1 |
| 4346 | 1990 | ..... | M. 23 | 17 48 40.9 | 3.532 | 3 | 108 59 43.7 | 0.89 | 3 | Cl; B; vL; pRi; IC; st 9.10, 11...13. | 6 |
| 4347 | 3715 | ..... | Δ. 460? | 17 48 51.4 | 4.372 | 2 | 134 13 52.2 | 0.84 | 2 | Neb + Cl; pL; mE; gvlbM... | 2 |
| 4348 | ..... | III. 957 | ..... | 17 49 25.1 | 2.631 | 1 | 71 42 59.5 | 0.85 | 1 | vF; vS; p of 2 | 1 |
| 4349 | ..... | III. 958 | ..... | 17 49 31.1 | 2.629 | 1 | 71 38 58.5 | 0.85 | 1 | vF; vS; f of 2 | 1 |
| 4350 | 3716 | ..... | ..... | 17 50 20.0 | +5.991 | 2 | 155 23 58.1 | 0.67 | 2 | vF; vS; f * of * inv | 2 |
| 4351 | ..... | ..... | Auw. N. 37 | 17 50 54.1 | -0.638 | ... | 19 49 12.3 | 0.81 | ... | pF; L; mE (Auwers, July 22, 1854). | 0 |
| 4352 | 3717 | ..... | ..... | 17 51 10.6 | +3.685 | 1 | 114 38 24.1 | 0.67 | 1 | Cl; Ri; eL; vLc | 1 |
| 4353 | ..... | VIII. 53 | ..... | 17 51 30.0 | 3.491 | 1 | 107 23 18.2 | 0.64 | 1 | Cl; pS; lRi; IC | 1 |
| 4354 | ..... | ..... | D'Arrest, 109 | 17 53 43 | 0.49 | [2] | 27 20 24 | 0.53 | [2] | vF; R; 1st of 3 | 0 |
| 4355 | { 1991 = 3718 } | { IV. 41 V. 10, 11, 12 } | M. 20 | 17 53 51.8 | 3.640 | 3 | 113 1 39.9 | 0.43 | 3 | !!!; vB; vL; trifid; * inv ... | 8 Mon.† |
| 4356 | ..... | ..... | D'Arrest, 110 | 17 54 9 | 0.48 | [2] | 27 18 30 | 0.50 | [2] | vF; vS; 2nd of 3 | 0 |
| 4357 | 3719 | II. 199 | ..... | 17 54 13.9 | 3.282 | 2 | 98 56 37.3 | 0.41 | 2 | pB; pL; R; rr..... | 3 |
| 4358 | 3721 | VII. 7 | ..... | 17 54 36.4 | 3.779 | 1 | 117 53 32.8 | 0.36 | 1 | Cl; pS; Ri; IC; st 9...13 ... | 3 |
| 4359 | 3720 | I. 49 | ..... | 17 54 37.2 | 3.845 | 2 | 120 1 29.8 | 0.36 | 2 | ⊕; pL; R; gymbM; rrr; st 16...17. | 3 |
| 4360 | ..... | ..... | D'Arrest, 111 | 17 54 38 | 0.49 | [2] | 27 22 0 | 0.46 | 2 | F; pL; 3rd of 3 | 0 |
| 4361 | 3722 | ..... | M. 8 | 17 55 17.9 | 3.677 | 3 | 114 21 15.3 | 0.31 | 3 | !!!; vB; eL; eiF; with LCl... | 8 Mon.† |
| 4362 | 1992 | ..... | ..... | 17 55 27.9 | 2.811 | 1 | 78 57 6.6 | 0.32 | 1 | ..... | 1 |
| 4363 | ..... | V. 9 | ..... | 17 55 39.8 | 3.652 | 1 | 113 27 28.4 | 0.28 | 1 | F; L; cE | 1 |
| 4364 | 3723 | II. 200 | ..... | 17 55 51.7 | 3.846 | 2 | 120 3 24.5 | 0.25 | 2 | ⊕; pF; cS; R; gbM; rrr; st 16...17. | 3* |
| 4365 | 3724 | ..... | Δ. 569 | 17 56 1.6 | 4.054 | 1:: | 126 18 6.9 | 0.23 | 1:: | Cl (in M. Way) | 1 |
| 4366 | 3725 | ..... | ..... | 17 56 6.0 | 3.677 | 2 | 114 19 58.9 | 0.23 | 2 | Cl; B; L; pRi; vL neb p ... | 2 |
| 4367 | 1993 | ..... | M. 21 | 17 56 13.8 | 3.626 | 1 | 112 30 8.6 | 0.22 | 1 | Cl; pRi; IC; st 9...12 | 2 |
| 4368 | ..... | V. 13 | ..... | 17 56 32.3 | 3.692 | 1 | 114 53 23.7 | 0.19 | 1 | eL; eiF; st f | 1* |
| 4369 | ..... | ..... | Auw. N. 38 | 17 56 38.5 | 3.076 | ... | 90 17 44.9 | 0.20 | ... | pF; vS; vS neb * p (Hind, Ap. 1852). | 0 |
| 4370 | ..... | ..... | Auw. N. 39 | 17 57 15.0 | 3.247 | ... | 97 34 58.4 | 0.15 | ... | (Brorsen, 1856.) No description. | 0 |
| 4371 | ..... | II. 198 | ..... | 17 57 27.3 | 3.778 | 1 | 117 49 20.6 | 0.12 | 1 | pF; S; iE; er or Cl | 1 |
| 4372 | 3726 | ..... | Δ. 473 | 17 57 50.9 | +4.350 | 2 | 133 43 25.8 | 0.06 | 2 | ⊕; B; R; eC; gbM; rrr; st 15...16. | 2* |
| 4373 | | IV. 37 | | 17 58 20.0 | -0.023 | 1 | 23 22 9.5 | +0.15 | 1 | ○; vB; pS; sbMvSN..... | 1 |
| 4374 | 1994 | II. 197 | | 17 58 42.4 | +3.696 | 1 | 115 0 52.0 | 0.00 | 1 | eF; pL; iR; r | 2 |

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|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-----------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 4375 | 3727 | ..... | ..... | 17 58 45.8 | +5.788 | 1 | 153 47 28.2 | -0.06 | 1 | eeF; eeS; R | 1+ |
| 4376 | 3729 | ..... | ..... | 17 58 47.5 | 3.646 | 1: | 113 14 0.0 | 0.00 | 1: | Cl; vL; vRi | 1 |
| 4377 | ..... | III. 555 | ..... | 17 59 39.1 | 2.624 | 1 | 71 27 7.8 | -0.04 | 1 | cF; S; lE; r | 1 |
| 4378 | 3730 | IV. 12 | ..... | 18 0 44.2 | 3.722 | 1 | 115 56 17.6 | 0.18 | 1 | ⊕; F; L; lE; vglbM; rr; st 20. | 3 |
| 4379 | 1995 | ..... | ..... | 18 0 50.8 | 3.518 | 1 | 108 26 46.6 | 0.18 | 1 | Cl; pRi; vlc; st L & S | 1 |
| 4380 | 3732 | ..... | ..... | 18 1 9.8 | 3.769 | 1 | 117 32 31.7 | 0.21 | 1 | F; vL; cE; lbM; rr | 1 |
| 4381 | 3728 | ..... | ..... | 18 1 11.4 | 8.690 | 1 | 166 36 39.2 | 0.36 | 1 | vF; vS; R; glbM | 1 |
| 4382 | 3731 | ..... | ..... | 18 1 12.2 | 3.900 | 3 | 121 46 50.4 | 0.22 | 3 | ⊕; pB; pL; R; glbM; rrr; st 16 | 3 |
| 4383 | ..... | II. 902 | ..... | 18 1 18.7 | 2.649 | 1 | 72 25 54.3 | 0.19 | 1 | F; L; R; vglbM | 1 |
| 4384 | {1996 = 3733} | ..... | ..... | 18 1 23.9 | 3.671 | 2 | 114 7 30.1 | 0.23 | 2 | vF; vL; lE; * inv | 2 |
| 4385 | 1997 | VIII. 54 | ..... | 18 2 24.7 | 3.476 | 1 | 106 48 57.7 | 0.31 | 1 | Cl; L; lC; st cL | 3 |
| 4386 | 3734 | ..... | ..... | 18 2 47.5 | 3.970 | 1 | 123 53 29.2 | 0.36 | 2 | ○; F; L; cE; hazy border... | 2 |
| 4387 | ..... | ..... | D'Arrest, 112 | 18 3 51 | 1.34 | [1] | 37 44 0 | 0.38 | [1] | eF; vS; R; * 16 nr..... | 0 |
| 4388 | {1998 = 3735} | VII. 30 | ..... | 18 4 20.6 | 3.602 | 2 | 111 37 33.6 | 0.48 | 2 | Cl; vL; lC | 3 |
| 4389 | 3736 | II. 201 | Δ. 619 | 18 4 33.3 | 3.902 | 3 | 121 51 0.7 | 0.51 | 3 | ⊕; cB; L; R; rrr; st 15..... | 5 |
| 4390 | 2000 | ..... | Σ. 6 | 18 5 17.8 | 2.912 | 1 | 83 10 53.5 | 0.55 | 2 | ○; vB; vS; R; l hazy | 3* |
| 4391 | 1999 | ..... | ..... | 18 5 23.5 | 3.617 | 1: | 112 10 47.6 | 0.58 | 1 | Cl; st vS | 1 |
| 4392 | {2001 = 3739} | VII. 31 | ..... | 18 7 24.1 | 3.616 | 2 | 112 10 21.5 | 0.75 | 2 | Cl; pRi; pC; cE; st 13 | 3 |
| 4393 | 3737 | ..... | Δ. 376 | 18 7 24.6 | 4.797 | 2 | 142 15 13.3 | 0.79 | 2 | ⊕; cB; cL; R; gmbM; rrr; st 15 | 2 |
| 4394 | 3738 | ..... | ..... | 18 7 56.9 | 5.793 | 1 | 153 51 18.2 | 0.86 | 1 | eF; S; *6, sp | 1 |
| 4395 | 2002 | ..... | ..... | 18 8 47.2 | 3.529 | 1 | 109 55 8.6 | 0.88 | 3 | F; pL; cE; * inv | 3+ |
| 4396 | 2003 | VIII. 55 | ..... | 18 9 28.2 | 3.473 | 1 | 106 41 22.1 | 0.93 | 1 | Cl; lC | 2 |
| 4397 | 2004 | ..... | M. 24 | 18 10 13.7 | 3.518 | 2 | 108 28 7.3 | 0.99 | 2 | !; Cl; vRi; vmC; R; st 15 (M. Way). | 4* |
| 4398 | 3740 | VIII. 15 | ..... | 18 10 14.2 | 3.363 | 1 | 102 17 10.3 | 0.99 | 1 | Cl; lRi; lC | 2 |
| 4399 | 2005 | ..... | ..... | 18 10 20.9 | 3.429 | 1 | 104 59 37.7 | 1.01 | 1 | Cl; lRi; lC; st 10...12 | 1 |
| 4400 | 2006 | ..... | M. 16 | 18 10 57.0 | 3.401 | 1: | 103 50 2.2 | 1.06 | 1 | Cl; at least 100 st L & S ... | 3 |
| 4401 | 2007 | ..... | M. 18 | 18 11 44.6 | 3.485 | 1: | 107 11 8.1 | 1.13 | 1 | Cl; P; vlc | 4 |
| 4402 | 3741 | ..... | ..... | 18 11 45.3 | 5.724 | 2 | 153 17 47.0 | 1.20 | 2 | vF; S; R; gvlbM; *9 p..... | 2 |
| 4403 | 2008 | ..... | M. 17 | 18 12 33.1 | 3.460 | 2 | 106 13 36.0 | 1.20 | 2 | !!!; B; eL; eiF; 2-hooked... | 9+ |
| 4404 | 3742 | I. 50 | ..... | 18 14 41.9 | 3.855 | 3 | 120 25 26.0 | 1.40 | 3 | ⊕; vB; pL; R; rrr; st 16 ... | 4 |
| 4405 | 2009 | ..... | ..... | 18 15 20.7 | 3.358 | 1: | 102 5 58.8 | 1.44 | 1 | lC; lRi; lC; st 11...12 | 1 |
| 4406 | {2010 = 3743} | ..... | M. 28 | 18 15 55.4 | 3.692 | 2 | 114 56 30.0 | 1.50 | 2 | !; ⊕; vB; L; R; geCM; rrr; st 14...16. | 8 |
| 4407 | 3744 | II. 204 | ..... | 18 17 13.4 | 3.645 | 1 | 113 16 30.4 | 1.62 | 1 | ○ or ⊕; pB; eeS; R | 2 |
| 4408 | 3745 | ..... | ..... | 18 19 12.0 | 5.726 | 1 | 153 22 22.5 | 1.85 | 1 | pF; S; R; gbM | 1 |
| 4409 | 3746 | ..... | ..... | 18 19 23.4 | 3.358 | 1 | 102 6 42.3 | 1.79 | 1 | Cl; pL; pRi; st 12...15 | 1 |
| 4410 | ..... | VIII. 72 | C. H. | 18 20 43.1 | 2.921 | 1 | 83 31 15.3 | 1.89 | 1 | Cl; lC; st L | 3 |
| 5076 | ..... | ..... | ..... | 18 20 44.6 | ..... | ... | 123 30 27.3 | ..... | ... | See No. 5076 | 0 |
| 4411 | ..... | ..... | M. 69=Δ. 613 | 18 22 13.2 | 3.917 | 3 | 122 26 33.5 | 2.05 | 3 | ⊕; B; L; R; rrr; st 14...16 | 4* |
| 4412 | 3748 | I. 51 | ..... | 18 22 16.6 | 3.708 | 1 | 115 34 55.5 | 2.05 | 1 | ⊕; B; S; R; rr | 2 |
| 4413 | 2011 | ..... | ..... | 18 23 4.6 | 3.385 | 1 | 103 15 12.7 | 2.11 | 1 | Cl (in M. Way) | 1 |
| 4414 | {2012 = 3749} | II. 205 | ..... | 18 23 24.2 | +3.651 | 3 | 113 33 57.5 | 2.15 | 3 | ⊕; pB; pL; iR; gpmbM; rrr; st 16. | 4 |
| 4415 | ..... | ..... | Auw. N. 40 | 18 23 35.4 | -1.719 | ... | 15 29 47.7 | 2.01 | ... | !!; pB; pL; E 50°; 2 st p Var. (Tuttle.) | 0* |
| 4416 | 2013 | VI. 23 | ..... | 18 24 31.5 | +3.477 | 1 | 106 59 3.8 | 2.24 | 1 | Cl; pL; vRi; pC; st 11...15 | 2 |
| 4417 | ..... | II. 907 | ..... | 18 24 55.8 | 1.967 | 1 | 50 14 52.8 | 2.24 | 1 | F; S; iF | 1 |
| 4418 | 2014 | VIII. 14 | ..... | 18 25 4.6 | 3.488 | 1: | 107 26 2.3 | 2.29 | 1 | Cl; L; Ri; lC; st vS | 2 |
| 4419 | ..... | ..... | Auw. N. 41 | 18 25 4.9 | 0.230 | ... | 25 5 44.2 | 2.20 | ... | S; pmE; * inv (Σ. neb No. 7) | 0 |
| 4420 | 3751 | | | 18 25 44.1 | 3.317 | 1 | 100 29 32.8 | 2.34 | 1 | Cl; P; lC; pS; st 9.10, 12...13 | 1 |
| 4421 | 3752 | | Δ. 607 | 18 26 32.0 | +3.936 | 4 | 123 5 5.1 | -2.43 | 4 | B; S; lE; rrr; st 15 | 5 |

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| 4422 | h. 3750 | H. | | h m s 18 27 8.1 | s +7.511 | 1 | 163° 22' 49.3 | —2.59 | 1 | vF; S; lE; glbM..... | 1 |
| 4423 | | | Auw. N. 42 | 18 27 19.3 | 3.210 | ... | 96 4 46.7 | 2.45 | ... | pF; vS; E (Winnecke, June 1855). | 0 |
| 4424 | { 2015 = 3753 } | ..... | M. 22 | 18 27 52.1 | 3.662 | 4 | 114 0 25.8 | 2.54 | 4 | !!; ⊕; vB; vL; R; vRi; vmC; st 11...15. | 10 |
| 4425 | 2016 | ..... | ..... | 18 28 5.5 | 2.496 | 1 | 66 32 22.1 | 2.53 | 1 | Cl; P; IC..... | 1 |
| 4426 | 3754 | VIII. 12 | ..... | 18 29 5.1 | 3.266 | 1 | 98 20 0.1 | 2.63 | 1 | Cl; L; pRi; vL..... | 2 |
| 4427 | 3755 | ..... | ..... | 18 32 2.0 | 5.603 | 2 | 152 25 36.5 | 2.95 | 2 | pF; S; R; psbM; r..... | 2 |
| 4428 | 3756 | ..... | M. 70=Δ. 614 | 18 34 4.9 | 3.910 | 3 | 122 25 12.6 | 3.08 | 3 | ⊕; B; pL; R; gbM; st 14...17 | 4* |
| 4429 | 2017 | ..... | ..... | 18 34 9.9 | 3.185 | 1 | 94 53 29.9 | 3.07 | 1 | Cl; L; Ri; st 10...18 | 1 |
| 4430 | 2018 | ..... | ..... | 18 34 41.1 | 3.219 | 1 | 96 21 12.4 | 3.12 | 1 | Cl; vRi; vL (in M. Way)... | 1 |
| 4431 | 3757 | ..... | ..... | 18 35 9.5 | 5.941 | 2 | 155 19 18.8 | 3.24 | 2 | vB; pL; R; vg, psmbM; *7p | 2 |
| 4432 | 3758 | ..... | M. 26 | 18 37 32.6 | 3.293 | 1 | 99 31 57.9 | 3.37 | 1 | Cl; cL; pRi; pC; st 12...15. | 6 |
| 4433 | ... .. | VI. 15 | ..... | 18 39 37.8 | 3.715 | 1 | 116 3 40.2 | 3.56 | 1 | Cl (?) ; vF; cL | 1 |
| 4434 | 3759 | ..... | ..... | 18 40 6.8 | 5.131 | 1 | 147 27 46.8 | 3.64 | 1 | pF; pS; lE 90°; psbM | 1 |
| 4435 | ..... | ..... | Auw. N. 43 | 18 43 18.8 | 3.192 | ... | 95 22 6.4 | 3.86 | ... | Cl; B; 60 st 13 (Winnecke, 1854). | 0 |
| 4436 | 3760 | ..... | ..... | 18 43 36.6 | 5.679 | 1 | 153 19 39.2 | 3.96 | 1 | Neb. No description..... | 1 |
| 4437 | 2019 | ..... | M. 11 | 18 43 37.2 | 3.219 | 2 | 96 26 7.6 | 3.88 | 2 | !; Cl; vB; L; iR; Ri; st 1 L, 11. | 8+ |
| 4438 | 3761 | ..... | ..... | 18 44 2.1 | 4.873 | 2 | 143 58 46.9 | 3.97 | 2 | F; S; vIE; gbM | 3 |
| 4439 | 4021 | h. o. n. | ..... | 18 44 18.1 | 4.866 | 2 | 143 53 19.3 | 3.99 | 2 | pF; S; R; glMbM; last of gr | 2 |
| 4440 | 2020 | ..... | ..... | 18 44 52.5 | 2.836 | 1 | 79 49 0.6 | 3.98 | 1 | Cl; pRi; IC; iF | 1 |
| 4441 | 3762 | I. 47 | ..... | 18 45 29.2 | 3.276 | 1 | 98 52 8.5 | 4.05 | 1 | ⊕; pB; vL; ir; vglbM; rrr | 2 |
| 4442 | 3763 | ..... | M. 54=Δ. 624 | 18 46 6.2 | 3.846 | 3 | 120 38 29.7 | 4.11 | 3 | ⊕; vB; L; R; g, smbM; rrr; st 15. | 6 |
| 4443 | 2021 | ..... | ..... | 18 46 17.5 | 3.549 | 1 | 110 4 8.1 | 4.13 | 1 | Cl; pRi; st 9...13 | 1 |
| 4444 | { 2022 = 3766 } | III. 143 | ..... | 18 46 39.8 | 3.623 | 2 | 112 52 17.2 | 4.16 | 2 | F; S; rr Cl + neb | 3 |
| 4445 | 3764 | ..... | ..... | 18 47 25.9 | 6.042 | 2 | 156 17 14.0 | 4.30 | 2 | vF; S; R; glbM; *9 sp..... | 2 |
| 4446 | 3765 | ..... | ..... | 18 48 2.6 | 6.430 | 1 | 158 47 1.2 | 4.36 | 2 | vF; pL; R; vglvbm | 2 |
| 4447 | 2023 | ..... | { M. 57 D'Arquier } | 18 48 20.1 | 2.228 | 2 | 57 8 57.2 | 4.26 | 3 | { !!!; ⊙; B; pL; cE (in } Lyra). | 14+ |
| 4448 | 3767 | ..... | ..... | 18 48 51.4 | 5.153 | 1 | 147 56 49.3 | 4.39 | 1 | pF; cS; R; vmbM | 1 |
| 4449 | 3768 | ..... | ..... | 18 49 59.0 | 5.874 | 1 | 155 5 21.7 | 4.51 | 1 | pF; S; E; glbM; 2 st 8 p | 1 |
| 4450 | 3770 | ..... | Δ. 573 | 18 50 5.5 | 4.047 | 1 | 126 48 45.9 | 4.47 | 1 | ⊕; vL; vIE; vgbM; rrr; st 14...16. | 1 |
| 4451 | 2024 | ..... | ..... | 18 50 25.1 | 2.838 | 1: | 79 49 16.2 | 4.46 | 1 | Cluster..... | 1 |
| 4452 | 3769 | ..... | ..... | 18 50 26.1 | 4.871 | 1: | 144 7 32.7 | 4.51 | 1 | cF; pL; R | 1 |
| 4453 | ..... | VIII. 13 | ..... | 18 52 20.9 | 3.281 | 1 | 99 7 33.8 | 4.64 | 1 | Cl; vL; P | 1 |
| 4454 | 3771 | ..... | ..... | 18 52 32.0 | 6.472 | 1 | 159 6 45.8 | 4.74 | 1 | vF; S; R; pmbM; *7, 8 nf | 1 |
| 4455 | 3772 | ..... | ..... | 18 53 15.0 | 5.552 | 1 | 152 23 37.6 | 4.78 | 1 | eeF; vglbM; v difficult | 1 |
| 4456 | 3773 | ..... | ..... | 18 53 29.2 | 5.938 | 1 | 155 39 40.7 | 4.81 | 1 | vF; S; R; glbM; p of 2 | 1 |
| 4457 | 2025 | ..... | ..... | 18 53 33.1 | 3.086 | 1 | 90 39 5.1 | 4.73 | 1 | Cl; vL; P; st 12... | 1 |
| 4458 | 3774 | ..... | ..... | 18 53 44.6 | 5.934 | 1 | 155 38 10.4 | 4.82 | 1 | eF; S; R; glbM; f of 2 | 1 |
| 4459 | 2026 | ..... | ..... | 18 53 59.2 | 5.512 | 1 | 108 44 8.6 | 4.78 | 1 | Cl; pL; pRi; R; st 12...15... | 1 |
| 4460 | 2027 | ..... | ..... | 18 54 50.0 | 2.810 | 1 | 78 35 18.1 | 4.83 | 1 | Cl; P; IC..... | 1 |
| 4461 | 3775 | ..... | ..... | 18 55 7.2 | 5.463 | 2 | 151 34 23.8 | 4.94 | 2 | cF; vS; cE; psbM; 3 st p | 2 |
| 4462 | ..... | III. 742 | D'Arrest, 113 | 18 55 32.0 | 1.618 | 1 | 41 45 14.2 | 4.86 | 1 | vF; stellar | 1* |
| 4463 | 2028 | ..... | ..... | 18 55 58.2 | 2.351 | 1 | 60 55 35.4 | 4.92 | 1 | Cl; pL; P; st 11...12 | 1 |
| 4464 | 3776 | ..... | Δ. 262 | 18 56 26.8 | 5.730 | 2 | 154 3 58.5 | 5.05 | 2 | cB; cL; R; vg, svmbM; r | 2 |
| 4465 | 3777 | ..... | ..... | 18 57 31.7 | 5.518 | 1 | 152 10 36.1 | 5.13 | 1 | eF; cS; R; glbM | 1 |
| 4466 | 2029 | ..... | ..... | 18 57 56.6 | 3.035 | 1 | 88 25 11.0 | 5.10 | 1 | Cl; L; IC; st L & S | 1 |
| 4467 | 3778 | ..... | Δ. 295 | 18 58 28.0 | 5.324 | 5 | 150 11 49.7 | 5.21 | 5 | ⊕; B; vL; iR; rrr; st 11...16 | 5 |
| 4468 | 3779 | ..... | ..... | 18 59 37.5 | 5.085 | 1 | 147 15 30.0 | 5.30 | 1 | pB; pL; R; gbM | 1 |
| 4469 | 3780 | ..... | ..... | 19 0 33.6 | 4.653 | 2 | 140 51 32.9 | 5.37 | 2 | pF; pL; mE 63°; vglbM | 2 |
| 4470 | 2030 | VII. 19 | ..... | 19 0 50.5 | 2.981 | 3 | 85 59 17.5 | 5.35 | 3 | Cl; vL; vRi; pC; st 12...14. | 5 |
| 4471 | 2031 | VII. 62 | ..... | 19 1 46.5 | 2.971 | 2 | 85 32 43.1 | 5.43 | 1 | Cl; S; Ri; IC; st 11...12 | 5 |
| 4472 | 3781 | | | 19 2 15.9 | 5.014 | 1 | 146 32 24.1 | 5.53 | 1 | pB; S; R | 1 |
| 4473 | | | Auw. N. 44 | 19 4 4.8 | +3.051 | Au | 89 11 51 | —5.62 | Au | !!; pB; pL; gbM; Var.? (Hind) | 0* |

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|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ′ ″ | ″ | | | |
| 4474 | 3782 | ..... | ..... | 19 4 14.3 | +4.647 | 2 | 140 53 11.6 | -5.68 | 2 | vF; pS; iR | 2 |
| 4475 | 3786 | ..... | ..... | 19 6 50.4 | 4.160 | 1 | 130 25 44.6 | 5.88 | 1 | vF; S; R; psbM | 1 |
| 4476 | 3783 | ..... | ..... | 19 6 53.8 | 5.349 | 1 | 150 44 16.4 | 5.92 | 1 | vF; S; R; lbM; 1st of 3..... | 1 |
| 4477 | 3784 | ..... | ..... | 19 7 6.3 | 5.349 | 1 | 150 44 46.1 | 5.93 | 1 | eF; vS; 2nd of 3..... | 1 |
| 4478 | 3785 | ..... | ..... | 19 7 7.3 | 5.351 | 1 | 150 46 25.8 | 5.94 | 1 | eF; S; 3rd of 3 | 1 |
| 4479 | 2032 | IV. 14 | ..... | 19 7 14.8 | 3.137 | 2 | 92 57 5.3 | 5.89 | 2 | vF; L; R; vvlbM; r | 3 |
| 4480 | 2033 | ..... | ..... | 19 8 3.7 | 2.968 | 1 | 85 22 9.5 | 5.95 | 1 | Cl; P; lC..... | 1 |
| 4481 | 2034 | ..... | ..... | 19 8 38.7 | 3.449 | 1 | 106 30 34.4 | 6.02 | 1 | Cl; vL; lC | 2 |
| 4482 | 2035 | ..... | ..... | 19 9 37.9 | 3.097 | 1 | 91 9 48.3 | 6.09 | 1 | Cl; P; lC; st 10...11 | 1 |
| 4483 | 3787 | ..... | ..... | 19 10 22.9 | 5.690 | 1 | 154 8 23.1 | 6.23 | 1 | pB; S; R; pgbM | 1 |
| 4484 | ..... | ..... | Lac. I. 13 | 19 10 45.5 | 6.917 | ... | 161 45 35.7 | 6.21 | ... | Neb without st (Lac. Auw. 40) | 0 |
| 4485 | 2036 | ..... | M. 56 | 19 11 7.2 | 2.339 | 4 | 60 3 41.6 | 6.18 | 6 | ⊕; B; L; iR; gymCM; rrr; st 11...14. | 14 |
| 4486 | 3788 | ..... | ..... | 19 11 17.6 | 4.954 | 1 | 146 1 45.6 | 6.28 | 1 | vF; L; R; vglbM | 1 |
| 4487 | 2037 | III. 743 | ..... | 19 11 37.3 | 2.931 | 1 | 83 42 46.5 | 6.25 | 1 | ○; F; L; R; vsbM disc; S* nf | 3*† |
| 4488 | 3789 | ..... | ..... | 19 11 39.2 | 5.283 | 3 | 150 10 43.4 | 6.32 | 3 | cF; cS; R; lbM; * 9 s | 3 |
| 4489 | 3790 | ..... | ..... | 19 12 48.3 | 5.896 | 2 | 155 52 59.1 | 6.43 | 2 | eeeF; pS; am S st | 3 |
| 4490 | 2038 | ..... | ..... | 19 13 23.1 | 3.102 | 1 | 91 21 22.0 | 6.40 | 1 | eS; stellar | 1 |
| 4491 | 3791 | ..... | ..... | 19 14 30.8 | 4.890 | 2 | 145 13 36.8 | 6.54 | 2 | pB; S; mE; psbM | 2 |
| 4492 | ..... | ..... | Auw. N. 45 | 19 15 55.9 | 2.098 | ... | 52 28 32.1 | 6.53 | ... | vF (Winnecke, Dec. 1853) | 0 |
| 4493 | 2039 | VIII. 81 | ..... | 19 17 13.9 | 2.565 | 3 | 68 6 5.0 | 6.70 | 3 | Cl; P; lC..... | 4 |
| 4494 | 3792 | ..... | ..... | 19 18 23.8 | 4.094 | 1 | 129 9 44.8 | 6.84 | 1 | eF; pS; R; vglbM | 1 |
| 4495 | 2040 | ..... | ..... | 19 19 6.7 | 3.000 | 1 | 86 44 46.9 | 6.87 | 1 | Cl; Ri; bet 2 st 9 | 1 |
| 4496 | 3793 | ..... | ..... | 19 20 47.4 | 4.941 | 2 | 146 11 39.2 | 7.06 | 2 | eF; vS; R; lbM; 3 vS st nr | 2 |
| 4497 | 2041 | VIII. 21 | ..... | 19 21 22.5 | 2.491 | 1 | 65 8 23.8 | 7.04 | 1 | Cl; vL; pRi; vLC; st 10... | 3 |
| 4498 | 2042 | VI. 14 | ..... | 19 24 29.7 | 2.628 | 3 | 70 1 4.0 | 7.30 | 3 | Cl; L; vC; E 0°; st 14...18 | 5 |
| 4499 | 2043 | VI. 38 | ..... | 19 24 53.0 | 2.875 | 4 | 81 3 37.8 | 7.34 | 4 | eB; S; iR; rrr | 5 |
| 4500 | 3796 | ..... | ..... | 19 27 18.0 | 4.068 | 1 | 128 51 32.9 | 7.57 | 1 | eF; R; vglbM | 1 |
| 4501 | 3795 | ..... | ..... | 19 27 18.9 | 4.209 | 1 | 132 36 18.9 | 7.57 | 1 | eF; vS; * 14 att | 1 |
| 4502 | 3794 | ..... | ..... | 19 28 30.3 | 6.638 | 2 | 160 57 27.8 | 7.74 | 2 | pB; E; biN; * 8 f | 2 |
| 4503 | 3798 | ..... | M. 55 = Δ. 620 | 19 31 7.9 | 3.817 | 2 | 121 15 44.2 | 7.86 | 2 | { ⊕; pB; L; R; vRi; } vgbM; st 12...15. | 5 |
| 4504 | 3797 | ..... | ..... | 19 31 43.0 | 5.109 | 2 | 148 58 44.5 | 7.95 | 2 | pS; R; vglbM | 2 |
| 4505 | 2044 | ..... | ..... | 19 33 58.6 | 1.790 | 2 | 43 44 48.8 | 8.04 | 2 | Cl; L; pRi; lC; st 11...14... | 2 |
| 4506 | 3799 | ..... | ..... | 19 34 7.2 | 4.858 | 1 | 145 40 17.8 | 8.14 | 1 | pB; pS; pmE; glbM | 1 |
| 4507 | 2045 | III. 744 | ..... | 19 35 0.0 | 3.300 | ... | 100 38 29.9 | 8.17 | ... | pF; pL; R; bM; r | 2 |
| 4508 | 2046 | ..... | ..... | 19 35 6.9 | 2.462 | 1 | 63 30 55.5 | 8.15 | 1 | Cl; vL; pRi; lC; st 10...15 | 1 |
| 4509 | 3800 | ..... | ..... | 19 35 16.0 | 3.744 | 1 | 118 52 41.0 | 8.20 | 1 | eF; pS; R; vlbM; * np..... | 1 |
| 4510 | 2047 | IV. 51 | ..... | 19 36 3.0 | 3.386 | 3 | 104 28 52.5 | 8.25 | 3 | ○; B; vS; R | 8† |
| 4511 | 2048 | ..... | Harding | 19 36 24.3 | 2.053 | 1 | 50 7 59.5 | 8.25 | 1 | Cl; vL; vRi; st 11...15 (Harding, 1827). | 1 |
| 4512 | 2049 | VII. 18 | ..... | 19 37 13.6 | 2.555 | 1 | 67 1 48.4 | 8.32 | 1 | Cl; eRi; E; st 11...12 | 2 |
| 4513 | ..... | II. 878 | ..... | 19 40 47.3 | 1.298 | 1 | 34 18 29.2 | 8.56 | 1 | pB; iF; bM | 1 |
| 4514 | 2050 | IV. 73 | ..... | 19 41 7.5 | 1.622 | 1 | 39 49 41.7 | 8.61 | 1 | ○; B; pL; R; * 11 M | 2† |
| 4515 | 2051 | VIII. 73 | ..... | 19 43 30.0 | 2.912 | 1 | 82 26 25.1 | 8.83 | 2 | Cl; P; lC | 3 |
| 4516 | 2052 | VII. 9 | ..... | 19 45 4.3 | 2.569 | 1 | 67 15 45.5 | 8.95 | 1 | Cl; L; pRi; pC; st 11...12 .. | 2 |
| 4517 | 2053 | ..... | ..... | 19 45 43.7 | 1.072 | 1 | 30 55 55.2 | 8.96 | 1 | Cl; vL; lC; st 7, | 1 |
| 4518 | 2054 | VIII. 16 | ..... | 19 46 33.8 | 2.408 | 1 | 60 57 6.5 | 9.05 | 1 | Cl; P; lC; st 11...12 | 2 |
| 4519 | 2055 | VIII. 18 | ..... | 19 46 53.0 | 2.832 | 1 | 78 40 27.3 | 9.09 | 1 | Cl; S; P | 2 |
| 4520 | 2056 | ..... | M. 71 | 19 47 28.8 | 2.674 | 3 | 71 34 55.1 | 9.13 | 3 | Cl; vL; vRi; pmC; st 11...16 | 13 |
| 4521 | 2057 | VI. 16? | ..... | 19 48 13.9 | 2.696 | 1 | 72 28 24.0 | 9.20 | 1 | Cl; vS; vC | 3 |
| 4522 | 2058 | VIII. 19 | ..... | 19 48 41.7 | 2.824 | 1 | 78 15 35.1 | 9.23 | 1 | Cl; P; lC | 3 |
| 4523 | 3802 | ..... | ..... | 19 48 57.9 | 3.818 | 1 | 122 11 30.6 | 9.28 | 1 | vF; S; R; psbM | 1 |
| 4524 | 2059 | ..... | ..... | 19 49 31.7 | 2.823 | 1 | 78 12 33.0 | 9.30 | 1 | Cl; S; P | 1 |
| 4525 | 3801 | ..... | ..... | 19 49 42.9 | 5.672 | 1 | 155 36 45.6 | 9.38 | 1 | eF; vS; R; psbM; * 11 np... | 1 |
| 4526 | 3803 | ..... | ..... | 19 50 49.6 | 4.355 | 1 | 137 27 28.8 | 9.44 | 1 | vF; S; vLE; glbM | 2 |
| 4527 | ..... | II. 202 | ..... | 19 51 22.9 | 2.417 | 1 | 61 1 41.1 | 9.43 | 1 | Neb; r | 1 |
| 4528 | 3804 | ..... | ..... | 19 51 33.2 | 4.845 | 2 | 146 28 18.7 | 9.51 | 2 | eF; cL; R; vglbM; 2 st f ... | 2 |
| 4529 | 3805 | ..... | ..... | 19 51 47.6 | 4.079 | 1 | 130 35 26.7 | 9.51 | 1 | pB; S; R; vS * np | 1 |
| 4530 | 3806 | ..... | ..... | 19 52 27.6 | 4.760 | 1 | 145 13 47.9 | 9.57 | 1 | vF; S; R; bM | 1 |
| 4531 | 3807 | ..... | ..... | 19 53 19.4 | +4.402 | 1 | 138 39 10.1 | -9.63 | 1 | pF; S; vLE; psbM | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|-----------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos | Other Authorities. | | | | | | | | |
| 4532 | h. 2060 | H. | M. 27 | 19 53 29.3 | +2.588 | 4 | 67° 39' 43.0 | — 9.60 | 3 | !!!; vB; vL; BiN; iE (Dumb-bell N). | 13† |
| 4533 | 3808 | ..... | ..... | 19 54 40.9 | 4.723 | 2 | 144 45 44.5 | 9.75 | 2 | F; S; vLE; glbM | 2 |
| 4534 | 3809 | ..... | ..... | 19 55 31.7 | 4.849 | 1 | 146 47 1.7 | 9.81 | 1 | pF; S; R | 1 |
| 4535 | 2063 | ..... | ..... | 19 56 8.8 | 1.354 | 1 | 34 15 9.9 | 9.77 | 1 | Cl; pS; pmC; iR; st 12...16 | 1 |
| 4536 | 2062 | III. 144 | ..... | 19 56 23.1 | 2.309 | 3 | 56 50 48.7 | 9.81 | 3 | F; am M. Way st | 4* |
| 4537 | 2061 | ..... | ..... | 19 56 23.6 | 2.847 | 1 | 79 7 24.4 | 9.82 | 1 | Cl; cL; E; pRi; st 13... .. | 1 |
| 4538 | ..... | ..... | Auw. N. 46 | 19 56 39.0 | 3.068 | ... | 89 56 49.0 | 9.85 | ... | F; *10 p 1 ^s , s 1' 29" (Bond, Nov. 1852). | 0 |
| 4539 | 3810 | ..... | ..... | 19 56 41.0 | 5.207 | 1 | 151 29 30.7 | 9.91 | 1 | F; pS; gbM | 1 |
| 4540 | 3811 | ..... | Δ. 425 | 19 57 5.0 | 4.395 | 2 | 138 46 5.7 | 9.91 | 2 | B; S; cE; gpmbM | 2 |
| 4541 | 3812 | ..... | ..... | 19 57 39.9 | 4.849 | 1 | 146 47 18.2 | 9.96 | 1 | F; S; iE; glbM | 1 |
| 4542 | 2065 | ..... | ..... | 19 57 46.5 | 3.151 | 1 | 93 57 0.8 | 9.94 | 1 | Cl; S; vmC; st 19 | 1 |
| 4543 | 2064 | ..... | M. 75 | 19 57 49.1 | 3.547 | 3 | 112 18 47.5 | 9.95 | 3 | ⊕; B; pL; R; vmbMBN; rr | 10 |
| 4544 | 2066 | VII. 59 | ..... | 19 59 11.2 | 1.967 | 1 | 46 23 49.7 | 10.01 | 1 | Cl; L; vRi; cC | 2 |
| 4545 | 3813 | ..... | ..... | 19 59 31.7 | 4.733 | 1 | 145 11 4.4 | 10.12 | 1 | eeF; L; pmE | 1 |
| 4546 | 3814 | ..... | ..... | 19 59 40.6 | 4.387 | 2 | 138 46 26.4 | 10.12 | 2 | vB; S; R; pgvmbM | 2 |
| 4547 | 3815 | ..... | ..... | 19 59 57.7 | 4.382 | 2 | 138 41 20.8 | 10.14 | 2 | cF; cS; E 90°; gbM | 2 |
| 4548 | 2067 | ..... | Σ. 2630 | 20 0 38.3 | 2.258 | 1 | 54 37 13.1 | 10.13 | 1 | Cl; st L & S; * inv | 1 |
| 4549 | 3816 | ..... | ..... | 20 2 2.9 | 6.426 | 2 | 161 11 51.8 | 10.34 | 2 | F; pS; iE; glbM; *9 p 10 ^s .5; 1st of 4. | 2 |
| 4550 | 2068 | ..... | Σ. 2631 | 20 2 4.8 | 2.636 | 1 | 69 17 54.5 | 10.25 | 1 | Cl; iC; st 10...13; * inv..... | 1 |
| 4551 | 2069 | VIII. 86 | ..... | 20 2 44.4 | 2.179 | 1 | 52 9 34.3 | 10.29 | 1 | Cl; P; iC | 2 |
| 4552 | 3819 | ..... | ..... | 20 3 15.0 | 4.278 | 1 | 136 34 21.6 | 10.38 | 1 | F; vS; R; vgmbM; *7 nf ... | 1 |
| 4553 | 3817 | ..... | ..... | 20 3 27.6 | 6.429 | 2 | 161 17 6.5 | 10.45 | 2 | pB; S; R; eS*sf; 2nd of 4... | 2 |
| 4554 | 3818 | ..... | ..... | 20 3 44.5 | 6.428 | 2 | 161 17 10.6 | 10.48 | 2 | vF; vS; R; 3rd of 4 | 2 |
| 4555 | 3821 | ..... | ..... | 20 4 2.8 | 4.209 | 1 | 134 56 31.8 | 10.44 | 1 | vF; pL; R; glbM | 1 |
| 4556 | 3820 | ..... | ..... | 20 4 40.6 | 6.419 | 2 | 161 17 3.8 | 10.54 | 2 | F; S; R; r; vS*att; 4th of 4 | 2 |
| 4557 | ..... | VIII. 22 | ..... | 20 5 58.2 | 2.509 | 1 | 63 42 34.8 | 10.54 | 1 | Cl; P; iC | 1 |
| 4558 | 2070 | ..... | ..... | 20 5 59.3 | 2.261 | 1 | 54 34 19.8 | 10.54 | 1 | Cl; pRi; * inv..... | 1 |
| 4559 | 2071 | VIII. 20 | ..... | 20 6 7.1 | 2.514 | 1 | 63 55 43.5 | 10.55 | 1 | Cl; vB; vL; Ri; iC; st 6...11 | 2 |
| 4560 | 3822 | ..... | ..... | 20 6 37.5 | 4.584 | 1 | 143 12 32.8 | 10.64 | 1 | pF; cL; pmE; glbM | 1 |
| 4561 | ..... | IV. 72 | ..... | 20 7 22.0 | 2.185 | 1 | 52 1 28.8 | 10.64 | 1 | F; vL; vmE; * att | 1 |
| 4562 | 3823 | ..... | ..... | 20 8 5.5 | 4.644 | 1 | 144 23 0.5 | 10.75 | 1 | vF; L; iE | 1 |
| 4563 | 3824 | ..... | ..... | 20 8 29.7 | 4.206 | 2 | 135 13 51.9 | 10.77 | 2 | pF; S; R; vglbM | 2 |
| 4564 | 3825 | ..... | ..... | 20 10 43.4 | 4.344 | 2 | 138 40 53.1 | 10.93 | 2 | pF; S; R; svbM*12 | 2 |
| 4565 | 2072 | IV. 13 | ..... | 20 10 45.8 | 2.419 | 2 | 59 51 33.3 | 10.89 | 2 | !!; ⊙; F; S; vviE | 7† |
| 4566 | ..... | VIII. 83 | ..... | 20 12 23.7 | 1.746 | 1 | 40 12 6.0 | 11.00 | 1 | Cl; pRi; iC | 1 |
| 4567 | ..... | ..... | D'Arrest, 114 | 20 12 26 | 2.42 | [2] | 59 47 42 | 11.01 | [2] | Cl+neb; S; st vS | 0 |
| 4568 | 3826 | ..... | ..... | 20 14 4.0 | 4.433 | 1 | 140 52 0.6 | 11.18 | 1 | F; S; R; glbM; am st..... | 1 |
| 4569 | 3827 | ..... | ..... | 20 14 52.7 | 4.143 | 1 | 134 5 51.8 | 11.24 | 1 | F; cS; R; bM..... | 1 |
| 4570 | 2073 | ..... | ..... | 20 15 40.2 | 3.468 | 3 | 109 45 13.6 | 11.28 | 3 | cL; E; bM*17; *10 att..... | 3* |
| 4571 | 2074 | ..... | ..... | 20 15 46.1 | 2.547 | 1 | 64 41 32.2 | 11.26 | 1 | Cl; S; vLC; st 10...11..... | 1 |
| 4572 | 2075 | IV. 16 | ..... | 20 16 7.9 | 2.676 | 3 | 70 20 19.3 | 11.29 | 3 | !!; ⊙; B; pS; R; 4Sst nr ... | 6† |
| 4573 | 2076 | III. 141 | ..... | 20 16 44.2 | 3.590 | 1 | 115 14 51.2 | 11.36 | 1 | cF; cL; vLE; vglbM; r; 3st p | 3 |
| 4574 | 3828 | ..... | ..... | 20 17 43.6 | 4.267 | 1 | 137 28 57.8 | 11.44 | 1 | pB; pL; gbM; 2st 10 nr..... | 1 |
| 4575 | 2077 | VIII. 56 | ..... | 20 18 5.5 | 2.137 | 2 | 49 40 14.4 | 11.42 | 2 | Cl; pB; pS; P; pC; st 10...12 | 5 |
| 4576 | 2078 | ..... | M. 29 | 20 18 51.9 | 2.212 | 1 | 51 56 3.6 | 11.48 | 1 | Cl; P; iC; st L & S..... | 6 |
| 4577 | 3830 | ..... | ..... | 20 20 50.3 | 4.274 | 1 | 137 56 31.9 | 11.67 | 1 | vF; *12 att sp..... | 1 |
| 4578 | 3831 | ..... | ..... | 20 22 0.0 | 4.141 | 1 | 134 40 55.8 | 11.74 | 1 | eF; pS; R; vglbM | 1 |
| 4579 | 3829 | ..... | ..... | 20 22 36.0 | 9.441 | 1 | 170 28 50.4 | 11.92 | 1 | pB; cS; R; psmbM | 1 |
| 4580 | 3832 | ..... | ..... | 20 23 2.0 | 3.727 | 4 | 121 17 38.7 | 11.81 | 4 | pF; cS; R; gbM; bet 2 st ... | 4 |
| 4581 | 3834 | ..... | ..... | 20 25 35.6 | 3.752 | 3 | 122 26 56.3 | 11.99 | 3 | cB; L; mE 6 ^o .0; psbM | 3 |
| 4582 | 2079 | III. 142 | ..... | 20 25 52.1 | 3.118 | 2 | 92 29 44.3 | 11.99 | 2 | vF; pL; E 0° or biN; p of 2 | 5 |
| 4583 | 2080 | ..... | ..... | 20 26 8.3 | 3.118 | 2 | 92 30 28.7 | 12.01 | 2 | vF; vS; sf of 2 | 2 |
| 4584 | 3833 | ..... | ..... | 20 26 29.1 | 6.798 | 1 | 164 6 50.1 | 12.13 | 1 | F; S; R; gbM; 5 st p..... | 1 |
| 4585 | ..... | I. 103 | ..... | 20 26 43.0 | 2.935 | 1 | 82 44 5.5 | 12.05 | 1 | vB; L; gmbM; er | 1 |
| 4586 | 2081 | ..... | ..... | 20 27 19.8 | 2.941 | 3 | 83 3 41.3 | 12.09 | 3 | ⊕; B; L; R; rrr; st 16...; *9p | 3* |
| 4587 | 3835 | ..... | ..... | 20 27 59.4 | 4.457 | 2 | 142 35 10.9 | 12.17 | 2 | pB; cL; R; glbM; r | 2 |
| 4588 | 3836 | ..... | ..... | 20 28 25.0 | 4.458 | 2 | 142 38 11.7 | 12.21 | 2 | vF; cS; R; slbM; f of 2 | 2 |
| 4589 | 2082 | VIII. 17 | ..... | 20 28 35.0 | +2.646 | 1 | 68 13 54.9 | —12.17 | 1:. | Cl; vL; P; vLC | 4 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 4590 | 2083 | VI. 42 | ..... | 20 28 36.4 | +1.211 | 3 | 29° 49' 56".8 | -12.14 | 3 | Cl; pL; eRi; pCM; st 11...16 | 5 |
| 4591 | ..... | VII. 8 | ..... | 20 28 42.5 | 2.510 | 5 | 62 9 51.9 | 12.17 | 5 | Cl; vB; vL; vRi; cC; st pL.. | 5 |
| 4592 | 3837 | ..... | ..... | 20 30 3.7 | 4.563 | 1 | 144 47 44.4 | 12.32 | 1 | pB; pL; R; psbM | 1 |
| 4593 | 3838 | ..... | ..... | 20 31 3.8 | 5.831 | 1 | 159 14 17.4 | 12.42 | 1 | pF; L; mE; vglbMvS* | 1 |
| 4594 | 2084 | IV. 76 | ..... | 20 31 57.3 | 1.269 | 3 | 30 20 17.9 | 12.37 | 3 | vF; vL; vg; vsbM; rr..... | 4† |
| 4595 | 3839 | ..... | ..... | 20 32 30.6 | 3.750 | 1 | 122 58 55.9 | 12.47 | 1 | vF; L; R; gbM | 1 |
| 4596 | 3840 | ..... | ..... | 20 33 4.6 | 4.497 | 2 | 143 51 23.1 | 12.53 | 2 | vF; pS; cE; lbM | 2 |
| 4597 | 2085 | VIII. 23 | ..... | 20 34 40.7 | 2.769 | 1 | 73 59 36.0 | 12.60 | 1 | Cl; P; vlc | 2 |
| 4598 | 2086 | III. 219 | ..... | 20 37 14.2 | 2.852 | 1 | 77 59 34.9 | 12.77 | 1 | vF; S; stellar; * att | 2 |
| 4599 | 3841 | ..... | ..... | 20 39 39.2 | 3.882 | 1 | 128 30 26.2 | 12.96 | 1 | B; cS; R; pgmbM; 4 st p ... | 1 |
| 4600 | 2088 | V. 15 | ..... | 20 39 53.0 | 2.478 | 3 | 59 47 14.8 | 12.94 | 2 | !!; pB; cL; eiF; k Cygni inv | 6† |
| 4601 | 2087 | II. 426 | ..... | 20 40 7.8 | 3.074 | 2 | 90 11 12.9 | 12.97 | 2 | eF; S; R; bM..... | 4 |
| 4602 | 2087, a | ..... | R. 3 novæ | 20 40 ± | 3.074 | ... | 90 11 ± | 12.97 | ... | Group of 5 with many st ... | 0 |
| 4603 | | | | | | | | | | | |
| 4604 | | | | | | | | | | | |
| 4605 | 2089 | II. 427 | ..... | 20 40 13.6 | 3.074 | 2 | 90 12 34.6 | 12.98 | 2 | F; vS; R; bM..... | 4 |
| 4606 | 3842 | ..... | ..... | 20 42 15.1 | 4.243 | 1 | 139 17 41.8 | 13.14 | 1 | pB; S; lE; gbM | 1 |
| 4607 | ..... | II. 206 | ..... | 20 45 16.1 | 2.454 | 1 | 58 23 48.0 | 13.30 | 1 | F; S; iE; r | 1 |
| 4608 | 2090 | ..... | M. 72 | 20 45 44.9 | 3.302 | 3 | 103 3 35.8 | 13.34 | 3 | ⊕; pB; pL; R; gmCM; rrr.. | 10 |
| 4609 | 3843 | ..... | ..... | 20 47 8.1 | 4.356 | 2 | 142 24 21.2 | 13.46 | 2 | vF; S; E; p of 2 | 2 |
| 4610 | 3844 | ..... | ..... | 20 47 18.9 | 4.043 | 1 | 134 30 30.2 | 13.46 | 1 | eF; cS; R | 1 |
| 4611 | 3845 | ..... | ..... | 20 47 48.0 | 4.353 | 3 | 142 24 12.7 | 13.51 | 3 | F; pL; vLE; vgbM; f of 2 ... | 3 |
| 4612 | 3846 | ..... | ..... | 20 48 20.9 | 4.211 | 2 | 139 10 13.8 | 13.54 | 2 | pF; S; vLE; gpmbM; vB * p | 2 |
| 4613 | ..... | VIII. 82 | ..... | 20 49 13.4 | 2.092 | 1 | 45 15 32.5 | 13.55 | 1 | Cl; cL; st pS | 1 |
| 4614 | 3847 | ..... | ..... | 20 49 27.4 | 4.529 | 2 | 146 6 24.7 | 13.61 | 2 | eeF; vS; vmE0°; *13 att, n | 2 |
| 4615 | 2091 | VIII. 76 | ..... | 20 49 51.7 | 2.024 | 1 | 43 15 22.6 | 13.58 | 1 | Cl; L; P; vlc | 3 |
| 4616 | 2092 | V. 14 | ..... | 20 50 35.2 | 2.478 | 2 | 58 50 11.8 | 13.64 | 1 | !!; eF; eL; eE; eiF; bifurcate | 4† |
| 4617 | ..... | ..... | M. 73 | 20 51 16.0 | 3.299 | ... | 103 10 31.0 | 13.70 | ... | Cl??; eP; vlc; no neb | 3 |
| 4618 | 2093 | ..... | ..... | 20 51 19.8 | 2.490 | 1 | 59 19 15.3 | 13.69 | 1 | F; eL; neb & st | 1†* |
| 4619 | 2094 | ..... | ..... | 20 51 30.9 | 2.095 | 1 | 45 3 59.3 | 13.69 | 1 | Cl; P; lC | 2 |
| 4620 | ..... | VIII. 58 | ..... | 20 51 33.5 | 2.123 | 3 | 45 53 24.0 | 13.70 | 3 | Cl; P; lC; st L | 3 |
| 4621 | 2096 | V. 37? | ..... | 20 53 48.2 | 2.142 | (1) | 46 13 4.8 | 13.84 | 1: | F; eeL; diff nebulosity | 3 |
| 4622 | 2095 | ..... | ..... | 20 53 54.5 | 3.083 | 1 | 90 44 34.9 | 13.87 | 1 | eF; S; E 0° | 1 |
| 4623 | 3848 | ..... | ..... | 20 53 57.1 | 4.201 | 2 | 139 35 0.3 | 13.89 | 2 | eF; cS; R; bM | 2 |
| 4624 | 3849 | ..... | ..... | 20 54 13.9 | 4.203 | 1 | 139 40 27.7 | 13.91 | 1 | eF; R; lbM; *11 f | 1 |
| 4625 | 2097 | I. 52 | ..... | 20 54 43.8 | 2.801 | (3) | 74 21 51.7 | 13.91 | 1 | B; pL; R; gbM | 4 |
| 4626 | 3850 | ..... | ..... | 20 55 23.1 | 4.345 | 3 | 143 6 3.6 | 13.98 | 3 | pB; S; R; psbM; am st | 3 |
| 4627 | 2099 | I. 192 | ..... | 20 56 17.5 | 1.749 | 1 | 35 59 39.6 | 13.98 | 2 | eB; L; E 45°±; r; * att ... | 5† |
| 4628 | 2098 | IV. 1 | Lal. 40765 | 20 56 31.2 | 3.273 | 4 | 101 55 4.8 | 14.04 | 4 | !!!; O; vB; S; elliptic | 23*† |
| 4629 | 2100 | ..... | ..... | 20 57 5.8 | 3.291 | 1 | 103 3 8.9 | 14.07 | 1 | eF; pL; R; r | 1 |
| 4630 | 2101 | ..... | ..... | 20 57 8.1 | 2.054 | 1 | 43 13 48.5 | 14.05 | 1 | Cluster; no description | 1 |
| 4631 | 3851 | ..... | ..... | 20 57 21.1 | 4.033 | 2 | 135 22 12.0 | 14.10 | 2 | F; pL; E; vglbM; * p..... | 2 |
| 4632 | 2102 | II. 203 | ..... | 20 57 38.9 | 2.535 | 2 | 60 39 30.3 | 14.09 | 2 | pB; cS; R; psbM; pB*np... | 4 |
| 4633 | 3852 | ..... | ..... | 20 58 18.4 | 4.111 | 1 | 137 44 44.2 | 14.16 | 1 | pF; S; R; bM; 2 st 12 n ... | 1 |
| 4634 | ..... | IV. 74 | ..... | 20 59 22.9 | 0.771 | 1 | 22 26 51.2 | 14.16 | 1 | eF; *7 m in neb (?) | 1 |
| 4635 | 3853 | ..... | ..... | 20 59 38.5 | 5.136 | 1 | 154 35 45.2 | 14.26 | 1 | pB; cS; lE; pgbM | 1 |
| 4636 | 3854 | ..... | ..... | 20 59 39.2 | 5.000 | 1 | 154 5 34.2 | 14.26 | 1 | pF; cS; R; psbM; *7.8 p ... | 1 |
| 4637 | 3855 | ..... | ..... | 20 59 45.4 | 4.185 | 1 | 139 52 10.5 | 14.25 | 1 | eeF; S; R; B ** sf | 1 |
| 4638 | 2103 | VIII. 57 | ..... | 21 0 46.2 | 2.255 | 2 | 49 3 58.9 | 14.27 | 2 | Cl; P; lC; st 10... | 3 |
| 4639 | 3856 | ..... | ..... | 21 2 7.3 | 4.173 | 1 | 139 51 26.0 | 14.40 | 1 | B; cS; R; pgmbM | 1 |
| 4640 | 2105 | VIII. 74 | ..... | 21 2 45.7 | 1.948 | (1) | 39 43 13.3 | 14.39 | 1 | Cl of triple st; lC | 2 |
| 4641 | 3857 | ..... | ..... | 21 2 47.1 | 5.457 | 1 | 158 51 57.9 | 14.47 | 1 | vF; cS; R; glbM | 1 |
| 4642 | 2104 | ..... | ..... | 21 3 36.5 | 2.825 | 1 | 75 7 5.2 | 14.46 | 1 | Cl; lC | 1 |
| 4643 | 2106 | ..... | ..... | 21 5 3.4 | 2.471 | 1 | 56 50 48.0 | 14.60 | 1 | Cl; pRi; iF; st 11...15 | 1 |
| 4644 | 3858 | ..... | ..... | 21 5 39.3 | 4.079 | 2 | 137 47 45.7 | 14.61 | 2 | pB; pL; lE; gbM | 2 |
| 4645 | 2107 | ..... | ..... | 21 6 14.3 | 2.150 | 1 | 44 53 32.7 | 14.61 | 1 | Cl; vL; pRi; E; st 10... .. | 1 |
| 4646 | ..... | III. 209 | ..... | 21 6 52.3 | 2.860 | 1 | 76 58 16.2 | 14.66 | 1 | vF; S; R | 1 |
| 4647 | 3859 | ..... | ..... | 21 6 55.9 | 4.114 | 2 | 138 56 41.3 | 14.69 | 2 | B; cS; cE; psmbM; *10 f... | 2 |
| 4648 | 2110 | VI. 24 | ..... | 21 7 45.4 | 2.253 | 2 | 48 4 44.0 | 14.70 | 2 | Cl; vF; pL; vRi; vC; st 15...18 | 4 |
| 4649 | 2108 | | | 21 7 48.6 | 3.008 | 1 | 86 3 33.4 | 14.72 | 1 | eF | 1 |
| 4650 | 2109 | III. 858 | | 21 7 52.9 | +3.035 | 2 | 87 44 17.4 | -14.72 | 2 | eF; pL; R; lbM..... | 3 |

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| | h. | H. | | h m s | s | | | | | | |
| 4651 | 3860 | | Δ. 406 | 21 9 26.5 | +4.109 | 2 | 139 8 52.8 | -14.84 | 2 | vB; pS; E; mbM | 2 |
| 4652 | 2111 | | | 21 9 33.0 | 2.424 | 1 | 54 23 16.7 | 14.81 | 1 | Cl; no description | 1 |
| 4653 | 2112 | III. 145 | ..... | 21 12 36.6 | 2.640 | 1 | 64 9 17.3 | 14.99 | 1 | F; S; vLE; r | 3 |
| 4654 | 2113 | ..... | ..... | 21 14 20.1 | 3.216 | 1 | 99 22 29.7 | 15.11 | 1 | vF; R; gbM; * nr | 1* |
| 4655 | 2114 | ..... | ..... | 21 15 26.3 | 1.717 | 1 | 32 59 50.8 | 15.14 | 1 | Cl; F; pS; P | 1 |
| 4656 | 3861 | ..... | ..... | 21 15 58.1 | 3.884 | 1 | 133 3 41.7 | 15.21 | 1 | eF; vS; R; p of 2 | 1 |
| 4657 | 2115 | ..... | ..... | 21 16 16.6 | 2.021 | 1 | 39 47 4.3 | 15.19 | 1 | Cl; P; IC | 1 |
| 4658 | 3862 | ..... | ..... | 21 16 41.6 | 4.607 | 1 | 150 37 16.9 | 15.27 | 1 | B; pL; IC; gpmbM | 1 |
| 4659 | 3863 | ..... | ..... | 21 16 53.5 | 3.879 | 1 | 133 0 26.2 | 15.26 | 1 | vF; pS; R; f of 2 | 1 |
| 4660 | 3864 | ..... | ..... | 21 17 58.9 | 4.085 | 1 | 139 40 10.1 | 15.33 | 1 | eeF; vS; R | 1 |
| 4661 | 2116 | VII. 51 | ..... | 21 18 12.1 | 2.181 | 3 | 44 13 3.7 | 15.31 | 3 | Cl; pS; pRi; pC; st 13... .. | 4 |
| 4662 | 2117 | ..... | ..... | 21 18 44.9 | 2.447 | 1 | 54 5 44.1 | 15.33 | 1 | Cl; P; st 10... .. | 1 |
| 4663 | 3865 | ..... | ..... | 21 19 9.1 | 4.222 | 1 | 143 23 17.3 | 15.39 | 1 | eF; pL; vmE 90°8; * s | 1 |
| 4664 | 2118 | VII. 50 | ..... | 21 19 37.1 | 2.135 | 1 | 42 34 45.6 | 15.38 | 1 | Cl; P; ? neb | 2 |
| 4665 | 3866 | ..... | ..... | 21 21 26.5 | 3.879 | 2 | 133 41 50.4 | 15.52 | 2 | F; cL; lE; gvlbM; p of 2 ... | 2 |
| 4666 | 2119 | ..... | ..... | 21 21 31.0 | 2.148 | 1 | 42 40 21.6 | 15.48 | 1 | Cl; S; C; cE | 1 |
| 4667 | 3867 | ..... | ..... | 21 21 37.5 | 3.880 | 2 | 133 45 57.1 | 15.53 | 2 | F; S; R; vglbM; f of 2 | 2 |
| 4668 | 3868 | ..... | ..... | 21 22 49.4 | 3.757 | 1 | 129 14 1.3 | 15.59 | 2 | eF; cS; R; pgbM | 2 |
| 4669 | ..... | III. 936 | ..... | 21 22 51.7 | 1.459 | 1 | 27 43 29.5 | 15.55 | 1 | vB; er | 1 |
| 4670 | 2120 | ..... | M. 15= Lal. 40815 | 21 23 9.9 | 2.895 | 1 | 78 27 22.3 | 15.59 | 2 | { !; ⊕; vB; vL; iR; } vsmbM; rrr; st vS. } | 16 |
| 4671 | 3869 | ..... | ..... | 21 23 31.9 | 3.898 | 1 | 134 40 55.1 | 15.63 | 1 | B; R; cS; psbM | 1 |
| 4672 | 2121 | III. 859 | ..... | 21 24 18.3 | 3.043 | 1 | 88 7 23.2 | 15.66 | 1 | F; S; R; mbM; *14s | 2 |
| 4673 | 2122 | VII. 52 | ..... | 21 24 22.5 | 2.188 | 1 | 43 31 7.5 | 15.65 | 1 | Cl; L; cRi; IC; st 10...13 ... | 2 |
| 4674 | 3870 | ..... | Δ. 263 ? | 21 24 38.7 | 4.809 | 2 | 154 31 11.7 | 15.71 | 2 | pF; cL; vLE; vgpmBM; r ... | 2 |
| 4675 | 2123 | ..... | ..... | 21 25 11.3 | 2.819 | 1 | 73 11 28.0 | 15.70 | 1 | Cl; IC | 1 |
| 4676 | 2124 | VI. 32 | ..... | 21 25 42.8 | 2.044 | 2 | 39 1 55.7 | 15.71 | 2 | Cl; cL; vRi; pC; st 11...16 | 3 |
| 4677 | 3871 | ..... | ..... | 21 25 44.2 | 3.800 | 2 | 131 26 32.5 | 15.75 | 2 | eF; S; R; gbM | 2 |
| 4678 | 2125 | ..... | M. 2= Lal. 41928 | 21 26 12.5 | 3.091 | 2 | 91 26 37.2 | 15.76 | 3 | { !!; ⊕; B; vL; g; pmbM; } rrr; steS. } | 19+ |
| 4679 | 3872 | ..... | ..... | 21 26 36.3 | 4.251 | 1 | 145 10 46.0 | 15.80 | 1 | pB; pL; vmE 127°1; g; psbM | 1 |
| 4680 | 3873 | ..... | ..... | 21 26 51.0 | 3.699 | 1: | 127 24 5.7 | 15.81 | 1: | eF; pL; vgbM; *6 f 40s..... | 1 |
| 4681 | 2126 | ..... | M. 39 | 21 27 12.6 | 2.160 | 1 | 42 10 58.0 | 15.80 | 1 | Cl; vL; vP; vLC; st 7...10 ... | 3 |
| 4682 | 2127 | ..... | ..... | 21 29 5.1 | 2.244 | 1 | 44 37 6.0 | 15.90 | 1 | Cl; P; IC..... | 1 |
| 4683 | 3875 | ..... | ..... | 21 30 3.9 | 3.827 | 2 | 133 10 21.6 | 15.98 | 1 | F; pL; R; vglbM; *13 inv... | 2 |
| 4684 | 3874 | ..... | ..... | 21 30 20.1 | 4.755 | 1 | 154 32 2.4 | 16.02 | 1 | vF; S; R; vS * nf | 1 |
| 4685 | 3877 | ..... | ..... | 21 31 24.1 | 3.821 | 2 | 133 10 19.5 | 16.05 | 2 | B; S; vLE; mbM..... | 2 |
| 4686 | 3876 | ..... | ..... | 21 31 59.5 | 6.179 | 1 | 165 44 25.1 | 16.13 | 1 | pF; R; g; psmbM; am st ... | 1 |
| 4687 | { 2128 = 3878 } | ..... | M. 30 | 21 32 26.0 | 3.422 | 2 | 113 47 59.0 | 16.10 | 2 | !; ⊕; B; L; lE; gpmbM; st 12...16. | 3+ |
| 4688 | 3879 | ..... | ..... | 21 32 59.7 | 4.134 | 1 | 143 20 29.8 | 16.14 | 1 | eF; cS; lE; vglbM..... | 1 |
| 4689 | 3880 | ..... | ..... | 21 33 22.2 | 3.873 | 1 | 135 25 37.2 | 16.16 | 1 | vF; cL; R; vglbM | 1 |
| 4690 | 3881 | ..... | ..... | 21 33 31.6 | 3.626 | 1 | 125 4 56.2 | 16.16 | 1 | eF; vS; am st | 1 |
| 4691 | 3882 | ..... | ..... | 21 33 48.4 | 3.620 | 1 | 124 48 14.9 | 16.17 | 2 | F; S; R; bM | 2 |
| 4692 | 3883 | ..... | ..... | 21 36 32.5 | 3.965 | 2 | 139 3 59.4 | 16.32 | 2 | F; S; R; glbM; p of 2 | 2 |
| 4693 | 3884 | ..... | ..... | 21 36 57.1 | 3.961 | 2 | 138 59 48.8 | 16.34 | 2 | F; S; R; glbM; f of 2 | 2 |
| 4694 | 3885 | ..... | ..... | 21 37 10.8 | 3.904 | 1 | 137 9 38.5 | 16.35 | 1 | F; S; R; gbM | 1 |
| 4695 | ..... | ..... | Auw. N. 47 | 21 38 22.8 | 3.296 | ... | 99 28 19.2 | 16.36 | ... | Nebulous *10.11 or vSCL (Cooper). | 0 |
| 4696 | 3886 | ..... | ..... | 21 38 39.8 | 5.278 | 1 | 160 58 43.5 | 16.45 | 1 | pB; S; R; vgbM; *9 f | 1 |
| 4697 | 3888 | ..... | ..... | 21 38 45.1 | 4.022 | 3 | 141 12 49.8 | 16.44 | 3 | pB; L; pmE; vgbM | 3 |
| 4698 | 3887 | ..... | ..... | 21 38 56.2 | 4.466 | 1 | 151 21 18.5 | 16.45 | 1 | eF; pL; R; p of 2 | 1 |
| 4699 | 3889 | ..... | ..... | 21 38 58.8 | 4.460 | 1 | 151 15 13.5 | 16.45 | 1 | pB; pS; lE; gbM; f of 2 ... | 1 |
| 4700 | 2129 | ..... | ..... | 21 39 8.8 | 2.013 | 1 | 36 1 22.4 | 16.42 | 1 | Cl; S; P; IC | 1 |
| 4701 | 2130 | VII. 40 | ..... | 21 39 21.8 | 2.049 | 1 | 36 56 49.1 | 16.43 | 1 | Cl; S; pRi; has a ruby * ... | 2 |
| 4702 | 2131 | IV. 75 | ..... | 21 39 45.0 | 1.387 | 2 | 24 32 15.8 | 16.44 | 2 | !; cF; pL; gbM ** | 4 |
| 4703 | 3890 | ..... | ..... | 21 39 51.6 | 3.605 | 1 | 125 5 43.6 | 16.48 | 1 | pB; S; R; glbM | 1 |
| 4704 | 3891 | ..... | ..... | 21 41 22.0 | 3.609 | 2 | 125 31 43.2 | 16.56 | 2 | pB; pL; R; vgbM; *14 att p | 2 |
| 4705 | 2132 | II. 261 | | 21 41 44.2 | 2.773 | 2 | 68 29 7.2 | 16.56 | 2 | F; pS; R; vglbM; r | 3 |
| 4706 | | III. 696 | | 21 42 15.3 | +1.576 | 4 | 26 49 29.9 | -16.57 | 4 | vF; cS; R; r | 4 |

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| | h. | H. | | h m s | s | | ° ′ ″ | — ′ ″ | | | |
| 4707 | 3892 | | | 21 42 28.6 | +4.229 | 1 | 147 12 6.1 | -16.63 | 1 | pF; cS; R; bM | 1 |
| 4708 | 3893 | | | 21 42 30.4 | 4.187 | 1 | 146 13 34.1 | 16.63 | 1 | F; L; R; g; psmbM | 1 |
| 4709 | 2134 | VII. 66 | ..... | 21 42 34.2 | 1.441 | 1 | 24 50 39.6 | 16.58 | 1 | Cl; cL; cRi; pC; st 11...14 | 3 |
| 4710 | 2133 | ..... | ..... | 21 42 41.2 | 2.650 | 1 | 60 41 28.0 | 16.60 | 1 | vF; ? a * inv in neb | 1* |
| 4711 | 3894 | ..... | ..... | 21 43 34.1 | 3.921 | 2 | 138 54 28.9 | 16.67 | 2 | vB; pS; R; mbMN | 2 |
| 4712 | 3895 | ..... | ..... | 21 44 13.2 | 3.907 | 1 | 138 32 26.0 | 16.70 | 1 | B; S; R; in Δ of st 13..... | 1 |
| 5077 | ..... | ..... | ..... | 21 45 12.5 | ..... | ... | 40 53 46.4 | ..... | ... | See No. 5077. | |
| 4713 | 3896 | ..... | ..... | 21 45 46.0 | 3.984 | 3 | 141 19 11.6 | 16.78 | 3 | vF; pL; lE; vgbM; r..... | 3 |
| 4714 | 3897 | ..... | ..... | 21 45 50.0 | 3.493 | 1 | 119 56 36.9 | 16.77 | 1 | eeF; vS | 1* |
| 4715 | 3898 | ..... | ..... | 21 46 30.0 | 3.486 | 1 | 119 41 30.0 | 16.80 | 1 | eF; S; E towards eF * | 1 |
| 4716 | 3900 | ..... | ..... | 21 46 58.7 | 3.588 | 2 | 125 28 21.1 | 16.83 | 2 | B; pL; iR; glbM; r | 2 |
| 4717 | 3899 | ..... | ..... | 21 46 59.2 | 3.940 | 2 | 140 10 49.8 | 16.84 | 2 | pB; S; lE; mbM..... | 2 |
| 4718 | 2135 | III. 452 | ..... | 21 47 29.0 | 3.042 | 3 | 87 42 49.8 | 16.84 | 3 | F; pL; R; bM; r | 4 |
| 4719 | 2136 | VIII. 67 | ..... | 21 49 48.4 | 1.722 | 1 | 28 3 3.1 | 16.93 | 1 | Cl; P; vC | 2 |
| 4720 | ..... | ..... | D'Arrest, 115 | 21 49 53 | 3.04 | [2] | 87 42 42 | 16.95 | [2] | Cl; vS; st 19 m; bet 2 st 16... | 0 |
| 4721 | 3901 | ..... | ..... | 21 50 58.1 | 3.752 | 1 | 133 58 28.4 | 17.02 | 1 | cF; cL; cE; glbM | 2 |
| 4722 | 3902 | ..... | ..... | 21 51 10.5 | 3.521 | 3 | 122 33 8.4 | 17.02 | 3 | F; pL; vL; vglbM | 3 |
| 4723 | 2137 | III. 930 | ..... | 21 51 49.3 | 3.289 | 1 | 107 10 39.5 | 17.05 | 1 | eF | 2* |
| 4724 | 3903 | ..... | ..... | 21 51 53.6 | 3.750 | 1 | 134 3 32.2 | 17.06 | 1 | cB; S; vL; svbMN | 2 |
| 4725 | 3905 | ..... | ..... | 21 52 37.2 | 3.401 | 1 | 115 18 18.3 | 17.09 | 1 | F; pS; R; vglbM; *10 f ... | 1 |
| 4726 | 3904 | ..... | ..... | 21 52 54.3 | 3.975 | 3 | 142 25 3.4 | 17.12 | 3 | pB; S; R; psbM..... | 3 |
| 4727 | 3906 | ..... | ..... | 21 53 6.8 | 3.852 | 1 | 138 21 46.4 | 17.12 | 1 | eF; S; R; *8 np..... | 1 |
| 4728 | 2138 | III. 692 | ..... | 21 53 29.4 | 3.243 | 1 | 103 57 3.1 | 17.13 | 3 | vF; cL; E 135°±; vgbM ... | 4 |
| 4729 | 3908 | ..... | ..... | 21 53 52.3 | 3.513 | 4 | 122 32 38.5 | 17.15 | 4 | pB; pL; lE; gbM; 1st of 4... | 4+ |
| 4730 | 3909 | ..... | ..... | 21 53 53.1 | 3.514 | 4 | 122 38 8.5 | 17.15 | 4 | cB; cS; R; sbM*; 2nd of 4 | 4+ |
| 4731 | 3910 | ..... | ..... | 21 53 55.3 | 3.515 | 2 | 122 39 58.5 | 17.15 | 2 | eF; S; R; p of D neb; 3rd of 4 | 2+ |
| 4732 | 2141 | ..... | ..... | 21 53 55.9 | 2.106 | 1 | 35 50 51.1 | 17.13 | 1 | Cl; vL; pRi; lC | 1 |
| 4733 | 3911 | ..... | ..... | 21 53 59.0 | 3.514 | 6 | 122 39 31.5 | 17.15 | 6 | B; pL; R; f of D neb; 4th of 4 | 6+ |
| 4734 | 2139 | II. 247 | ..... | 21 54 0.1 | 2.858 | 1 | 72 56 7.5 | 17.15 | 3 | pB; pS; R; bMN; r; *sp... | 4+ |
| 4735 | 3912 | ..... | ..... | 21 54 6.3 | 3.582 | 1 | 126 28 45.2 | 17.16 | 1 | eF; S; R; *8 s 2' | 1 |
| 4736 | 3907 | ..... | ..... | 21 54 21.4 | 4.525 | 2 | 154 43 13.6 | 17.18 | 2 | cF; pS; vgbM..... | 2 |
| 4737 | 2140 | III. 693 | ..... | 21 54 26.8 | 3.339 | 1 | 111 13 26.9 | 17.17 | 1 | vF; S; R; lbM; p of 2 | 2 |
| 4738 | 2142 | II. 595 | ..... | 21 54 38.9 | 3.316 | 1 | 109 35 22.6 | 17.18 | 2 | vF; pS; vL E 90°; lbM..... | 4 |
| 4739 | 2143 | II. 1 | ..... | 21 54 51.2 | 3.341 | 1 | 111 28 50.3 | 17.19 | 1 | pB; pL; mE 64° 3 bet 3 st; er | 3 |
| 4740 | 2144 | ..... | ..... | 21 55 8.7 | 3.337 | 1 | 111 8 59.7 | 17.21 | 1 | vF; pL; iR; vglbM; f of 2... | 1 |
| 4741 | ..... | III. 165 | ..... | 21 55 13.6 | 2.599 | 1 | 55 33 55.0 | 17.20 | 1 | vF; am 5 or 6 st | 1 |
| 4742 | 3913 | ..... | ..... | 21 56 20.4 | 4.543 | 1 | 155 19 8.9 | 17.27 | 1 | vF; S; lE; vgbM | 1 |
| 4743 | 3914 | ..... | ..... | 21 56 24.7 | 4.521 | 2 | 154 59 23.6 | 17.28 | 2 | pB; S; R; pmbM | 2 |
| 4744 | 2145 | ..... | ..... | 21 56 42.8 | 2.949 | 1 | 79 51 21.9 | 17.27 | 1 | Cl; lRi; lC; st 9...10 | 1 |
| 4745 | 3915 | ..... | ..... | 21 56 50.6 | 3.900 | 3 | 140 47 57.3 | 17.29 | 4 | cB; S; R; am st | 4 |
| 4746 | 2146 | II. 599 | ..... | 21 57 7.6 | 2.493 | 1 | 49 37 29.6 | 17.28 | 1 | F; cS; cE; vglbM; er | 2 |
| 4747 | 3916 | ..... | ..... | 21 58 4.3 | 4.529 | 2 | 155 22 59.5 | 17.35 | 2 | vF; S; R; psbM; *11 p 3'... | 2 |
| 4748 | 3917 | ..... | ..... | 21 58 7.9 | 3.839 | 1 | 140 40 49.5 | 17.35 | 1 | pF; S; R; smbM | 1 |
| 4749 | 3918 | ..... | ..... | 21 58 27.0 | 3.488 | 3 | 121 55 30.5 | 17.35 | 3 | F; R; gbM; 1st of 4 | 3 |
| 4750 | 3920 | ..... | ..... | 21 58 39.2 | 3.486 | 1 | 121 51 49.2 | 17.36 | 1 | eF; S; stellar; 2nd of 4 | 1 |
| 4751 | 3921 | ..... | ..... | 21 58 40.2 | 3.488 | 3 | 121 49 42.2 | 17.36 | 3 | cF; R; stellar; 3rd of 4 | 3 |
| 4752 | 3922 | ..... | ..... | 21 58 47.8 | 3.484 | 1 | 121 43 31.9 | 17.37 | 1 | pB; L; lE; gbM; 4th of 4 ... | 1 |
| 4753 | 3919 | ..... | ..... | 21 58 53.7 | 4.140 | 1 | 148 6 29.6 | 17.38 | 1 | pB; L; cE; gpslbM | 2 |
| 4754 | 3923 | ..... | ..... | 21 59 24.6 | 3.451 | 1 | 119 43 57.3 | 17.39 | 1 | vF; vS; R; almost a ○ | 1 |
| 4755 | 2147 | VII. 53 | ..... | 21 59 42.2 | 2.384 | 2 | 44 11 36.3 | 17.39 | 2 | Cl; L; cRi; pC; st 9...12 ... | 4 |
| 4756 | 2148 | ..... | ..... | 21 59 57.7 | 2.741 | 1 | 63 34 17.7 | 17.41 | 1 | eF; R; bM; vF * np | 1* |
| 4757 | 3924 | ..... | ..... | 22 0 29.0 | 3.798 | 1 | 137 50 36.5 | 17.45 | 1 | vB; pS; R; gbM..... | 1 |
| 4758 | 3926 | ..... | ..... | 22 1 8.3 | 3.427 | 1 | 118 29 42.9 | 17.47 | 1 | ⊕; pL; iR; rr..... | 1 |
| 4759 | 3925 | ..... | ..... | 22 1 30.8 | 4.794 | 1 | 159 20 46.7 | 17.51 | 1 | pF; S; R; gbM | 1 |
| 4760 | 2149 | II. 207 | ..... | 22 1 37.4 | 2.682 | 1 | 59 20 35.6 | 17.48 | 1 | B; pL; gbM; er | 2 |
| 4761 | 2150 | II. 897 | ..... | 22 2 34.9 | 3.273 | 1 | 107 19 55.1 | 17.53 | 1 | pB; lE; r..... | 2 |
| 4762 | 3927 | ..... | ..... | 22 2 47.3 | 4.487 | 2 | 155 32 6.2 | 17.56 | 2 | pB; S; R; 2 st nr..... | 2 |
| 4763 | 3928 | ..... | ..... | 22 3 13.8 | 3.462 | 4 | 121 14 22.2 | 17.56 | 4 | F; S; R; gbM; r; 2vSstnr... | 4 |
| 4764 | 2151 | III. 862 | ..... | 22 4 16.2 | 2.525 | 1 | 49 40 48.3 | 17.59 | 1 | eF; pS; lE; r; am 3 st..... | 2 |
| 4765 | 3929 | | | 22 5 15.4 | 3.392 | 1 | 116 50 37.8 | 17.64 | 1 | pF; S; lE; bM | 1 |
| 4766 | 3930 | | | 22 6 4.9 | +3.436 | 4 | 120 4 3.9 | -17.67 | 4 | F; pL; R; vglbM | 4 |

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| | h. | H. | | h m s | s | | | | | | |
| 4767 | 2152 | III. 931 | | 22 6 37.7 | +3.272 | 1 | 107° 45' 40.3 | -17.69 | 1 | vF; S; R; bM..... | 2 |
| 4768 | 2153 | II. 606 | | 22 6 43.4 | 2.447 | 1 | 45 20 52.3 | 17.69 | 1 | eF; S; er..... | 4 |
| 4769 | 3931 | ..... | ..... | 22 6 57.4 | 3.731 | 1 | 136 32 31.7 | 17.71 | 1 | pB; S; pmE; psbM; p of 2... | 1 |
| 4770 | 3932 | ..... | ..... | 22 7 7.9 | 3.730 | 1 | 136 32 16.4 | 17.72 | 1 | F; vS; R; *8f; f of 2..... | 1 |
| 4771 | ..... | VIII. 63 | ..... | 22 7 8.2 | 2.127 | 1 | 33 42 56.0 | 17.70 | 1 | Cl; S; P; lC..... | 1 |
| 4772 | 2154 | ..... | ..... | 22 7 34.6 | 2.119 | 2 | 33 25 12.4 | 17.72 | 2 | Cl; pC; has a ruby *10..... | 2 |
| 4773 | 2155 | VIII. 75 | ..... | 22 9 41.1 | 2.358 | 1 | 40 48 55.7 | 17.81 | 1 | Cl; L; P; lC; st vL..... | 3 |
| 4774 | 2157 | VI. 29 | ..... | 22 10 2.5 | 2.236 | 1 | 36 22 2.4 | 17.82 | 1 | Cl; C; st eS..... | 2 |
| 4775 | 2156 | III. 932 | ..... | 22 10 8.7 | 3.249 | 1 | 106 16 47.8 | 17.84 | 1 | vF; S; vLE; vglbM; *13n... | 2* |
| 4776 | ..... | III. 863 | ..... | 22 11 0.4 | 2.563 | 1 | 50 10 13.2 | 17.86 | 1 | vF; vS; mbM..... | 1 |
| 4777 | 3933 | ..... | ..... | 22 11 26.0 | 3.957 | 1 | 145 48 53.0 | 17.90 | 1 | eeF; R; (?)..... | 1 |
| 4778 | ..... | III. 864 | ..... | 22 12 28.8 | 2.569 | 1 | 50 8 9.4 | 17.92 | 1 | vF; S; mE 165°+..... | 1 |
| 4779 | 2158 | III. 933 | ..... | 22 12 53.8 | 3.247 | 2 | 106 28 21.5 | 17.95 | 2 | F; pS; R; gpmbM..... | 4 |
| 4780 | 3934 | III. 458 | ..... | 22 12 57.6 | 3.353 | 1 | 115 22 44.5 | 17.95 | 1 | F; S; R; er..... | 2 |
| 4781 | 3935 | ..... | ..... | 22 15 6.5 | 3.395 | 1 | 119 3 25.8 | 18.04 | 1 | vF; S; E; glbM; ?biN..... | 1 |
| 4782 | 3936 | ..... | ..... | 22 15 10.0 | 3.403 | 1 | 119 39 16.8 | 18.04 | 1 | eF; pL; R; vlbM..... | 1 |
| 4783 | 2159 | ..... | ..... | 22 15 23.6 | 2.153 | 1 | 32 36 51.1 | 18.03 | 1 | Cl; L; pRi; lC..... | 1 |
| 4784 | 3937 | ..... | ..... | 22 15 26.0 | 3.450 | 1 | 123 3 31.5 | 18.05 | 1 | eF; S; R; lbM..... | 1 |
| 4785 | 3938 | ..... | ..... | 22 16 21.1 | 3.466 | 2 | 124 24 1.6 | 18.08 | 1 | cB; pS; vLE; glbM; B ** sp | 2 |
| 4786 | 3939 | ..... | ..... | 22 16 44.2 | 3.429 | 3 | 121 53 45.0 | 18.10 | 3 | F; cS; vLE; p of 2..... | 4 |
| 4787 | 3940 | ..... | ..... | 22 18 15.5 | 3.424 | 4 | 121 51 23.5 | 18.15 | 3 | F; cS; vLE; f of 2..... | 4 |
| 4788 | 3941 | ..... | ..... | 22 18 57.4 | 4.079 | 1 | 150 52 54.3 | 18.19 | 1 | eeF; lE; vglbM; 3 st sf... | 1 |
| 4789 | 3942 | ..... | ..... | 22 19 7.4 | 3.478 | 2 | 125 51 19.3 | 18.19 | 2 | vF; S; R; vglbM..... | 2 |
| 4790 | 2160 | II. 248 | ..... | 22 19 38.1 | 2.916 | 2 | 74 33 55.0 | 18.20 | 2 | F; cS; R; gbMS*; 3 st nr... | 4 |
| 4791 | 2161 | ..... | ..... | 22 19 39.4 | 2.198 | 1 | 32 52 26.3 | 18.19 | 1 | Cl; L; pRi; lC; st 10...16... | 1 |
| 4792 | 3943 | II. 469 | ..... | 22 20 50.7 | 3.336 | 2 | 115 34 20.5 | 18.25 | 2 | cF; cS; lE; r; * inv..... | 3 |
| 5078 | ..... | ..... | ..... | 22 20 50.± | ..... | ... | 115 34 ± | ..... | ... | (See No. 5078)..... | 0 |
| 4793 | 2162 | ..... | ..... | 22 20 52.2 | 2.770 | 1 | 61 36 48.8 | 18.24 | 1 | vF; S; R; am st..... | 1 |
| 4794 | 3944 | ..... | ..... | 22 21 12.0 | 3.474 | 1 | 126 10 21.2 | 18.26 | 1 | vF; S; R; gbM..... | 1 |
| 4795 | ..... | ..... | Auw. N. 48 | 22 22 5.6 | 3.285 | ... | 111 32 59.8 | 18.29 | ... | !; pF; vL; EorbiN (Harding) | 0 |
| 4796 | 2163 | ..... | ..... | 22 22 21.2 | 2.365 | 1 | 37 53 26.3 | 18.29 | 1 | Cl; P; lC; st 12...13..... | 1 |
| 4797 | ..... | VII. 41 | ..... | 22 22 37.4 | 2.380 | 2 | 38 24 45.0 | 18.30 | 2 | Cl; iR; lC; st vS..... | 2 |
| 4798 | 3945 | ..... | ..... | 22 22 59.4 | 3.503 | 1 | 128 33 0.1 | 18.33 | 1 | eF; S; R; p of 2..... | 2 |
| 4799 | 2165, a | ..... | R. nova | 22 23 13.6 | 3.213 | :: | 104 40 30.3 | 18.34 | :: | vF; E np to sf (nisi=h.2164) | 0 |
| 4800 | 3946 | ..... | ..... | 22 23 23.8 | 3.501 | 1 | 128 32 9.8 | 18.34 | 1 | eF; S; R; f of 2..... | 2 |
| 4801 | 2164 | ..... | ..... | 22 23 28.3 | 3.213 | 2 | 104 44 11.8 | 18.34 | 2 | vF; cS; vglbM..... | 2 |
| 4802 | 2165 | IV. 31 | ..... | 22 24 53.0 | 3.213 | 4 | 104 50 30.3 | 18.39 | 4 | F; pS; R; vsbMFSRN..... | 5 |
| 4803 | ..... | ..... | D'Arrest, 116 | 22 24 57 | 2.76 | [1] | 59 45 18 | 18.38 | [1] | vF; pL; vlbM; h.2166 dist 2' | 0 |
| 4804 | 2166 | ..... | ..... | 22 24 58.6 | 2.760 | 2 | 59 45 25.3 | 18.39 | 2 | vF; S; R; vglbM..... | 2 |
| 4805 | 3948 | ..... | ..... | 22 25 28.5 | 3.352 | 1 | 117 58 4.4 | 18.42 | 1 | vF; S; lE; *11 p..... | 1 |
| 4806 | 3947 | ..... | ..... | 22 25 32.6 | 3.541 | 1 | 131 39 53.4 | 18.42 | 1 | F; pL; pmE..... | 1 |
| 4807 | 2167 | II. 476 | ..... | 22 26 55.7 | 3.173 | 5 | 101 4 53.2 | 18.46 | 5 | vF; pL; R; glbM; r..... | 6 |
| 4808 | 2168 | II. 428 | ..... | 22 27 3.9 | 3.027 | 2 | 85 9 17.9 | 18.47 | 2 | pF; S; R; psbM; r..... | 4 |
| 4809 | 2169 | III. 180 | ..... | 22 27 40.9 | 2.886 | 1:: | 70 23 45.6 | 18.48 | 1:: | eF; vS; R; *9 s..... | 2 |
| 4810 | 3949 | ..... | ..... | 22 28 2.3 | 3.331 | 2 | 116 45 55.0 | 18.50 | 3 | cB; L; mE 0°; vlbM..... | 3 |
| 4811 | 2170 | III. 237 | ..... | 22 29 46.2 | 2.877 | 1 | 69 5 50.5 | 18.55 | 1 | F; S; iR; vglbM..... | 2 |
| 4812 | 3950 | ..... | ..... | 22 29 46.2 | 3.466 | 2 | 127 57 13.5 | 18.55 | 2 | vF; S; vLE; gbM..... | 2 |
| 4813 | 2171 | ..... | ..... | 22 30 32.5 | 2.984 | 3 | 80 11 4.6 | 18.58 | 4 | eF; pS; lE 90°; vglbM..... | 4 |
| 4814 | 3951 | ..... | ..... | 22 30 37.2 | 4.257 | 1 | 157 12 16.0 | 18.60 | 1 | pB; pS; mE 90°..... | 1 |
| 4815 | 2172 | I. 53 | ..... | 22 30 39.5 | 2.736 | 1 | 56 20 5.6 | 18.58 | 3 | B; pL; pmE 160°; smbM... | 4† |
| 4816 | 2172, a | ..... | R. 5 novæ | 22 30 ± | 2.736 | ... | 56 20 ± | 18.58 | ... | 5 near; positions measured; no distances. | 0* |
| 4817 | | | | | | | | | | | |
| 4818 | | | | | | | | | | | |
| 4819 | | | | | | | | | | | |
| 4820 | 2173 | II. 233 | ..... | 22 30 44.0 | 2.857 | 2 | 66 55 34.6 | 18.58 | 2 | cB; S; mE 163°0; vsmbM *11; p of 2. | 5 |
| 4821 | | | | | | | | | | | |
| 4822 | 3950 | (No. 2?) | ..... | 22 30 50.5 | 3.466 | 1 | 127 55 48.4 | 18.62 | 1 | eF; ??..... | 1? |
| 4823 | 2174 | III. 166 | ..... | 22 30 54.0 | 2.736 | 1 | 56 17 51.3 | 18.59 | 1 | eF; vS; E..... | 2 |
| 4824 | 2175 | II. 234 | ..... | 22 31 5.7 | +2.858 | 2 | 66 55 58.3 | -18.59 | 2 | F; pS; mE 90°±; vglbM; f of 2. | 5 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|-----------------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ′ ″ | ″ | | | |
| 4825 | 2176 | ..... | ..... | 22 32 57.9 | +2.982 | 1 | 79 42 40.2 | -18.66 | 1 | eF; pL; E | 2 |
| 4826 | 2177 | ..... | ..... | 22 34 15.4 | 2.333 | 1 | 33 20 2.3 | 18.69 | 1 | Cl; vL; pRi; vLc | 1 |
| 4827 | 2178 | II. 705 | ..... | 22 35 6.6 | 2.218 | 1 | 29 27 5.4 | 18.72 | 1 | B; S; R; pglbM; er | 2 |
| 4828 | 3952 | ..... | ..... | 22 35 26.3 | 3.451 | 1 | 128 36 27.8 | 18.74 | 1 | eeF; S; R; * f 90°, 40s | 1 |
| 4829 | 3953 | ..... | Δ. 255? | 22 36 9.6 | 4.117 | 1 | 155 51 19.9 | 18.77 | 1 | F; S; R; bM | 1 |
| 4830 | 3954 | ..... | ..... | 22 36 30.8 | 3.351 | 1 | 120 47 3.9 | 18.77 | 1 | F; pL; vmE0°; vglbM | 1 |
| 4831 | 2179 | II. 442 | ..... | 22 37 14.0 | 3.079 | 2 | 90 53 42.0 | 18.80 | 2 | F; S; R; psbM | 5 |
| 4832 | 3955 | ..... | ..... | 22 37 30.5 | 3.475 | 1 | 130 4 35.7 | 18.81 | 1 | F; cS; lE; glbM | 1 |
| 4833 | 2180 | II. 477 | ..... | 22 38 40.4 | 3.166 | 4 | 101 44 29.8 | 18.84 | 5 | vF; pL; R; lbM | 6 |
| 4834 | 2181 | II. 598 | ..... | 22 40 12.8 | 3.262 | 3 | 113 2 10.3 | 18.89 | 3 | pB; S; vLE; vgmbM; S * nr | 4 |
| 4835 | 2181, a | ..... | R. 7 novæ | 22 40 ± | 3.262 | ... | 113 2 ± | 18.89 | ... | No descriptions | 0 |
| 4836 | | | | | | | | | | | |
| 4837 | | | | | | | | | | | |
| 4838 | | | | | | | | | | | |
| 4839 | | | | | | | | | | | |
| 4840 | | | | | | | | | | | |
| 4841 | | | | | | | | | | | |
| 4842 | 2182 | VIII. 77 | C. H. | 22 41 23.2 | 2.374 | 2 | 32 39 8.7 | 18.91 | 2 | Cl; pL; pRi; lC; st 9...13 .. | 3 |
| 4843 | 3956 | ..... | ..... | 22 42 23.0 | 3.408 | 1 | 127 34 56.5 | 18.95 | 1 | eF; vS; R; * 12 att np | 1 |
| 4844 | ..... | ..... | { D'Arrest, 117 = R. nova } | 22 42 30 | 2.99 | [2]:: | 79 10 30 | 18.94 | [2] | vF; vS; R; III. 216 nf | 0 |
| 4845 | 2183 | III. 216 | ..... | 22 42 56.0 | 2.988 | 1 | 79 7 46.2 | 18.96 | 2 | cF; S; R; glbM; * 11 np ... | 5 |
| 4846 | 2184 | III. 217 | ..... | 22 43 2.5 | 2.987 | 1 | 79 2 36.2 | 18.96 | 2 | cF; S; R; pgbM; f of 2 | 5 |
| 4847 | ..... | ..... | D'Arrest, 118 | 22 43 20 | 2.99 | [2] | 79 6 0 | 18.97 | [2] | eF; vS; R; 2 st 11, s | 0 |
| 4848 | 2184, a | ..... | R. nova | 22 43 22.5 | 2.99 | ... | 79 8 2.2 | 18.96 | ... | One of 5. See h. 2183, 2184, D'Arrest, 117, 118. | 0* |
| 4849 | 2185 | II. 443 | ..... | 22 43 25.0 | 3.088 | 2 | 92 16 54.6 | 18.98 | 2 | cF; cS; R; sbM * 13; * np .. | 4 |
| 4850 | 2186 | II. 702 | ..... | 22 44 15.4 | 3.238 | 3 | 111 21 1.0 | 19.00 | 3 | pB; pS; lE 120° ±; mbM ... | 4 |
| 4851 | 2187 | II. 453 | ..... | 22 44 21.1 | 3.118 | 2 | 96 18 6.0 | 19.00 | 2 | vF; pL; lE; vgbM; r | 3 |
| 4852 | 2188 | ..... | ..... | 22 44 36.2 | 2.534 | 1 | 38 33 54.0 | 19.00 | 1 | Cl; vP | 1 |
| 4853 | 2189 | ..... | ..... | 22 45 12.8 | 3.069 | 2 | 89 38 56.4 | 19.02 | 2 | pF; pS; R; gbM | 2 |
| 4854 | 2189, a | ..... | R. 3 novæ | 22 45 ± | 3.069 | ... | 89 39 ± | 19.02 | ... | "A group of 4," incl h. 2189 | 0 |
| 4855 | | | | | | | | | | | |
| 4856 | | | | | | | | | | | |
| 4857 | 3957 | ..... | ..... | 22 45 42.2 | 3.506 | 1 | 136 5 36.8 | 19.04 | 1 | pF; lE; glbM; vS * inv | 1 |
| 4858 | 3958 | ..... | ..... | 22 46 23.9 | 3.420 | 1 | 130 3 30.2 | 19.06 | 1 | vF; S; R | 1 |
| 4859 | 3959 | ..... | ..... | 22 46 49.9 | 3.930 | 1 | 154 26 29.6 | 19.08 | 2 | pB; pS; R; vglbM | 1 |
| 4860 | 3960 | ..... | Δ. 518 | 22 47 2.8 | 3.421 | 2 | 130 24 35.6 | 19.08 | 2 | cB; L; vmE 43° 3; mbM ... | 2 |
| 4861 | 3961 | ..... | ..... | 22 47 45.7 | 3.456 | 1 | 133 23 49.0 | 19.10 | 1 | eF; vL; * 7 nf | 1 |
| 4862 | 3962 | ..... | ..... | 22 48 42.2 | 3.940 | 1 | 155 46 26.1 | 19.13 | 1 | pB; cS; R; gpmbM | 2 |
| 4863 | 3963 | ..... | ..... | 22 48 42.4 | 3.383 | 3 | 127 46 23.4 | 19.12 | 3 | cB; vL; vLE; vglbM | 3 |
| 4864 | 2190 | VII. 43 | ..... | 22 48 46.6 | 2.356 | 2 | 29 55 6.3 | 19.09 | 2 | Cl; pRi; cC | 3 |
| 4865 | 3964 | ..... | ..... | 22 49 1.9 | 3.385 | 3 | 128 5 31.1 | 19.13 | 4 | cB; L; vLE; gpmbM; rr | 4 |
| 4866 | 2191 | III. 745 | ..... | 22 49 18.9 | 2.466 | 1 | 33 38 14.1 | 19.13 | 1 | vF; pL; iF; er | 2 |
| 4867 | 3965 | ..... | ..... | 22 49 21.4 | 3.428 | 2 | 131 49 4.8 | 19.14 | 2 | F; cL; vLE; vgmbM | 2 |
| 4868 | 2192 | III. 576 | ..... | 22 49 28.5 | 2.784 | 1 | 54 22 38.8 | 19.14 | 1 | vF; cS; R; stellar; * p | 3 |
| 4869 | 2193 | ..... | ..... | 22 50 18.4 | 2.404 | 1 | 30 45 23.2 | 19.16 | 1 | Cl; P; pC; st 9...11 | 1 |
| 4870 | 2194 | III. 465 | ..... | 22 51 3.9 | 2.986 | 1 | 77 37 14.6 | 19.18 | 1 | eF; S; R | 4 |
| 4871 | 2195 | III. 243 | ..... | 22 51 12.3 | 2.886 | 1 | 64 37 4.6 | 19.18 | 2 | F; pS; E 90°; gbM; er | 3 |
| 4872 | 2195, a | ..... | R. 2 novæ | 22 51 ± | 2.886 | ... | 64 37 ± | 19.18 | ... | { 2 of a group of 3; inv in Fneb. } | 0 |
| 4873 | | | | | | | | | | | |
| 4874 | 2196 | ..... | ..... | 22 51 36.5 | 2.543 | 1 | 36 23 55.3 | 19.19 | 1 | Cl; vL; E | 1 |
| 4875 | ..... | ..... | D'Arrest, 119 | 22 52 32 | 2.97 | [2] | 75 12 12 | 19.21 | [2] | pF; R; bet 2 st 16; * 13 nr... | 0 |
| 4876 | 2197 | II. 450 | ..... | 22 52 46.6 | 3.163 | 2 | 103 33 10.4 | 19.22 | 2 | F; vS; vLE; smbM; er; p of 2 | 4+ |
| 4877 | 2198 | II. 451 | ..... | 22 52 46.9 | 3.163 | 2 | 103 34 46.4 | 19.22 | 3 | F; vS; vLE; smbM; er; f of 2 | 5+ |
| 4878 | ..... | ..... | Auw. N. 49 | 22 53 6.3 | 3.144 | ... | 101 16 41.1 | 19.23 | ... | * 11.12 in neb (Markree Obs. Oct. 8, 1855). | 0 |
| 4879 | 2199 | II. 251 | ..... | 22 53 8.0 | 2.968 | 2 | 74 46 10.1 | 19.23 | 2 | pB; L; E 175°; vgbM | 3 |
| 4880 | ..... | II. 249 | ..... | 22 54 3.1 | 2.967 | 2 | 74 21 17.2 | 19.26 | 2 | F; cS; lE; lbM; pB * p | 2 |
| 4881 | 3966 | ..... | ..... | 22 54 13.6 | +3.387 | 1 | 130 19 19.2 | -19.26 | 1 | F; L; mE 33° 8; vglbM | 1 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by H. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 4882 | 3967 | ..... | ..... | 22 54 16.6 | +3.387 | 1 | 130° 20' 14.9 | -19.27 | 1 | eF; vL; vlbM | 1 |
| 4883 | 2201 | II. 212 | ..... | 22 54 17.6 | 2.861 | 1 | 60 36 32.2 | 19.26 | 1 | cB; cL; lE; gmbM; r; 2S st n | 2 |
| 4884 | 2200 | II. 590 | ..... | 22 54 20.5 | 3.065 | 2 | 88 59 35.2 | 19.26 | 2 | cF; cS; psbM | 3 |
| 4885 | 3968 | ..... | ..... | 22 54 55.7 | 3.397 | 2 | 131 34 57.6 | 19.28 | 2 | cF; pS; vmE 5° ±; * 11 np... | 2 |
| 4886 | 2202 | III. 210 | ..... | 22 54 56.3 | 2.971 | 1 | 74 46 22.6 | 19.28 | 1 | vF; S; lE; p of 2 | 2 |
| 4887 | 2203 | III. 211 | ..... | 22 55 5.3 | 2.971 | 1 | 74 46 59.6 | 19.28 | 1 | vF; vS; f of 2 | 2 |
| 4888 | 2204 | III. 230 | ..... | 22 56 12.2 | 3.020 | 1 | 81 52 19.7 | 19.31 | 1 | vF; vS; vsmbM * 12 | 2 |
| 4889 | 3969 | ..... | ..... | 22 56 13.3 | 3.514 | 1 | 140 52 10.7 | 19.31 | 1 | eF; pL; R; glbM; * 11 np ... | 1 |
| 4890 | ..... | III. 202 | ..... | 22 56 22.3 | 2.969 | 1 | 74 8 43.7 | 19.31 | 1 | eF; vS | 1 |
| 4891 | 3970 | ..... | ..... | 22 57 19.6 | 3.411 | 2 | 133 51 40.8 | 19.34 | 2 | F; S; R; Δ with 2 st 7 | 2 |
| 4892 | 2205 | I. 55 | ..... | 22 57 56.4 | 2.999 | 4 | 78 25 53.5 | 19.35 | 4 | pB; cL; mE 11° 9'; bet 2 st ... | 7*† |
| 4893 | 2206 | ..... | ..... | 22 58 40.4 | 3.055 | 1 | 87 12 42.2 | 19.36 | 1 | vF; S; E; psbM | 1 |
| 4894 | { 3971 = 3972 } | ..... | ..... | 22 59 21.2 | 3.330 | 4 | 127 1 37.6 | 19.38 | 4 | pB; S; R; lbM; * 8.9 att s... | 4* |
| 4895 | 2207 | ..... | ..... | 22 59 23.7 | 2.845 | 1 | 56 39 4.6 | 19.38 | 1 | vF; S; R; bM; * 10 p | 1 |
| 4896 | 2208 | III. 558 | ..... | 23 1 2.4 | 3.169 | 1 | 106 22 33.4 | 19.42 | 1 | eF; L; bet 2 D st | 2 |
| 4897 | 3973 | ..... | ..... | 23 1 56.3 | 3.379 | 2 | 134 10 34.8 | 19.44 | 2 | pB; cL; lE; vgbM * 13 | 2 |
| 4898 | 2209 | III. 203 | ..... | 23 2 5.5 | 2.971 | 2 | 72 35 4.8 | 19.44 | 2 | vF; L; pmE 45°; lbM | 3 |
| 4899 | 2210 | III. 184 | ..... | 23 4 29.6 | 3.087 | 2 | 92 54 44.3 | 19.48 | 2 | cF; vS; R; sbM * 15 | 4 |
| 4900 | { 2211 = 3974 } | II. 2 | ..... | 23 4 33.6 | 3.247 | 2 | 119 17 53.3 | 19.49 | 2 | pB; cS; R; psymbM; * 10 np | 5 |
| 4901 | 2212 | ..... | ..... | 23 4 45.0 | 3.004 | 2 | 77 49 34.0 | 19.50 | 2 | eF; bM*; (?) | 2 |
| 4902 | 2213 | VII. 44 | ..... | 23 5 26.7 | 2.536 | 1 | 30 11 23.7 | 19.51 | 2 | Cl; pRi; pC; fan-sh; st pB... | 4 |
| 4903 | 2214 | III. 220 | ..... | 23 5 46.8 | 3.006 | 2 | 78 4 51.4 | 19.52 | 3 | F; cS; R; vglbM; r | 7 |
| 4904 | ..... | III. 470 | ..... | 23 6 36.7 | 3.125 | 1 | 99 57 29.1 | 19.53 | 1 | eF; vS | 1 |
| 4905 | 3975 | ..... | ..... | 23 7 0.8 | 3.364 | 1 | 134 21 49.8 | 19.54 | 1 | pB; S; lE; pgbM | 1 |
| 4906 | 2215 | II. 429 | ..... | 23 7 28.8 | 3.052 | 2 | 86 15 44.5 | 19.55 | 2 | vF; cS; R; bM; sp of 2 | 3 |
| 4907 | ..... | II. 706 | ..... | 23 7 34.3 | 2.537 | 2 | 29 14 59.5 | 19.55 | 2 | vF; L; 2 pB st inv | 2 |
| 4908 | 2217 | ..... | ..... | 23 7 36.2 | 2.945 | 1 | 67 4 19.5 | 19.55 | 1 | F; S; R; psbM | 1 |
| 4909 | 2216 | II. 430 | ..... | 23 7 37.8 | 3.052 | 2 | 86 13 35.5 | 19.55 | 2 | B; L; mE 97° 5' (2 est); mbM; nf of 2. | 3 |
| 4910 | 3976 | ..... | ..... | 23 7 49.1 | 3.313 | 1 | 129 17 54.2 | 19.56 | 2 | F; S; vLE; vglbM; * 10 att. | 2 |
| 4911 | 2218 | ..... | ..... | 23 8 5.0 | 2.975 | 1 | 71 46 56.2 | 19.56 | 1 | np of 2 neb | 1 |
| 4912 | { 2218, a | ..... | R. 2 novæ | 23 8 ± | 2.975 | ... | 71 47 ± | 19.56 | ... | 2 of 4 incl h. 2218, 2219 ... | 0 |
| 4913 | ..... | ..... | D'Arrest, 120 | 23 8 17 | 2.94 | [2] | 65 29 18 | 19.57 | [2] | vF; vS; (d'Arrest) * 16 p 11s | 0 |
| 4914 | ..... | ..... | ..... | 23 8 17.5 | 2.975 | 1 | 71 47 55.9 | 19.57 | 1 | cF; S; R; sf of 2 | 2 |
| 4915 | 2219 | III. 181 | ..... | 23 8 25.2 | 3.346 | 1 | 133 21 29.9 | 19.57 | 1 | B; S; mE 90° ±; vsbM * 13... | 1 |
| 4916 | 3977 | ..... | Δ. 475 ? | 23 8 27.0 | 3.041 | :: | 84 3 21.6 | 19.57 | :: | No description | 0 |
| 4917 | 2224, a | ..... | R. nova | 23 8 30.3 | 3.010 | 1:: | 78 11 12.9 | 19.57 | 1:: | F; R; bM | 1 |
| 4918 | 2221 | ..... | ..... | 23 8 32.3 | 3.087 | 1 | 93 9 4.9 | 19.57 | 1 | cF; pL; R; B * f | 3 |
| 4919 | 2220 | II. 235 | ..... | 23 8 44.8 | 3.007 | 3 | 77 27 35.6 | 19.58 | 3 | F; cS; R; bM * 6; p of 2 | 6 |
| 4920 | 2222 | III. 221 | ..... | 23 8 51.2 | 3.041 | 1 | 84 4 21.6 | 19.58 | 1 | cB; pS; iR; psbM | 2 |
| 4921 | 2224 | II. 467 | ..... | 23 8 53.6 | 3.008 | 2 | 77 34 16.6 | 19.58 | 4 | cF; cS; R; sbM * 16 | 6* |
| 4922 | 2223 | III. 222 | ..... | 23 9 8.7 | 3.087 | 2 | 93 6 55.6 | 19.58 | 2 | vF; pS; E; er; 3S st inv | 2 |
| 4923 | ..... | III. 185 | ..... | 23 9 43.0 | 3.007 | 1 | 77 17 25.3 | 19.59 | 1 | eF; eS | 1 |
| 4924 | ..... | III. 238 | ..... | 23 10 14.0 | 3.099 | 1 | 95 30 25.0 | 19.60 | 1 | F; S; smbM | 1 |
| 4925 | ..... | II. 454 | ..... | 23 10 14.2 | 2.980 | 1 | 72 4 20.0 | 19.60 | 1 | vF; am vS st | 3 |
| 4926 | 2225 | III. 182 | ..... | 23 10 39.7 | 3.330 | 1 | 132 52 58.7 | 19.61 | 1 | pB; L; pmE; gbM | 1 |
| 4927 | 3978 | ..... | Δ. 476 ? | 23 10 47.0 | 3.098 | 2 | 95 24 42.7 | 19.61 | 2 | pB; pS; iR; gbM | 6 |
| 4928 | { 2226 = 3979 } | II. 236 | ..... | 23 11 9.4 | 3.329 | 1 | 132 59 53.4 | 19.62 | 1 | pB; pL; pmE; gbM; p of 2 .. | 1 |
| 4929 | 3980 | ..... | Δ. 477, 1 | 23 11 21.9 | 3.097 | 1 | 95 12 23.4 | 19.62 | 1 | eF; vS | 1 |
| 4930 | ..... | III. 186 | ..... | 23 11 36.8 | 3.326 | 1 | 133 1 8.1 | 19.63 | 1 | F; pL; pmE; gbM; f of 2 ... | 1 |
| 4931 | 3981 | ..... | Δ. 477, 2 | 23 11 38.9 | 3.112 | 1 | 98 19 42.1 | 19.63 | 2 | cF; S; R; pspmbM | 4 |
| 4932 | 2227 | II. 431 | ..... | 23 11 49.7 | +3.116 | 2 | 99 15 31.1 | -19.63 | 2 | pF; cL; pmE 0° ± | 3* |
| 4933 | { 2228 = 3982 } | I. 104 | ..... |  |  |  |  |  |  |  |  |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | ° ' " | " | | | |
| 4934 | ..... | ..... | D'Arrest, 121 | 23 12 30 | +3.04 | [2] | 82 42 24 | -19.64 | [2] | F; S; R; Δ with 2 st 19, n ... | 0 |
| 4935 | 2229 | ..... | ..... | 23 12 51.0 | 3.036 | 1 | 82 21 19.5 | 19.65 | 1 | eF; eS | 1 |
| 4936 | 2230 | II. 439 | ..... | 23 13 9.5 | 3.037 | 2 | 82 33 59.5 | 19.65 | 2 | cB; pS; R; psbM | 3 |
| 4937 | 3983 | ..... | ..... | 23 13 21.1 | 3.584 | 1 | 152 53 32.2 | 19.66 | 1 | eF; eS; am 5 st; (?) | 1 |
| 4938 | 2231 | III. 435 | ..... | 23 13 25.2 | 3.036 | 1 | 82 21 49.2 | 19.66 | 1 | F; vS; R; psbM | 2 |
| 4939 | 2232 | II. 250 | ..... | 23 13 27.2 | 2.994 | 2 | 73 32 34.2 | 19.66 | 2 | pB; cS; R; smbM | 4 |
| 4940 | 2233 | II. 440 | ..... | 23 13 38.0 | 3.037 | 2 | 82 32 58.2 | 19.66 | 1 | cB; pS; R; psbM | 3 |
| 4941 | ..... | ..... | D'Arrest | 23 14 5.8 | 2.998 | [4] | 74 12 23.9 | 19.67 | [4] | cB; pS; bM* (D'Arrest, Resultate). | 0* |
| 4942 | 2231, a | ..... | R. nova | 23 14 13.7 | 3.036 | :: | 82 21 49 | 19.67 | :: | Ep and f | 0 |
| 4943 | ..... | ..... | D'Arrest, 122 | 23 14 22 | 3.04 | [2] | 82 33 6 | 19.67 | [2] | vF; vS | 0 |
| 4944 | 3985 | ..... | ..... | 23 14 21.5 | 3.314 | 2 | 133 14 52.6 | 19.68 | 2 | F; S; R; lbM | 2 |
| 4945 | 3986 | ..... | ..... | 23 14 30.5 | 3.717 | 2 | 158 25 49.6 | 19.68 | 2 | F; vS; E90°; psbM | 2 |
| 4946 | 2234 | II. 441 | ..... | 23 14 36.4 | 3.035 | 1 | 81 52 38.6 | 19.68 | 1 | F; S; F* att | 2 |
| 4947 | 2235 | IV. 52 | ..... | 23 14 38.8 | 2.616 | 1 | 29 35 10.6 | 19.68 | 1 | vF; *9 inv a l excentric | 3 |
| 4948 | 3987 | ..... | ..... | 23 15 3.6 | 3.219 | 1 | 120 2 41.3 | 19.69 | 1 | eF; S; R; sbM | 1 |
| 4949 | 3984 | ..... | ..... | 23 15 6.0 | 4.986 | 1 | 172 40 19.0 | 19.70 | 1 | vF; pL; R; vlbM; *nr | 1 |
| 4950 | 2236 | II. 600 | ..... | 23 15 23.6 | 2.858 | 2 | 49 54 46.3 | 19.69 | 2 | cF; L; mE0°±; vlbM; r ... | 4+ |
| 4951 | 3988 | ..... | ..... | 23 16 17.5 | 3.215 | 1 | 120 8 51.7 | 19.71 | 1 | vF; S; R; glbM | 1 |
| 4952 | ..... | III. 473 | ..... | 23 16 47.9 | 3.002 | 1 | 74 0 18.4 | 19.72 | 1 | eF; cL; sc st f; (?) | 1 |
| 4953 | ..... | III. 218 | ..... | 23 16 48.7 | 3.032 | 1 | 80 50 18.4 | 19.72 | 1 | eF; pS; lE | 1 |
| 4954 | 3989 | ..... | ..... | 23 17 17.8 | 3.464 | 2 | 148 33 48.1 | 19.73 | 2 | pF; pS; R; glbM; p of 2 ... | 2 |
| 4955 | 3990 | ..... | ..... | 23 17 37.9 | 3.462 | 1 | 148 39 59.1 | 19.73 | 1 | eF; S; R; f of 2 | 1 |
| 4956 | 2237 | ..... | ..... | 23 17 51.8 | 3.010 | 1 | 75 29 12.1 | 19.73 | 1 | vF; pS; R; gbM | 2 |
| 4957 | 2238 | ..... | M. 52 | 23 18 3.2 | 2.643 | 1 | 29 10 20.1 | 19.73 | 1 | Cl; L; Ri; mCM; R; st 9...13 | 8 |
| 4958 | 3991 | ..... | ..... | 23 18 14.6 | 3.674 | 1 | 158 47 39.8 | 19.74 | 1 | eF; vS; R; psbM; *10 p 22° | 2 |
| 4959 | 3992 | ..... | ..... | 23 18 40.6 | 3.452 | 1 | 148 34 57.5 | 19.75 | 1 | eF; R | 1 |
| 4960 | 3994 | ..... | ..... | 23 18 48.0 | 3.266 | 1 | 129 59 55.5 | 19.75 | 2 | { eF; S; R } D neb; 4 st p.. | 2 |
| 4961 | 2239 | III. 212 | ..... | 23 18 52.9 | 3.016 | 1 | 76 33 33.5 | 19.75 | 1 | vF; vS; R; psbM | 2 |
| 4962 | 2240 | ..... | ..... | 23 18 52.9 | 2.956 | 1 | 63 44 7.5 | 19.75 | 1 | F; vS; psmbM; *10 p | 1 |
| 4963 | 3993 | ..... | ..... | 23 18 56.4 | 3.590 | 1 | 156 2 49.5 | 19.75 | 1 | eF; cL; R; vglbM | 1 |
| 4964 | 2241 | IV. 18 | ..... | 23 19 9.9 | 2.864 | 5 | 48 13 57.5 | 19.75 | 5 | !!!; O; vB; pS; R; blue..... | 16*+ |
| 4965 | ..... | III. 438 | ..... | 23 20 0.9 | 3.112 | 1 | 100 11 16.2 | 19.76 | 1 | eF; S; stellar | 1 |
| 4966 | 2242 | III. 226 | ..... | 23 20 15.0 | 3.025 | 4 | 78 18 33.9 | 19.77 | 4 | { (H.) vF } S; R; vsmbM; { (h.) pB } *9 p (? var). | 6* |
| 4967 | 2242, a | ..... | R. nova | 23 20 15.0 | 3.025 | :: | 78 24 33.9 | 19.77 | :: | vF; S; G's of h. 2242 | 0 |
| 4968 | 2243 | ..... | ..... | 23 20 49.8 | 3.040 | 1 | 81 59 10.6 | 19.78 | 1 | F; cS; gbM; p of 2 | 1 |
| 4969 | 2244 | ..... | ..... | 23 20 59.8 | 3.041 | 1 | 81 59 55.6 | 19.78 | 1 | vF; S; R; gbM; f of 2 | 1 |
| 4970 | 3995 | ..... | ..... | 23 21 2.6 | 3.457 | 1 | 150 29 2.6 | 19.78 | 1 | B; S; lE; vsymbM*11 | 1 |
| 4971 | 2245 | II. 226 | ..... | 23 21 28.0 | 2.985 | 2 | 68 20 38.3 | 17.79 | 2 | vF; pL; vLE; lbM; am 4 st... | 3+ |
| 4972 | 2246 | III. 860 | ..... | 23 21 36.7 | 2.938 | (1) | 58 25 6.3 | 19.79 | 1: | vF; S; R; lbM; r | 2 |
| 4973 | 2247 | II. 242 | ..... | 23 21 52.1 | 3.008 | 2 | 73 28 4.3 | 19.79 | 2 | vF; S; iR; r; *f | 4 |
| 4974 | ..... | ..... | D'Arrest, 123 | 23 21 55 | 3.06 | [1] | 87 19 4 | 19.79 | [2] | eF; *14 p 13°7, 1 n | 0 |
| 4975 | 2248 | III. 426 | ..... | 23 23 21.9 | 3.061 | 1 | 86 52 7.7 | 19.81 | 1 | eF; cL; R; gbM; *nr | 3 |
| 4976 | 2249 | VIII. 69 | ..... | 23 23 29.0 | 2.839 | 2 | 41 38 50.7 | 19.81 | 2 | Cl; P; lC; st 7...11 | 4 |
| 4977 | ..... | ..... | D'Arrest, 124 | 23 23 47 | 3.06 | [2] | 87 12 42 | 19.81 | [2] | vF; vS; *11 f 1°, n 85'' | 0 |
| 4978 | 3996 | ..... | Δ . 347 ? | 23 24 48.4 | 3.352 | 1 | 144 52 22.1 | 19.83 | 1 | pF; L; R; vglbM | 1 |
| 4979 | 3997 | ..... | ..... | 23 25 20.0 | 3.325 | 2 | 142 28 11.8 | 19.84 | 2 | cB; S; lE; psbM; *8 f | 2 |
| 4980 | 2250 | III. 213 | ..... | 23 25 20.6 | 3.019 | 1 | 74 55 35.8 | 19.84 | 1 | eF; pL; Δ with 2 st 10 | 2* |
| 5079 | ..... | ..... | ..... | 23 25 33.1 | ..... | ... | 96 22 12.0 | ..... | ... | See No. 5079. | |
| 4981 | ..... | III. 187 | ..... | 23 25 56.9 | 3.084 | 2 | 93 31 10.5 | 19.85 | 2 | eF; pL; stellar | 1 |
| 4982 | ..... | ..... | D'Arrest, 125 | 23 26 4 | 3.09 | [1] | 93 39 12 | 19.85 | [1] | eF; pL; 3 st 11 & 12 f..... | 0 |
| 4983 | 3998 | ..... | ..... | 23 26 48.5 | 3.494 | 1 | 156 19 38.2 | 19.86 | 1 | eeF; pL (certain) | 1 |
| 4984 | ..... | III. 188 | ..... | 23 27 3.0 | 3.084 | 1 | 93 41 10.2 | 19.86 | 1 | eF; stellar | 1 |
| 4985 | 3999 | ..... | ..... | 23 27 43.9 | 3.347 | 2 | 146 47 2.9 | 19.87 | 2 | B; cS; E; g, sbM; *8.9 p ... | 2 |
| 4986 | 2251 | ..... | ..... | 23 27 44.2 | 3.022 | 1 | 74 42 26.9 | 19.87 | 1 | vF; vS; gbM; *nf 1' | 1 |
| 4987 | 2252 | ..... | ..... | 23 27 53.0 | 3.059 | 2 | 85 52 26.9 | 19.87 | 2 | eF; *12 p; sp of 2 | 2 |
| 4988 | 2253 | ..... | ..... | 23 28 2.0 | 3.058 | 1 | 85 49 1.9 | 19.87 | 1 | vF; nf of 2 | 1 |
| 4989 | 2254 | III. 579 | ..... | 23 28 2.6 | 2.900 | 2 | 46 27 42.9 | 19.87 | 2 | eF; S; R; *9-10 p, v nr..... | 3 |
| 4990 | 2255 | VIII. 62 | ..... | 23 28 15.5 | +2.510 | 2 | 17 51 23.9 | -19.87 | 2 | Cl; L; P; lC; st 8, 10...15... | 5 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and H. |
|-------------------|------------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulae. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 4991 | 2256 | II. 244 | ..... | 23 28 35.2 | +3.026 | 1 | 75 27 48.6 | -19.88 | 2 | F; S; R; psbM; stellar | 4 |
| 4992 | 4000 | ..... | ..... | 23 28 56.7 | 3.209 | 1 | 128 13 2.6 | 19.88 | 1 | pB; L; E; vgbM | 1 |
| 4993 | 2257 | ..... | ..... | 23 29 2.6 | 3.067 | 1 | 88 36 51.3 | 19.89 | 1 | pB; S; R; psbM; *12 sp | 1 |
| 4994 | 2257, a | ..... | R. nova | 23 29 10.6 | 3.067 | :: | 88 36 51.3 | 19.89 | :: | No description | 0 |
| 4995 | 2258 | ..... | ..... | 23 29 20.0 | 3.073 | 1 | 90 28 43.3 | 19.89 | 1 | F; pL; lE; gbm; *10 s | 1 |
| 4996 | 2259 | III. 146 | ..... | 23 31 28.2 | 2.992 | 1 | 63 45 34.7 | 19.91 | 1 | F; S; lE; bM; am st | 2 |
| 4997 | 2260 | II. 432 | ..... | 23 31 35.5 | 3.092 | 3 | 97 17 32.7 | 19.91 | 3 | pF; cL; E 12° ±; vgbM | 7 |
| 4998 | 2261 | I. 110 | ..... | 23 31 41.7 | 3.111 | 2 | 103 43 56.7 | 19.91 | 2 | { (H.) cB } ; cL; E; gmbM; { (h.) cF } r (? var.) | 4* |
| 4999 | ..... | III. 189 | ..... | 23 32 21.2 | 3.087 | 1 | 95 24 5.4 | 19.92 | 1 | eeF | 1 |
| 5000 | 2262 | I. 111 | ..... | 23 32 38.8 | 3.107 | 2 | 103 4 12.4 | 19.92 | 2 | pB; pL; iR; mbM | 4 |
| 5001 | 4001 | ..... | ..... | 23 34 41.4 | 3.397 | 1 | 156 45 1.5 | 19.95 | 1 | eF; S; R; p of 2 | 1 |
| 5002 | 4002 | ..... | ..... | 23 34 49.4 | 3.396 | 1 | 156 44 21.5 | 19.95 | 1 | cF; cS; R; f of 2 | 1 |
| 5003 | 2263 | II. 208? | ..... | 23 35 17.3 | 3.006 | 1 | 64 32 13.5 | 19.95 | 1 | vF; *14 att 255° | 1* |
| 5004 | ..... | II. 208 | ..... | 23 36 45.2 | 3.010 | 1 | 64 38 3.2 | 19.96 | 1 | cL; R; *10.11 np | 1* |
| 5005 | 2264 | II. 255 | ..... | 23 37 8.5 | 3.049 | 3 | 80 0 26.2 | 19.96 | 5 | cB; cS; gmbM; r; B * f. | 7 |
| 5006 | 2265 | II. 256 | ..... | 23 37 13.4 | 3.051 | 1 | 80 50 20.2 | 19.96 | 3 | pF; S; R; *15 sf | 4 |
| 5007 | 4003 | ..... | ..... | 23 37 35.5 | 3.190 | 3 | 133 41 27.9 | 19.97 | 3 | cB; S; vLE; svmbM *14 | 3 |
| 5008 | 2266 | ..... | ..... | 23 38 26.1 | 2.757 | 1 | 21 1 30.9 | 19.97 | 1 | vL; surrounds *8 | 1 |
| 5009 | 4004 | ..... | ..... | 23 38 29.5 | 3.141 | 2 | 120 17 4.6 | 19.98 | 2 | vF; S; R; gmbM; *12 f | 2 |
| 5010 | 2267 | III. 427 | ..... | 23 39 27.3 | 3.066 | 2 | 86 58 39.6 | 19.98 | 2 | cF; pL; vLE 0°; lbM; 2 Bstnr | 4 |
| 5011 | 2268 | II. 213 | ..... | 23 40 2.3 | 3.011 | 1 | 61 17 42.3 | 19.99 | 1 | cF; cL; vLE; vglbM; r | 2 |
| 5012 | 4005 | ..... | ..... | 23 40 35.8 | 3.137 | 2 | 121 17 45.3 | 19.99 | 2 | B; cL; R; psmbM | 2 |
| 5013 | 2269 | III. 437 | ..... | 23 40 50.1 | 3.064 | 1 | 83 54 46.3 | 19.99 | 2 | F; S; R; gbm; er | 3 |
| 5014 | 2270 | ..... | ..... | 23 41 35.4 | 3.066 | 1 | 86 36 8.0 | 20.00 | 2 | vF; cL; R; vglbM; *13 n | 2 |
| 5015 | 2271 | III. 854 | ..... | 23 42 7.7 | 3.015 | 5 | 59 47 45.0 | 20.00 | 5 | cB; vS; R; psbM; rr | 7* |
| 5016 | 2272 | VII. 55 | ..... | 23 43 4.8 | 2.849 | 1 | 22 45 49.7 | 20.01 | 1 | Cl; pRi; pC; st 11...15 | 4 |
| 5017 | 4006 | ..... | ..... | 23 43 34.1 | 3.151 | 1 | 131 31 2.7 | 20.01 | 1 | B; pL; R; gbm | 1 |
| 5018 | 2273, a | ..... | R. nova | 23 43 ± | 3.028 | ... | 63 37 ± | 20.01 | ... | vvF; a little np h. 2273 | 0 |
| 5019 | 2273 | ..... | ..... | 23 43 52.2 | 3.028 | 1 | 63 37 55.7 | 20.01 | 1 | vF; S; iF; vF * inv | 1 |
| 5020 | 2274 | II. 230 | ..... | 23 43 55.7 | 3.041 | 2 | 70 37 26.7 | 20.01 | 2 | pF; pS; R; mbM; sp of 2 | 4* |
| 5021 | 2274, a | ..... | R. nova | 23 44 13.9 | 3.04 | ... | 70 40 43.7 | 20.01 | ... | Seen and meas. with h. 2274, 2275. | 0 |
| 5022 | 2275 | II. 231 | ..... | 23 44 17.1 | 3.042 | 2 | 70 39 16.7 | 20.01 | 2 | pB; pL; E 90°; bM; nf of 2 | 4 |
| 5023 | 2276 | ..... | ..... | 23 44 38.0 | 3.049 | 1 | 74 31 22.4 | 20.02 | 1 | Cl of sc st 10 m | 1 |
| 5024 | 2277 | II. 851 | ..... | 23 45 4.8 | 3.024 | 2 | 59 31 6.4 | 20.02 | 3 | vF; cS; R; * nf | 5 |
| 5025 | 2278 | III. 231 | ..... | 23 46 11.5 | 3.063 | 2 | 82 54 5.4 | 20.02 | 2 | cF; S; R; psbM; stellar; 1st of 4. | 3 |
| 5026 | 2279 | III. 232 | ..... | 23 46 19.0 | 3.063 | 2 | 82 53 50.4 | 20.02 | 2 | pF; S; R; psbM; stellar; 2nd of 4. | 3 |
| 5027 | 2280 | ..... | ..... | 23 46 38.2 | 3.063 | 1 | 82 54 18.1 | 20.03 | 1 | F; S; R; 3rd of 4 | 1 |
| 5028 | 2281 | III. 233 | ..... | 23 46 45.2 | 3.063 | 2 | 82 48 10.1 | 20.03 | 2 | pF; pL; lE; gbm; 4th of 4 | 4 |
| 5029 | 2282 | II. 468 | ..... | 23 48 10.1 | 3.066 | 4 | 84 51 58.1 | 20.03 | 4 | pB; pS; iR; psbM; r; *7 p 30° | 5 |
| 5030 | 2283 | ..... | ..... | 23 49 42.8 | 2.975 | 2 | 29 23 16.8 | 20.04 | 2 | Cl; S; pRi; vC; st 10, 13... | 2 |
| 5031 | 2284 | VI. 30 | C. H. | 23 49 58.5 | 2.994 | 1 | 34 3 46.8 | 20.04 | 1 | Cl; vL; vRi; vmC; st 11...18 | 3 |
| 5032 | 2285 | VII. 56 | ..... | 23 50 0.7 | 2.979 | 1 | 29 33 50.8 | 20.04 | 1 | Cl; pRi; pC | 2 |
| 5033 | 2286 | ..... | ..... | 23 50 47.4 | 3.063 | 1 | 80 0 18.8 | 20.04 | 1 | vF; vS; (?) | 1 |
| 5034 | 2287 | ..... | ..... | 23 51 34.3 | 2.999 | 1 | 30 45 41.8 | 20.04 | 1 | Cl; vL; P; lC; st 7, 10... | 1 |
| 5035 | 4009 | ..... | ..... | 23 51 45.2 | 3.136 | 1 | 146 14 16.8 | 20.04 | 1 | pB; cS; R; gmbM | 1 |
| 5036 | 2288 | III. 466 | ..... | 23 51 47.0 | 3.065 | 1: | 80 2 53.5 | 20.05 | 1 | vF; pS; iR | 2 |
| 5037 | 2289 | III. 867 | ..... | 23 51 50.3 | 3.070 | 1 | 87 8 41.5 | 20.05 | 1 | eF; pS; iR; lbM | 2 |
| 5038 | 2290 | II. 232 | ..... | 23 52 17.4 | 3.058 | 1 | 70 0 13.5 | 20.05 | 1 | pF; S; R; sbM; *10 sp | 3 |
| 5039 | 2291 | II. 10 | ..... | 33 52 28.1 | 3.063 | 1 | 75 58 24.5 | 20.05 | 1 | F; pS; iE 15° ± | 3 |
| 5040 | 2292 | ..... | ..... | 23 53 17.8 | 3.033 | 1 | 40 3 38.5 | 20.05 | 1 | Cl; pRi; pC; st 9... | 1 |
| 5041 | 2293 | ..... | ..... | 23 53 49.6 | 3.069 | 1 | 84 32 7.5 | 20.05 | 1 | vF; S; R; psbM | 1 |
| 5042 | 2294 | III. 855 | ..... | 23 54 14.4 | 3.056 | 2 | 59 20 47.5 | 20.05 | 3 | eF; S; R; sbM; stellar sp of 2 | 4 |
| 5043 | 2295 | III. 856 | ..... | 23 54 17.0 | 3.056 | 3 | 59 20 0.5 | 20.05 | 3 | eF; S; R; stellar; nf of 2 | 4 |
| 5044 | 2296 | III. 984 | ..... | 23 55 10.4 | 3.067 | 2 | 77 48 0.5 | 20.05 | 3 | eF; stellar; Δ with 2 st | 4* |
| 5045 | 4010 | ..... | ..... | 23 55 43.1 | 3.085 | 1 | 125 1 38.5 | 20.05 | 1 | vF; S; R; am st | 1 |
| 5046 | 2297 | II. 240 | ..... | 23 56 4.5 | 3.067 | 1 | 74 37 31.5 | 20.05 | 1 | cB; cL; ir; vgbM | 2+ |
| 5047 | 2298 | III. 436 | ..... | 23 56 32.1 | +3.070 | 1:: | 83 25 16.5 | -20.05 | 1 | vF; pL; R; lbM | 2 |

| No. of Catalogue. | References to | | | Right Ascension for 1860, Jan. 0. | Annual Precession in Right Ascension for 1880. | No. of Obs. used. | North Polar Distance for 1860, Jan. 0. | Annual Precession in N.P.D. for 1880. | No. of Obs. used. | Summary Description from a Comparison of all the Observations, Remarks, &c. | Total No. of times of Obs. by h. and h. |
|-------------------|-----------------------------------|------------------------------|--------------------|-----------------------------------|--|-------------------|--|---------------------------------------|-------------------|---|---|
| | Sir J. H.'s Catalogues of Nebulæ. | Sir W. H.'s Classes and Nos. | Other Authorities. | | | | | | | | |
| | h. | H. | | h m s | s | | | | | | |
| 5048 | 2299 | ..... | ..... | 23 56 39.9 | +3.070 | 1 | 83° 17' 43.5" | -20.05 | 1 | vF; pL; R; gbM..... | 1 |
| 5049 | 2300 | ..... | ..... | 23 56 48.7 | 3.067 | 1 | 70 0 3.5 | 20.05 | 1 | pF; cL; mE 45°±; lbM..... | 4 |
| 5050 | 2301 | II. 227 | ..... | 23 57 19.7 | 3.072 | 1 | 85 34 38.5 | 20.05 | 1 | pB; vS; mE; vsmbM..... | 2 |
| 5051 | 2302 | ..... | ..... | 23 57 32.6 | 3.051 | 1 | 22 6 18.2 | 20.06 | 1 | !; eeF; eeL..... | 1* |
| 5052 | 4011 | ..... | ..... | 23 57 35.2 | 3.087 | 2 | 152 50 42.2 | 20.06 | 2 | F; S; R; gbM..... | 2 |
| 5053 | 2303 | ..... | ..... | 23 57 55.7 | 3.072 | 1 | 83 51 42.2 | 20.06 | 1 | pF; S; R; * 9 np..... | 1 |
| 5054 | 2304 | ..... | ..... | 23 57 56.2 | 3.072 | 1 | 85 34 12.2 | 20.06 | 1 | vF; S; gbM..... | 1 |
| 5055 | 2305 | VIII. 29 | ..... | 23 58 1.9 | 3.070 | 1 | 111 29 37.2 | 20.06 | 1 | Cl; vP; vC..... | 2 |
| 5056 | 2306 | ..... | ..... | 23 58 17.7 | 3.072 | 1 | 85 33 47.2 | 20.06 | 1 | vF; S; R; * nf..... | 1 |
| 5057 | 4013 | III. 190 | ..... | 23 59 17.4 | +3.072 | 1 | 94 29 48.2 | -20.06 | 1 | vF; vS; R; vg, psmbM; 2 st 9 sf. | 2 |

SUPPLEMENTARY LIST OF NEBULÆ AND CLUSTERS.

| | | | | | | | | | | | |
|------|---------|-------|---------------|------------|--------|-----|-------------|--------|-----|--|----|
| 5058 | ..... | ..... | G. P. Bond | 0 35 1.0 | +3.073 | ... | 89 50 6.6 | -19.80 | ... | F; S; R; * 11 sp 1'; disc Sept. 16, 1862. | 0 |
| 5059 | 79, b | ..... | R. nova | 0 50 7.9 | 3.241 | ... | 60 23 27 | 19.56 | ... | No description; γ in Lord R.'s diagram. | 0 |
| 5060 | ..... | ..... | S. Coolidge | 3 6 55.2 | 3.089 | ... | 89 4 27.5 | 13.67 | ... | F; disc Jan 25, 1860..... | 0 |
| 5061 | ..... | ..... | S. Coolidge | 3 16 29.0 | +3.086 | ... | 89 19 3.0 | 13.07 | ... | F; disc Dec. 16, 1859..... | 0 |
| 5062 | (123) | ..... | ..... | 4 57 18.4 | -0.385 | 1 | 159 36 32.1 | - 5.43 | 1 | No description..... | 1 |
| 5063 | (374) | ..... | ..... | 5 20 52.9 | -0.469 | 1:: | 159 36 35.4 | - 3.42 | 1:: | No description..... | 1 |
| 5064 | ..... | ..... | J. H. Safford | 6 5 7 : | +3.093 | ... | 88 50 39 : | + 0.43 | ... | 2 Cls; near 2 st 9.10 & 10.11; disc Mar. 19, 1863. | 0 |
| 5065 | ..... | ..... | J. H. Safford | 6 6 40.9 | 3.093 | ... | 88 58 11.2 | 0.44 | ... | Cl; bet 2 st 9.10 & 10.11; disc Mar. 19, 1863. | 0 |
| 5066 | ..... | ..... | G. P. Bond | 7 55 12.5 | 3.509 | ... | 65 25 19.4 | 9.73 | ... | vF; cometic; disc Sept. 1, 1852. | 0 |
| 5067 | ..... | ..... | S. Coolidge | 9 59 51.1 | 3.079 | ... | 89 15 7.3 | 17.38 | ... | Neb; no description; disc Mar. 31, 1859. | 0 |
| 5068 | ..... | ..... | S. Coolidge | 10 16 14.1 | 3.079 | ... | 89 13 46.0 | 18.05 | ... | F; disc Mar. 31, 1859..... | 0 |
| 5069 | 939, c | ..... | R. nova | 11 33 ± | 3.122 | ... | 71 29 ± | 19.93 | ... | No description..... | 0 |
| 5070 | 2849, a | ..... | D'Arrest | 12 12 41 | 3.06 | ... | 83 46 42 | 20.02 | ... | A nebula; no description... | 0* |
| 5071 | ..... | ..... | S. Coolidge | 12 31 0.5 | 3.069 | ... | 89 2 46.5 | 19.87 | ... | *12, in F neb; disc May 3, 1859. | 0 |
| 5072 | ..... | ..... | S. Coolidge | 13 24 32.0 | 3.067 | ... | 89 18 29.7 | 18.67 | ... | *12, in F neb; disc Apr. 30, 1859. | 0 |
| 5073 | ..... | ..... | S. Coolidge | 13 42 38.3 | 3.065 | ... | 89 14 2.4 | 18.03 | ... | *12, in F neb; disc Apr. 30, 1859. | 0 |
| 5074 | ..... | ..... | G. P. Bond | 13 49 18.6 | 3.068 | ... | 89 31 9.0 | 17.77 | ... | S; R; *92'; disc June 8, 1855. | 0 |
| 5075 | ..... | ..... | S. Coolidge | 13 53 58.0 | 3.065 | ... | 89 13 53.3 | +17.60 | ... | *12, in neb; disc Apr. 29, 1859. | 0 |
| 5076 | ..... | ..... | Lac. I. 11 | 18 20 44.6 | 3.952 | ... | 123 30 27.3 | - 1.89 | ... | Neb. without stars..... | 0 |
| 5077 | ..... | ..... | G. P. Bond | 21 45 12.5 | 2.217 | ... | 40 53 46.4 | 16.67 | ... | Neb; no description; disc Feb. 10, 1848. | 0 |
| 5078 | 3943, a | ..... | Lassell | 22 20 50 : | 3.336 | ... | 115 34 + | 18.25 | ... | Neb* *1' dist from h. 3943 .. | 0 |
| 5079 | ..... | ..... | G. P. Bond | 23 25 33.1 | +3.093 | ... | 96 22 12.0 | -19.83 | ... | Neb; * 9.10 sf; disc Oct. 23, 1848. | 0 |

Of this supplementary list, the objects Nos. 5058, 5060, 5061, 5064, 5065, 5066, 5067, 5068, 5071, 5072, 5073, 5074, 5075, 5077, and 5079 were communicated to me by Professor BOND, Director of the Observatory of Harvard College, U.S., too late for insertion in the body of the Catalogue.

ERRATA.

In page 7, lines 13, 14, for 5063 read 5079, and for six read 22.