

# The Collinder Catalog

Originally created by Per Arne Collinder, compiled as an observer's checklist by Thomas Watson. First posted on Cloudy Nights at [http://www.cloudynights.com/item.php?item\\_id=2544](http://www.cloudynights.com/item.php?item_id=2544). This is a copy-and-paste version of the abbreviations, catalog, and notes from Watson's article, for observers who wish to access the catalog in PDF form. All of the effort and credit belong to Thomas Watson!

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The following is an explanation of the column headings of the checklist derived from Collinder's catalog.

## Cr.#

The catalog number assigned by Collinder to each object included in his study.

## NGC/Other Cat

Provides connections to the more general resources from which Collinder derived his list of open clusters. Not all of these designations were included in Collinder's original catalog. They are added here to allow for easier cross referencing with modern resources. In a few cases Collinder got an NGC/IC number wrong, and where the erroneous number might be found in other references, this has been noted. Also, some of his designations, while correct in their time, are seldom used these days. A few of these, such as that for the Coathanger asterism (4-5 Vul)) have been retained as curiosities.

## Con

The constellation in which the object is found.

## RA and DEC

The celestial coordinates of the objects according to the Historically Corrected New General Catalogue (HCNGC) v1.02. The coordinates listed in Collinder's dissertation are from the early 1900s and are not reproduced in this checklist. (See original catalog.)

## M (v/p)

Estimates of the apparent magnitudes of these clusters, either visual (v) or photographic (p) taken from such sources as NSOG, the SEDS website, and Archinal & Hynes, and The Historically Corrected New General Catalogue (HCNGC) v.1.02. The magnitudes recorded by Collinder often do not agree with modern sources. (See original catalog.)

## # Stars

Estimates of the number of stars contained within star clusters, determined by the examination of photographic plates. Most of these counts are by Collinder. Where he did not provide a number one was substituted from other (usually more recent) sources, as indicated by a number in parenthesis. This segregation was done in order to help maintain some sense of what Collinder measured in his work, while still providing useful information to modern observers. Although these numbers can be useful for giving the observer some sense for the cluster's nature, always bear in mind that the number of stars seen will be strongly influenced by aperture and conditions.

## Size '

Modern estimates of angular size – in arc minutes – taken from sources such as The Historically Corrected New General Catalogue (HCNGC) v.1.02 and *The Night Sky Observer's Guide* (NSOG) by Kepple and Sanner.

## Class

A classification system used to describe clusters by comparing them to typical and well known clusters as examples. Classifications of this sort from both Collinder and Lundmark (his doctoral advisor) are included in the original catalog, but only Collinder's assessment (which in the

overwhelming majority of cases is the same as Lundmark's) are used for this list. This system of descriptive classification is included partly for the historical insight it provides into how these objects were seen by the researcher involved, and also because they might offer an aid to the identification of objects when they are found.

- **Plei** = Pleiades (M45)
- **Praes** = Praesepe (M44)
- **$\mu$  Norm** = mu Normae Cluster (NGC 6169)
- **Glob** = resembled a globular cluster
- **Chain** = string-like asterism
- **Neb** = appears nebulous, or contains nebulosity
- **nl** = none listed
- **Notes (n)** = Useful information that it is hoped provides some clarification of discrepancies between Collinder's sources and those currently in use.

## Catalog and Checklist

Col #	NGC/Other Cat.	Con	RA	DEC	m (v/p)	# Stars	Size	Class	n
1	103	Cas	00h 25m 17.4s	+61° 19' 19"	9.8v	(30)	5	Plei	
2	129	Cas	00h 29m 54.1s	+60° 12' 35"	6.5v	20	21	Plei	
3	133	Cas	00h 31m 16.9s	+63° 21' 10"	9.4v	20	7	Plei	
4	136	Cas	00h 31m 30.7s	+61° 30' 34"	11.3p	(20)	1.2	Praes	
5	146	Cas	00h 33m 03.9s	+63° 18' 33"	9.1v	20	6	Plei	
6	188	Cep	00h 47m 29.7s	+85° 14' 29"	8.1v	(120)	13	Praes	
7	225	Cas	00h 43m 32.3s	+61° 47' 25"	7.0v	18	12	Plei	
8	IC1590	Cas	00h 52m 59.3s	+56° 37' 19"	7.4p	nl	25x30	Neb	<a href="#">1</a>
9	366	Cas	01h 06m 25.9s	+62° 13' 44"	12p	(30)	3	Plei	
10	381	Cas	01h 08m 14.9s	+61° 35' 00"	9.3v	38	6	Praes	
11	436	Cas	01h 15m 57.7s	+58° 49' 02"	8.8v	25	5	Praes	
12	457	Cas	01h 19m 32.6s	+58° 17' 27"	6.4v	40	13	Praes	
13	559	Cas	01h 29m 29.1s	+63° 18' 30"	9.5v	35	4.4	Praes	
14	581 (M103)	Cas	01h 33m 21.8s	+60° 39' 29"	7.4v	25	6	Praes	
15	Tr.1	Cas	01h 35m 42.0s	+61° 17' 00"	8.1v	(20)	7.4	Praes	
16	609	Cas	01h 36m 23.7s	+64° 32' 12"	11.0v	(100+)	3	Praes	
17	637	Cas	01h 43m 03.1s	+64° 02' 12"	8.2v	11	3.5	Plei	
18	654	Cas	01h 43m 59.4s	+61° 52' 58"	6.5v	30	5	Praes	
19	659	Cas	01h 44m 23.0s	+60° 40' 09"	7.9v	15	5	Praes	
20	663	Cas	01h 46m 16.0s	+61° 13' 06"	7.1v	60	16	Praes	
21		Tri	01h 50m 12.0s	+27° 05' 00"	7.3v	15	7	Plei	<a href="#">2</a>
22	744	Per	01h 58m 29.9s	+55° 28' 29"	7.9v	12	11	Plei	

Col #	NGC/Other Cat.	Con	RA	DEC	m (v/p)	# Stars	Size	Class	n
23	752	And	01h 57m 47.9s	+37° 51' 00"	5.7v	50	50	Plei	
24	869	Per	02h 19m 03.8s	+57° 08' 06"	5.3v	250	29	Praes	<a href="#">3</a>
25	884	Per	02h 22m 32.1s	+57° 08' 39"	6.1v	200	29	Praes	<a href="#">3</a>
26	Mel 15 (IC1805)	Cas	02h 32m 42.0s	+61° 27' 00"	7.9v	25	22	Plei	<a href="#">4</a>
27	956	And	02h 32m 30.9s	+44° 35' 37"	8.9p	20	7	Plei	
28	957	Per	02h 33m 19.0s	+57° 34' 11"	7.6v	18	11	Plei	
29	Tr.2	Per	02h 37m 18.0s	+55° 59' 00"	5.9v	18	20	Plei	
30	1027	Cas	02h 42m 35.1s	+61° 35' 40"	6.7v	40	20	Neb	
31	1039 (M34)	Per	02h 42m 07.4s	+42° 44' 46"	5.2v	60	35	Praes	
32	IC1848	Cas	02h 51m 12.0s	+60° 26' 00"	6.5v	20	12	Plei	<a href="#">5</a>
33	IC1848	Cas	02h 59m 18.0s	+60° 24' 00"	5.9p	100	39	Plei	<a href="#">5</a>
34	IC1848	Cas	03h 00m 54.0s	+60° 25' 00"	6.8p	60	25	Plei	<a href="#">5</a>
35	1193	Per	03h 05m 55.7s	+44° 22' 59"	12.6v	(40)	1.5	Plei	
36	Tr.3	Cas	03h 11m 48.0s	+63° 15' 00"	7p	30	23	Plei	
37	1220	Per	03h 11m 40.7s	+53° 20' 54"	11.8v	(15)	2	Plei	
38	1245	Per	03h 14m 41.5s	+47° 14' 20"	8.4v	65	10	Praes	
39	Mel 20 (PMC)	Per	03h 22m 00.0s	+49° 00' 00"	1.2v	60	185	Plei	<a href="#">6</a>
40	1342	Per	03h 31m 40.1s	+37° 22' 28"	6.7v	30	14	Plei	
41	IC348	Per	03h 44m 30.0s	+32° 17' 00"	7.3v	10	7	Neb	<a href="#">7</a>
42	M45	Tau	03h 47m 00.0s	+24° 07' 00"	1.2v	100	110	Neb	
43	1444	Per	03h 49m 22.9s	+52° 39' 44"	6.6v	7	4	μNorm	
44	1496	Per	04h 04m 31.9s	+52° 39' 41"	9.6v	(10)	6	Plei	
45	1502	Cam	04h 07m 49.3s	+62° 19' 54"	6.9v	15	7	μNorm	
46	1513	Per	04h 09m 54.7s	+49° 31' 02"	8.4v	40	9	Praes	
47	1528	Per	04h 15m 18.9s	+51° 12' 41"	6.4v	50	23	Praes	
48	IC361	Cam	04h 19m 00.0s	+58° 18' 00"	11.7v	(60)	6	Praes	
49	1545	Per	04h 20m 56.3s	+50° 15' 19"	6.2v	18	18	Plei	
50	Mel 25 (TMC)	Tau	04h 27m 00.0s	+16° 00' 00"	0.5v	36	330	Plei	<a href="#">8</a>
51	1582	Per	04h 32m 00.0s	+43° 50' 53"	7.0v	60	37	Plei	
52	1605	Per	04h 34m 54.3s	+45° 16' 11"	10.7v	(40+)	5	Praes	
53	1624	Per	04h 40m 36.5s	+50° 27' 42"	11.8v	(12)	5x5	Plei	
54	1647	Tau	04h 45m 55.6s	+19° 06' 42"	6.4v	60	45	Praes	
55	1662	Ori	04h 48m 28.9s	+10° 55' 49"	6.4v	14	20	Plei	
56	1664	Aur	04h 51m 08.4s	+43° 40' 28"	7.6v	30	18	Praes	
57	1746	Tau	05h 03m 50.2s	+23° 46' 04"	6.1v	70	42	Praes	
58	1778	Aur	05h 08m 05.7s	+37° 01' 22"	7.7v	15	6	Plei	

Col #	NGC/Other Cat.	Con	RA	DEC	m (v/p)	# Stars	Size	Class	n
59	1807	Tau	05h 10m 41.1s	+16° 31' 52"	7.0v	18	17	Plei	
60	1817	Tau	05h 12m 26.3s	+16° 41' 03"	7.7v	85	16	Praes	
61	1857	Aur	05h 20m 05.5s	+39° 20' 37"	7.0v	40	5	Plei	
62	nl	Aur	05h 22m 30.0s	+41° 00' 00"	4.2v	15	28	Plei	
63	1893	Aur	05h 22m 45.1s	+33° 25' 13"	7.5v	30	11	Plei	<a href="#">9</a>
64	1883	Aur	05h 25m 54.2s	+46° 29' 25"	12.0v	12	2.5	Plei	
65	nl	Tau	05h 25m 05.0s	+15° 41' 59"	3.0v	30	220	Plei	
66	1907	Aur	05h 28m 04.5s	+35° 19' 32"	8.2v	8	6	Praes	
67	1912 (M38)	Aur	05h 28m 42.5s	+35° 51' 18"	6.4v	120	21	Praes	
68	1931	Aur	05h 31m 25.8s	+34° 14' 42"	10.1v	(20)	4x4	Neb	
69	Orion Cluster	Ori	05h 35m 28.8s	+09° 56' 28"	2.8v	25	70	Neb	<a href="#">10</a>
70	Orion Belt	Ori	05h 35m 36.0s	-01° 05' 00"	0.6v	125	140	Neb	<a href="#">11</a>
71	1960 (M36)	Aur	05h 36m 17.7s	+34° 08' 27"	6.0v	60	12	Praes	
72	1980	Ori	05h 35m 25.9s	-05° 54' 35"	2.5v	12	14x14	Neb	
73	1981	Ori	05h 35m 09.6s	-04° 25' 30"	4.2v	13	25	Plei	
74		Ori	05h 48m 30.0s	+07° 24' 00"	14.4p	12±	5	nl	
75	2099 (M37)	Aur	05h 52m 18.3s	+32° 33' 11"	5.6v	250	23	Praes	
76	2112	Ori	05h 53m 45.2s	+00° 24' 39"	9.1v	45	11	Praes	
77	2129	Gem	06h 01m 06.5s	+23° 19' 20"	6.7v	20	6	Plei	
78	2126	Aur	06h 02m 33.0s	+49° 51' 57"	10.2v	18	6	Plei	
79	2141	Ori	06h 02m 55.1s	+10° 26' 47"	9.4v	(100)	10	Praes	
80	Tr.4	Gem	06h 05m 00.0s	+24° 00' 00"	8.4p	15	6	Plei	
81	2158	Gem	06h 07m 25.6s	+24° 05' 46"	8.6v	(100+)	5	Praes	<a href="#">12</a>
82	2168 (M35)	Gem	06h 08m 55.9s	+24° 21' 28"	5.1v	175	28	Praes	
83	2169	Ori	06h 08m 24.3s	+13° 57' 53"	5.9v	8	6	Plei	
84	2175	Ori	06h 09m 39.6s	+20° 29' 15"	6.8v	16	40x30	μNorm	<a href="#">13</a>
85	2186	Ori	06h 12m 07.1s	+05° 27' 31"	8.7v	10	4	Praes	
86	2192	Aur	06h 15m 17.4s	+39° 51' 19"	10.9v	(45)	5	Plei	
87	2194	Ori	06h 13m 45.9s	+12° 48' 24"	8.5v	35	10	Praes	
88	2204	Cma	06h 15m 32.2s	-18° 39' 57"	8.6v	65	12	Praes	
89	9-12 Gem	Gem	06h 18m 00.0s	+23° 38' 00"	5.7	20	60	Plei	
90	2215	Mon	06h 20m 49.2s	-07° 17' 02"	8.4v	22	11	Plei	
91		Mon	06h 21m 42.0s	+02° 22' 00"	6.4p	20	17	Plei	
92		Mon	06h 22m 54.0s	+05° 07' 00"	8.6v	30	11	Neb	
93	2232	Mon	06h 27m 15.0s	-04° 50' 51"	4.2v	18	29	Plei	
94	2236	Mon	06h 29m 39.7s	+06° 49' 50"	8.5v	18	6	Plei	
95		Mon	06h 30m 30.0s	+09° 56' 00"	nl	10	27	Neb	
96		Mon	06h 30m 18.0s	+02° 52' 00"	7.3v	12	7	Plei	

Col #	NGC/Other Cat.	Con	RA	DEC	m (v/p)	# Stars	Size	Class	n
97		Mon	06h 31m 18.0s	+05° 55' 00"	5.4p	9	21	Plei	
98	2243	Cma	06h 29m 34.5s	-31° 16' 53"	9.4v	(100)	5	Praes	
99	2244	Mon	06h 31m 55.6s	+04° 56' 35"	4.8v	18	24	Plei	
100	2250	Mon	06h 33m 49.9s	-05° 05' 04"	8.9p	(10)	7	Plei	
101	2251	Mon	06h 34m 38.5s	+08° 21' 59"	7.3v	20	10	Plei	
102	2252	Mon	06h 34m 42.9s	+05° 21' 59"	7.7v	10±	20	Plei	
103	2254	Mon	06h 35m 49.7s	+07° 40' 24"	9.1v	20	4	Plei	
104		Mon	06h 36m 30.0s	+04° 49' 00"	9.6p	15	21	Chain	
105	Tr.5	Mon	06h 37m 36.0s	+09° 26' 00"	10.9p	20	8	Plei	
106		Mon	06h 37m 06.0s	+05° 57' 00"	4.6p	23	45	Plei	
107		Mon	06h 37m 42.0s	+04° 44' 00"	5.1p	30	35	Plei	
108	2259	Mon	06h 38m 21.4s	+10° 53' 01"	10.8v	(25)	4.5	Plei	
109	2262	Mon	06h 39m 38.1s	+01° 08' 37"	11.3v	(35)	3.5	Plei	<a href="#">14</a>
110		Mon	06h 38m 24.0s	+02° 01' 00"	10.5p	60	12	Praes	
111		Mon	06h 38m 42.0s	+06° 54' 00"	7.0p	8	3.2	μNorm	
112	2264	Mon	06h 40m 58.3s	+09° 53' 44"	4.1v	45	20	μNorm	
113	2266	Gem	06h 43m 19.2s	+26° 58' 10"	9.5v	50±	6	Praes	
114	2269	Mon	06h 43m 17.1s	+04° 37' 28"	10.0v	6±	4	Plei	
115		Mon	06h 46m 30.0s	+01° 46' 00"	9.2p	25	7	Plei	
116	2281	Aur	06h 48m 17.8s	+41° 04' 44"	5.4v	23	14	Plei	
117	2286	Mon	06h 47m 40.1s	-03° 08' 52"	7.5v	50	14	Plei	
118	2287 (M41)	Cma	06h 46m 00.0s	-20° 46' 00"	4.5v	160	38	Praes	
119	2301	Mon	06h 51m 45.3s	+00° 27' 33"	6.0v	60	12	Plei	
120	2304	Gem	06h 55m 11.9s	+17° 59' 19"	10.0v	30±	5	Praes	
121		Cma	06h 54m 12.0s	-24° 38' 00"	2.6v	20	50	Plei	
122	2309	Mon	06h 56m 03.6s	-07° 10' 28"	10.5v	14±	3	Plei	
123	2311	Mon	06h 57m 47.5s	-04° 36' 41"	9.6v	20	6	Plei	
124	2323 (M50)	Mon	07h 02m 42.3s	-08° 23' 26"	5.9v	45	16	Plei	
125	2324	Mon	07h 04m 07.9s	+01° 02' 41"	8.4v	50	7	Praes	
126	2331	Gem	07h 06m 59.8s	+27° 15' 42"	8.5v	20	18	Plei	
127	2335	Mon	07h 06m 49.5s	-10° 01' 43"	7.2v	40	12	Plei	
128	2343	Mon	07h 08m 06.8s	-10° 37' 01"	6.7v	12	6	Plei	
129	2345	Cma	07h 08m 18.8s	-13° 11' 38"	7.7v	45	12	Praes	
130	2353	Mon	07h 14m 30.3s	-10° 15' 57"	7.1v	60	20	μNorm	
131	2354	Cma	07h 14m 15.3s	-25° 41' 33"	6.5v	30	20	Praes	
132		Cma	07h 14m 24.0s	-31° 10' 00"	3.6v	18	95	Plei	
133	2355	Gem	07h 16m 59.3s	+13° 44' 59"	9.7v	30	9	Praes	
134	2360	Cma	07h 17m 43.1s	-15° 38' 29"	7.2v	50	12	Praes	
135		Pup	07h 17m 18.0s	-36° 50' 00"	2.1v	16	50	Neb?	

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136	2362	Cma	07h 18m 41.5s	-24° 57' 15"	3.8v	20	8	μNorm	
137	2367	Cma	07h 20m 04.5s	-21° 53' 03"	7.9v	(30)	3.5	Plei	
138	2368	Mon	07h 21m 06.3s	-10° 22' 18"	11.8v	(15)	5	Praes	
139	2374	Cma	07h 23m 56.1s	-13° 15' 48"	8.0v	40	19	Plei	
140		Cma	07h 23m 54.0s	-32° 12' 00"	3.5v	15	42	Plei	
141	2383	Cma	07h 24m 39.9s	-20° 56' 51"	8.4v	25±	5	Praes	
142	2384a	Cma	07h 25m 11.8s	-21° 01' 24"	7.4v	(15)	2.5	μNorm	
143	2384b	Cma	07h 25m 11.8s	-21° 01' 24"	nl	nl	nl	μNorm	
144	2395	Gem	07h 27m 12.9s	+13° 36' 29"	8.0v	22	12	Plei	
145	Tr.6	Cma	07h 26m 06.0s	-24° 18' 00"	10.0p	20	6	Plei	
146	Tr.7	Pup	07h 27m 18.0s	-24° 02' 00"	7.9v	12±	5	Plei	
147	Mel.66	Pup	07h 26m 23.0s	-47° 40' 00"	7.8p	(200)	10	Praes	
148	2396	Pup	07h 28m 02.9s	-11° 43' 11"	7.4v	40	10	Plei	
149	2401	Pup	07h 29m 24.4s	-13° 57' 58"	12.6v	(20)	2	Praes	
150	2414	Pup	07h 33m 12.8s	-15° 27' 14"	7.9v	(35)	4	Plei	
151	2421	Pup	07h 36m 11.8s	-20° 36' 44"	8.3v	28	10	Praes	
152	2422 (M47)	Pup	07h 36m 35.0s	-14° 28' 57"	4.4v	50	29	Plei	
153	2423	Pup	07h 37m 06.7s	-13° 52' 17"	6.7v	40	19	Praes	
154	2420	Gem	07h 38m 23.9s	+21° 34' 27"	8.3v	(100+)	10	Plei	
155	Mel.71	Pup	07h 37m 30.0s	-12° 04' 00"	7.1v	60	9	Praes	
156	Mel.72	Mon	07h 38m 24.0s	-10° 41' 00"	10.1p	24	9	Praes	<a href="#">15</a>
157	2432	Pup	07h 40m 53.8s	-19° 05' 09"	10.2v	(50+)	7	Praes	
158	2439	Pup	07h 40m 45.4s	-31° 41' 33"	6.9v	26	10	Plei	
159	2437 (M46)	Pup	07h 41m 46.8s	-14° 48' 36"	6.1v	125	27	Praes	
160	2447 (M93)	Pup	07h 44m 29.2s	-23° 51' 11"	6.2v	80	22	Praes	
161	2451	Pup	07h 45m 15.0s	-37° 58' 03"	2.8v	35	45	Plei	
162	2453	Pup	07h 47m 34.1s	-27° 11' 41"	8.3v	10	5	Plei	
163	2455	Pup	07h 48m 58.6s	-21° 17' 53"	10.2v	20	7	Plei	
164	2467	Pup	07h 52m 29.5s	-26° 25' 48"	7.1v	20	15	Neb	
165	2477	Pup	07h 52m 09.8s	-38° 32' 00"	5.8v	300	27	Glob	
166	2482	Pup	07h 55m 10.3s	-24° 15' 17"	7.3v	28	12	Plei	
167	Tr.8	Pup	07h 55m 04.0s	-17° 42' 35"	9.6p	30	7	Praes	
168	Tr.9	Pup	07h 55m 18.0s	-25° 56' 00"	8.7v	14	5	Plei	
169	2489	Pup	07h 56m 15.9s	-30° 03' 51"	7.9v	60	8	Praes	
170	2506	Mon	08h 00m 01.7s	-10° 46' 11"	7.6v	80	8	Praes	
171	2509	Pup	08h 00m 47.8s	-19° 03' 02"	9.3v	30	8	Plei	
172	2516	Car	07h 58m 07.1s	-60° 45' 12"	3.8v	70	29	Praes	
173		Vel	08h 02m 49.0s	-46° 23' 00"	0.6v	70	370	Plei	
174	2527	Pup	08h 04m 58.2s	-28° 08' 48"	6.5v	40	22	Plei	

Col #	NGC/Other Cat.	Con	RA	DEC	m (v/p)	# Stars	Size	Class	n
175	2533	Pup	08h 07m 04.1s	-29° 53' 02"	7.6v	30±	3.5	Praes	
176	2539	Pup	08h 10m 37.9s	-12° 49' 09"	6.5v	65	21	Praes	
177	2547	Vel	08h 10m 10.5s	-49° 13' 32"	4.7v	40	20	Plei	
178	2546	Pup	08h 12m 15.6s	-37° 35' 39"	6.3v	40	40	Plei	
179	2548 (M48)	Hya	08h 13m 43.1s	-05° 45' 02"	5.8v	90	54	Praes	
180	2567	Pup	08h 18m 29.1s	-30° 38' 44"	7.4v	40	10	Plei	
181	2571	Pup	08h 18m 56.3s	-29° 44' 57"	7.0v	20	13	Plei	
182	2579	Pup	08h 20m 53.0s	-36° 13' 02"	7.5v	14	10	Plei	<a href="#">16</a>
183	2580	Pup	08h 21m 27.9s	-30° 17' 36"	9.7v	25	7	Praes	
184	2587	Pup	08h 23m 24.1s	-29° 30' 31"	9.2v	18	9	Plei	
185		Pup	08h 22m 30.0s	-36° 10' 00"	7.8v	15	8	Plei	
186	2588	Pup	08h 23m 09.5s	-32° 58' 31"	11.8v	(20+)	2	Praes	
187		Pup	08h 24m 12.0s	-29° 09' 00"	9.6p	(20)	7	Plei	
188	2627	Pyx	08h 37m 14.9s	-29° 57' 01"	8.4v	30	11	Praes	
189	2632 (M44)	Cnc	08h 40m 22.2s	+19° 40' 19"	3.1v	60	95	Praes	
190	2635	Pyx	08h 38m 26.0s	-34° 46' 18"	11.2v	(15)	3	Praes	
191	IC2391	Vel	08h 40m 21.0s	-53° 05' 21"	2.0v	15	60	Plei	<a href="#">17</a>
192	IC2395	Vel	08h 42m 31.0s	-48° 06' 30"	4.0v	19	7	Plei	
193	2660	Vel	08h 42m 38.0s	-47° 12' 02"	8.8v	(70)	4	Glob	
194	2659	Vel	08h 42m 33.0s	-45° 00' 02"	8.6v	35	2.7	Praes	
195	2658	Pyx	08h 43m 27.3s	-32° 39' 22"	9.2v	40	12	Praes	
196		Pyx	08h 45m 00.0s	-31° 38' 00"	10.5p	(12)	5	Praes	
197		Vel	08h 44m 51.0s	-41° 14' 00"	6.7p	14	40	Plei	
198		Pyx	08h 45m 18.0s	-31° 46' 00"	11.2	nl	5	Praes	
199	2669	Vel	08h 46m 19.0s	-52° 56' 06"	6.1v	25	12	Praes	<a href="#">18</a>
200	2670	Vel	08h 45m 29.5s	-48° 47' 30"	7.8v	25	9	Plei	
201	2671	Vel	08h 46m 11.9s	-41° 52' 38"	11.6v	(40)	4	Praes	
202	Harv.3	Vel	08h 46m 30.0s	-52° 54' 00"	6.1p	22	12	Plei	<a href="#">18</a>
203	Tr.10	Vel	08h 47m 54.0s	-42° 27' 00"	5.0v	18	29	Plei	
204	2682 (M67)	Cnc	08h 51m 20.1s	+11° 48' 43"	6.9v	90	29	Praes	
205	Markarian 18	Vel	09h 00m 32.0s	-48° 59' 06"	7.8v	8	5	μNorm	
206	2818	Pyx	09h 16m 01.5s	-36° 37' 37"	8.2v	25	9	Praes	<a href="#">19</a>
207	2849	Vel	09h 19m 22.9s	-40° 31' 13"	12.5v	(40)	2.3	Praes	
208	IC2488	Vel	09h 27m 45.0s	-57° 40' 08"	7.4	70	18	Plei	
209	2910	Vel	09h 30m 29.0s	-52° 54' 50"	7.2v	15	5	Plei	
210	2925	Vel	09h 33m 10.9s	-53° 23' 45"	8.3v	30	12	Plei	
211	2972	Vel	09h 40m 11.5s	-50° 19' 15"	9.9v	(25)	4	Praes	
212	3033	Vel	09h 48m 39.1s	-56° 24' 42"	8.8v	(50)	5	Plei	

Col #	NGC/Other Cat.	Con	RA	DEC	m (v/p)	# Stars	Size	Class	n
213		Vel	09h 54m 35.0s	-50° 55' 11"	9.2p	21	17	Plei	
214	3105	Vel	10h 00m 39.5s	-54° 47' 15"	9.7v	(20)	2	Praes	
215	3114	Car	10h 02m 42.7s	-60° 06' 32"	4.2v	100	35	Plei	
216	Tr.11	Car	10h 04m 58.6s	-61° 36' 54"	8.1p	15	5	Plei	
217	Tr.12	Car	10h 06m 29.0s	-60° 18' 00"	8.8p	12	4	Plei	
218	3228	Vel	10h 21m 22.2s	-51° 43' 57"	6.0v	22	5	Plei	
219	Tr.13	Car	10h 23m 49.6s	-60° 08' 14 "	11.3	(40)	5	Plei	
220	(incorrectly) 3247	Car	10h 25m 52.0s	-57° 55' 35"	7.6p	18	6	Plei	<a href="#">20</a>
221	3255	Car	10h 26m 31.3s	-60° 40' 42"	11.0v	(30)	2	Glob	<a href="#">21</a>
222	IC2581	Car	10h 27m 36.0s	-57° 40' 13"	4.0v	14	7	μNorm	
223		Car	10h 30m 24.0s	-60° 05' 00"	9.4	30	9	Plei	
224	3293	Car	10h 35m 53.8s	-58° 14' 10"	4.7v	(93)	5	Praes	
225	3324	Car	10h 37m 18.7s	-58° 39' 36"	6.7	(44)	5	(Neb)	
226	3330	Vel	10h 38m 47.5s	-54° 06' 56"	7.4v	20	6	Plei	
227	Mel.101	Car	10h 42m 12.0s	-65° 06' 00"	8.0v	70	16	Praes	
228		Car	10h 42m 04.0s	-59° 55' 00"	4.4v	50	14	Neb	
229	IC2602	Car	10h 43m 23.0s	-64° 26' 13"	1.0v	24	100	Neb	
230	Tr.14	Car	10h 43m 56.0s	-59° 33' 00"	5.5v	(44)	5	Neb	
231	Tr.15	Car	10h 44m 43.0s	-59° 22' 00"	7.0v	15	15	Neb	
232		Car	10h 44m 59.0s	-59° 33' 00"	6.8v	15	4	Plei	
233	eta Car cluster (Tr 16)	Car	10h 45m 16.2s	-59° 43' 17"	5.0v	40	10	Neb	<a href="#">22</a>
234	Tr 16	Car	10h 45m 21.0s	-59° 45' 00"	5.0v	(18)	3	Plei	<a href="#">22</a>
235	Tr.17	Car	10h 56m 24.0s	-59° 12' 00"	8.4	25	5	Plei	
236		Car	10h 57m 17.0s	-61° 06' 36"	7.7v	30	10	Plei	
237	3496	Car	10h 59m 33.8s	-60° 20' 12"	8.2v	45	9	Praes	
238	3532	Car	11h 05m 47.5s	-58° 46' 13"	3.0v	135	55x50	Praes	
239	3572	Car	11h 10m 19.2s	-60° 14' 54"	6.6v	nl	6	Plei	<a href="#">23</a>
240		Car	11h 10m 19.2s	-60° 14' 54"	n/a	20	n/a	Plei	<a href="#">23</a>
241	Tr.18	Car	11h 11m 28.0s	-60° 40' 00"	6.9v	10	6	Plei	
242	3590	Car	11h 12m 59.0s	-60° 47' 20"	8.2v	15	4	Plei	
243	Tr.19	Car	11h 15m 07.0s	-57° 33' 00"	9.6v	(40)	10	Praes	<a href="#">24</a>
244	3603	Car	11h 15m 06.6s	-61° 15' 40"	9.1v	(44)	2.5	Praes	
245	IC2714	Car	11h 18m 08.0s	-62° 44' 21"	8.0v	120	15	Praes	
246	Mel.105	Car	11h 19m 42.0s	-63° 29' 00"	8.5v	40±	5	Praes	
247	3680	Cen	11h 25m 37.1s	-43° 15' 00"	7.6v	25	12	Praes	
248	3766	Cen	11h 36m 14.4s	-61° 36' 36"	5.3v	137	12	Praes	



Col #	NGC/Other Cat.	Con	RA	DEC	m (v/p)	# Stars	Size	Class	n
249		Cen	11h 36m 52.0s	-63° 04' 24"	4.0v	25	65	Neb	
250	3960	Cen	11h 50m 33.2s	-55° 40' 35"	8.3v	60	6	Praes	
251	4052	Cru	12h 02m 05.2s	-63° 13' 24"	8.8v	60	10	Plei	
252	4103	Cru	12h 06m 39.5s	-61° 15' 00"	7.4v	20±	6	Plei	
253	4230	Cen	12h 17m 09.3s	-55° 17' 10"	9.4v	(15)	7x5	Plei	
254	4337	Cru	12h 24m 03.3s	-58° 07' 25"	8.9v	20	3.5	Plei	<a href="#">25</a>
255	4349	Cru	12h 24m 06.0s	-61° 52' 13"	7.4v	70	15	Praes	
256	Mel.111	Com	12h 25m 00.0s	+26° 00' 00"	1.8v	30	275	Plei	
257		Cru	12h 24m 45.9s	-60° 53' 12"	nl	12	5	Plei	<a href="#">26</a>
258	Harv.5	Cru	12h 27m 10.0s	-60° 46' 00"	7.1v	(25)	5	Plei	<a href="#">26</a>
259	4439	Cru	12h 28m 26.3s	-60° 06' 11"	8.4v	(20)	4	Plei	
260	4463	Mus	12h 29m 55.2s	-64° 47' 23"	7.2v	18±	5	Plei	
261	Harv.6	Mus	12h 37m 57.0s	-68° 22' 00"	10.7v	(100)	9	Praes	
262	Tr.20	Cru	12h 39m 34.0s	-60° 37' 00"	10.1v	nl	7	Praes	
263	4609	Cru	12h 42m 19.9s	-62° 59' 38"	6.9v	12	5	Plei	
264	4755	Cru	12h 53m 37.1s	-60° 21' 22"	4.2v	(218)	10	Plei	<a href="#">27</a>
265	4815	Mus	12h 57m 58.3s	-64° 57' 42"	8.6v	(100)	3	Praes	<a href="#">28</a>
266	4852	Cen	13h 00m 14.5s	-59° 36' 58"	8.9v	20	11	Plei	
267	5053	Com	13h 16m 27.0s	+17° 41' 52"	9.0v	nl	11	Praes	<a href="#">29</a>
268	(Harvard 8)	Mus	13h 18m 13.0s	-67° 05' 00"	9.5v	30	5	Plei	
269		Mus	13h 23m 31.0s	-66° 10' 48"	9.2p	nl	15	Plei	<a href="#">30</a>
270	5138	Cen	13h 27m 15.2s	-59° 02' 27"	7.6v	15	7	Plei	
271		Cen	13h 29m 54.0s	-64° 12' 00"	8.7v	16	5	Plei	
272		Cen	13h 30m 26.0s	-61° 19' 00"	7.7v	15	10	Plei	
273	5168	Cen	13h 31m 07.3s	-60° 56' 21"	9.1v	(50)	4	Praes	
274	Tr.21	Cen	13h 32m 14.0s	-62° 48' 00"	7.7v	(20)	5	Praes	
275		Cen	13h 34m 39.0s	-60° 12' 00"	10.2v	(20)	11	Plei	
276	5281	Cen	13h 46m 35.1s	-62° 54' 59"	5.9v	(40)	8	Plei	
277		Cir	13h 48m 00.0s	-66° 04' 00"	9.2v	(30)	15	Praes	
278	5288	Cir	13h 48m 44.9s	-64° 41' 07"	11.8v	nl	4	Plei	
279	5316	Cen	13h 53m 57.2s	-61° 52' 09"	6.0v	22	13	Plei	
280	5460	Cen	14h 07m 27.7s	-48° 20' 33"	5.6v	50	35	Praes	
281	5606	Cen	14h 27m 47.2s	-59° 37' 56"	7.7v	(15)	3	Plei	
282	5617	Cen	14h 29m 44.0s	-60° 42' 39"	6.3v	60	10	Praes	
283	Tr.22	Cen	14h 31m 02.0s	-61° 10' 00"	7.9v	15	10	Plei	<a href="#">31</a>
284	5662	Cen	14h 35m 37.5s	-56° 37' 05"	5.5v	35	30	Plei	
285	Ursa Major	Uma	12h 03m 00.0s	+58° 00' 00"	nl	nl	nl	nl	
286	5715	Cir	14h 43m 29.7s	-57° 34' 37"	9.8v	20	5	Praes	
287	5749	Lup	14h 48m 53.9s	-54° 29' 51"	8.8v	16	7	Plei	

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288	5764	Lup	14h 53m 32.2s	-52° 40' 14"	12.6v	12	3	nl	
289	5822	Lup	15h 04m 21.2s	-54° 23' 47"	6.5v	100	39	Plei	
290	5823	Cir	15h 05m 30.6s	-55° 36' 13"	7.9v	30	12	Plei	
291	5925	Nor	15h 27m 26.7s	-54° 31' 43"	8.4v	45	20	Plei	
292		Nor	15h 49m 51.0s	-57° 37' 11"	7.9v	(50)	15	Plei	
293	5999	Nor	15h 52m 08.6s	-56° 28' 22"	9.0v	40	3	Praes	
294	6005	Nor	15h 55m 48.7s	-57° 26' 14"	10.7v	14	3	Praes	<a href="#">32</a>
295	Tr.23	Nor	16h 00m 48.0s	-53° 32' 00"	11.2v	25	9	Plei	
296	6025	TrA	16h 03m 17.0s	-60° 25' 54"	5.1v	25	12	Plei	
297	6031	Nor	16h 07m 35.0s	-54° 00' 54"	8.5v	(121)	2	Plei	
298	6067	Nor	16h 13m 11.0s	-54° 13' 06"	5.6v	115	12	Praes	
299	Harv.10	Nor	16h 19m 54.0s	-54° 58' 00"	6.9p	24	25	Plei	
300	6087	Nor	16h 18m 50.5s	-57° 56' 04"	5.4v	30	12	Plei	
301	6124	Sco	16h 25m 20.0s	-40° 39' 13"	5.8v	60	40	Praes	
302	Antares Cl.	Sco	16h 26m 00.0s	-26° 13' 00"	1.0v	20±	505	Neb	
303	6134	Nor	16h 27m 46.5s	-49° 09' 04"	7.2v	45	6	Praes	
304	6152	Nor	16h 32m 45.5s	-52° 38' 38"	8.1v	35	29	Praes	
305	6167	Nor	16h 34m 34.9s	-49° 46' 19"	6.7v	40	7	Plei	
306	6169	Nor	16h 34m 04.6s	-44° 02' 44"	6.6v	(40)	12	μNorm	
307		Nor	16h 35m 20.0s	-51° 00' 00"	9.2v	22	5	Plei	
308	6178	Sco	16h 35m 47.2s	-45° 38' 37"	7.2v	7	4	Plei	
309	6192	Sco	16h 40m 23.8s	-43° 22' 00"	8.5v	25	7	Praes	
310	6193	Ara	16h 41m 20.2s	-48° 45' 45"	5.2v	25	14	Plei	
311	6200	Ara	16h 44m 07.3s	-47° 27' 45"	7.4v	40	12	Plei	
312	6204	Ara	16h 46m 09.5s	-47° 01' 01"	8.2v	20	5	Praes	
313	6208	Ara	16h 49m 28.1s	-53° 43' 42"	7.2v	40	15	Praes	
314	6222	Sco	16h 49m 23.5s	-44° 43' 53"	10.1v	22	4	Praes	<a href="#">33</a>
315	6231	Sco	16h 54m 10.9s	-41° 49' 27"	2.6v	(93)	14	Plei	
316		Sco	16h 55m 30.0s	-40° 50' 00"	6.6v	60	105	Plei	<a href="#">34</a>
317	6242	Sco	16h 55m 33.4s	-39° 27' 39"	6.4v	50	9	Praes	
318	Tr.24	Sco	16h 57m 00.0s	-40° 40' 00"	8.6p	15	60	Plei	
319	6249	Sco	16h 57m 41.5s	-44° 48' 43"	8.2v	18	6	Plei	
320	6250	Ara	16h 57m 56.0s	-45° 56' 12"	5.9v	10	7	Plei	
321	6253	Ara	16h 59m 05.1s	-52° 42' 32"	10.2v	25	5	Praes	
322	6259	Sco	17h 00m 45.3s	-44° 39' 18"	8.0v	60	10	Praes	
323	6268	Sco	17h 02m 10.3s	-39° 43' 42"	9.5v	22	6	Plei	
324	6281	Sco	17h 04m 41.2s	-37° 59' 07"	5.4v	25	8	Plei	
325	6318	Sco	17h 16m 11.5s	-39° 25' 30"	11.8v	20±	5	Praes	
326	6322	Sco	17h 18m 25.7s	-42° 56' 02"	6.0v	12±	10	Plei	

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327	IC4651	Ara	17h 25m 14.0s	-49° 57' 35"	6.9v	65	10	Praes	
328	6352	Ara	17h 25m 29.1s	-48° 25' 22"	7.8v	nl	7.1	Glob	<a href="#">35</a>
329	Tr.25	Sco	17h 24m 48.0s	-30° 00' 00"	11.7p	18±	4	Plei	
330	6355	Oph	17h 23m 58.5s	-26° 21' 13"	8.6v	nl	5	Glob	<a href="#">36</a>
331	Tr.26	Oph	17h 28m 30.0s	-29° 29' 00"	9.5p	20	17	Plei	
332		Sco	17h 30m 48.0s	-37° 05' 00"	8.9v	25	2	Plei	
333		Sco	17h 31m 18.0s	-34° 05' 00"	9.8p	8	5	Plei	
334	6374 (6383)	Sco	17h 34m 42.4s	-32° 34' 53"	5.5	10	2.5	Plei	<a href="#">37</a>
335	6383	Sco	17h 34m 42.4s	-32° 34' 53"	5.5v	10	2.5	μNorm	<a href="#">37</a>
336	Tr.27	Sco	17h 36m 12.0s	-33° 29' 00"	6.7v	15	6	Plei	
337	Tr.28	Sco	17h 36m 48.0s	-32° 29' 00"	7.7v	22	12.5	Praes	
338		Sco	17h 38m 06.0s	-37° 43' 12"	8.0v	20	20	Plei	
339	6396	Sco	17h 37m 38.0s	-35° 01' 33"	8.5v	8	nl	Plei	<a href="#">38</a>
340	6404	Sco	17h 39m 37.3s	-33° 14' 48"	10.6v	12	5	Plei	
341	6405 (M6)	Sco	17h 40m 20.7s	-32° 15' 15"	4.2v	55	33	Plei	
342	6400	Sco	17h 40m 12.7s	-36° 56' 52"	8.8v	25	12	Plei	
343	Tr.29	Sco	17h 41m 36.0s	-40° 06' 00"	7.5p	22	9	Plei	
344	6416	Sco	17h 44m 19.9s	-32° 21' 40"	5.7v	35	30	Plei	
345		Sco	17h 44m 35.0s	-33° 52' 00"	10.9v	12	4.8	Plei	
346	6426	Oph	17h 44m 54.6s	+03° 10' 13"	10.9v	nl	4.2	Praes	<a href="#">39</a>
347		Oph	17h 46m 18.0s	-29° 20' 00"	8.8v	14	10	Plei	
348	6425	Sco	17h 47m 01.6s	-31° 31' 46"	7.2v	25	15	Plei	
349	IC4665	Oph	17h 46m 18.0s	+05° 43' 00"	4.2v	28	40	Plei	
350		Oph	17h 48m 07.0s	+01° 21' 00"	6.1v	25	40	Plei	
351		Sgr	17h 49m 04.0s	-28° 45' 00"	9.3v	22	8	Plei	
352	6451	Sco	17h 50m 40.6s	-30° 12' 42"	8.2v	40	7	Praes	
353	6469	Sgr	17h 53m 12.1s	-22° 16' 30"	8.2v	35	8	Plei	
354	6475 (M7)	Sco	17h 53m 51.1s	-34° 47' 34"	3.3v	60	80	Plei	
355	Tr.30	Sco	17h 56m 30.0s	-35° 19' 00"	8.8p	50	10	Plei	
356	6494 (M23)	Sgr	17h 57m 04.7s	-18° 59' 07"	5.5v	85	30	Praes	
357	Tr.31	Sgr	17h 59m 49.0s	-28° 10' 00"	9.8v	42	5	Plei	
358	6507	Sgr	17h 59m 50.7s	-17° 27' 01"	9.6v	16	6	Plei	
359	Melotte 186	Oph	18h 01m 06.0s	+02° 54' 00"	3.0v	15	240	Plei	
360	6514	Sgr	18h 02m 20.9s	-23° 01' 38"	6.3v	40	30	Neb	
361	6520	Sgr	18h 03m 25.1s	-27° 53' 28"	7.6v	20	6	Plei	
362	6530	Sgr	18h 04m 31.0s	-24° 21' 29"	4.6v	20	14	Neb	
363	6531 (M21)	Sgr	18h 04m 13.4s	-22° 29' 24"	5.9v	25±	13	Plei	
364	6540	Sgr	18h 06m 08.5s	-27° 45' 55"	14.6v	nl	1.5	Praes	
365	6546	Sgr	18h 07m 22.5s	-23° 17' 46"	8.0v	20	15	Praes	

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366	6544	Sgr	18h 07m 20.5s	-24° 59' 51"	7.5v	nl	8.9	Glob	<a href="#">41</a>
367		Sgr	18h 09m 43.0s	-23° 39' 35"	6.4	10	40	Neb	
368	6558	Sgr	18h 10m 18.3s	-31° 45' 49"	8.6v	nl	3.7	Praes	<a href="#">42</a>
369	6568	Sgr	18h 12m 45.1s	-21° 34' 59"	8.6v	29	12	Plei	
370	6583	Sgr	18h 15m 49.9s	-22° 08' 09"	10.0v	30±	5	Praes	
371	6595	Sgr	18h 17m 16.0s	-19° 44' 30"	7.0v	12	4x3	Neb	<a href="#">43</a>
372	Tr.32	SerCD	18h 17m 10.4s	-13° 20' 40"	12.2p	20	6	Praes	
373	6604	SerCD	18h 18m 02.9s	-12° 14' 35"	6.5v	10±	4	μNorm	
374	6603	Sgr	18h 18m 26.9s	-18° 24' 22"	11.1v	(100)	5	Praes	<a href="#">44</a>
375	6611 (M16)	SerCD	18h 18m 48.1s	-13° 48' 26"	6.0v	30	21	Neb	
376	6613 (M18)	Sgr	18h 19m 58.4s	-17° 06' 07"	6.9v	14	10	Plei	
377	6618	Sgr	18h 21m 09.0s	-16° 10' 36"	6.0v	27	27	Neb	<a href="#">45</a>
378	Tr.33	Sgr	18h 24m 42.0s	-19° 43' 00"	7.8v	10	6	Plei	
379	6631	Sct	18h 27m 11.3s	-12° 01' 52"	11.7v	20±	7	Praes	
380	6633	Oph	18h 27m 15.2s	+06° 30' 30"	4.6v	30	20	Plei	
381	6642	Sgr	18h 31m 54.3s	-23° 28' 35"	8.9v	nl	5.8	Glob	<a href="#">46</a>
382	IC4725 (M25)	Sgr	18h 31m 36.0s	-19° 15' 00"	4.6v	60	32	Praes	
383	6645	Sgr	18h 32m 37.9s	-16° 53' 02"	8.5v	100	15	Praes	
384	6649	Sct	18h 33m 27.9s	-10° 24' 10"	8.9v	15	5	Praes	
385	6664	Sct	18h 36m 33.3s	-08° 13' 15"	7.8v	28	16	Praes	
386	IC4756	Ser	18h 39m 00.0s	+05° 27' 00"	4.6v	120	52	Praes	
387	Tr.34	Sct	18h 39m 48.0s	-08° 29' 00"	8.6v	20	7	Plei	<a href="#">47</a>
388	Tr.35	Sct	18h 42m 54.0s	-04° 08' 00"	9.2v	25	9	Plei	
389	6694 (M26)	Sct	18h 45m 18.6s	-09° 23' 01"	8.0v	18	14	Praes	
390	6704	Sct	18h 50m 45.7s	-05° 12' 20"	9.2v	20	6	Plei	
391	6705 (M11)	Sct	18h 51m 05.9s	-06° 16' 12"	5.8v	100±	13	Glob	<a href="#">48</a>
392	6709	Aql	18h 51m 18.9s	+10° 19' 07"	6.7v	40	13	Praes	
393	6716	Sgr	18h 54m 34.3s	-19° 54' 04"	7.5v	15	6	Plei	
394		Sgr	18h 52m 28.0s	-20° 59' 28"	6.3v	22	22	Praes	
395	6717	Sgr	18h 55m 05.9s	-22° 42' 06"	8.4v	nl	3.9	Glob	<a href="#">49</a>
396	6738	Aql	19h 01m 21.5s	+11° 36' 56"	8.3v	20	15	Plei	
397	6755	Aql	19h 07m 49.0s	+04° 15' 59"	7.5v	25	14	Plei	
398	6756	Aql	19h 08m 42.5s	+04° 42' 21"	10.6v	(40)	4	Praes	
399	4-5 Vul.	Vul	19h 25m 24.0s	+20° 11' 00"	3.6v	15	60	Plei	<a href="#">50</a>
400	6802	Vul	19h 30m 35.0s	+20° 15' 39"	8.8v	201	5	Plei	
401		Aql	19h 38m 24.0s	-00° 20' 00"	7p	8±	1	μNorm	
402	6811	Cyg	19h 37m 17.9s	+46° 23' 20"	6.8v	40	12	Praes	
403	6819	Cyg	19h 41m 18.0s	+40° 11' 12"	7.3v	929	5	Plei	

Col #	NGC/Other Cat.	Con	RA	DEC	m (v/p)	# Stars	Size	Class	n
404	6820	Vul	19h 42m 27.9s	+23° 05' 17"	14.9p	6	0.8	Neb	<a href="#">51</a>
405	6823	Vul	19h 43m 09.8s	+23° 18' 00"	7.1v	13	12	Plei	
406	6830	Vul	19h 50m 59.5s	+23° 06' 00"	7.9v	15	12	Plei	
407	6834	Cyg	19h 52m 12.5s	+29° 24' 29"	7.8v	40	5	Praes	
408	Harv.20	Sge	19h 53m 06.0s	+18° 20' 00"	7.7v	20	9	Plei	
409	6838	Sge	19h 53m 46.1s	+18° 46' 42"	8.4v	150±	7.2	Glob	<a href="#">52</a>
410	6846	Cyg	19h 56m 28.0s	+32° 20' 59"	14.2v	(40)	0.5	Plei	
411	Mel.227	Oct	20h 17m 19.0s	-79° 02' 00"	5.3v	20	70	Plei	
412	6866	Cyg	20h 03m 55.1s	+44° 09' 33"	7.6v	20	6	Plei	
413	6871	Cyg	20h 05m 59.3s	+35° 46' 38"	5.2v	45	30	Plei	
414	IC1311	Cyg	20h 10m 48.0s	+41° 11' 00"	13.1p	(60)	9	Glob	<a href="#">53</a>
415	6883	Cyg	20h 11m 19.7s	+35° 49' 56"	8.0v	18	35	Plei	
416	6882	Vul	20h 11m 55.8s	+26° 29' 20"	8.1v	20	20	Plei	<a href="#">54</a>
417	6885	Vul	20h 11m 55.8s	+26° 29' 20"	8.1v	40	20	Plei	<a href="#">54</a>
418	IC4996	Cyg	20h 16m 31.7s	+37° 38' 35"	7.3v	12	5	Plei	
419		Cyg	20h 18m 06.0s	+40° 43' 00"	7.6v	16	4.5	μNorm	
420	6910	Cyg	20h 23m 12.0s	+40° 46' 43"	7.4v	16	7	Plei	
421		Cyg	20h 23m 18.0s	+41° 42' 00"	10.1p	20	5	Praes	
422	6913 (M29)	Cyg	20h 23m 57.7s	+38° 30' 28"	6.6v	15	6	Plei	
423	6939	Cep	20h 31m 30.1s	+60° 39' 44"	7.8v	40	7	Praes	
424	6940	Vul	20h 34m 26.6s	+28° 16' 58"	6.3v	90	31	Praes	
425	6996	Cyg	20h 56m 29.9s	+45° 28' 23"	10.0v	20	5	Neb	<a href="#">55</a>
426	6994 (M73)	Aqr	20h 58m 55.9s	-12° 38' 08"	8.9v	(4)	2.8	Glob	<a href="#">56</a>
427		Cep	20h 59m 30.0s	+68° 10' 00"	13.8v	6	4	Plei	
428		Cyg	21h 03m 12.0s	+44° 35' 00"	8.7p	40	13	Neb	
429	7023	Cep	21h 01m 35.5s	+68° 10' 11"	nl	nl	18	Neb	<a href="#">57</a>
430	7031	Cyg	21h 07m 12.5s	+50° 52' 32"	9.1v	15	5	Plei	
431	7039	Cyg	21h 10m 47.7s	+45° 37' 19"	7.6v	35	25	Plei	
432	IC1369	Cyg	21h 12m 06.0s	+47° 44' 00"	8.8v	10	8	Plei	
433	7044	Cyg	21h 13m 09.3s	+42° 29' 46"	12.0v	40	3.5	Praes	
434	7062	Cyg	21h 23m 27.4s	+46° 22' 43"	8.3v	10	6	Praes	
435	7063	Cyg	21h 24m 21.7s	+36° 29' 15"	7.0v	10	7	Plei	
436	7067	Cyg	21h 24m 23.1s	+48° 00' 34"	9.7v	(47)	3	Praes	
437	7086	Cyg	21h 30m 27.5s	+51° 36' 08"	8.4v	20	9	Praes	
438	7092 (M39)	Cyg	21h 31m 48.3s	+48° 26' 55"	4.6v	22	31	Plei	
439	IC1396	Cep	21h 39m 06.0s	+57° 30' 00"	3.5v	35	50	Plei	
440	7128	Cyg	21h 43m 57.7s	+53° 42' 55"	9.7v	10	3.1	Plei	
441	7129	Cep	21h 42m 58.9s	+66° 06' 47"	11.5p	7	7	Plei	
442	7142	Cep	21h 45m 09.4s	+65° 46' 28"	9.3v	12	4.3	Plei	

Col #	NGC/Other Cat.	Con	RA	DEC	m (v/p)	# Stars	Size	Class	n
443	7160	Cep	21h 53m 40.2s	+62° 36' 12"	6.1v	16	7	Plei	
444	7209	Lac	22h 05m 07.8s	+46° 29' 01"	7.7v	30	25	Praes	
445	IC1434	Lac	22h 10m 30.0s	+52° 50' 00"	9.0p	30	7	Praes	
446	7226	Cep	22h 10m 26.9s	+55° 23' 55"	9.6v	(83)	2	Praes	
447	7235	Cep	22h 12m 24.9s	+57° 16' 17"	7.7v	12	4	Plei	
448	7243	Lac	22h 15m 08.5s	+49° 53' 51"	6.4v	40	21	Plei	
449	7245	Lac	22h 15m 11.5s	+54° 20' 33"	9.2v	(169)	5	Plei	
450	7261	Cep	22h 20m 11.3s	+58° 07' 19"	8.4v	18	5	Plei	
451	7296	Lac	22h 28m 02.8s	+52° 17' 21"	9.7v	10	3	Plei	
452	7380	Cep	22h 47m 20.9s	+58° 07' 57"	7.2v	20	12	Plei	
453	7419	Cep	22h 54m 20.0s	+60° 48' 56"	13.0v	(40)	6	Praes	
454	7510	Cep	23h 11m 03.7s	+60° 34' 15"	7.9v	10±	7	Plei	
455	7654 (M52)	Cas	23h 24m 50.4s	+61° 36' 24"	6.9v	35	16	Praes	
456	7686	And	23h 30m 07.3s	+49° 08' 03"	5.6v	20	14	Plei	<a href="#">58</a>
457	7762	Cep	23h 50m 01.7s	+68° 02' 17"	10.0p	(40)	15	Praes	
458	Harv.21	Cas	23h 54m 06.0s	+61° 46' 00"	9.0p	10±	6	Plei	<a href="#">59</a>
459	7788	Cas	23h 56m 45.5s	+61° 24' 00"	9.4v	15	4	Plei	
460	7789	Cas	23h 57m 24.0s	+56° 42' 30"	6.7v	100	25	Praes	
461	7790	Cas	23h 58m 24.2s	+61° 12' 30"	8.5v	18	5	Plei	
462	189	Cas	00h 39m 35.7s	+61° 05' 40"	8.8v	(90)	5	Plei	
463 (20a)		Cas	01h 48m 24.0s	+71° 57' 00"	nl	nl	nl	Plei	
464 (60a)		Cam	05h 22m 00.0s	+73° 00' 00"	4.2p	nl	120	Plei	
465 (127a)		Mon	07h 07m 12.0s	-10° 37' 00"	10.1p	nl	9	Praes	
466 (127b)		Mon	07h 07m 18.0s	-10° 49' 00"	11.1p	(25)	4	Praes	
467 (156a)	(Mel 72 per A/H)	Mon	07h 38m 29.0s	-10° 33' 00"	10.1v	(40)	5	Praes	<a href="#">15</a>
468 (364a)		Sgr	18h 06m 36.0s	-27° 28' 00"	11v	8	0.9	Plei	
469 (370a)		Sgr	18h 16m 33.0s	-18° 18' 34"	9.1v	(51)	2.6	Plei	
470 (442a)	IC5146	Cyg	21h 53m 24.0s	+47° 16' 00"	7.2v	(110)	9	Neb	
471 (444a)		Cep	22h 07m 06.0s	+72° 00' 00"	nl	nl	130	Plei	

## Notes for Specific Objects

Nearly all the notes below were gleaned from the book *Star Clusters* by Brent A. Archinal and Steven J. Hynes. Specific references to portions of the book are provided where they seemed especially useful.

1. Cr.8: Collinder lists as the NGC designation for this cluster the number 281. However, NGC 281 is itself *not* a cluster, but a reflection nebula. The cluster Collinder studied here is properly designated IC 1590.
2. Cr.21: Asterism.
3. Cr.24 & Cr.25: The Double Cluster
4. Cr.26: More likely to be found on charts as IC 1805.
5. Cr.32/33/34: Essentially all parts of one complex, IC 1848 per A/H pg 134.
6. Cr. 39: Perseus Moving Cluster/Group (Mel 20).
7. Cr. 41: Often depicted elsewhere as a bright nebula without mention of the loose cluster involved.
8. Cr.50: TMC = Taurus Moving Cluster.
9. Cr. 63: Associated with nebula IC 410.
10. Cr. 69: a.k.a. Lambda Orionis cluster.
11. Cr. 70: Orion belt cluster.
12. Cr. 81: Sometimes erroneously listed as a globular cluster.
13. Cr. 84: The NGC number listed by Collinder is properly assigned to the nebulosity surrounding Cr.84, NOT to the cluster itself (which may not actually be a cluster).
14. Cr. 109 Some references give an erroneous location of 06h 38.4m +01° 11' due to an original error by Collinder.
15. Cr.156: According to A/H Collinder 156=Mel 72=Cr.467.
16. Cr.182: It is possible that this is not an actual star cluster.
17. Cr.191: The center of a super cluster (A/H p. 137); good binocular object.
18. Cr. 199 and 202: something of a messy situation, with Cr.202 (Harvard 3) being included as a separate cluster by various authors, but with very different coordinates, even though Harv. 3 is actually “inside” of NGC 2669 (Cr.199); Cr.202 is apparently a central condensation of the larger cluster. (See A/H p. 168)
19. Cr. 206: an open cluster that actually includes a planetary nebula; A/H argue that the planetary nebula should be given the NGC designation used by Collinder, with the cluster being identified as Cr.206.
20. Cr. 220: In assembling his catalog Collinder incorrectly identified this cluster as NGC 3247, when it was in fact a “new” cluster. Sold himself short. The NGC number is left in the spreadsheet because some references have apparently perpetuated this error.
21. Cr. 221: May not be a true star cluster.
22. Cr. 233 and 234: Both Collinder entries refer to the eta Carinae star cluster, with 234 applied by Collinder to the southern portion. The entire object is properly known as Trumpler 16.
23. Cr. 239 & 240: Another cluster in a cluster; 239 = NGC 3572, while 240 should be only a Cr. #.
24. Cr. 243 (Tr.19): Described by Skiff as “not obvious in 0.35 degree field.”
25. Cr. 254: Probably not a true cluster.
26. Cr.257 & 258: Apparently labeled incorrectly some places as Harv. 5 or Hogg 74. (A/H p. 132 for details.)
27. Cr. 264: J. Herschel’s “Jewel Box.”

28. Cr. 265: Probably not a true cluster.
29. Cr. 267: This is actually a globular cluster. (A/H p.237)
30. Cr. 269: Probably not a true cluster.
31. Cr. 283: Probably not a true cluster.
32. Cr. 294: Probably not a true cluster.
33. Cr. 314: According to A/H Collinder was apparently incorrect in identifying this cluster with NGC 6222. No NSOG reference to this cluster under either designation. However, older atlases such as Norton's 19<sup>th</sup> edition show NGC 6222 is the specified position, as does the newer HB AstroAtlas. The HCNGC lists NGC 6222 and Cr. 314 as synonymous.
34. Cr. 316: Appears to be superposed on Tr. 24, and may be part of the same cluster.
35. Cr. 328: Collinder and his mentor apparently thought this might be a globular cluster. Later studies have verified that this is indeed the case.
36. Cr. 330: Another globular cluster caught up in Collinder's survey.
37. Cr. 334 & 335: Duplicate listings; NGC 6374 is not a separate open cluster.
38. Cr. 339: Collinder provides NGC 6393 for this objects, which turns out to be a galaxy in Draco. The coordinates in Collinder's catalog actually point to an object in Scorpius, and a check of the Historically Corrected New General Catalogue (HCNGC) Ver 1.02 shows NGC 6396 as the correct alias for Cr. 339. Data from the HCNGC has been used in the updated list.
39. Cr. 346: Another misidentified globular cluster.
40. Cr. 364: Another misidentified globular cluster.
41. Cr. 366: This really is, as Collinder and Lundmark believed, a globular cluster.
42. Cr. 368: Another globular cluster, which was not considered certain in Collinder's time.
43. Cr. 371: The NGC number applied by Collinder is actually a reference to the nebula around the cluster. He discovered the cluster himself, but apparently did not know he was first to make the distinction.
44. Cr. 374: This cluster is embedded within M24.
45. Cr. 377: Cluster associated with M17.
46. Cr. 381: Yet another cluster considered a globular when Collinder assembled his catalog. It's globular status has since been verified.
47. Cr. 387: May not be a real cluster.
48. Cr. 391: Collinder apparently considered M11 a globular cluster.
49. Cr. 395: A strange "object" that appears to be globular cluster NGC 6717 (Palomar 9) very near IC 4802, an OC along the same line of sight.
50. Cr. 399: The 'Coathanger' asterism, which is not a true star cluster.
51. Cr. 404: May be an asterism associated with nebula NGC 6820.
52. Cr. 409: Globular cluster M71.
53. Cr. 414: Was considered a possible globular cluster when Collinder made the catalog.
54. Cr. 416 & 417: Possibly only a part of NGC 6885.
55. Cr. 425: Probably an asterism in a nebulous region.
56. Cr. 426: It is thought that Collinder's description of M73 is actually for M72, a globular cluster, and not the object he intended for Cr. 426.
57. Cr. 429: Possible cluster associated with NGC 7023; the NGC number does not actually refer to his cluster.
58. Cr. 456: May not be a true cluster.
59. Cr.458: Another grouping that may not be a real cluster.
60. Cr. 471: Associated with the nebula identified by IC 5146; this number does not apply directly to the cluster.