

BCH Observing List

Evening of 2010 Aug 7 at Britstown - Kambro

Sunset 18:02, Twilight ends 19:18, Twilight begins 05:45, Sunrise 07:01, Moon rise 05:25, Moon set 15:08
Completely dark from 19:18 to 05:25. Waning Crescent Moon. All times local (GMT+2).

Listing All Classes visible above the perfect horizon and in complete darkness after 19:18 and before 05:25.
The minimum visual difficulty is: visible (at any difficulty).

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 4449	MCG 7-26-9	CVn	87.04550	44.0925	5.2'x 3.3'	9.5	13.0 Mly	18:50	19:02	19:18	7	37	challenging	E-Lux 2" 26mm
PNe	IC 2501	He 2-33	Car	44.69672	-60.0919	2.0"	11.3	12000 ly	18:46	19:06	21:23	25	199	easy	Plössl 4mm
Gal	NGC 2986	MCG -3-25-19	Hya	46.06685	-21.2783	3.4'x 2.9'	11.7		18:53	19:06	19:31	20	152	very challenging	E-Lux 2" 26mm
Gal	NGC 3338	MCG 2-27-41	Leo	60.53135	13.7469	1.5'x 0.9'	11.4		19:01	19:06	19:10	13	92	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4490	Cocoon Galaxy	CVn	87.65150	41.6436	6.3'x 2.0'	9.8		18:59	19:06	19:12	7	37	challenging	Celestron Plössl 15mm 2.0x
PNe	NGC 2792	He 2-20	Vel	38.11082	-42.4278	13"	13.5	9300 ly	18:58	19:07	19:23	20	186	challenging	Celestron Plössl 9mm 2.0x
PNe	NGC 2818	He 2-23	Pyx	39.00690	-36.6274	36"	11.9	6000 ly	18:58	19:07	19:19	20	170	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 3368	M 96	Leo	61.69055	11.8199	7.6'x 5.0'	10.1	45.0 Mly	18:53	19:07	19:23	13	92	very challenging	Ultima 42mm
Gal	NGC 3379	M 105	Leo	61.95680	12.5818	5.0'x 4.6'	10.2	45.0 Mly	18:53	19:07	19:23	13	92	challenging	E-Lux 2" 40mm
Gal	NGC 4136	MCG 5-29-25	Com	82.32365	29.9276	2.8'x 2.6'	12.0		18:54	19:07	19:38	7	54	very challenging	Ultima 42mm 2.0x
Gal	NGC 4150	MCG 5-29-29	Com	82.64030	30.4015	2.1'x 1.4'	12.5		18:54	19:07	19:38	7	54	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4395	MCG 6-27-53	CVn	86.45405	33.5468	4.2'x 1.6'	10.8	14.0 Mly	19:00	19:07	19:21	7	54	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3115	Spindle Galaxy	Sex	51.30815	-7.7185	7.6'x 3.5'	10.0		18:53	19:07	19:25	13	133	challenging	Celestron Plössl 32mm
Gal	NGC 3506	MCG 2-28-47	Leo	65.80400	11.0768	1.1'x 1.0'	13.0	290.0 Mly	18:55	19:07	19:33	13	92	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5195	Arp 85	CVn	02.49835	47.2661	5.6'x 4.5'	10.5		18:51	19:07	19:38	7	37	very challenging	E-Lux 2" 40mm
Gal	NGC 3423	MCG 1-28-12	Sex	62.80970	5.8401	3.5'x 3.0'	11.6		18:55	19:08	19:33	13	92	very challenging	E-Lux 2" 26mm
Gal	NGC 3655	MCG 3-29-39	Leo	70.72775	16.5894	1.5'x 1.0'	12.3		19:01	19:08	19:16	13	92	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5194	M 51	CVn	02.46790	47.1945	9.8'x 7.8'	8.7	43.0 Mly	18:59	19:08	19:22	7	37	difficult	Ultima 42mm
Gal	NGC 3681	MCG 3-29-48	Leo	71.62430	16.8632	1.9'x 1.8'	12.4		18:56	19:08	19:35	13	91	very challenging	Celestron Plössl 15mm
Gal	NGC 3691	MCG 3-29-53	Leo	72.03920	16.9204	1.3'x 1.0'	12.6		18:56	19:08	19:35	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3684	MCG 3-29-50	Leo	71.79650	17.0303	2.4'x 1.6'	12.3		18:56	19:08	19:35	13	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3686	MCG 3-29-51	Leo	71.93315	17.2241	2.9'x 2.2'	12.0		18:56	19:08	19:35	13	91	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4736	M 94	CVn	92.72135	41.1201	10.0'x 8.7'	8.7	17.0 Mly	19:00	19:08	19:20	7	37	difficult	Ultima 42mm
Gal	NGC 4245	MCG 5-29-49	Com	84.40340	29.6081	2.7'x 1.8'	12.3		18:54	19:08	19:41	7	54	very challenging	Celestron Plössl 15mm
Gal	NGC 2997	MCG -5-23-12	Ant	46.41170	-31.1912	9.8'x 6.8'	10.1		18:55	19:09	19:38	20	170	challenging	Ultima 42mm
Gal	NGC 3056	MCG -5-24-3	Ant	48.63725	-28.2969	2.3'x 1.4'	12.6		18:55	19:09	19:38	20	152	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3078	MCG -4-24-9	Hya	49.60205	-26.9260	3.0'x 2.5'	12.1		18:55	19:09	19:38	20	152	very challenging	Ultima 42mm 2.0x
Gal	NGC 3627	M 66	Leo	70.06205	12.9917	8.9'x 4.0'	9.7	41.0 Mly	19:02	19:09	19:19	13	92	difficult	Celestron Plössl 32mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 3623	M 65	Leo	69.73220	13.0922	8.1'x 2.1'	10.1	41.0 Mly	19:02	19:09 	19:17	13	92	difficult	E-Lux 2" 32mm 2.0x
Gal	NGC 3628	Arp 317	Leo	70.07030	13.5911	12.3'x 3.3'	10.0		18:57	19:09 	19:36	13	92	challenging	E-Lux 2" 26mm
Gal	NGC 3489	MCG 2-28-39	Leo	65.07740	13.9012	3.5'x 2.1'	11.1		18:55	19:09 	19:27	13	92	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 3607	MCG 3-29-20	Leo	69.22700	18.0530	4.6'x 4.0'	10.9		18:55	19:09 	19:30	13	73	very challenging	Celestron Plössl 32mm
Gal	NGC 3608	MCG 3-29-22	Leo	69.24575	18.1485	3.0'x 2.2'	11.6		18:55	19:09 	19:30	13	73	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 3626	MCG 3-29-32	Leo	70.01600	18.3568	3.0'x 2.0'	11.8		18:55	19:09 	19:32	13	72	very challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 4251	MCG 5-29-50	Com	84.53465	28.1753	2.8'x 1.5'	11.6		19:02	19:09 	19:19	7	72	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4278	MCG 5-29-62	Com	85.02890	29.2815	3.3'x 3.1'	11.0		19:00	19:09 	19:19	7	72	difficult	E-Lux 2" 26mm
Gal	NGC 4283	MCG 5-29-63	Com	85.08680	29.3109	1.3'x 1.2'	13.0		18:55	19:09 	19:42	7	72	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4274	MCG 5-29-60	Com	84.96035	29.6141	5.0'x 2.1'	11.3		18:55	19:09 	19:42	7	54	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4314	MCG 5-29-75	Com	85.63445	29.8949	3.8'x 3.6'	11.4		18:55	19:09 	19:42	7	54	very challenging	Celestron Plössl 32mm
Gal	NGC 4414	MCG 5-29-85	Com	86.61275	31.2227	2.8'x 1.6'	11.0		19:00	19:09 	19:23	7	54	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4656	MCG 5-30-66	CVn	90.99005	32.1701	8.5'x 1.1'	9.7		18:59	19:09 	19:30	7	53	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 4631	Whale Galaxy	CVn	90.53210	32.5428	13.2'x 2.4'	9.5		19:00	19:09 	19:23	7	53	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4203	MCG 6-27-40	Com	83.77055	33.1983	3.4'x 1.7'	11.7	210.0 Mly	18:53	19:09 	19:36	7	54	very challenging	Celestron Plössl 15mm
Gal	NGC 5005	MCG 6-29-52	CVn	97.73450	37.0582	5.4'x 2.0'	10.5		19:01	19:09 	19:27	7	53	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4868	MCG 6-29-4	CVn	94.78715	37.3103	1.5'x 1.3'	12.9		18:55	19:09 	19:47	7	53	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5055	M 63	CVn	98.95550	42.0293	12.0'x 7.2'	9.3		18:51	19:09 	19:50	7	37	challenging	Ultima 42mm
Gal	NGC 3038	MCG -5-24-1	Ant	47.81435	-32.7526	2.8'x 1.6'	12.5		18:56	19:10 	19:41	20	170	very challenging	Celestron Plössl 15mm
Gal	NGC 3095	MCG -5-24-16	Ant	50.02565	-31.5521	3.5'x 2.1'	12.4	4.1 Mly	18:56	19:10 	19:45	20	169	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 3125	MCG -5-24-22	Ant	51.63755	-29.9349	1.2'x 0.9'	13.4		18:56	19:10 	19:47	20	169	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3109	MCG -4-24-13	Hya	50.77775	-26.1589	17.8'x 3.2'	10.4		18:56	19:10 	19:39	20	151	very challenging	Celestron Plössl 32mm
PNe	NGC 3242	Ghost of Jupiter	Hya	56.19224	-18.6423	40"	8.6		18:54	19:10 	19:50	20	151	obvious	E-Lux 2" 26mm 2.0x
Gal	NGC 4032	MCG 3-31-10	Com	80.13710	20.0746	1.5'x 1.3'	12.8		18:56	19:10 	19:41	7	72	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4162	MCG 4-29-46	Com	82.96865	24.1237	2.3'x 1.4'	12.5		18:56	19:10 	19:43	7	72	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4448	MCG 5-29-89	Com	87.06320	28.6210	1.8'x 1.1'	12.0		19:02	19:10 	19:24	7	72	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5033	MCG 6-29-62	CVn	98.36465	36.5936	9.5'x 4.3'	10.7		18:54	19:10 	19:52	7	53	very challenging	E-Lux 2" 40mm
Gal	NGC 4559	MCG 5-30-30	Com	88.99040	27.9597	10.0'x 4.3'	10.3		19:04	19:11 	19:21	7	72	challenging	E-Lux 2" 40mm
Gal	NGC 5633	MCG 8-26-34	Boo	16.86865	46.1466	1.3'x 0.8'	13.1		18:53	19:10 	20:17	7	36	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3087	MCG -6-22-5	Ant	49.78595	-34.2252	2.3'x 2.0'	12.7		18:55	19:11 	19:48	20	170	very challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 3175	MCG -5-24-28	Ant	53.67635	-28.8721	4.8'x 1.5'	12.1		18:57	19:11 	19:48	20	151	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3521	MCG 0-28-30	Leo	66.45350	-0.0349	9.5'x 4.6'	9.9		19:03	19:11 	19:23	13	112	difficult	E-Lux 2" 40mm
Gal	NGC 3611	MCG 1-29-26	Leo	69.37565	4.5554	1.5'x 0.9'	12.8		19:04	19:11 	19:19	13	112	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3773	Markarian 743	Leo	74.55410	12.1120	1.2'x 1.0'	13.4		18:57	19:11 	19:42	13	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5313	MCG 7-28-74	CVn	07.43515	39.9847	1.6'x 0.9'	12.6		19:02	19:11 	19:27	7	53	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5383	Markarian 281	CVn	09.27070	41.8460	2.5'x 2.0'	12.2		18:55	19:11 	20:04	7	36	very challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 3705	MCG 2-29-39	Leo	72.53105	9.2766	4.3'x 1.7'	11.8		18:57	19:11 	19:40	13	91	very challenging	Celestron Plössl 15mm
Gal	NGC 3872	MCG 2-30-33	Leo	76.45520	13.7662	2.4'x 1.8'	12.7		18:57	19:11 	19:42	13	91	very challenging	Celestron Plössl 15mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 4064	MCG 3-31-33	Com	81.04670	18.4435	3.5'x 1.4'	12.2		18:57	19:11 	19:46	13	72	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4158	MCG 3-31-60	Com	82.79240	20.1758	1.5'x 1.2'	13.0		18:55	19:11 	19:46	7	72	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4494	MCG 4-30-2	Com	87.85010	25.7750	4.4'x 4.2'	10.7		19:01	19:11 	19:27	7	72	difficult	Celestron Plössl 32mm
Gal	NGC 5353	MCG 7-29-10	CVn	08.36140	40.2831	2.5'x 1.3'	12.0		19:03	19:11 	19:29	7	53	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5354	MCG 7-29-11	CVn	08.36155	40.3040	2.8'x 1.3'	12.4		18:55	19:11 	20:05	7	53	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3630	MCG 1-29-31	Leo	70.07075	2.9642	1.9'x 0.8'	12.8		18:58	19:12 	19:45	13	112	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3810	MCG 2-30-10	Leo	75.24485	11.4717	3.6'x 2.5'	11.3		19:03	19:12 	19:24	13	91	difficult	Ultima 42mm 2.0x
Gal	NGC 4455	MCG 4-30-1	Com	87.18365	22.8214	2.0'x 0.7'	13.2		18:56	19:12 	19:52	7	72	very challenging	Celestron Plössl 9mm
Gal	NGC 4565	MCG 4-30-6	Com	89.08670	25.9874	14.5'x 2.3'	10.1		19:03	19:12 	19:24	7	72	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 4670	Arp 163	Com	91.32140	27.1255	1.1'x 0.9'	13.1		19:03	19:12 	19:28	7	71	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5326	MCG 7-28-82	CVn	07.71130	39.5749	2.1'x 1.0'	12.9		18:54	19:12 	20:03	7	53	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5350	Markarian 1485	CVn	08.33995	40.3639	2.8'x 1.9'	12.3		18:56	19:12 	20:03	7	53	very challenging	Celestron Plössl 32mm 2.0x
PNe	NGC 2867	He 2-27	Car	40.35557	-58.3113	12"	9.7	6100 ly	18:49	19:12 	21:02	25	199	obvious	Celestron Plössl 9mm 2.0x
Open	NGC 2925	Collinder 210	Vel	43.29584	-53.3983	10.0'	8.3	2500 ly	19:00	19:12 	19:43	25	199	detectable	Ultima 42mm
Open	NGC 2910	Collinder 209	Vel	42.62500	-52.9183	4.0'	8.3	8500 ly	18:56	19:12 	20:04	25	199	easy	Celestron Plössl 32mm
PNe	NGC 3132	Eight Burst	Vel	51.75738	-40.4364	1.4'	8.2	3600 ly	18:54	19:12 	20:11	20	169	obvious	Celestron Plössl 15mm
Gal	NGC 3223	MCG -6-23-23	Ant	55.39700	-34.2673	4.1'x 2.7'	11.8		18:56	19:12 	19:58	20	169	challenging	Ultima 42mm 2.0x
Gal	NGC 3241	MCG -5-25-2	Ant	56.07245	-32.4821	2.3'x 1.6'	13.1		18:56	19:12 	19:58	20	169	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3312	MCG -4-25-39	Hya	59.26055	-27.5650	3.3'x 1.1'	12.9		18:56	19:12 	19:58	20	151	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3309	MCG -4-25-34	Hya	59.14850	-27.5183	2.2'x 1.8'	12.5	190.0 Mly	19:04	19:12 	19:26	20	151	challenging	Celestron Plössl 15mm
QSO	3C 273.0	Q1226+0023	Vir	87.27792	2.0522		12.8	1.9 Gly	18:51	19:12 	19:24	13	111	detectable	Plössl 4mm
Gal	NGC 3640	MCG 1-29-33	Leo	70.27865	3.2349	4.4'x 3.8'	11.3		19:06	19:12 	19:23	13	112	challenging	Celestron Plössl 32mm
Gal	NGC 3664	Arp 5	Leo	71.10200	3.3261	1.6'x 1.1'	13.3		18:58	19:12 	19:45	13	111	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4037	MCG 2-31-15	Com	80.34860	13.4011	2.3'x 2.2'	13.0		18:58	19:12 	19:51	13	91	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4152	Markarian 759	Com	82.65620	16.0330	1.5'x 1.0'	12.9		19:04	19:12 	19:26	13	91	challenging	E-Lux 2" 26mm 2.0x
Glob	NGC 4147		Com	82.52500	18.5417	4.4'	10.4	85000 ly	18:56	19:12 	19:49	7	72	very challenging	Ultima 42mm
Gal	NGC 4712	MCG 4-30-21	Com	92.39255	25.4699	1.8'x 0.8'	13.5	200.0 Mly	18:56	19:12 	20:00	7	71	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4725	MCG 4-30-22	Com	92.61080	25.5008	9.5'x 6.6'	9.9		19:02	19:12 	19:32	7	71	difficult	Ultima 42mm
Gal	NGC 4747	Arp 159	Com	92.93990	25.7747	2.5'x 1.1'	13.0		18:56	19:12 	20:00	7	71	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4874	MCG 5-31-70	Com	94.89815	27.9601	2.5'x 2.1'	12.8	320.0 Mly	18:56	19:12 	19:58	7	71	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4884	MCG 5-31-77	Com	95.03270	27.9780	2.8'x 1.8'	12.5	290.0 Mly	18:56	19:12 	20:00	7	71	very challenging	Celestron Plössl 15mm
Gal	NGC 4793	MCG 5-31-3	Com	93.67010	28.9383	2.1'x 1.1'	12.3		19:02	19:12 	19:28	7	71	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5074	MCG 5-31-172	CVn	99.60755	31.4690	48"x 27"	14.4	250.0 Mly	18:54	19:12 	20:06	7	53	very challenging	Celestron Plössl 15mm 2.0x
Gal	NGC 5371	MCG 7-29-20	CVn	08.91610	40.4618	4.0'x 2.6'	11.3		19:04	19:12 	19:26	7	53	challenging	Ultima 42mm 2.0x
Gal	NGC 5406	MCG 7-29-31	CVn	10.08385	38.9154	1.7'x 1.2'	13.1	250.0 Mly	18:55	19:12 	20:10	7	52	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5273	MCG 6-30-72	CVn	05.53495	35.6543	2.5'x 1.8'	12.5		18:55	19:13 	20:06	7	53	very challenging	Celestron Plössl 15mm
Gal	NGC 5395	Arp 84	CVn	09.65815	37.4245	2.6'x 1.4'	12.3	160.0 Mly	18:55	19:13 	20:14	7	53	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5380	MCG 6-31-28	CVn	09.23635	37.6105	1.8'x 1.0'	13.3	140.0 Mly	18:55	19:13 	20:12	7	53	very challenging	E-Lux 2" 26mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Neb	NGC 3581	ESO 129-EN9	Car	68.00000	-61.3000				18:52	19:13 	20:01	25	198	unknown	Plössl 4mm
Open	IC 2488	OCL 789	Vel	41.90833	-57.0000	18.0'	7.4	3700 ly	19:01	19:13 	19:46	25	199	detectable	Ultima 42mm
Gal	NGC 3250	MCG -7-22-7	Ant	56.63495	-39.9433	2.8'x 2.2'	12.2		19:05	19:13 	19:33	20	169	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 3275	MCG -6-23-46	Ant	57.71585	-36.7369	2.8'x 2.1'	12.6	150.0 Mly	18:57	19:13 	20:07	20	169	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 3258	MCG -6-23-32	Ant	57.22325	-35.6056	2.7'x 2.2'	12.5		18:57	19:13 	20:03	20	169	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 3271	MCG -6-23-44	Ant	57.61055	-35.3585	3.0'x 1.5'	12.8	170.0 Mly	18:56	19:13 	20:05	20	169	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3268	MCG -6-23-41	Ant	57.50210	-35.3249	3.2'x 2.4'	12.3		18:57	19:13 	20:03	20	169	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 3281	MCG -6-23-50	Ant	57.96695	-34.8537	3.2'x 1.4'	12.7	160.0 Mly	18:56	19:13 	20:05	20	169	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3390	MCG -5-26-7	Hya	62.01755	-31.5332	3.3'x 0.6'	12.9		18:56	19:13 	20:11	20	169	very challenging	Celestron Plössl 9mm
Gal	NGC 3311	MCG -4-25-36	Hya	59.17865	-27.5270	3.5'x 3.1'	12.7	170.0 Mly	18:57	19:13 	19:57	20	151	very challenging	E-Lux 2" 26mm
Gal	NGC 3464	MCG -3-28-21	Hya	63.66590	-21.0671	2.5'x 1.6'	13.1	170.0 Mly	18:57	19:13 	19:57	20	151	very challenging	Celestron Plössl 15mm
Gal	NGC 3720	MCG 0-30-6	Leo	73.08995	0.8041	1.1'x 0.9'	13.8	270.0 Mly	18:57	19:13 	19:52	13	111	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3976	MCG 1-31-1	Vir	78.98810	6.7487	3.2'x 0.9'	12.5		18:57	19:13 	19:57	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4119	MCG 2-31-36	Vir	82.04045	10.3796	1.8'x 1.1'	12.4		19:03	19:13 	19:35	13	91	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4178	MCG 2-31-50	Vir	83.19290	10.8658	4.7'x 1.4'	11.9		19:05	19:13 	19:27	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4216	MCG 2-31-72	Vir	83.97620	13.1500	7.9'x 1.9'	11.0		19:05	19:13 	19:29	13	91	challenging	Celestron Plössl 15mm 2.0x
Gal	NGC 4168	MCG 2-31-46	Vir	83.07185	13.2053	2.8'x 2.2'	12.1		19:05	19:13 	19:29	13	91	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4189	MCG 2-31-54	Com	83.44700	13.4248	3.0'x 2.5'	12.5		18:57	19:13 	19:57	13	91	very challenging	Ultima 42mm 2.0x
Gal	NGC 4212	MCG 2-31-70	Com	83.91410	13.9015	3.2'x 2.1'	11.8		19:05	19:13 	19:31	13	91	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4254	M 99	Com	84.70670	14.4165	5.1'x 4.6'	10.4	70.0 Mly	19:01	19:13 	19:41	13	91	detectable	E-Lux 2" 40mm
Gal	NGC 4302	MCG 3-32-9	Com	85.42700	14.5978	5.0'x 0.9'	12.5		18:57	19:13 	20:01	13	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4298	MCG 3-32-7	Com	85.38665	14.6060	3.0'x 1.7'	12.1		19:05	19:13 	19:29	13	91	challenging	Celestron Plössl 15mm
Gal	NGC 4377	MCG 3-32-25	Com	86.30135	14.7622	1.6'x 1.3'	12.7		19:03	19:13 	19:33	13	91	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4262	MCG 3-31-101	Com	84.87740	14.8777	1.8'x 1.6'	12.4		19:03	19:13 	19:33	13	91	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4192	M 98	Com	83.45135	14.8993	9.5'x 2.3'	10.9	70.0 Mly	18:57	19:13 	19:56	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4419	MCG 3-32-38	Com	86.73575	15.0470	3.5'x 1.2'	12.0		19:05	19:13 	19:33	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4237	MCG 3-31-91	Com	84.29765	15.3241	2.0'x 1.3'	12.4		19:03	19:13 	19:31	13	91	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4379	MCG 3-32-26	Com	86.31140	15.6075	1.9'x 1.5'	12.6		19:05	19:13 	19:31	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4321	M 100	Com	85.72895	15.8225	7.6'x 6.8'	10.0	70.0 Mly	19:03	19:13 	19:37	13	91	difficult	Ultima 42mm
Gal	NGC 4383	Markarian 769	Com	86.35640	16.4701	1.9'x 1.0'	12.7		19:05	19:13 	19:31	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4350	MCG 3-32-23	Com	85.99055	16.6925	2.8'x 1.1'	11.9		19:03	19:13 	19:35	13	91	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4340	MCG 3-32-21	Com	85.89710	16.7222	3.5'x 2.6'	12.1		18:57	19:13 	19:57	13	91	challenging	Ultima 42mm 2.0x
Gal	NGC 4450	MCG 3-32-48	Com	87.12350	17.0849	5.6'x 4.4'	10.8		19:03	19:13 	19:35	13	91	difficult	E-Lux 2" 40mm
Gal	NGC 4382	M 85	Com	86.35025	18.1911	7.6'x 5.9'	10.0	70.0 Mly	19:03	19:13 	19:35	13	72	difficult	Ultima 42mm
Gal	NGC 4394	MCG 3-32-35	Com	86.48180	18.2139	3.6'x 3.5'	11.6		19:05	19:13 	19:27	13	72	challenging	E-Lux 2" 26mm
Gal	NGC 4293	MCG 3-32-6	Com	85.30325	18.3825	6.0'x 4.1'	11.1		18:57	19:13 	19:54	13	72	challenging	Celestron Plössl 32mm
Gal	NGC 4561	MCG 3-32-76	Com	89.03390	19.3226	1.3'x 1.0'	13.0		19:03	19:13 	19:33	7	72	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4635	MCG 3-32-87	Com	90.66350	19.9452	1.8'x 1.3'	13.1		18:57	19:13 	20:05	7	71	very challenging	E-Lux 2" 26mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 4961	MCG 5-31-126	Com	96.44825	27.7341	1.2'x 0.9'	14.0		18:56	19:13 	20:05	7	71	very challenging	E-Lux 2" 26mm 2.0x
PNe	IC 2553	He 2-42	Car	52.33690	-62.6134	12"	13.0	8600 ly	18:56	19:14 	20:47	25	210	detectable	Celestron Plössl 9mm 2.0x
Open	NGC 3105	Collinder 214	Vel	50.16250	-54.7883	2.0'	11.1	16000 ly	19:02	19:14 	19:51	25	199	detectable	Celestron Plössl 32mm 2.0x
Glob	NGC 3201		Vel	54.40417	-46.4117	20.0'	6.9	13000 ly	19:00	19:14 	19:54	20	186	detectable	Ultima 42mm
Gal	NGC 3256	MCG -7-22-10	Vel	56.96375	-43.9038	3.3'x 2.0'	12.1		19:04	19:14 	19:36	20	185	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 3358	MCG -6-24-9	Ant	60.88700	-36.4102	3.2'x 1.8'	12.3		19:06	19:14 	19:32	20	169	challenging	Celestron Plössl 15mm
Gal	NGC 3347	MCG -6-24-7	Ant	60.69290	-36.3553	3.6'x 1.3'	12.1	140.0 Mly	19:04	19:14 	19:36	20	169	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3513	MCG -4-26-21	Crt	65.94095	-23.2446	2.9'x 1.8'	12.0		19:04	19:14 	19:36	20	151	difficult	Celestron Plössl 15mm
Gal	NGC 3511	MCG -4-26-20	Crt	65.84900	-23.0868	6.0'x 1.9'	11.6		19:06	19:14 	19:30	20	151	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 3672	MCG -2-29-28	Crt	71.26025	-9.7954	3.5'x 1.8'	12.1		19:06	19:14 	19:28	13	131	challenging	Celestron Plössl 15mm
Gal	NGC 4294	MCG 2-32-9	Vir	85.32410	11.5110	2.9'x 1.1'	12.3		19:04	19:14 	19:32	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4313	MCG 2-32-16	Vir	85.66010	11.8013	3.6'x 0.9'	12.6		18:56	19:14 	20:06	13	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4267	MCG 2-32-4	Vir	84.93905	12.7993	3.2'x 2.6'	11.8		19:04	19:14 	19:32	13	91	difficult	Ultima 42mm 2.0x
Gal	NGC 4402	MCG 2-32-44	Vir	86.53265	13.1119	3.5'x 1.0'	13.0		18:56	19:14 	20:06	13	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4540	MCG 3-32-74	Com	88.71215	15.5516	2.0'x 1.7'	12.5		19:04	19:14 	19:34	14	91	challenging	Celestron Plössl 15mm
Gal	NGC 5116	MCG 5-32-9	Com	00.73195	26.9808	2.0'x 0.7'	13.2		18:56	19:14 	20:17	7	71	very challenging	Celestron Plössl 9mm
Gal	NGC 5347	MCG 6-31-7	CVn	08.32435	33.4907	1.6'x 1.2'	13.4		18:56	19:14 	20:21	7	53	very challenging	E-Lux 2" 26mm 2.0x
Glob	NGC 2808		Car	38.01250	-64.8633	14.0'	6.2	26000 ly	18:57	19:14 	20:42	25	210	easy	Ultima 42mm
PNe	NGC 3211	He 2-46	Car	54.46062	-62.6707	12"	11.8	9300 ly	18:53	19:14 	21:27	25	210	easy	Celestron Plössl 9mm 2.0x
Gal	NGC 3261	MCG -7-22-15	Vel	57.25595	-44.6567	3.6'x 3.0'	12.2		18:57	19:14 	20:19	20	185	challenging	E-Lux 2" 26mm
Gal	NGC 3318	MCG -7-22-26	Vel	59.31470	-41.6276	2.5'x 1.3'	12.3		19:02	19:14 	19:42	20	185	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 3449	MCG -5-26-10	Ant	63.22295	-32.9274	3.5'x 1.1'	13.1	150.0 Mly	18:57	19:14 	20:13	20	169	very challenging	E-Lux 2" 26mm 2.0x
Gal	IC 2627	MCG -4-27-2	Crt	67.47185	-23.7263	2.5'x 2.0'	12.7		18:58	19:14 	20:10	20	151	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 4299	MCG 2-32-10	Vir	85.41875	11.5030	1.5'x 1.4'	12.7		19:04	19:14 	19:36	13	91	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4371	MCG 2-32-33	Vir	86.23100	11.7042	3.9'x 1.9'	11.8		19:04	19:14 	19:34	13	91	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4452	MCG 2-32-80	Vir	87.18170	11.7572	3.0'x 0.6'	12.9		18:57	19:14 	20:10	13	91	very challenging	Celestron Plössl 9mm
Gal	NGC 4478	MCG 2-32-99	Vir	87.57290	12.3278	1.7'x 1.4'	12.2		19:02	19:14 	19:45	14	91	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4476	MCG 2-32-96	Vir	87.49625	12.3486	1.8'x 1.2'	13.2		18:57	19:14 	20:10	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4413	MCG 2-32-49	Vir	86.63435	12.6108	2.1'x 1.5'	12.9		18:57	19:14 	20:06	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4388	MCG 2-32-41	Vir	86.44520	12.6621	5.5'x 1.4'	11.9		18:57	19:14 	20:06	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4425	MCG 2-32-59	Vir	86.80565	12.7348	3.0'x 0.9'	13.0		18:57	19:14 	20:08	13	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4374	M 84	Vir	86.26640	12.8867	6.3'x 5.5'	10.1	70.0 Mly	19:02	19:14 	19:43	13	91	detectable	Ultima 42mm
Gal	NGC 4406	M 86	Vir	86.55065	12.9456	10.0'x 7.4'	9.8	70.0 Mly	19:04	19:14 	19:40	13	91	difficult	Ultima 42mm
Gal	NGC 4438	Arp 120	Vir	86.94110	13.0089	8.9'x 5.1'	10.9		18:57	19:14 	20:06	13	91	challenging	Ultima 42mm
Gal	NGC 4435	Arp 120	Vir	86.91890	13.0791	3.0'x 2.0'	11.5		19:02	19:14 	19:42	13	91	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 4461	MCG 2-32-84	Vir	87.26255	13.1839	3.7'x 1.6'	11.9		19:04	19:14 	19:34	13	91	challenging	Celestron Plössl 15mm
Gal	NGC 4473	MCG 2-32-93	Com	87.45380	13.4293	4.1'x 2.4'	11.1		19:02	19:14 	19:42	13	91	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 4477	MCG 2-32-97	Com	87.50915	13.6365	3.9'x 3.5'	11.3		19:04	19:14 	19:38	14	91	difficult	E-Lux 2" 26mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 4459	MCG 2-32-83	Com	87.25010	13.9786	4.6'x 3.7'	11.4	70.0 Mly	19:04	19:14 	19:32	13	91	challenging	Celestron Plössl 32mm
Gal	NGC 4474	MCG 2-32-94	Com	87.47315	14.0687	2.4'x 1.5'	12.5		19:06	19:14 	19:30	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4501	M 88	Com	87.99680	14.4203	7.8'x 4.8'	10.2		19:02	19:14 	19:42	14	91	detectable	E-Lux 2" 40mm
Gal	NGC 4595	MCG 3-32-81	Com	89.96630	15.2978	1.5'x 1.0'	12.9		19:04	19:14 	19:38	14	90	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4826	M 64	Com	94.18265	21.6832	10.0'x 5.0'	9.3	12.0 Mly	19:00	19:14 	19:51	7	71	detectable	Ultima 42mm
Gal	NGC 5016	MCG 4-31-13	Com	98.02790	24.0951	1.6'x 1.1'	13.4	180.0 Mly	18:57	19:14 	20:15	7	71	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5444	MCG 6-31-54	CVn	10.85065	35.1321	2.5'x 2.0'	12.8		18:57	19:14 	20:21	7	52	very challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 5557	MCG 6-31-93	Boo	14.60665	36.4941	2.3'x 1.3'	11.9		19:00	19:14 	19:53	7	52	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 3228	Collinder 218	Vel	55.34167	-51.7283	5.0'	6.4		18:53	19:15 	20:51	20	199	obvious	E-Lux 2" 40mm
Gal	NGC 3730	MCG -2-30-5	Crt	73.55810	-9.8457	1.3'x 1.1'	12.9	270.0 Mly	19:03	19:15 	19:38	13	131	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 3818	MCG -1-30-23	Vir	75.48920	-6.1557	2.3'x 1.5'	12.7		19:06	19:15 	19:31	13	131	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3952	MCG -1-30-44	Vir	78.42080	-3.9968	1.8'x 0.5'	13.5		18:57	19:15 	20:12	13	111	very challenging	Celestron Plössl 9mm
Gal	NGC 4073	MCG 0-31-29	Vir	81.11270	1.8960	2.3'x 1.8'	12.5		19:04	19:15 	19:34	13	111	challenging	Celestron Plössl 15mm
Gal	NGC 4045	MCG 0-31-22	Vir	80.67605	1.9768	2.7'x 1.7'	12.7		18:59	19:15 	20:08	13	111	challenging	Celestron Plössl 15mm
Gal	NGC 4116	MCG 1-31-22	Vir	81.90290	2.6919	3.0'x 1.7'	12.5		18:59	19:15 	20:10	13	111	challenging	Celestron Plössl 15mm
Gal	NGC 4215	MCG 1-31-31	Vir	83.97725	6.4011	1.8'x 0.6'	13.0		19:04	19:15 	19:34	13	91	challenging	Celestron Plössl 9mm
Gal	NGC 4342	MCG 1-32-39	Vir	85.91270	7.0539	1.2'x 0.5'	13.5		19:04	19:15 	19:34	13	91	challenging	Celestron Plössl 9mm
Gal	NGC 4235	MCG 1-31-36	Vir	84.29135	7.1916	4.2'x 0.9'	12.6		18:57	19:15 	20:10	13	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4224	MCG 1-31-34	Vir	84.14075	7.4622	2.6'x 1.1'	12.9		18:57	19:15 	20:08	13	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4233	MCG 1-31-37	Vir	84.28205	7.6244	2.3'x 1.0'	13.0		18:57	19:15 	20:08	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4307	MCG 2-32-12A	Vir	85.52345	9.0436	3.3'x 0.8'	12.8		18:57	19:15 	20:10	13	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4424	MCG 2-32-58	Vir	86.79830	9.4205	3.5'x 1.9'	12.4		18:57	19:15 	20:10	13	91	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 4417	MCG 2-32-53	Vir	86.71085	9.5835	3.2'x 1.1'	12.1		19:04	19:15 	19:38	13	91	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4380	MCG 2-32-37	Vir	86.34260	10.0168	3.3'x 1.8'	12.6		18:57	19:15 	20:10	13	91	very challenging	Celestron Plössl 15mm
Gal	NGC 4429	MCG 2-32-61	Vir	86.86070	11.1075	5.6'x 2.5'	11.0	70.0 Mly	19:04	19:15 	19:40	13	91	difficult	Ultima 42mm 2.0x
Gal	NGC 4503	MCG 2-32-118	Vir	88.02575	11.1764	3.6'x 1.7'	12.1		19:04	19:15 	19:34	14	91	challenging	Celestron Plössl 15mm
Gal	NGC 4550	MCG 2-32-147	Vir	88.87760	12.2209	3.2'x 0.7'	12.5		19:06	19:15 	19:33	14	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4486	M 87	Vir	87.70490	12.3913	7.9'x 7.4'	9.6		19:03	19:15 	19:48	14	91	detectable	Ultima 42mm
Gal	NGC 4569	M 90	Vir	89.20850	13.1626	9.5'x 4.5'	10.1		19:03	19:15 	19:44	14	90	difficult	E-Lux 2" 40mm
Gal	NGC 4571	MCG 2-32-156	Com	89.23490	14.2173	4.1'x 3.7'	11.9	70.0 Mly	18:57	19:15 	20:08	14	90	challenging	Celestron Plössl 32mm
Gal	NGC 4548	M 91	Com	88.86005	14.4963	5.4'x 4.6'	10.9		19:04	19:15 	19:38	14	91	difficult	E-Lux 2" 40mm
Gal	NGC 4651	Arp 189	Com	90.92765	16.3933	3.7'x 2.5'	11.4		19:03	19:15 	19:42	14	90	difficult	Ultima 42mm 2.0x
Gal	NGC 5012	MCG 4-31-12	Com	97.90445	22.9154	2.6'x 1.5'	12.7		18:57	19:15 	20:16	7	71	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5533	MCG 6-31-89	Boo	14.03200	35.3438	2.9'x 1.6'	12.7	180.0 Mly	18:57	19:14 	20:29	7	52	very challenging	Celestron Plössl 15mm
Gal	NGC 4260	MCG 1-31-54	Vir	84.84260	6.0988	2.5'x 1.2'	12.7	70.0 Mly	19:05	19:15 	19:33	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4552	M 89	Vir	88.91630	12.5562	6.9'x 6.6'	10.7		19:05	19:15 	19:37	14	91	difficult	Ultima 42mm
Gal	NGC 5614	Arp 178	Boo	16.03195	34.8588	2.5'x 2.0'	12.6		18:55	19:15 	20:35	7	52	challenging	Celestron Plössl 32mm 2.0x
PNe	IC 2621	He 2-59	Car	65.08380	-65.2494	5.0"	10.5	8300 ly	18:48	19:16 	19:56	25	209	obvious	Plössl 6mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Open	NGC 3114	Collinder 215	Car	50.65000	-60.1200	35.0'	4.5	3000 ly	18:58	19:16 	20:45	25	199	easy	Celestron Plössl 32mm
Open	NGC 3293	Collinder 224	Car	58.96250	-58.2300	6.0'	6.2	7600 ly	18:54	19:16 	19:22	25	199	obvious	Ultima 42mm
Open	IC 2581	Collinder 222	Car	56.87084	-57.6167	5.0'	5.3	8000 ly	18:52	19:16 	21:35	25	199	obvious	E-Lux 2" 40mm
Gal	NGC 3557	MCG -6-25-5	Cen	67.48925	-37.5380	4.2'x 3.3'	11.4	140.0 Mly	19:03	19:16 	19:26	20	169	difficult	E-Lux 2" 26mm
Gal	NGC 3621	MCG -5-27-8	Hya	69.56780	-32.8119	10.5'x 4.5'	10.1	260.0 Mly	19:01	19:16 	19:28	20	169	detectable	E-Lux 2" 40mm
Gal	NGC 3717	MCG -5-27-15	Hya	72.88340	-30.3077	5.9'x 1.4'	12.2		18:58	19:16 	19:37	20	168	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3585	MCG -4-27-4	Hya	68.32130	-26.7550	6.5'x 3.4'	10.8		19:03	19:16 	19:43	20	151	difficult	E-Lux 2" 26mm
Gal	NGC 3673	MCG -4-27-10	Hya	71.30210	-26.7365	3.8'x 2.2'	12.6		18:58	19:16 	19:24	20	150	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 3887	MCG -3-30-12	Crt	76.76915	-16.8545	3.7'x 2.8'	11.4		19:03	19:16 	19:28	13	131	detectable	E-Lux 2" 26mm
Gal	NGC 3962	MCG -2-30-40	Crt	78.66710	-13.9749	3.7'x 2.8'	11.6	260.0 Mly	19:03	19:16 	19:30	13	131	difficult	E-Lux 2" 26mm
Gal	NGC 3892	MCG -2-30-30	Crt	77.00420	-10.9620	3.2'x 2.6'	12.8		18:58	19:16 	19:16	13	131	very challenging	Ultima 42mm 2.0x
Gal	NGC 3854	MCG -1-30-28	Crt	76.21625	-9.2335	1.9'x 1.6'	13.0		19:07	19:16 	19:31	13	131	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4129	MCG -1-31-6	Vir	82.22150	-9.0370	2.5'x 0.7'	13.1		18:58	19:16 	19:33	13	131	challenging	Celestron Plössl 9mm
Gal	NGC 4348	MCG 0-32-3	Vir	85.97495	-3.4429	2.9'x 0.6'	13.3		18:58	19:16 	19:33	13	111	very challenging	Celestron Plössl 9mm
Gal	NGC 4030	MCG 0-31-16	Vir	80.09735	-1.1007	3.6'x 2.8'	11.2	70.0 Mly	19:03	19:16 	19:46	13	111	detectable	E-Lux 2" 26mm
Gal	NGC 4385	Markarian 52	Vir	86.42840	0.5726	2.1'x 1.5'	13.2		18:58	19:16 	19:24	13	111	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4179	MCG 0-31-38	Vir	83.21705	1.2997	4.3'x 1.1'	11.8		19:03	19:16 	19:41	13	111	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4409	MCG 1-32-64	Vir	86.74385	2.4931	1.9'x 0.9'	12.9		19:05	19:16 	19:20	13	111	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4123	Markarian 1466	Vir	82.04615	2.8783	3.5'x 2.4'	11.9		19:05	19:16 	19:35	13	111	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4457	MCG 1-32-75	Vir	87.24590	3.5706	2.8'x 2.4'	11.7	70.0 Mly	19:03	19:16 	19:18	13	111	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 4234	MCG 1-31-35	Vir	84.28775	3.6829	1.1'x 1.1'	13.4		19:05	19:16 	19:37	13	111	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4412	MCG 1-32-62	Vir	86.64965	3.9651	1.5'x 1.3'	13.2		19:05	19:16 	19:37	13	111	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4586	MCG 1-32-122	Vir	89.61845	4.3191	3.5'x 1.1'	12.6		18:58	19:16 	19:26	14	110	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4303	M 61	Vir	85.47905	4.4746	6.3'x 5.8'	10.2		19:01	19:16 	19:50	13	111	detectable	Ultima 42mm
Gal	NGC 4378	MCG 1-32-52	Vir	86.32535	4.9250	2.3'x 2.1'	12.6	70.0 Mly	19:05	19:16 	19:35	13	111	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4324	MCG 1-32-32	Vir	85.77470	5.2498	2.8'x 1.1'	12.5		19:05	19:16 	19:37	13	111	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4273	MCG 1-32-8	Vir	84.98285	5.3441	2.0'x 1.5'	12.3		19:03	19:16 	19:45	13	111	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4580	MCG 1-32-117	Vir	89.45165	5.3685	2.0'x 1.4'	12.7		19:05	19:16 	19:22	14	110	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4281	MCG 1-32-12	Vir	85.08980	5.3866	3.1'x 1.7'	12.3		19:05	19:16 	19:35	13	111	challenging	Celestron Plössl 15mm
Gal	NGC 4270	MCG 1-32-7	Vir	84.95615	5.4634	1.9'x 0.8'	13.1	70.0 Mly	19:05	19:16 	19:31	13	111	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4261	MCG 1-31-52	Vir	84.84695	5.8257	4.2'x 3.4'	11.4		19:05	19:16 	19:39	13	91	difficult	E-Lux 2" 26mm
Gal	NGC 4339	MCG 1-32-36	Vir	85.89575	6.0818	2.3'x 2.1'	12.3		19:05	19:16 	19:39	13	91	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4532	MCG 1-32-103	Vir	88.58105	6.4673	2.6'x 1.0'	12.3		19:03	19:16 	19:46	14	91	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4570	MCG 1-32-114	Vir	89.22305	7.2461	3.8'x 0.9'	11.7		19:03	19:16 	19:48	14	90	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4612	MCG 1-32-134	Vir	90.38675	7.3149	2.6'x 1.8'	12.1	70.0 Mly	19:03	19:16 	19:18	14	90	difficult	Celestron Plössl 15mm
Gal	NGC 4365	MCG 1-32-48	Vir	86.11775	7.3176	6.2'x 4.6'	10.5		19:03	19:16 	19:46	13	91	detectable	E-Lux 2" 40mm
Gal	NGC 4623	MCG 1-32-135	Vir	90.54455	7.6769	2.2'x 0.7'	13.2		18:58	19:16 	19:18	14	90	challenging	Celestron Plössl 9mm
Gal	NGC 4526	MCG 1-32-100	Vir	88.51265	7.6991	7.9'x 2.9'	10.6		19:03	19:16 	19:46	14	91	difficult	E-Lux 2" 26mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 4472	M 49	Vir	87.44510	8.0004	9.3'x 7.6'	9.3	70.0 Mly	19:01	19:16 	19:54	13	91	detectable	Ultima 42mm
Gal	NGC 4535	Lost Galaxy	Vir	88.58465	8.1978	7.2'x 6.3'	10.5		19:03	19:16 	19:43	14	91	difficult	Ultima 42mm
Gal	NGC 4698	MCG 2-33-24	Vir	92.09585	8.4873	3.8'x 2.0'	11.6		19:03	19:16 	19:22	14	90	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4519	MCG 2-32-135	Vir	88.37630	8.6544	2.6'x 2.0'	12.3		19:05	19:16 	19:37	14	91	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4469	MCG 2-32-89	Vir	87.36695	8.7503	3.1'x 1.1'	12.4		19:05	19:16 	19:35	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4483	MCG 2-32-103	Vir	87.66935	9.0156	1.7'x 0.9'	13.2		19:05	19:16 	19:31	14	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4522	MCG 2-32-137	Vir	88.41500	9.1739	3.5'x 0.9'	13.0		18:58	19:16 	20:16	14	91	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4578	MCG 2-32-159	Vir	89.37755	9.5551	3.2'x 2.3'	12.3		19:07	19:16 	19:33	14	90	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4442	MCG 2-32-68	Vir	87.01625	9.8036	4.8'x 2.1'	11.4		19:03	19:16 	19:39	13	91	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4608	MCG 2-32-177	Vir	90.30530	10.1558	3.0'x 2.6'	12.1		19:05	19:16 	19:39	14	90	difficult	Ultima 42mm 2.0x
Gal	NGC 4596	MCG 2-32-170	Vir	89.98385	10.1756	4.0'x 3.3'	11.4		19:03	19:16 	19:43	14	90	difficult	E-Lux 2" 26mm
Gal	NGC 4694	MCG 2-33-23	Vir	92.06330	10.9827	2.3'x 1.2'	12.2		19:03	19:16 	19:50	14	90	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4660	MCG 2-33-6	Vir	91.13330	11.1905	2.1'x 1.6'	12.1		19:03	19:16 	19:50	14	90	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4762	MCG 2-33-33	Vir	93.23285	11.2306	8.5'x 3.2'	11.1		19:05	19:16 	19:37	14	90	challenging	E-Lux 2" 26mm
Gal	NGC 4568	Siamese Twins	Vir	89.14280	11.2386	4.4'x 2.3'	11.7		19:05	19:16 	19:37	14	90	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4567	MCG 2-32-151	Vir	89.13635	11.2578	2.9'x 2.2'	12.1		19:05	19:16 	19:37	14	90	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4754	MCG 2-33-30	Vir	93.07310	11.3138	4.4'x 2.3'	11.5		19:03	19:16 	19:46	14	90	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4564	MCG 2-32-150	Vir	89.11235	11.4385	3.1'x 1.5'	12.0		19:03	19:16 	19:41	14	90	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4638	MCG 2-32-187	Vir	90.69755	11.4424	2.4'x 1.5'	12.1		19:03	19:16 	19:46	14	90	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4649	M 60	Vir	90.91700	11.5527	7.4'x 6.3'	9.8	70.0 Mly	19:01	19:16 	19:54	14	90	detectable	Ultima 42mm
Gal	NGC 4647	Arp 116	Vir	90.88565	11.5824	2.8'x 2.3'	12.1	70.0 Mly	19:05	19:16 	19:41	14	90	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4621	M 59	Vir	90.50945	11.6477	4.8'x 3.3'	10.7		19:01	19:16 	19:52	14	90	detectable	E-Lux 2" 26mm
Gal	NGC 4579	M 58	Vir	89.43305	11.8184	5.6'x 4.4'	10.5		19:01	19:16 	19:48	14	90	detectable	E-Lux 2" 40mm
Gal	NGC 4639	MCG 2-32-189	Vir	90.71855	13.2566	2.8'x 2.0'	12.2		19:05	19:16 	19:37	14	90	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4689	MCG 2-33-22	Com	91.94060	13.7621	3.9'x 3.1'	11.6		19:05	19:16 	19:41	14	90	difficult	E-Lux 2" 26mm
Gal	NGC 4866	MCG 2-33-45	Vir	94.86245	14.1706	6.0'x 1.0'	12.0		18:58	19:16 	20:24	14	90	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4710	MCG 3-33-9	Com	92.41190	15.1652	4.6'x 1.2'	11.8		19:03	19:16 	19:39	14	90	challenging	E-Lux 2" 26mm 2.0x
Glob	NGC 5024	M 53	Com	98.22917	18.1700	13.0'	7.7	65000 ly	19:01	19:16 	20:00	14	71	detectable	Ultima 42mm
Glob	NGC 5272	M 3	CVn	05.54583	28.3783	18.0'	6.3	42000 ly	18:59	19:15 	20:11	7	71	detectable	Ultima 42mm
Gal	NGC 3136	ESO 92 8	Car	51.45065	-67.3780	3.8'x 2.7'	11.7		19:03	19:17 	20:04	25	210	difficult	Ultima 42mm 2.0x
Neb	NGC 3372	Eta Carinae Nebula	Car	61.27500	-59.8667	120.0'	3.0		18:55	19:17 	19:33	25	199	easy	Ultima 42mm
Open	NGC 3324	Collinder 225	Car	59.33333	-58.6417	12.0'	6.7	7600 ly	18:57	19:17 	19:23	25	199	easy	Ultima 42mm
PNe	NGC 3918	Blue Planetary	Cen	77.57387	-57.1825	12"	8.4	4600 ly	18:48	19:17 	20:34	25	198	obvious	Celestron Plössl 9mm 2.0x
Open	NGC 3680	Collinder 247	Cen	71.40834	-43.2433	5.0'	8.6	3100 ly	18:59	19:17 	19:51	20	185	easy	E-Lux 2" 40mm
Gal	NGC 3783	MCG -6-26-4	Cen	74.75720	-37.7386	2.0'x 1.8'	12.5		19:03	19:17 	19:55	20	168	difficult	Celestron Plössl 15mm
Gal	NGC 3706	MCG -6-25-22	Cen	72.43505	-36.3913	3.2'x 2.2'	12.4		19:06	19:17 	19:42	20	168	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4106	MCG -5-29-14	Hya	81.68600	-29.7682	3.3'x 2.4'	12.3		19:04	19:17 	19:51	21	168	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4105	MCG -5-29-13	Hya	81.66920	-29.7616	3.4'x 2.4'	11.6		19:03	19:17 	20:10	21	168	detectable	E-Lux 2" 40mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	IC 764	MCG -5-29-25	Hya	82.55915	-29.7368	4.7'x 1.2'	13.0		18:57	19:17 	20:14	21	168	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3904	MCG -5-28-9	Hya	77.30495	-29.2767	3.3'x 2.1'	11.8		19:03	19:17 	19:53	20	150	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 3923	MCG -5-28-12	Hya	77.75885	-28.8064	6.6'x 4.4'	10.8		19:03	19:17 	19:53	20	150	detectable	E-Lux 2" 40mm
Gal	IC 2995	MCG -5-29-8	Hya	81.44660	-27.9394	3.2'x 0.8'	12.9		18:57	19:17 	20:06	21	150	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3885	MCG -5-28-6	Hya	76.69250	-27.9228	2.3'x 1.0'	12.9		19:04	19:17 	19:44	20	150	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3936	MCG -4-28-4	Hya	78.08510	-26.9064	4.0'x 0.7'	12.8		18:57	19:17 	19:51	20	150	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3955	MCG -4-28-5	Crt	78.48755	-23.1642	3.7'x 1.2'	12.6		19:06	19:17 	19:36	20	150	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3956	MCG -3-30-16	Crt	78.50360	-20.5670	3.5'x 1.0'	12.9		18:57	19:17 	19:42	20	150	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3981	Arp 289	Crt	79.02995	-19.8949	4.0'x 1.8'	12.2		19:06	19:17 	19:40	20	150	challenging	Celestron Plössl 15mm
Gal	NGC 3957	MCG -3-30-17	Crt	78.50585	-19.5685	3.2'x 0.7'	13.0		18:57	19:17 	19:40	20	150	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4027	Arp 22	Crv	79.87550	-19.2652	3.4'x 2.5'	11.6		19:03	19:17 	19:44	20	150	detectable	Ultima 42mm 2.0x
Gal	NGC 4038	The Antennae	Crv	80.47040	-18.8674	4.4'x 2.7'	10.9		19:03	19:17 	19:46	21	150	detectable	Ultima 42mm 2.0x
Gal	NGC 4024	MCG -3-31-4	Crv	79.63025	-18.3467	1.9'x 1.6'	12.7		19:04	19:17 	19:42	13	150	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4033	MCG -3-31-11	Crv	80.14415	-17.8424	2.3'x 1.1'	12.7		19:04	19:17 	19:44	13	150	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4050	MCG -3-31-16	Crv	80.72420	-16.3736	3.4'x 2.2'	13.0	140.0 Mly	18:59	19:17 	19:42	13	131	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4094	MCG -2-31-16	Crv	81.47480	-14.5264	4.3'x 1.5'	12.8		18:57	19:17 	19:42	13	131	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4433	MCG -1-32-13	Vir	86.91125	-8.2807	2.0'x 0.7'	13.2		19:06	19:17 	19:42	13	131	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4428	MCG -1-32-12	Vir	86.86790	-8.1678	1.6'x 0.7'	13.2		19:04	19:17 	19:49	13	131	difficult	Celestron Plössl 9mm
Gal	NGC 4487	MCG -1-32-21	Vir	87.76865	-8.0539	3.4'x 1.9'	11.9		19:03	19:17 	19:53	14	131	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4504	MCG -1-32-22	Vir	88.07270	-7.5634	3.2'x 2.0'	12.2		19:04	19:17 	19:49	14	131	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4597	MCG -1-32-34	Vir	90.05270	-5.7991	3.8'x 1.5'	12.9		18:57	19:17 	19:57	14	130	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4593	Markarian 1330	Vir	89.91350	-5.3444	2.6'x 2.1'	12.1		19:03	19:17 	19:55	14	110	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4602	MCG -1-32-36	Vir	90.15500	-5.1330	1.7'x 0.8'	12.5		19:03	19:17 	19:55	14	110	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4546	MCG -1-32-27	Vir	88.87295	-3.7931	3.2'x 1.9'	11.3		19:01	19:17 	19:46	14	111	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 4684	MCG 0-33-11	Vir	91.82285	-2.7274	2.8'x 1.0'	12.0		19:03	19:17 	19:55	14	110	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4454	MCG 0-32-14	Vir	87.21155	-1.9392	2.2'x 2.0'	12.9		19:06	19:17 	19:34	13	111	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 4653	MCG 0-33-6	Vir	90.96230	-0.5611	2.5'x 2.2'	12.8		19:06	19:17 	19:40	14	110	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 4668	MCG 0-33-9	Vir	91.38335	-0.5358	1.5'x 0.8'	13.5		19:06	19:17 	19:42	14	110	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4592	MCG 0-32-32	Vir	89.82815	-0.5318	4.5'x 1.3'	12.5		18:57	19:17 	19:42	14	110	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4666	Superwind Galaxy	Vir	91.28600	-0.4618	4.6'x 1.5'	11.5		19:03	19:17 	19:48	14	110	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4632	MCG 0-32-38	Vir	90.63455	-0.0815	2.7'x 1.0'	12.2		19:03	19:17 	19:44	14	110	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4437	MCG 0-32-20	Vir	88.18985	0.1150	9.8'x 1.5'	11.1		19:04	19:17 	19:33	14	111	difficult	Celestron Plössl 15mm 2.0x
Gal	NGC 4771	MCG 0-33-17	Vir	93.33860	1.2692	3.4'x 0.9'	12.9		18:57	19:17 	19:49	14	110	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4845	MCG 0-33-25	Vir	94.50500	1.5759	5.4'x 1.2'	12.1		19:06	19:17 	19:44	14	110	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4643	MCG 0-33-5	Vir	90.83435	1.9775	3.2'x 2.6'	11.6		19:03	19:17 	19:38	14	110	detectable	Ultima 42mm 2.0x
Gal	NGC 4772	MCG 0-33-18	Vir	93.37130	2.1682	3.7'x 2.0'	12.0		19:04	19:17 	19:48	14	110	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4536	MCG 0-32-23	Vir	88.61150	2.1890	7.2'x 3.0'	11.1		19:04	19:17 	19:29	14	111	difficult	E-Lux 2" 26mm
Gal	NGC 4900	MCG 1-33-35	Vir	95.16350	2.5007	2.1'x 2.0'	11.9		19:01	19:17 	19:53	14	110	detectable	Celestron Plössl 32mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 4527	MCG 1-32-101	Vir	88.53590	2.6524	6.0'x 1.9'	11.5		19:04	19:17 	19:27	14	111	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4636	MCG 1-32-137	Vir	90.70805	2.6879	7.2'x 5.6'	10.4		19:03	19:17 	19:34	14	110	detectable	Ultima 42mm
Gal	NGC 4624	MCG 1-33-5	Vir	91.27475	3.0557	4.3'	11.5		19:04	19:17 	19:36	14	110	difficult	E-Lux 2" 40mm
Gal	NGC 4701	MCG 1-33-15	Vir	92.29820	3.3887	2.0'x 1.5'	12.8		19:04	19:17 	19:40	14	110	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4630	MCG 1-32-136	Vir	90.62975	3.9592	1.7'x 1.2'	13.2		19:06	19:17 	19:31	14	110	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4808	MCG 1-33-28	Vir	93.95300	4.3045	2.3'x 0.9'	12.3		19:03	19:17 	19:44	14	110	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4765	MCG 1-33-20	Vir	93.31070	4.4633	1.1'x 0.8'	13.4		19:04	19:17 	19:40	14	110	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4713	MCG 1-33-18	Vir	92.49110	5.3114	2.0'x 1.6'	12.2		19:03	19:17 	19:34	14	110	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4795	MCG 1-33-24	Vir	93.76205	8.0654	2.0'x 1.4'	13.2		18:57	19:17 	19:29	14	90	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4880	MCG 2-33-47	Vir	95.04380	12.4834	2.8'x 2.1'	13.1		18:57	19:17 	19:18	14	90	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 5172	MCG 3-34-41	Com	02.32990	17.0518	2.7'x 1.5'	12.7	180.0 Mly	19:06	19:17 	19:25	14	90	challenging	E-Lux 2" 26mm 2.0x
Glob	NGC 5053		Com	99.11250	17.7000	10.0'	9.0	55000 ly	19:04	19:17 	19:46	14	71	challenging	Ultima 42mm
Glob	NGC 5466		Boo	11.36250	28.5350	9.0'	9.2	52000 ly	19:04	19:16 	19:49	7	70	challenging	Ultima 42mm
Gal	NGC 5653	MCG 5-34-58	Boo	17.54395	31.2150	1.6'x 1.2'	12.9	160.0 Mly	19:03	19:17 	19:57	7	52	challenging	E-Lux 2" 26mm 2.0x
Open	Collinder 227	Melotte 101	Car	60.55000	-65.1000	15.0'	8.4	6500 ly	19:03	19:17 	19:37	25	210	difficult	Ultima 42mm
Open	IC 2602	Collinder 229	Car	60.74167	-64.4000	100.0'	1.6	520 ly	18:56	19:17 	19:37	25	210	obvious	Plössl 4mm
Open	NGC 3590	Collinder 242	Car	68.24584	-60.7883	3.0'	6.8	5400 ly	18:54	19:17 	20:01	25	198	obvious	E-Lux 2" 26mm
Open	NGC 3572	Collinder 239	Car	67.59584	-60.2483	5.0'	4.5	6500 ly	18:50	19:17 	19:58	25	198	obvious	E-Lux 2" 40mm
Open	NGC 3532	Collinder 238	Car	66.41250	-58.7533	50.0'	3.4	1600 ly	18:56	19:17 	19:52	25	198	obvious	Celestron Plössl 15mm
Gal	NGC 4462	MCG -4-30-2	Crv	87.33755	-23.1658	3.3'x 1.2'	12.8		19:07	19:17 	19:46	21	150	challenging	E-Lux 2" 26mm 2.0x
PNe	NGC 4361	PN G294.1+43.6	Crv	86.12814	-18.7849	1.3'	10.9	3100 ly	19:00	19:17 	20:09	21	150	detectable	Celestron Plössl 15mm
Gal	NGC 4658	MCG -2-33-1	Vir	91.15745	-10.0831	1.7'x 0.9'	12.9		19:03	19:17 	20:03	14	130	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4682	MCG -2-33-8	Vir	91.81460	-10.0633	2.5'x 1.1'	13.1		19:07	19:17 	19:45	14	130	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4731	MCG -1-33-26	Vir	92.75420	-6.3930	6.3'x 2.2'	11.9		19:07	19:17 	19:43	14	130	challenging	E-Lux 2" 32mm 2.0x
Gal	NGC 4691	MCG 0-33-13	Vir	92.05685	-3.3327	3.2'x 2.6'	11.7		19:03	19:17 	19:58	14	110	detectable	Ultima 42mm 2.0x
Gal	NGC 4753	MCG 0-33-16	Vir	93.09215	-1.1997	5.9'x 2.8'	10.9		19:03	19:17 	19:56	14	110	detectable	E-Lux 2" 26mm
Gal	NGC 4904	Markarian 1341	Vir	95.24435	-0.0275	2.1'x 1.4'	12.6		19:03	19:17 	20:00	14	110	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5230	MCG 2-35-9	Vir	03.88285	13.6762	1.6'x 1.5'	13.1	310.0 Mly	19:05	19:17 	19:48	14	90	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5548	MCG 4-34-13	Boo	14.49715	25.1371	1.4'x 1.1'	13.3	230.0 Mly	19:05	19:17 	19:56	7	70	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5641	MCG 5-34-55	Boo	17.31910	28.8219	2.1'x 1.1'	13.2	200.0 Mly	18:55	19:17 	20:55	7	70	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5899	MCG 7-31-45	Boo	28.76350	42.0498	2.5'x 1.0'	12.5		18:56	19:17 	20:54	7	35	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 3059	ESO 37 7	Car	47.53340	-73.9213	4.0'x 3.7'	11.7		19:04	19:18 	20:15	25	218	difficult	Celestron Plössl 32mm
Gal	NGC 3882	ESO 170 11	Cen	76.52660	-56.3909	3.0'x 1.6'	12.8		19:05	19:18 	19:52	25	198	challenging	Celestron Plössl 15mm
Gal	NGC 4219	MCG -7-25-5	Cen	84.11330	-43.3249	3.9'x 1.3'	12.7		18:56	19:18 	20:41	21	184	challenging	E-Lux 2" 26mm 2.0x
Gal	IC 3253	MCG -6-27-21	Cen	85.93835	-34.6221	3.0'x 1.2'	12.7		19:04	19:18 	20:00	21	168	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4304	MCG -5-29-34	Hya	85.55300	-33.4844	2.8'x 2.7'	12.5		19:05	19:18 	19:58	21	168	difficult	Ultima 42mm 2.0x
Gal	NGC 4782	MCG -2-33-50	Crv	93.64835	-12.5685	1.8'x 1.1'	12.2	180.0 Mly	19:00	19:18 	20:26	14	130	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4783	MCG -2-33-51	Crv	93.65390	-12.5581	1.5'x 0.7'	12.8	210.0 Mly	19:02	19:18 	20:19	14	130	detectable	E-Lux 2" 26mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 4594	M 104	Vir	89.99705	-11.6229	9.1'x 5.6'	9.1	60.0 Mly	19:00	19:18 	20:09	14	130	easy	Ultima 42mm
Gal	NGC 4933A	Arp 176	Vir	95.97815	-11.5055	32"x 26"	14.7	150.0 Mly	19:04	19:18 	20:00	14	130	challenging	Celestron Plössl 15mm 2.0x
Gal	NGC 4700	MCG -2-33-13	Vir	92.27990	-11.4128	2.7'x 0.5'	12.0		19:02	19:18 	20:19	14	130	detectable	Celestron Plössl 9mm
Gal	NGC 4781	MCG -2-33-49	Vir	93.59840	-10.5365	3.4'x 1.4'	11.4		19:00	19:18 	20:20	14	130	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4760	MCG -2-33-41	Vir	93.28025	-10.4941	2.5'x 2.0'	12.5	210.0 Mly	19:04	19:18 	20:00	14	130	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4742	MCG -2-33-32	Vir	92.95025	-10.4547	2.2'x 1.5'	12.1		19:02	19:18 	20:19	14	130	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4790	MCG -2-33-56	Vir	93.71645	-10.2462	1.5'x 0.8'	12.8		19:02	19:18 	20:15	14	130	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4699	MCG -1-33-13	Vir	92.25920	-8.6643	4.0'x 3.0'	10.4		19:00	19:18 	20:11	14	130	detectable	E-Lux 2" 26mm
Gal	NGC 4818	MCG -1-33-57	Vir	94.20380	-8.5253	4.0'x 1.2'	12.0		19:04	19:18 	20:05	14	130	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4928	MCG -1-33-75	Vir	95.75150	-8.0851	1.3'x 1.0'	12.9		19:02	19:18 	20:20	14	130	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4786	MCG -1-33-46	Vir	93.63500	-6.8601	1.9'x 1.5'	12.7	210.0 Mly	19:04	19:18 	20:04	14	130	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4775	MCG -1-33-43	Vir	93.44045	-6.6222	2.2'x 2.0'	11.6		19:00	19:18 	20:11	14	130	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 4951	MCG -1-33-81	Vir	96.28220	-6.4947	3.2'x 1.2'	12.6		19:05	19:18 	19:56	14	130	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4697	MCG -1-33-10	Vir	92.14985	-5.8008	5.8'x 3.6'	10.1		19:00	19:18 	20:04	14	130	detectable	Celestron Plössl 32mm
Gal	NGC 4915	MCG -1-33-69	Vir	95.36690	-4.5463	1.5'x 1.4'	12.9	140.0 Mly	19:04	19:18 	20:05	14	110	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4999	MCG 0-34-10	Vir	97.38815	1.6731	2.1'x 1.8'	12.9	250.0 Mly	19:05	19:18 	19:49	14	110	challenging	Celestron Plössl 15mm
Open	IC 2714	Collinder 245	Car	69.36250	-62.7333	14.0'	8.2	4000 ly	19:02	19:18 	20:10	25	209	detectable	Ultima 42mm
Open	NGC 3766	Collinder 248	Cen	74.05833	-61.6083	9.3'	4.6	7200 ly	18:53	19:18 	20:26	25	198	obvious	Ultima 42mm
Open	NGC 3960	Collinder 250	Cen	77.63750	-55.6733	5.0'	8.8	6000 ly	18:58	19:18 	20:32	25	198	easy	E-Lux 2" 40mm
Gal	NGC 4373	MCG -6-27-25	Cen	86.32490	-39.7588	4.2'x 2.3'	11.9	150.0 Mly	19:04	19:18 	20:13	21	168	difficult	E-Lux 2" 40mm 2.0x
Gal	IC 3370	MCG -6-27-29	Cen	86.90540	-39.3378	3.2'x 2.5'	12.0		19:02	19:18 	20:19	21	168	difficult	Ultima 42mm 2.0x
Gal	NGC 4763	MCG -3-33-13	Crv	93.36335	-17.0055	1.7'x 1.1'	13.3	180.0 Mly	19:04	19:18 	20:00	14	130	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4756	MCG -2-33-39	Crv	93.21875	-15.4122	2.1'x 1.3'	13.4	180.0 Mly	18:56	19:18 	20:30	14	130	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4856	MCG -2-33-78	Vir	94.83860	-15.0422	4.2'x 1.7'	11.4		19:02	19:18 	20:26	14	130	detectable	Celestron Plössl 15mm
Gal	NGC 4902	MCG -2-33-92	Vir	95.24885	-14.5137	2.6'x 2.4'	11.8		19:02	19:18 	20:26	14	130	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 4899	MCG -2-33-90	Vir	95.23595	-13.9442	2.0'x 1.2'	12.7		19:02	19:18 	20:13	14	130	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4825	MCG -2-33-70	Vir	94.30085	-13.6655	2.6'x 1.6'	12.9	200.0 Mly	19:06	19:18 	19:51	14	130	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4802	MCG -2-33-61	Crv	93.95690	-12.0552	2.6'x 2.2'	12.4		19:04	19:18 	20:04	14	130	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4933B	Arp 176	Vir	95.98880	-11.4971	3.9'x 2.0'	12.6	150.0 Mly	18:56	19:18 	20:32	14	130	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 4939	MCG -2-33-104	Vir	96.06020	-10.3394	4.6'x 2.0'	11.9	140.0 Mly	19:04	19:18 	20:02	14	130	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4958	MCG -1-33-84	Vir	96.45275	-8.0201	4.5'x 1.1'	11.5		19:02	19:18 	20:21	14	130	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 4995	MCG -1-34-7	Vir	97.42040	-7.8321	2.5'x 1.6'	11.9		19:02	19:18 	20:25	14	130	detectable	Celestron Plössl 15mm
Gal	NGC 4981	MCG -1-34-3	Vir	97.20215	-6.7769	2.8'x 2.0'	12.1		19:02	19:18 	20:13	14	130	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 4941	MCG -1-33-77	Vir	96.05435	-5.5518	3.7'x 2.6'	11.9		19:04	19:18 	20:02	14	130	difficult	Ultima 42mm 2.0x
Gal	NGC 5147	MCG 0-34-33	Vir	01.58170	2.1008	1.7'x 1.5'	12.3		19:02	19:18 	20:21	14	110	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 5248	MCG 2-35-15	Boo	04.38490	8.8851	4.8'x 3.0'	10.9		19:02	19:18 	20:10	14	90	detectable	E-Lux 2" 26mm
Gal	NGC 5523	MCG 4-34-8	Boo	13.71760	25.3177	2.8'x 1.0'	12.8		18:56	19:18 	20:54	7	70	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4507	MCG -7-26-11	Cen	88.90250	-39.9093	1.5'x 1.3'	13.0	160.0 Mly	19:02	19:18 	20:25	21	168	difficult	E-Lux 2" 26mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Glob	NGC 4590	M 68	Hya	89.86667	-26.7433	11.0'	7.3	39000 ly	18:59	19:18 	20:38	21	150	easy	Ultima 42mm
Neb	Lambda Centauri Neb	IC 2944	Cen	74.47500	-63.3500	60.0'	4.5		18:59	19:19 	20:29	25	209	detectable	Celestron Plössl 15mm
Open	NGC 4052	Collinder 251	Cru	80.25834	-63.2250	9.0'	8.8	3900 ly	19:01	19:19 	20:54	25	209	detectable	Ultima 42mm
Open	NGC 4349	Collinder 255	Cru	86.03333	-61.8717	5.0'	8.0	7100 ly	18:55	19:19 	21:14	25	198	easy	E-Lux 2" 40mm
Open	NGC 4103	Collinder 252	Cru	81.66667	-61.2500	6.0'	7.4	5300 ly	18:55	19:19 	20:55	25	198	easy	Ultima 42mm
Open	Collinder 258	Harvard 5	Cru	86.81667	-60.7789	5.0'	8.8	3900 ly	18:57	19:19 	21:16	25	198	easy	E-Lux 2" 40mm
Open	NGC 4439	Collinder 259	Cru	87.11250	-60.1050	4.0'	8.7	5800 ly	18:57	19:19 	21:16	25	198	easy	Celestron Plössl 32mm
Open	NGC 4337	Collinder 254	Cru	86.01666	-58.1233	4.0'	9.8	1600 ly	18:59	19:19 	21:09	25	198	detectable	Celestron Plössl 32mm
Gal	IC 3896	ESO 219 12	Cen	94.18010	-50.3467	2.9'x 2.0'	12.2		19:03	19:19 	20:42	21	184	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 4835	ESO 269 19	Cen	94.53245	-46.2632	4.0'x 0.8'	12.5		19:03	19:19 	20:20	21	184	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4645	MCG -7-26-37	Cen	91.04165	-41.7499	2.2'x 1.2'	12.9		19:03	19:19 	20:20	21	184	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4696	MCG -7-26-51	Cen	92.20445	-41.3108	4.4'x 2.7'	11.6		19:03	19:19 	20:33	21	184	detectable	Ultima 42mm 2.0x
Gal	NGC 4603	MCG -7-26-28	Cen	90.23195	-40.9759	3.2'x 2.1'	12.5		19:05	19:19 	20:09	21	184	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 4767	MCG -6-28-23	Cen	93.47090	-39.7144	2.8'x 1.4'	12.5		19:03	19:19 	20:27	21	167	difficult	E-Lux 2" 26mm 2.0x
PNe	NGC 5873	He 2-121	Lup	28.21272	-38.1260	3.0"	12.0	16000 ly	18:44	19:19 	23:29	21	166	easy	Plössl 4mm
Gal	NGC 4947	MCG -6-29-6	Cen	96.33425	-35.3374	2.7'x 1.3'	12.8		19:03	19:19 	20:18	21	167	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 4936	MCG -5-31-28	Cen	96.07100	-30.5263	3.3'x 2.8'	12.0	150.0 Mly	19:03	19:19 	20:25	21	167	difficult	E-Lux 2" 26mm
Gal	NGC 5135	MCG -5-32-13	Hya	01.43350	-29.8336	2.5'x 2.0'	12.8	190.0 Mly	19:05	19:19 	20:18	21	167	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 5150	MCG -5-32-23	Hya	01.90225	-29.5622	1.4'x 1.1'	13.5	180.0 Mly	19:03	19:19 	20:29	21	167	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5101	MCG -4-32-8	Hya	00.44260	-27.4305	5.6'x 4.8'	11.6		19:05	19:19 	20:14	21	149	difficult	E-Lux 2" 40mm
Gal	NGC 5078	MCG -4-32-1	Hya	99.95765	-27.4095	3.2'x 1.0'	12.0		19:01	19:19 	20:46	21	149	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 5061	MCG -4-31-48	Hya	99.51995	-26.8362	4.1'x 3.0'	11.2		19:01	19:19 	20:48	21	149	detectable	E-Lux 2" 26mm
Gal	NGC 5084	MCG -4-32-4	Vir	00.06970	-21.8270	11.2'x 2.7'	11.6		18:57	19:19 	21:10	21	149	challenging	Ultima 42mm 2.0x
Gal	NGC 5134	MCG -3-34-73	Vir	01.32880	-21.1332	3.1'x 1.9'	12.5		19:05	19:19 	20:16	21	149	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 5068	MCG -3-34-46	Vir	99.73010	-21.0392	7.1'x 6.3'	10.7		19:03	19:19 	20:29	21	149	detectable	Ultima 42mm
Gal	NGC 5087	MCG -3-34-50	Vir	00.10390	-20.6110	2.6'x 2.2'	12.2		19:03	19:19 	20:31	21	149	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 5018	MCG -3-34-17	Vir	98.25440	-19.5192	3.2'x 2.2'	11.7		19:01	19:19 	20:35	21	149	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 5170	MCG -3-34-84	Vir	02.45335	-17.9656	7.9'x 1.1'	12.1		18:55	19:19 	21:12	14	149	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 5017	MCG -3-34-16	Vir	98.22725	-16.7658	1.5'x 1.3'	13.5		19:05	19:19 	20:03	14	130	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5054	MCG -3-34-39	Vir	99.24260	-16.6337	4.7'x 3.0'	11.6		19:03	19:19 	20:18	14	130	difficult	E-Lux 2" 26mm
Gal	NGC 5037	MCG -3-34-29	Vir	98.74745	-16.5911	2.0'x 0.6'	13.1		19:03	19:19 	20:12	14	130	difficult	Celestron Plössl 9mm
Gal	NGC 5044	MCG -3-34-34	Vir	98.84960	-16.3845	3.3'x 2.9'	11.6		19:01	19:19 	20:31	14	130	detectable	E-Lux 2" 26mm
Gal	NGC 4984	MCG -2-34-4	Vir	97.23830	-15.5163	3.4'x 2.5'	12.2		19:05	19:19 	20:09	14	130	difficult	Ultima 42mm 2.0x
Gal	NGC 5077	MCG -2-34-27	Vir	99.88160	-12.6561	2.3'x 2.0'	12.3		19:03	19:19 	20:24	14	130	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 5088	MCG -2-34-34	Vir	00.08440	-12.5719	1.9'x 0.5'	13.3		19:05	19:19 	20:07	14	130	challenging	Celestron Plössl 9mm
Gal	NGC 5324	MCG -1-35-16	Vir	08.02465	-6.0595	2.2'x 1.2'	12.6	140.0 Mly	19:03	19:19 	20:35	14	129	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5334	MCG 0-35-24	Vir	08.22670	-1.1141	3.2'x 2.4'	12.7		19:07	19:19 	19:55	14	109	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 5300	MCG 1-35-38	Vir	07.06705	3.9509	3.0'x 2.0'	12.7		19:07	19:19 	19:55	14	109	challenging	Celestron Plössl 32mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 5364	MCG 1-36-3	Vir	09.04960	5.0151	4.9'x 2.6'	11.1		19:01	19:19 	20:33	14	109	detectable	Ultima 42mm 2.0x
Gal	NGC 5363	MCG 1-36-2	Vir	09.03010	5.2547	4.4'x 2.9'	11.1		19:01	19:19 	20:35	14	109	detectable	E-Lux 2" 26mm
Gal	NGC 5600	MCG 3-37-13	Boo	15.95635	14.6387	1.5'x 1.4'	13.0		19:03	19:19 	20:23	14	89	difficult	E-Lux 2" 26mm 2.0x
PNe	NGC 3195	He 2-44	Cha	52.33713	-80.8585	40"	11.5	6400 ly	18:57	19:20 	19:27	25	217	detectable	E-Lux 2" 26mm 2.0x
Open	Collinder 261	Harvard 6	Mus	89.48751	-68.3667	9.0'	10.7	7100 ly	18:57	19:20 	21:36	25	209	very challenging	Ultima 42mm
PNe	IC 4191	He 2-89	Mus	97.19726	-67.6438	5.6"	12.0	7800 ly	18:51	19:20 	22:06	25	209	easy	Plössl 6mm
Open	NGC 4463	Collinder 260	Mus	87.48334	-64.7900	3.5'	8.2	3400 ly	18:55	19:20 	21:25	25	209	easy	E-Lux 2" 26mm
Open	NGC 4609	Collinder 263	Cru	90.57500	-62.9950	4.0'	4.5	4000 ly	18:49	19:20 	21:34	25	209	obvious	Celestron Plössl 32mm
Open	Collinder 262	Harvard 7	Cru	89.89166	-60.6167	7.0'	10.1		19:04	19:20 	20:25	25	198	difficult	Ultima 42mm
Open	NGC 4755	Jewel Box	Cru	93.41250	-60.3617	10.0'	5.2	6400 ly	18:53	19:20 	21:42	25	198	obvious	Ultima 42mm
Open	NGC 4852	Collinder 266	Cen	95.03750	-59.6133	7.0'	8.9	2200 ly	19:00	19:20 	21:36	25	197	detectable	Ultima 42mm
Gal	NGC 4976	ESO 219 29	Gal	97.15580	-49.5063	5.9'x 3.3'	11.0		19:02	19:20 	20:58	21	184	detectable	E-Lux 2" 26mm
Gal	NGC 4945	ESO 219 24	Cen	96.35900	-49.4709	20.4'x 4.3'	9.3	15.0 Mly	19:00	19:20 	21:10	21	184	detectable	E-Lux 2" 26mm
Gal	NGC 5156	ESO 220 13	Cen	02.18365	-48.9167	2.5'x 2.0'	12.5		19:02	19:20 	20:51	21	184	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 5064	ESO 220 2	Cen	99.75005	-47.9091	2.7'x 1.4'	13.1	140.0 Mly	19:06	19:20 	20:12	21	184	challenging	E-Lux 2" 26mm 2.0x
Glob	NGC 5139	Omega Centauri	Cen	01.69167	-47.4767	55.0'	3.9	16000 ly	18:57	19:20 	21:57	21	184	easy	Celestron Plössl 15mm
Gal	NGC 5090	MCG -7-27-54	Cen	00.30370	-43.7046	3.0'x 2.5'	12.6	160.0 Mly	19:04	19:20 	20:23	21	184	difficult	Ultima 42mm 2.0x
Gal	NGC 5011	MCG -7-27-42	Cen	98.21600	-43.0962	2.8'x 2.3'	12.4	140.0 Mly	19:02	19:20 	20:34	21	184	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 5128	Centaurus A	Cen	01.36555	-43.0187	27.5'x 18.2'	7.8	12.0 Mly	19:00	19:20 	21:23	21	184	detectable	Ultima 42mm
Gal	NGC 5121	MCG -6-29-35	Cen	01.18930	-37.6819	2.1'x 1.7'	12.5		19:02	19:20 	20:49	21	167	detectable	Celestron Plössl 15mm
Gal	NGC 5102	MCG -6-29-31	Cen	00.49015	-36.6302	9.5'x 3.5'	10.3	12.0 Mly	19:00	19:20 	20:57	21	167	detectable	E-Lux 2" 26mm
Gal	NGC 5188	MCG -6-30-7	Cen	02.86840	-34.7954	3.0'x 1.5'	12.9		19:04	19:20 	20:13	21	167	challenging	E-Lux 2" 26mm 2.0x
Gal	IC 4296	MCG -6-30-16	Cen	04.16170	-33.9663	4.1'x 2.9'	11.6	170.0 Mly	19:02	19:20 	20:53	21	167	detectable	E-Lux 2" 26mm
Gal	NGC 5193	MCG -5-32-37	Cen	02.97280	-33.2344	2.0'x 1.8'	12.5	170.0 Mly	19:00	19:20 	20:53	21	167	detectable	Celestron Plössl 15mm
Gal	NGC 5161	MCG -5-32-31	Cen	02.30755	-33.1745	5.2'x 1.8'	12.0		19:04	19:20 	20:23	21	167	difficult	Celestron Plössl 15mm
Gal	NGC 5253	MCG -5-32-60	Cen	04.98295	-31.6402	5.0'x 2.1'	10.8	12.0 Mly	18:58	19:20 	21:21	21	167	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 5357	MCG -5-33-32	Cen	08.99815	-30.3413	1.8'x 1.5'	13.0	220.0 Mly	19:02	19:20 	20:47	21	167	difficult	E-Lux 2" 26mm 2.0x
Gal	IC 4329	MCG -5-33-19	Cen	07.27210	-30.2965	4.1'x 2.3'	12.3	200.0 Mly	19:04	19:20 	20:28	21	167	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 5464	MCG -5-33-45	Hya	11.76970	-30.0158	1.4'x 0.7'	13.3		19:00	19:20 	21:04	21	166	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5236	M 83	Hya	04.25335	-29.8655	14.1'x 13.2'	7.8	15.0 Mly	18:57	19:20 	21:40	21	167	easy	Ultima 42mm
Gal	IC 4351	MCG -5-33-34	Hya	09.47500	-29.3156	5.8'x 1.1'	12.6		18:55	19:20 	22:00	21	149	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5328	MCG -5-33-28	Hya	08.22220	-28.4893	2.5'x 1.7'	12.7	210.0 Mly	19:02	19:20 	20:40	21	149	difficult	Celestron Plössl 15mm
Gal	NGC 5247	MCG -3-35-11	Vir	04.51330	-17.8835	5.2'x 4.4'	10.8		19:00	19:20 	20:51	14	149	detectable	E-Lux 2" 40mm
Gal	NGC 5534	Markarian 1379	Vir	14.41780	-7.4175	1.4'x 1.2'	13.1		19:02	19:20 	20:51	14	129	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5426	Arp 271	Vir	10.85380	-6.0674	2.9'x 1.3'	12.7		19:04	19:20 	20:23	14	129	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5427	Arp 271	Vir	10.85875	-6.0308	3.0'x 2.2'	12.0		19:02	19:20 	20:43	14	129	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 5468	MCG -1-36-7	Vir	11.64565	-5.4531	2.3'x 2.1'	12.9		19:04	19:20 	20:19	14	109	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 5493	MCG -1-36-13	Vir	12.87235	-5.0436	2.1'x 1.8'	12.3		19:02	19:20 	20:51	14	109	detectable	Celestron Plössl 15mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 5496	MCG 0-36-26	Vir	12.90790	-1.1590	3.6'x 0.7'	13.2		18:57	19:20 	21:15	14	109	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5584	MCG 0-37-1	Vir	15.59920	-0.3874	3.2'x 2.4'	12.3		19:04	19:20 	20:30	14	109	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 5638	MCG 1-37-18	Vir	17.41855	3.2335	2.0'x 1.7'	12.2		19:00	19:20 	20:58	14	109	detectable	Celestron Plössl 15mm
Gal	NGC 5574	MCG 1-37-6	Vir	15.23320	3.2380	1.4'x 0.9'	13.3		19:02	19:20 	20:36	14	109	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5576	MCG 1-37-7	Vir	15.26545	3.2710	2.8'x 1.9'	11.8		19:00	19:20 	20:53	14	109	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 5566	Arp 286	Vir	15.08335	3.9337	5.8'x 2.0'	11.4		19:02	19:20 	20:36	14	109	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 5645	MCG 1-37-19	Vir	17.66425	7.2749	2.3'x 1.3'	12.9		19:04	19:20 	20:25	14	89	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5665	Arp 49	Boo	18.10780	8.0794	2.0'x 1.2'	12.7		19:02	19:20 	20:42	14	89	difficult	E-Lux 2" 26mm 2.0x
Glob	NGC 4372		Mus	86.43750	-72.6533	5.0'	7.2	20000 ly	18:53	19:21 	21:31	25	209	easy	Ultima 42mm
Open	NGC 4815	Collinder 265	Mus	94.49584	-64.9600	5.0'	10.4	10000 ly	19:03	19:21 	20:55	25	209	difficult	E-Lux 2" 40mm
PNe	NGC 5307	He 2-98	Cen	07.76364	-51.2057	15"	12.1	8800 ly	18:53	19:21 	22:27	21	183	easy	Plössl 6mm
Gal	NGC 5266	ESO 220 33	Cen	05.75650	-48.1698	3.2'x 2.3'	12.3		19:03	19:21 	20:53	21	183	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 5419	MCG -6-31-19	Cen	10.91005	-33.9793	4.0'x 3.0'	11.9	190.0 Mly	19:03	19:21 	20:53	21	166	difficult	E-Lux 2" 26mm
Gal	NGC 5595	MCG -3-37-1	Lib	16.05445	-16.7232	2.0'x 1.0'	12.6		19:01	19:21 	21:12	14	129	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 5605	MCG -2-37-3	Lib	16.28155	-13.1630	1.5'x 1.2'	13.1	150.0 Mly	19:01	19:21 	20:59	14	129	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5690	MCG 0-37-19	Vir	19.42105	2.2909	3.2'x 1.0'	12.5		19:03	19:21 	20:40	14	109	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5668	MCG 1-37-28	Vir	18.35170	4.4506	2.1'x 1.8'	12.2		19:01	19:21 	20:55	14	109	detectable	Celestron Plössl 15mm
Gal	NGC 5669	MCG 2-37-21	Boo	18.18295	9.8911	3.1'x 2.0'	12.7		19:07	19:21 	20:05	14	89	challenging	Celestron Plössl 32mm 2.0x
Open	NGC 5138	Collinder 270	Cen	01.81667	-59.0333	7.0'	9.8	6500 ly	19:03	19:21 	21:05	25	197	detectable	Ultima 42mm
Glob	NGC 5286		Cen	06.61250	-51.3733	11.0'	7.4	39000 ly	18:58	19:21 	22:16	21	183	easy	Ultima 42mm
Gal	NGC 5365	MCG -7-29-2	Cen	09.46210	-43.9299	3.5'x 2.1'	12.4		19:03	19:21 	20:48	21	183	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 5494	MCG -5-34-1	Cen	13.10065	-30.6441	2.3'x 2.1'	13.3		19:05	19:21 	20:16	21	166	challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 5556	MCG -5-34-9	Hya	15.14155	-29.2419	3.5'x 2.7'	12.9		18:56	19:21 	22:22	21	148	challenging	Ultima 42mm 2.0x
Gal	NGC 5592	MCG -5-34-11	Hya	15.97930	-28.6881	1.6'x 0.8'	13.5	190.0 Mly	19:03	19:21 	20:50	21	148	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5597	MCG -3-37-2	Lib	16.11520	-16.7630	2.0'x 1.5'	12.6		19:01	19:21 	21:07	14	129	detectable	E-Lux 2" 26mm 2.0x
Glob	NGC 5634		Vir	17.40417	-5.9767	5.5'	9.5	75000 ly	18:59	19:21 	21:16	14	129	detectable	Ultima 42mm
Gal	NGC 5691	MCG 0-37-20	Vir	19.47220	-0.3989	1.9'x 1.5'	12.9		19:03	19:21 	20:48	14	109	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5746	MCG 0-38-5	Vir	21.23335	1.9547	6.8'x 1.1'	11.4		19:01	19:21 	20:59	14	109	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 5701	MCG 1-37-42	Vir	19.79605	5.3637	2.4'x 2.0'	12.0		19:01	19:21 	21:01	14	109	detectable	Celestron Plössl 32mm 2.0x
Glob	NGC 4833		Mus	94.89167	-70.8750	12.7'	8.4	16000 ly	19:02	19:21 	21:41	25	209	difficult	Ultima 42mm
Open	Collinder 268	Harvard 8	Mus	99.55417	-67.0833	5.0'	9.5	6400 ly	19:00	19:21 	22:07	25	208	detectable	E-Lux 2" 40mm
Gal	NGC 5483	MCG -7-29-8	Cen	12.60520	-43.3256	3.8'x 3.4'	12.0		19:04	19:21 	21:00	21	183	difficult	E-Lux 2" 26mm
Gal	NGC 5713	MCG 0-37-22	Vir	20.04775	-0.2903	2.6'x 2.0'	11.6		19:00	19:21 	21:20	14	109	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 5740	MCG 0-38-3	Vir	21.10195	1.6797	2.5'x 1.3'	12.6		19:01	19:21 	20:50	14	109	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5530	MCG -7-29-13	Lup	14.61295	-43.3884	4.6'x 2.0'	11.9		19:02	19:22 	21:11	21	183	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 5768	MCG 0-38-9	Lib	23.03335	-2.5297	1.5'x 1.1'	13.4		19:02	19:22 	20:53	14	109	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5750	MCG 0-38-6	Vir	21.54625	-0.2230	2.8'x 1.4'	12.5		19:02	19:21 	20:52	14	109	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5854	MCG 1-39-1	Vir	26.94820	2.5682	2.7'x 0.6'	12.7		19:02	19:22 	21:06	14	108	difficult	Celestron Plössl 9mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 5775	MCG 1-38-14	Vir	23.49010	3.5444	3.7'x 0.9'	12.2		19:02	19:22 ■	20:56	14	109	difficult	E-Lux 2" 26mm 2.0x
PNe	NGC 5315	He 2-100	Cir	08.48738	-66.5142	14"	13.0	7300 ly	18:55	19:22 ■	22:49	25	208	detectable	Plössl 6mm
PNe	NGC 5189	IC 4274	Mus	03.38739	-65.9741	2.3'	10.3	2000 ly	18:59	19:22 ■	22:29	25	208	detectable	E-Lux 2" 26mm
Open	NGC 5316	Collinder 279	Cen	08.48749	-61.8683	14.0'	8.8	4000 ly	19:03	19:22 ■	21:14	25	197	difficult	Ultima 42mm
Open	NGC 5460	Collinder 280	Cen	11.86250	-48.3433	35.0'	6.1	2200 ly	18:59	19:22 ■	22:01	21	183	easy	Celestron Plössl 32mm
Gal	NGC 5643	MCG -7-30-3	Lup	18.16945	-44.1744	5.0'x 4.2'	10.8		18:59	19:22 ■	22:01	21	183	detectable	Celestron Plössl 32mm
PNe	Retina Nebula	IC 4406	Lup	15.60949	-44.1512	46"	11.0	5500 ly	18:55	19:22 ■	22:48	21	183	easy	E-Lux 2" 26mm 2.0x
Gal	IC 4444	MCG -7-30-2	Lup	17.91160	-43.4188	1.9'x 1.5'	12.1		18:59	19:22 ■	22:10	21	183	detectable	E-Lux 2" 26mm 2.0x
Glob	NGC 5694		Hya	19.90000	-26.5383	4.3'	10.2	100000 ly	18:59	19:22 ■	21:36	21	148	detectable	Ultima 42mm
Gal	NGC 5791	MCG -3-38-35	Lib	24.69145	-19.2674	2.6'x 1.4'	12.7	150.0 Mly	19:01	19:22 ■	21:19	21	148	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5757	MCG -3-38-14	Lib	21.94300	-19.0771	2.1'x 1.5'	13.3		19:04	19:22 ■	20:40	21	148	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5728	MCG -3-37-5	Lib	20.60005	-17.2534	2.9'x 1.7'	12.3		19:01	19:22 ■	21:14	14	129	detectable	Celestron Plössl 15mm
Gal	NGC 5796	MCG -3-38-39	Lib	24.84970	-16.6239	2.5'x 2.0'	12.7		19:03	19:22 ■	21:06	14	129	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 5756	MCG -2-38-12	Lib	21.89050	-14.8534	2.6'x 1.1'	13.0		19:03	19:22 ■	20:49	14	129	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 5812	MCG -1-38-16	Lib	25.23205	-7.4573	2.6'x 2.2'	12.2		19:01	19:22 ■	21:23	14	128	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 5792	MCG 0-38-12	Lib	24.59380	-1.0901	4.9'x 1.5'	12.1		19:03	19:22 ■	20:50	14	109	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5813	MCG 0-38-16	Vir	25.29595	1.7014	4.1'x 2.8'	11.5		19:01	19:22 ■	21:14	14	108	detectable	E-Lux 2" 26mm
Gal	NGC 5831	MCG 0-38-20	Vir	26.02930	1.2199	2.3'x 2.0'	12.4		19:01	19:23 ■	21:11	14	108	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 5806	MCG 0-38-14	Vir	25.00180	1.8913	3.0'x 1.6'	12.4		19:03	19:22 ■	20:57	14	108	difficult	Celestron Plössl 15mm
Gal	NGC 5838	MCG 0-38-22	Vir	26.35915	2.0991	4.0'x 1.4'	11.8		19:01	19:23 ■	21:20	14	108	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 5864	MCG 1-39-2	Vir	27.38935	3.0522	2.5'x 0.8'	12.6		19:01	19:23 ■	21:12	14	108	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 5617	Collinder 282	Cen	17.43333	-60.7117	10.0'	8.5	6500 ly	19:00	19:23 ■	22:30	25	197	detectable	Ultima 42mm
Open	NGC 5662	Collinder 284	Cen	18.90416	-56.6183	29.0'	7.7	2200 ly	19:04	19:23 ■	21:26	25	197	difficult	Plössl 4mm
PNe	NGC 5882	He 2-122	Lup	29.20809	-45.6496	7.0"	10.5	5900 ly	18:45	19:23 ■	23:45	21	182	obvious	Plössl 4mm
Glob	NGC 5824		Lup	25.99583	-33.0683	7.4'	9.1	150000 ly	18:58	19:23 ■	22:11	21	166	detectable	Ultima 42mm
PNe	He 2-126	PN G342.1+27.5	Lib	30.58031	-23.6254	16"	11.6	16000 ly	18:51	19:23 ■	23:15	21	147	easy	Plössl 6mm
Gal	NGC 5878	MCG -2-39-6	Lib	28.44010	-14.2688	3.4'x 1.3'	12.3		19:02	19:23 ■	21:32	14	128	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 5861	MCG -2-39-3	Lib	27.31645	-11.3215	2.9'x 1.3'	12.3		19:00	19:23 ■	21:36	14	128	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 5850	MCG 0-39-2	Vir	26.78185	1.5445	3.7'x 2.8'	11.9		19:03	19:23 ■	21:05	14	108	difficult	E-Lux 2" 26mm
Gal	NGC 5846	MCG 0-38-25	Vir	26.62195	1.6057	3.7'x 3.5'	11.1		19:00	19:23 ■	21:33	14	108	detectable	Celestron Plössl 32mm
Open	NGC 5715	Collinder 286	Cir	20.87083	-57.5767	8.0'	9.8		19:02	19:24 ■	21:36	25	197	difficult	Ultima 42mm
Open	NGC 5749	Collinder 287	Lup	22.22083	-54.4983	10.0'	8.8	3400 ly	19:01	19:24 ■	22:16	25	197	detectable	Ultima 42mm
Gal	NGC 5885	MCG -2-39-13	Lib	28.76755	-10.0861	3.3'x 2.7'	12.3		19:02	19:24 ■	21:14	14	128	difficult	Ultima 42mm 2.0x
Glob	NGC 5904	M 5	Ser	29.64167	2.0833	23.0'	5.7	29000 ly	18:56	19:24 ■	22:13	14	108	easy	Ultima 42mm
Gal	NGC 5921	MCG 1-39-21	Ser	30.48520	5.0706	3.4'x 2.4'	11.7		19:01	19:24 ■	21:31	14	108	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 5898	MCG -4-36-6	Lib	29.55670	-24.0973	2.5'x 2.2'	12.4		19:01	19:24 ■	21:50	21	148	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 5903	MCG -4-36-8	Lib	29.65210	-24.0686	2.9'x 2.2'	12.2		19:01	19:24 ■	21:52	21	148	detectable	E-Lux 2" 40mm 2.0x
Glob	NGC 5897		Lib	29.35000	-21.0100	11.0'	8.4	46000 ly	18:59	19:24 ■	22:10	21	148	detectable	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 5936	MCG 2-39-30	Ser	32.50375	12.9894	1.2"x 1.1'	13.1	180.0 Mly	19:01	19:24 	21:23	15	88	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 5915	MCG -2-39-19	Lib	30.38785	-13.0917	1.5"x 1.1'	12.7		19:00	19:25 	22:03	14	128	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 5962	MCG 3-40-11	Ser	34.13200	16.6079	2.7"x 1.8'	12.1		19:02	19:25 	21:18	15	88	detectable	Celestron Plössl 15mm
Gal	NGC 5612	ESO 22 1	Aps	18.50845	-78.3883	2.0"x 1.1'	13.0		19:04	19:26 	22:36	25	216	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 5823	Melotte 131	Cir	26.37500	-55.6033	12.0'	8.6	3900 ly	19:00	19:26 	22:25	25	196	detectable	Ultima 42mm
Open	NGC 5822	Collinder 289	Lup	26.08750	-54.3967	35.0'	6.5	3000 ly	19:00	19:26 	22:38	25	196	detectable	Celestron Plössl 32mm
Gal	NGC 5970	MCG 2-40-6	Ser	34.62505	12.1865	2.7"x 1.8'	12.0		19:00	19:26 	21:32	15	88	detectable	Celestron Plössl 15mm
Glob	NGC 5927		Lup	32.00417	-50.6733	6.0'	8.0	9800 ly	18:56	19:27 	23:58	21	182	easy	Ultima 42mm
Gal	NGC 5984	MCG 2-40-11	Ser	35.72155	14.2314	2.6"x 0.6'	13.0		19:05	19:27 	20:58	15	88	challenging	Celestron Plössl 9mm
Glob	NGC 5946		Nor	33.87083	-50.6600	3.0'	8.4	100000 ly	18:55	19:28 	00:10	21	182	easy	Celestron Plössl 32mm
Glob	IC 4499		Aps	25.07917	-82.2133	8.0'	10.1	79000 ly	18:56	19:29 	00:20	25	216	very challenging	Ultima 42mm
PNe	NGC 5979	He 2-135	TrA	36.92311	-61.2184	8.0"	13.0	9800 ly	18:52	19:29 	00:37	25	196	detectable	Plössl 4mm
Glob	NGC 5986		Lup	36.51250	-37.7867	9.6'	7.6	46000 ly	18:56	19:29 	23:35	21	165	easy	Ultima 42mm
PNe	PN G329.0+01.9	PK 329-2.1	Nor	37.92056	-51.5246	1.3'	13.6	3800 ly	18:55	19:30 	00:27	21	196	very challenging	E-Lux 2" 26mm 2.0x
PNe	NGC 6058	PN G064.6+48.2	Her	41.11082	40.6822	25"	13.0	9600 ly	19:03	19:30 	20:53	8	35	challenging	Celestron Plössl 9mm
Open	NGC 5999	Collinder 293	Nor	38.03332	-56.4733	3.0'	9.0	6700 ly	18:56	19:31 	00:36	25	196	easy	E-Lux 2" 26mm
Gal	NGC 5967	ESO 42 10	Aps	37.06660	-75.6729	2.3"x 1.6'	12.7		19:03	19:32 	23:20	25	216	difficult	Celestron Plössl 15mm
Open	NGC 6005	Collinder 294	Nor	38.94999	-57.4367	5.0'	11.4	8800 ly	18:56	19:32 	00:41	25	196	challenging	E-Lux 2" 40mm
PNe	NGC 6026	He 2-144	Lup	40.33779	-34.5435	54"	12.5	6600 ly	18:59	19:32 	22:56	22	165	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 6052	Arp 209	Her	41.30515	20.5424	45"x 35"	13.4	210.0 Mly	19:00	19:33 	21:39	8	69	detectable	Celestron Plössl 9mm
Open	NGC 6025	Collinder 296	TrA	40.82083	-60.4317	14.0'	6.0	2500 ly	18:54	19:35 	00:51	26	196	obvious	Ultima 42mm
Gal	NGC 6070	MCG 0-41-4	Ser	42.49525	0.7094	3.2"x 1.7'	12.4		19:02	19:35 	21:55	15	108	difficult	Celestron Plössl 15mm
Gal	NGC 6073	MCG 3-41-139	Her	42.54520	16.6994	1.3"x 0.6'	14.3	210.0 Mly	18:55	19:35 	22:06	15	88	very challenging	Celestron Plössl 9mm
Open	NGC 6031	Collinder 297	Nor	41.89582	-54.0150	3.0'	12.2	5900 ly	18:55	19:36 	00:42	26	196	challenging	E-Lux 2" 26mm
PNe	White Eyed Pea	IC 4593	Her	42.93560	12.0714	12"	11.0	9000 ly	18:50	19:36 	22:29	15	88	obvious	Celestron Plössl 9mm 2.0x
PNe	NGC 6072	PN G342.1+10.8	Sco	43.24200	-36.2295	50"	14.0	3600 ly	18:54	19:38 	00:24	22	165	very challenging	E-Lux 2" 26mm 2.0x
PNe	He 2-150	PN G329.3-02.8	Nor	43.63514	-54.9510	25"	11.9	7000 ly	18:55	19:39 	00:55	26	196	easy	Celestron Plössl 9mm
Open	NGC 6067	Collinder 298	Nor	43.29585	-54.2183	14.0'	6.5	4600 ly	18:55	19:39 	00:49	26	196	easy	Ultima 42mm
Glob	NGC 6093	M 80	Sco	44.25833	-22.9750	10.0'	7.3	36000 ly	18:56	19:40 	23:51	22	147	easy	Ultima 42mm
Gal	NGC 6106	MCG 1-41-16	Her	44.69695	7.4111	2.2"x 1.2'	12.8		19:03	19:42 	22:01	15	87	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 6087	Collinder 300	Nor	44.70833	-57.9350	14.0'	6.0	2900 ly	18:54	19:42 	01:04	26	196	obvious	Ultima 42mm
Gal	NGC 6118	MCG 0-42-2	Ser	45.45220	-2.2840	4.5"x 1.8'	12.4		19:06	19:44 	21:43	15	107	challenging	Celestron Plössl 15mm
Glob	NGC 6121	M 4	Sco	45.90000	-26.5250	36.0'	5.4	9800 ly	18:56	19:46 	23:53	22	147	easy	Celestron Plössl 32mm
Open	NGC 6124	Collinder 301	Sco	46.33334	-40.6533	39.0'	6.3	1700 ly	19:00	19:48 	23:34	22	182	detectable	Celestron Plössl 32mm
Glob	NGC 6101		Aps	46.45417	-72.2017	5.0'	9.2	68000 ly	18:59	19:49 	01:29	26	207	detectable	Ultima 42mm
Glob	NGC 6144		Sco	46.80833	-26.0217	7.4'	9.0	33000 ly	18:58	19:49 	23:26	22	147	detectable	Ultima 42mm
Open	NGC 6134	Collinder 303	Nor	46.94166	-49.1517	6.0'	8.8	3000 ly	18:57	19:50 	00:23	22	182	easy	Ultima 42mm
Glob	NGC 6139		Sco	46.91667	-38.8483	8.2'	9.1	42000 ly	18:58	19:50 	23:28	22	165	detectable	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
PNe	NGC 6153	He 2-167	Sco	47.87844	-40.2540	25"	11.5	4300 ly	18:52	19:53 	00:51	22	165	easy	Celestron Plössl 9mm
Open	NGC 6152	Collinder 304	Nor	48.18749	-52.6433	25.0'	8.1	3400 ly	19:03	19:55 	22:52	26	196	difficult	Ultima 42mm
Glob	NGC 6171	M 107	Oph	48.13333	-13.0533	13.0'	7.8	26000 ly	18:58	19:55 	23:22	15	127	detectable	Ultima 42mm
Gal	NGC 6181	MCG 3-42-20	Her	48.08725	19.8272	2.3'x 1.0'	12.2		19:01	19:55 	22:11	8	69	detectable	E-Lux 2" 26mm 2.0x
Open	NGC 6167	Harvard 11	Nor	48.64167	-49.7717	7.0'	6.6	3600 ly	18:54	19:57 	01:09	22	182	obvious	Ultima 42mm
Open	NGC 6178	Collinder 308	Sco	48.94583	-45.6433	5.0'	7.2	3300 ly	18:53	19:58 	01:04	22	182	obvious	E-Lux 2" 40mm
Open	NGC 6192	Collinder 309	Sco	50.09585	-43.3667	9.0'	8.5	5000 ly	18:58	20:02 	00:07	22	182	detectable	Ultima 42mm
Open	NGC 6193	Collinder 310	Ara	50.33335	-48.7633	14.0'	5.4	3800 ly	18:53	20:03 	01:14	22	182	obvious	Ultima 42mm
Glob	NGC 6205	M 13	Her	50.42083	36.4600	20.0'	5.8	26000 ly	18:59	20:03 	22:19	8	50	detectable	Ultima 42mm
Gal	NGC 6207	MCG 6-37-7	Her	50.76595	36.8324	2.9'x 1.3'	11.9		19:05	20:04 	21:39	8	50	difficult	E-Lux 2" 26mm 2.0x
PNe	NGC 6210	Turtle Nebula	Her	51.12300	23.7999	20"	9.7	4700 ly	18:52	20:06 	21:54	8	68	obvious	Celestron Plössl 15mm 2.0x
Open	NGC 6204	Collinder 312	Ara	51.53751	-47.0167	5.0'	8.4	3900 ly	18:56	20:08 	01:03	22	182	easy	E-Lux 2" 40mm
Glob	NGC 6229		Her	51.74583	47.5283	4.5'	9.4	91000 ly	19:10	20:09 	21:11	8	35	challenging	Ultima 42mm
Glob	NGC 6218	M 12	Oph	51.80833	-1.9467	16.0'	6.1	23000 ly	18:55	20:09 	23:52	15	107	easy	Ultima 42mm
Open	NGC 6208	Collinder 313	Ara	52.36667	-53.7283	18.0'	9.5	3100 ly	18:55	20:11 	01:16	26	196	very challenging	Ultima 42mm
Gal	NGC 6239	MCG 7-35-1	Her	52.52095	42.7393	2.3'x 1.0'	12.9		18:56	20:12 	22:20	8	34	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 6215	ESO 137 46	Ara	52.78075	-58.9927	2.3'x 2.0'	11.9		18:59	20:13 	00:35	26	196	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 6221	ESO 138 3	Ara	53.19430	-59.2163	4.6'x 2.8'	10.7		18:59	20:15 	00:55	26	196	detectable	E-Lux 2" 26mm
Open	NGC 6231	Collinder 315	Sco	53.54168	-41.8250	14.0'	3.4	4100 ly	18:50	20:16 	01:16	22	181	obvious	Ultima 42mm
Glob	NGC 6235		Oph	53.35417	-22.1767	5.0'	8.9	52000 ly	18:56	20:16 	00:15	22	146	detectable	Ultima 42mm
Open	NGC 6242	Collinder 317	Sco	53.88750	-39.4617	9.0'	8.2	3700 ly	18:58	20:17 	00:29	22	164	easy	Ultima 42mm
Glob	NGC 6254	M 10	Oph	54.28750	-4.1000	20.0'	6.6	23000 ly	18:57	20:19 	23:48	15	107	detectable	Ultima 42mm
Open	NGC 6250	Collinder 320	Ara	54.48334	-45.9367	10.0'	8.0	2800 ly	18:58	20:20 	00:43	22	181	easy	Ultima 42mm
Open	NGC 6253	Collinder 321	Ara	54.77084	-52.7083	4.0'	10.2	4900 ly	18:59	20:21 	00:20	26	196	detectable	Celestron Plössl 32mm
Open	NGC 6259	Collinder 322	Sco	55.18751	-44.6550	14.0'	8.6	3400 ly	19:01	20:22 	23:46	22	181	detectable	Ultima 42mm
Glob	NGC 6266	M 62	Oph	55.30417	-30.1133	15.0'	6.4	26000 ly	18:56	20:23 	00:50	22	164	easy	Ultima 42mm
Open	NGC 6268	Collinder 323	Sco	55.54167	-39.7283	6.0'	9.5	3400 ly	18:58	20:24 	00:12	22	164	detectable	Ultima 42mm
PNe	IC 4634	He 2-189	Oph	55.38988	-21.8258	20"	12.0	9300 ly	18:54	20:24 	00:51	22	146	easy	Celestron Plössl 15mm 2.0x
Glob	NGC 6273	M 19	Oph	55.65833	-26.2683	17.0'	6.8	23000 ly	18:57	20:25 	00:27	22	146	easy	Ultima 42mm
PNe	IC 4637	He 2-193	Sco	56.29377	-40.8857	21"	13.5	5700 ly	18:57	20:27 	00:22	22	181	difficult	Celestron Plössl 15mm 2.0x
Glob	NGC 6284		Oph	56.12083	-24.7650	6.2'	8.9	55000 ly	18:57	20:26 	00:18	22	146	detectable	Ultima 42mm
Glob	NGC 6287		Oph	56.28750	-22.7083	4.8'	9.3	33000 ly	18:58	20:27 	00:16	22	146	detectable	Ultima 42mm
Open	NGC 6281	Collinder 324	Sco	56.17083	-37.9850	8.0'	8.4	1600 ly	18:57	20:27 	00:37	22	164	easy	Ultima 42mm
Glob	NGC 6293		Oph	57.54167	-26.5817	8.2'	8.3	39000 ly	18:58	20:32 	00:29	22	146	detectable	Ultima 42mm
PNe	IC 4642	He 2-201	Ara	57.93760	-55.4004	15"	12.4	11000 ly	18:53	20:33 	01:53	26	195	easy	Plössl 6mm
PNe	NGC 6309	Box Nebula	Oph	58.51801	-12.9105	20"	11.6	7500 ly	18:54	20:36 	00:46	15	127	easy	Celestron Plössl 15mm 2.0x
PNe	NGC 6302	Bug Nebula	Sco	58.43421	-37.1044	1.2'	12.8	1800 ly	19:03	20:36 	23:25	22	164	challenging	E-Lux 2" 26mm 2.0x
Glob	NGC 6304		Oph	58.63333	-29.4617	8.0'	8.3	20000 ly	18:58	20:36 	00:39	22	146	detectable	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Open	NGC 6318	Collinder 325	Sco	59.04583	-39.4250	4.0'	11.8	7500 ly	18:56	20:38 	01:18	22	164	challenging	Celestron Plössl 32mm
Glob	NGC 6316		Oph	59.15417	-28.1400	5.4'	8.1	100000 ly	18:54	20:38 	01:08	22	146	easy	Ultima 42mm
Glob	NGC 6341	M 92	Her	59.27917	43.1367	14.0'	6.5	33000 ly	19:04	20:39 	22:26	8	34	detectable	Ultima 42mm
Gal	NGC 6300	ESO 101 25	Ara	59.24665	-62.8196	5.5'x 3.5'	11.0		19:00	20:39 	00:49	26	207	detectable	E-Lux 2" 26mm
Open	NGC 6322	Collinder 326	Sco	59.60418	-42.9333	5.0'	6.5	3200 ly	18:52	20:40 	01:43	22	181	obvious	E-Lux 2" 40mm
Glob	NGC 6325		Oph	59.49583	-23.7667	4.1'	10.2	150000 ly	18:59	20:40 	00:05	22	146	detectable	Ultima 42mm
Glob	NGC 6333	M 9	Oph	59.80000	-18.5167	12.0'	7.8	26000 ly	18:58	20:40 	00:21	22	146	detectable	Ultima 42mm
PNe	NGC 6326	He 2-208	Ara	60.19292	-51.7543	15"	12.0	9400 ly	18:53	20:42 	01:56	22	195	easy	Plössl 6mm
Glob	NGC 6342		Oph	60.29167	-19.5867	4.4'	9.5	130000 ly	18:59	20:43 	00:27	22	146	detectable	Ultima 42mm
PNe	NGC 6337	He 2-215 Snake Nebula	Sco	60.56524	-38.4843	38"	12.3	4500 ly	18:58	20:44 	00:54	22	164	detectable	E-Lux 2" 26mm 2.0x
Dark	B 72		Oph	60.76583	-23.5652	2.5'	6.0		19:04	20:44 	23:30	22	146	challenging	E-Lux 2" 26mm
Glob	NGC 6356		Oph	60.89583	-17.8133	10.0'	8.2	36000 ly	18:59	20:45 	00:22	15	146	detectable	Ultima 42mm
Glob	NGC 6355		Oph	60.99167	-26.3533	4.2'	8.6		18:56	20:46 	01:11	22	146	easy	Ultima 42mm
Open	IC 4651	Collinder 327	Ara	61.20417	-49.9333	10.0'	8.0	2900 ly	18:59	20:47 	01:16	22	181	easy	Ultima 42mm
Glob	NGC 6352	Harvard 15 Little Ghost Nebula	Ara	61.37083	-48.4233	9.0'	7.8	64000 ly	18:58	20:47 	01:30	22	181	easy	Ultima 42mm
Glob	NGC 6366		Oph	61.93333	-5.0767	13.0'	9.5	6500 ly	19:13	20:49 	22:41	15	106	challenging	Ultima 42mm
Open	Collinder 331		Oph	62.13750	-29.5000	6.0'	9.5	9100 ly	19:00	20:50 	00:25	22	164	detectable	Ultima 42mm
PNe	NGC 6369		Oph	62.33518	-23.7595	30"	11.0	2800 ly	18:54	20:51 	01:22	22	146	easy	Celestron Plössl 9mm
Glob	NGC 6362		Ara	62.97917	-67.0483	15.0'	8.1	23000 ly	19:01	20:54 	01:17	26	207	detectable	Ultima 42mm
Gal	NGC 6384	MCG 1-45-1	Oph	63.10060	7.0605	3.1'x 1.5'	11.5		19:00	20:54 	23:51	15	86	detectable	E-Lux 2" 26mm 2.0x
Glob	NGC 6380	Ton 1	Sco	63.61667	-39.0700	3.6'	11.5		19:08	20:56 	23:25	22	164	challenging	E-Lux 2" 40mm
Open	NGC 6383	Collinder 335	Sco	63.70000	-32.5667	20.0'	5.4	3200 ly	18:55	20:56 	01:40	22	164	obvious	Ultima 42mm
Glob	NGC 6388		Sco	64.07083	-44.7350	10.4'	6.8	42000 ly	18:55	20:58 	01:59	22	181	easy	Ultima 42mm
Glob	NGC 6402	M 14	Oph	64.40000	-3.2467	11.0'	7.6	23000 ly	18:58	20:59 	00:28	15	106	detectable	Ultima 42mm
Glob	NGC 6401	Collinder 340	Oph	64.65417	-23.9100	4.8'	7.4		18:54	21:00 	01:31	22	146	obvious	Ultima 42mm
Open	NGC 6404		Sco	64.90416	-33.2467	5.0'	10.6		19:04	21:01 	23:54	22	164	difficult	E-Lux 2" 40mm
Glob	NGC 6397		Ara	65.17500	-53.6733	31.0'	5.3	6500 ly	18:58	21:02 	02:07	26	195	easy	Celestron Plössl 32mm
Open	NGC 6405	M 6	Sco	65.08333	-32.2533	20.0'	4.6	1600 ly	18:54	21:02 	01:48	22	164	obvious	Ultima 42mm
Open	NGC 6400	Collinder 342	Sco	65.05000	-36.9483	12.0'	8.8	3300 ly	19:03	21:02 	00:20	22	164	detectable	Ultima 42mm
Open	Collinder 343	Harvard 17 Collinder 344	Sco	65.37916	-40.1500	12.0'	7.5	1600 ly	18:58	21:03 	01:25	22	164	easy	Ultima 42mm
Open	NGC 6416		Sco	66.07917	-32.3617	14.0'	8.7	2400 ly	19:03	21:06 	00:10	22	164	detectable	Ultima 42mm
Glob	NGC 6426	Collinder 349	Oph	66.22500	3.1700	4.2'	10.9	68000 ly	19:09	21:07 	23:19	15	106	challenging	Ultima 42mm
Open	IC 4665		Oph	66.57499	5.7167	70.0'	5.3	1100 ly	19:04	21:07 	23:55	15	86	detectable	Celestron Plössl 15mm
PNe	IC 4663		Sco	66.36820	-44.9044	14"	13.0	10000 ly	18:55	21:08 	01:57	22	181	detectable	Plössl 6mm
Open	NGC 6425	OCL 1033	Sco	66.75416	-31.5300	10.0'	9.2	2500 ly	19:03	21:09 	00:16	22	164	detectable	Ultima 42mm
PNe	NGC 6439	He 2-287	Sgr	67.08249	-16.4789	6.1"	13.0	14000 ly	18:52	21:10 	01:28	15	126	detectable	Plössl 6mm
Glob	NGC 6440		Sgr	67.22083	-20.3600	4.4'	9.3	13000 ly	18:58	21:10 	01:02	22	146	detectable	Ultima 42mm
PNe	NGC 6445	He 2-290	Sgr	67.31292	-20.0094	35"	13.0	4200 ly	19:02	21:11 	00:29	22	146	difficult	E-Lux 2" 26mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Glob	NGC 6441	Tom Thumb Cluster MCG 4-42-8	Sco	67.55417	-37.0517	9.6'	7.2	29000 ly	18:56	21:12 	01:50	22	164	easy	Ultima 42mm
Glob	NGC 6453		Sco	67.71667	-34.5983	7.6'	10.2	160000 ly	19:08	21:12 	23:47	22	164	challenging	Ultima 42mm
Open	NGC 6451		Sco	67.67082	-30.2100	7.0'	8.2	6800 ly	18:57	21:13 	01:27	22	164	easy	Ultima 42mm
Gal	NGC 6482		Her	67.95355	23.0720	2.0'x 1.7'	12.2	180.0 Mly	19:20	21:13 	23:08	8	68	detectable	Celestron Plössl 15mm
Open	NGC 6469	Collinder 353	Sgr	68.29999	-22.2750	7.0'	8.2	2000 ly	18:57	21:15 	01:18	22	146	easy	Ultima 42mm
Open	NGC 6475	M 7	Sco	68.46250	-34.7933	80.0'	3.3	980 ly	18:56	21:16 	01:54	22	164	obvious	Celestron Plössl 15mm
Open	Collinder 355	Harvard 18	Sco	69.19166	-35.2667	7.0'	8.8	2000 ly	19:00	21:18 	01:19	22	164	easy	Ultima 42mm
Open	NGC 6494	M 23	Sgr	69.26666	-18.9850	29.0'	5.9	2000 ly	18:59	21:19 	01:08	22	146	easy	Plössl 4mm
Glob	NGC 6496		Sco	69.76250	-44.2633	5.6'	8.6	78000 ly	18:57	21:21 	01:57	22	181	easy	Ultima 42mm
Glob	NGC 6517	Collinder 361 M 20 NGC 6526 M 21	Oph	70.46250	-8.9583	4.0'	10.1	160000 ly	19:02	21:23 	00:36	15	126	detectable	Ultima 42mm
Open	NGC 6520		Sgr	70.85000	-27.8883	5.0'	7.6	5100 ly	18:56	21:25 	02:03	22	145	obvious	E-Lux 2" 40mm
Open	NGC 6514		Sgr	70.67499	-22.9717	28.0'	5.2	2700 ly	18:57	21:25 	01:41	22	145	easy	Plössl 4mm
Neb	NGC 6523		Sgr	71.00833	-24.3872	17.0'x 15.0'	5.0		18:54	21:25 	01:58	22	145	obvious	Ultima 42mm
Open	NGC 6531		Sgr	71.05417	-22.4900	14.0'	7.2	3900 ly	18:58	21:25 	01:22	22	145	easy	Ultima 42mm
Glob	NGC 6535	Collinder 362	Ser	70.96250	-0.2967	3.4'	9.3	46000 ly	19:00	21:25 	00:58	15	106	easy	E-Lux 2" 40mm
Glob	NGC 6522		Sgr	70.89583	-30.0350	9.4'	9.9	39000 ly	19:13	21:25 	23:51	22	163	challenging	Ultima 42mm
Open	NGC 6530		Sgr	71.12917	-24.3583	14.0'	5.1	4300 ly	18:55	21:26 	01:58	22	145	obvious	Ultima 42mm
Glob	NGC 6528		Sgr	71.20417	-30.0567	5.0'	9.6	140000 ly	19:01	21:26 	01:10	22	163	detectable	Ultima 42mm
Glob	NGC 6539		Ser	71.20833	-7.5867	7.9'	8.9	130000 ly	19:03	21:26 	00:39	15	126	detectable	Ultima 42mm
PNe	NGC 6537	Red Spider	Sgr	71.30441	-19.8430	5.0"	12.0	4900 ly	18:49	21:27 	01:51	22	145	easy	Plössl 6mm
Glob	NGC 6544	Collinder 365	Sgr	71.83333	-24.9983	9.2'	7.5	16000 ly	18:58	21:29 	01:43	22	145	easy	Ultima 42mm
Open	NGC 6546		Sgr	71.84167	-23.2967	14.0'	8.2	3100 ly	19:02	21:29 	00:49	22	145	detectable	Ultima 42mm
Glob	NGC 6541		CrA	72.00833	-43.7150	15.0'	6.3	13000 ly	18:57	21:30 	02:23	22	181	easy	Ultima 42mm
Glob	NGC 6553		Sgr	72.32083	-25.9083	9.2'	8.3	87000 ly	19:00	21:31 	01:20	22	145	detectable	Ultima 42mm
Glob	NGC 6558	Blue Racquetball He 2-361 He 2-362 MCG 2-46-10	Sgr	72.57500	-31.7633		8.6		18:38	21:31 	02:17	22	163	unknown	Plössl 4mm
PNe	NGC 6572		Oph	73.02668	6.8534	15"	8.0	3500 ly	18:47	21:33 	00:49	15	86	obvious	Plössl 6mm
PNe	NGC 6563		Sgr	73.01147	-33.8687	54"	13.0	4800 ly	19:07	21:34 	00:33	22	163	challenging	E-Lux 2" 26mm 2.0x
PNe	NGC 6565		Sgr	72.96862	-28.1784	10"	13.0	11000 ly	18:53	21:33 	02:12	22	145	detectable	Plössl 4mm
Gal	NGC 6574		Her	72.96370	14.9817	1.5'x 1.1'	12.8		19:14	21:33 	23:59	15	86	detectable	E-Lux 2" 26mm 2.0x
Open	NGC 6568	Collinder 369	Sgr	73.18333	-21.6050	12.0'	8.6	2500 ly	19:03	21:34 	00:47	22	145	detectable	Ultima 42mm
Glob	NGC 6569		Sgr	73.40833	-31.8267	6.4'	8.4	96000 ly	18:59	21:35 	01:51	22	163	easy	Ultima 42mm
PNe	NGC 6567	He 2-369	Sgr	73.43807	-19.0760	11"	11.5	6400 ly	18:49	21:35 	01:57	22	145	easy	Plössl 4mm
Open	NGC 6583	Collinder 370	Sgr	73.95416	-22.1367	5.0'	10.0		19:03	21:38 	00:54	22	145	detectable	E-Lux 2" 40mm
PNe	NGC 6578	He 2-381	Sgr	74.06882	-20.4507	8.5"	13.1	8300 ly	18:54	21:38 	02:03	22	145	detectable	Plössl 4mm
Open	NGC 6603	M 24	Sgr	74.60833	-18.4067	6.0'	11.1	12000 ly	18:58	21:40 	01:48	15	145	challenging	Ultima 42mm
Open	NGC 6611	M 16	Ser	74.69999	-13.8067	6.0'	6.5	5700 ly	18:54	21:40 	01:52	15	126	obvious	Ultima 42mm
Glob	NGC 6584		Tel	74.65833	-52.2150	6.6'	7.9	42000 ly	18:56	21:40 	02:47	26	195	easy	Ultima 42mm
PNe	IC 4699	He 2-383	Tel	74.63343	-45.9838	13"	12.0	18000 ly	18:53	21:40 	02:47	22	181	easy	Celestron Plössl 9mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Open	NGC 6613	M 18	Sgr	74.99167	-17.1017	5.0'	7.5	4200 ly	18:56	21:41 	01:59	15	126	obvious	E-Lux 2" 40mm
Open	NGC 6618	M 17	Sgr	75.19583	-16.1717	25.0'	7.3	4200 ly	19:06	21:43 	00:49	15	126	detectable	Ultima 42mm
PNe	NGC 6620	He 2-394	Sgr	75.72578	-26.8214	5.3"	14.0	20000 ly	18:56	21:44 	02:02	22	145	detectable	Plössl 6mm
Glob	NGC 6624		Sgr	75.91667	-30.3583	8.8'	7.6	42000 ly	18:58	21:45 	02:07	22	163	easy	Ultima 42mm
Glob	NGC 6626	M 28	Sgr	76.13750	-24.8700	13.8'	6.9	16000 ly	18:58	21:46 	01:57	22	145	easy	Ultima 42mm
PNe	NGC 6629	He 2-399	Sgr	76.42687	-23.2029	16"	10.5	6800 ly	18:52	21:47 	02:18	22	145	obvious	Plössl 6mm
Open	NGC 6631	Collinder 379	Sct	76.79582	-12.0300	6.0'	11.7	8500 ly	18:59	21:48 	01:47	15	126	very challenging	Ultima 42mm
Open	NGC 6633	Collinder 380	Oph	76.81251	6.5083	20.0'	5.6	1200 ly	18:59	21:49 	01:07	15	86	easy	Ultima 42mm
Gal	IC 4710	ESO 103 22	Pav	77.15815	-66.9823	3.5'x 2.8'	12.5		19:12	21:51 	00:48	26	206	challenging	E-Lux 2" 26mm
Glob	NGC 6637	M 69	Sgr	77.84583	-32.3483	9.8'	7.7	23000 ly	18:59	21:53 	02:09	22	163	easy	Ultima 42mm
Glob	NGC 6638		Sgr	77.73333	-25.4967	7.3'	9.2	49000 ly	19:03	21:53 	01:20	22	145	detectable	Ultima 42mm
Glob	NGC 6642		Sgr	77.97500	-23.4750	5.8'	8.9		19:00	21:53 	01:47	22	145	detectable	Ultima 42mm
Open	M 25	IC 4725	Sgr	77.94583	-19.1167	29.0'	6.2	2000 ly	19:02	21:53 	01:36	22	145	easy	Plössl 4mm
Gal	NGC 6630	ESO 103 26	Pav	78.14365	-63.2916	48"x 41"	14.6		18:55	21:54 	03:23	26	206	challenging	Celestron Plössl 9mm
Open	NGC 6645	Collinder 383	Sgr	78.15415	-16.8833	14.0'	8.5		19:10	21:54 	00:53	16	126	detectable	Ultima 42mm
PNe	NGC 6644	He 2-408	Sgr	78.14434	-25.1289	3.0"	12.2	10000 ly	18:46	21:55 	02:27	22	145	easy	Plössl 4mm
PNe	IC 4732	He 2-410	Sgr	78.47764	-22.6447	3.6"	13.3	15000 ly	18:49	21:56 	02:25	22	145	detectable	Plössl 4mm
Open	NGC 6649	Collinder 384	Sct	78.36250	-10.4033	5.0'	10.0	4500 ly	19:07	21:55 	00:56	16	126	detectable	E-Lux 2" 40mm
Gal	IC 4721	ESO 140 27	Pav	78.60325	-58.4975	5.5'x 1.6'	12.4		18:56	21:57 	03:20	26	195	challenging	E-Lux 2" 26mm 2.0x
Gal	IC 4723	ESO 103 27	Pav	78.98215	-63.3760	39"x 37"	14.9	150.0 Mly	18:55	21:58 	03:27	26	206	challenging	Celestron Plössl 9mm
Glob	NGC 6652		Sgr	78.94167	-32.9900	6.0'	8.5	52000 ly	18:58	21:57 	02:15	22	163	easy	Ultima 42mm
Glob	NGC 6656	M 22	Sgr	79.10000	-23.9033	32.0'	5.2	9800 ly	18:59	21:58 	02:12	22	145	easy	Celestron Plössl 32mm
Open	NGC 6664	Collinder 385	Sct	79.15418	-7.8133	12.0'	8.5	3800 ly	19:10	21:58 	00:57	16	125	detectable	Ultima 42mm
Open	IC 4756	Collinder 386	Ser	79.74999	5.4500	39.0'	5.4	1600 ly	19:05	22:00 	01:14	16	105	easy	Celestron Plössl 32mm
Open	NGC 6683	OCL 74	Sct	80.55417	-6.2117	3.0'	9.5	3900 ly	19:01	22:04 	01:44	16	125	easy	E-Lux 2" 26mm
Glob	NGC 6681	M 70	Sgr	80.80417	-32.2917	8.0'	7.8	65000 ly	18:58	22:05 	02:28	22	163	easy	Ultima 42mm
Open	NGC 6694	M 26	Sct	81.32500	-9.3833	7.0'	9.0	5200 ly	19:07	22:06 	01:26	16	125	detectable	Ultima 42mm
PNe	IC 4776	He 2-421	Sgr	81.46137	-33.3428	8.0"	12.5	11000 ly	18:52	22:08 	02:54	22	163	easy	Plössl 4mm
Gal	NGC 6703	MCG 8-34-20	Lyr	81.82885	45.5506	2.6'x 2.5'	12.4		20:09	22:08 	00:07	8	33	very challenging	Ultima 42mm 2.0x
Gal	NGC 6684	ESO 104 16	Pav	82.23910	-65.1738	4.4'x 3.0'	11.3		19:04	22:11 	02:29	26	206	detectable	E-Lux 2" 26mm
Open	NGC 6704	Collinder 390	Sct	82.68749	-5.2050	5.0'	9.3	9700 ly	19:07	22:12 	01:33	16	105	detectable	E-Lux 2" 40mm
Open	NGC 6705	M 11	Sct	82.77084	-6.2700	32.0'	6.1	6100 ly	19:06	22:13 	01:36	16	125	easy	Celestron Plössl 32mm
Gal	NGC 6699	ESO 183 21	Pav	83.01055	-57.3197	1.5'x 1.5'	12.9	150.0 Mly	19:05	22:13 	02:05	26	195	detectable	E-Lux 2" 26mm 2.0x
Open	NGC 6709	Collinder 392	Aql	82.82499	10.3183	14.0'	7.4	3500 ly	19:16	22:13 	01:12	16	85	easy	Ultima 42mm
PNe	NGC 6720	M 57	Lyr	83.39616	33.0292	1.4'	9.4	2600 ly	19:32	22:14 	00:58	8	49	easy	Celestron Plössl 15mm
Glob	NGC 6712		Sct	83.26667	-8.7050	9.8'	8.1	23000 ly	19:06	22:14 	01:44	16	125	detectable	Ultima 42mm
Glob	NGC 6715	M 54	Sgr	83.76250	-30.4783	12.0'	7.7	55000 ly	19:02	22:16 	02:17	22	163	detectable	Ultima 42mm
PNe	IC 1295	PN G025.4-04.7	Sct	83.65502	-8.8275	1.7'	12.7	3600 ly	20:26	22:16 	00:06	16	125	very challenging	E-Lux 2" 40mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	IC 4797	ESO 183 29	Tel	84.12175	-54.3060	3.0'x 1.7'	12.3		19:08	22:18 	01:53	26	195	difficult	Celestron Plössl 15mm
Glob	NGC 6723		Sgr	84.88750	-36.6317	13.0'	6.8	33000 ly	18:58	22:22 	02:54	22	163	easy	Ultima 42mm
Gal	NGC 6721	ESO 141 19	Pav	85.21165	-57.7593	1.7'x 1.4'	13.1	200.0 Mly	19:10	22:22 	01:55	26	194	difficult	E-Lux 2" 26mm 2.0x
Neb	NGC 6726	Bernes 160	CrA	85.42500	-36.8833	2.0'			19:46	22:23 	00:59	22	163	challenging	Ultima 42mm
Neb	NGC 6727	ESO 396-N14	CrA	85.42500	-36.8833	3.0'x 2.0'			19:46	22:23 	00:59	22	163	challenging	Ultima 42mm
Neb	NGC 6729	Bernes 159	CrA	85.47500	-36.9500	48"x 36"			20:07	22:23 	00:39	22	163	challenging	Ultima 42mm
PNe	NGC 6741	Phantom Streak	Aql	85.65453	-0.4492	9.0"	12.0	6800 ly	18:53	22:24 	02:02	16	105	easy	Plössl 4mm
PNe	NGC 6751	PN G029.2-05.9	Aql	86.48150	-5.9925	20"	12.0	7800 ly	19:00	22:27 	02:21	16	125	easy	Celestron Plössl 15mm 2.0x
Dark	B 133	LDN 531	Aql	86.54167	-6.8958		6.0		18:38	22:28 	02:23	16	125	unknown	Plössl 4mm
Open	NGC 6755	Collinder 397	Aql	86.95417	4.2667	14.0'	8.6	4600 ly	20:03	22:29 	00:54	16	105	detectable	Ultima 42mm
Open	NGC 6756	OCL 99	Aql	87.17500	4.7050	4.0'	10.6	4900 ly	20:03	22:31 	00:58	16	105	detectable	Celestron Plössl 32mm
Gal	NGC 6744	ESO 104 42	Pav	87.44125	-63.8577	17.0'x 10.7'	9.1		19:04	22:31 	02:51	26	206	detectable	Ultima 42mm
Glob	NGC 6752	Pavo Globular	Pav	87.71667	-59.9817	29.0'	5.3	20000 ly	18:59	22:32 	03:58	26	194	easy	Celestron Plössl 32mm
Glob	NGC 6760		Aql	87.80000	1.0317	9.6'	9.0	13000 ly	19:50	22:33 	01:15	16	105	difficult	Ultima 42mm
Gal	NGC 6753	ESO 184 22	Pav	87.84700	-57.0487	2.8'x 2.5'	11.9	140.0 Mly	19:06	22:33 	02:36	26	194	detectable	Ultima 42mm 2.0x
Gal	NGC 6754	ESO 231 25	Tel	87.85735	-50.6422	2.1'x 1.1'	12.9	150.0 Mly	19:14	22:33 	02:00	22	180	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 6758	ESO 184 37	Tel	88.46755	-56.3091	2.6'x 2.0'	12.6	150.0 Mly	19:20	22:36 	01:55	26	194	difficult	Celestron Plössl 32mm 2.0x
Gal	IC 4837	ESO 184 46	Tel	88.80970	-54.6625	2.3'x 1.3'	13.1		19:36	22:37 	01:38	26	194	challenging	E-Lux 2" 26mm 2.0x
PNe	IC 4846	PN G027.6-09.6	Aql	89.11758	-9.0435	2.0"	12.0	22000 ly	18:47	22:38 	02:39	16	125	easy	Plössl 4mm
Glob	NGC 6779	M 56	Lyr	89.15000	30.1850	8.8'	8.4	42000 ly	20:28	22:38 	00:46	8	49	detectable	Ultima 42mm
PNe	NGC 6778	PN G034.5-06.7	Aql	89.60391	-1.5965	25"	13.3	10000 ly	19:40	22:40 	01:39	16	105	difficult	Celestron Plössl 9mm
PNe	IC 1297	He 2-431	CrA	89.34775	-39.6129	8.0"	11.5	14000 ly	18:50	22:39 	03:36	22	163	easy	Plössl 4mm
Gal	NGC 6769	ESO 141 48	Pav	89.59450	-60.5011	2.5'x 1.8'	12.6	180.0 Mly	19:17	22:40 	02:11	26	194	difficult	Celestron Plössl 15mm
PNe	NGC 6781	PN G041.8-02.9	Aql	89.61702	6.5387	1.9'	11.8	2500 ly	20:15	22:40 	01:04	16	85	difficult	E-Lux 2" 40mm 2.0x
Open	NGC 6791	Berkeley 46	Lyr	90.22083	37.7717	10.0'	9.5	19000 ly	20:19	22:42 	01:06	8	48	challenging	Ultima 42mm
Gal	NGC 6780	ESO 184 62	Tel	90.71215	-55.7757	2.0'x 1.6'	13.4	160.0 Mly	20:11	22:44 	01:17	26	194	challenging	Celestron Plössl 15mm
PNe	NGC 6790	PN G037.8-06.3	Aql	90.73735	1.5129	2.0"	11.4	7700 ly	19:11	22:44 	02:17	16	105	obvious	Plössl 4mm
Gal	NGC 6782	ESO 142 1	Pav	90.99085	-59.9224	2.3'x 1.7'	12.8	180.0 Mly	19:26	22:46 	02:07	26	194	difficult	Celestron Plössl 15mm
Gal	NGC 6776	ESO 104 53	Pav	91.33195	-63.8607	2.0'x 1.6'	13.1	250.0 Mly	19:33	22:47 	02:01	26	206	difficult	Celestron Plössl 15mm
Open	NGC 6802	Collinder 400	Vul	92.64582	20.2617	5.0'	11.7	3700 ly	20:38	22:52 	01:06	8	66	very challenging	E-Lux 2" 40mm
PNe	NGC 6803	PN G046.4-04.1	Aql	92.81871	10.0561	4.0"	11.0	9000 ly	19:48	22:52 	01:57	16	85	obvious	Celestron Plössl 9mm 2.0x
PNe	NGC 6804	PN G045.7-04.5	Aql	92.89656	9.2256	1.1'	12.4	4800 ly	20:24	22:53 	01:22	16	85	difficult	E-Lux 2" 26mm 2.0x
PNe	NGC 6807	PN G042.9-06.9	Aql	93.63976	5.6841	2.0"	13.8	24000 ly	19:36	22:55 	02:17	16	85	detectable	Plössl 4mm
Open	NGC 6811	Collinder 402	Cyg	94.32083	46.3883	14.0'	9.0	4000 ly	21:00	22:59 	00:56	8	33	very challenging	Ultima 42mm
Glob	NGC 6809	M 55	Sgr	95.00000	-30.9617	19.0'	6.3	20000 ly	19:04	23:01 	03:21	22	162	easy	Ultima 42mm
Dark	B 143	Barnard's E	Aql	95.17500	10.9500	30.0'	6.0		20:10	23:02 	01:53	16	85	very challenging	Celestron Plössl 32mm
Open	NGC 6819	Collinder 403	Cyg	95.32500	40.1867	5.0'	9.5	7700 ly	21:32	23:02 	00:33	8	48	detectable	E-Lux 2" 40mm
Gal	NGC 6814	MCG -2-50-1	Aql	95.66860	-10.3234	3.2'x 0.8'	12.1		19:57	23:04 	02:10	16	125	detectable	E-Lux 2" 26mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Neb	NGC 6820	Sh 2-86	Vul	95.77500	23.2833	40.0'	15.0		21:13	23:04 	00:56	8	66	very challenging	Ultima 42mm
Open	NGC 6823	Collinder 405	Vul	95.78749	23.3000	6.0'	7.1	10000 ly	21:13	23:04 	00:56	8	66	obvious	Ultima 42mm
PNe	NGC 6818	Little Gem	Sgr	95.99102	-14.1533	22"	10.0	7300 ly	18:55	23:05 	03:17	16	125	obvious	Celestron Plössl 15mm 2.0x
Gal	NGC 6808	ESO 73 3	Pav	95.97670	-70.6321	57"x 19"	13.6	160.0 Mly	19:06	23:06 	03:40	26	206	difficult	Plössl 6mm
Gal	NGC 6810	ESO 142 35	Pav	95.89210	-58.6556	3.5'x 1.2'	12.3		19:25	23:06 	02:46	26	194	difficult	E-Lux 2" 26mm 2.0x
PNe	NGC 6826	Blinking Planetary	Cyg	96.20067	50.5251	27"	8.8	3600 ly	21:03	23:06 	01:09	8	33	easy	Celestron Plössl 9mm
Gal	IC 4889	ESO 185 14	Tel	96.31570	-54.3436	3.0'x 2.2'	12.1		19:23	23:07 	02:51	26	194	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 6822	Barnard's Galaxy	Sgr	96.24070	-14.8031	13.5'x 12.3'	9.4		20:00	23:07 	02:13	16	125	detectable	Ultima 42mm
PNe	NGC 6833	PN G082.5+11.3	Cyg	97.44407	48.9611	2.0"	13.8	18000 ly	21:52	23:10 	00:30	8	33	difficult	Plössl 4mm
Open	NGC 6830	Collinder 406	Vul	97.74584	23.1000	5.0'	8.9	5300 ly	21:18	23:12 	01:07	8	66	easy	E-Lux 2" 40mm
Open	NGC 6834	Collinder 407	Cyg	98.05000	29.4083	5.0'	9.7	6700 ly	22:48	23:13 	23:39	8	66	detectable	E-Lux 2" 40mm
Open	Collinder 408	Harvard 20	Sge	98.27499	18.3333	7.0'	9.6	5000 ly	21:06	23:14 	01:23	16	66	detectable	Ultima 42mm
Gal	NGC 6835	MCG -2-50-9	Sgr	98.63785	-12.5674	2.6'x 0.6'	13.3		21:03	23:15 	01:27	16	124	challenging	Celestron Plössl 9mm
Glob	NGC 6838	M 71	Sge	98.44167	18.7783	4.0'	8.4	16000 ly	20:52	23:15 	01:39	8	66	easy	Ultima 42mm
PNe	NGC 6842	He 2-451	Vul	98.75994	29.2887	53"	13.1	4700 ly	22:47	23:16 	23:47	8	66	very challenging	E-Lux 2" 26mm 2.0x
PNe	NGC 6853	M 27	Vul	99.90142	22.7211	8.0'	7.3	1100 ly	21:23	23:21 	01:18	8	66	easy	Ultima 42mm
PNe	NGC 6857	PK 070-1.2	Cyg	00.45750	33.5400	38"	11.4		21:00	23:23 	01:47	9	48	detectable	E-Lux 2" 26mm 2.0x
Open	NGC 6866	Collinder 412	Cyg	00.97917	44.1583	14.0'	9.1	4700 ly	21:26	23:25 	01:24	9	32	very challenging	Ultima 42mm
Gal	NGC 6851	ESO 233 21	Tel	00.89340	-48.2846	2.1'x 1.7'	12.7	140.0 Mly	19:58	23:25 	02:53	23	179	difficult	Celestron Plössl 15mm
Gal	NGC 6854	ESO 185 61	Tel	01.41225	-54.3768	2.2'x 1.5'	13.3	260.0 Mly	20:51	23:27 	02:02	26	194	challenging	E-Lux 2" 26mm 2.0x
Glob	NGC 6864	M 75	Sgr	01.52083	-21.9217	6.8'	8.6	95000 ly	19:36	23:27 	03:19	23	144	detectable	Ultima 42mm
Gal	NGC 6861	ESO 233 32	Tel	01.83120	-48.3702	3.2'x 2.3'	12.1		19:58	23:29 	02:59	23	179	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 6868	ESO 233 39	Tel	02.47350	-48.3790	3.9'x 3.2'	11.7		20:02	23:31 	03:00	23	179	detectable	E-Lux 2" 26mm
PNe	NGC 6879	He 2-455	Sge	02.61117	16.9226	4.7"	11.0	17000 ly	20:59	23:31 	02:04	16	84	obvious	Plössl 6mm
PNe	NGC 6884	PN G082.1+07.0	Cyg	02.59862	46.4610	5.6"	12.6	8400 ly	21:47	23:31 	01:15	9	32	detectable	Plössl 6mm
PNe	NGC 6881	He 2-456	Cyg	02.71860	37.4114	3.3"	14.3	9800 ly	21:31	23:32 	01:33	9	48	difficult	Plössl 4mm
Open	NGC 6885	Collinder 417	Vul	03.00416	26.4783	20.0'	5.7	1900 ly	22:12	23:33 	00:55	9	66	easy	Ultima 42mm
PNe	NGC 6886	He 2-458	Sge	03.17839	19.9896	4.0"	12.5	9900 ly	21:18	23:34 	01:50	9	66	easy	Celestron Plössl 9mm 2.0x
Gal	NGC 6878	MCG -7-41-15	Sgr	03.47175	-44.5267	1.6'x 1.3'	13.7	260.0 Mly	21:02	23:35 	02:08	23	179	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 6875	ESO 284 28	Tel	03.30105	-46.1614	2.2'x 1.3'	13.0	140.0 Mly	20:28	23:35 	02:41	23	179	difficult	E-Lux 2" 26mm 2.0x
PNe	NGC 6891	PN G054.1-12.1	Del	03.78683	12.7043	15"	10.5	7800 ly	20:42	23:36 	02:29	16	84	obvious	Plössl 6mm
Gal	NGC 6887	ESO 186 27	Tel	04.32195	-52.7968	3.4'x 1.2'	12.8		20:49	23:39 	02:28	26	194	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 6890	MCG -7-41-23	Sgr	04.57425	-44.8070	1.5'x 1.2'	13.0		20:03	23:40 	03:16	23	179	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 6876	ESO 73 35	Pav	04.58175	-70.8599	3.3'x 2.8'	12.0	170.0 Mly	19:37	23:40 	03:43	26	206	difficult	E-Lux 2" 26mm
PNe	IC 4997	He 2-464	Sge	05.03642	16.7316	2.0"	11.3	14000 ly	21:06	23:41 	02:15	16	84	obvious	Plössl 4mm
Gal	NGC 6893	ESO 234 6	Tel	05.20575	-48.2395	2.8'x 1.8'	12.8	140.0 Mly	20:51	23:42 	02:34	23	179	difficult	Celestron Plössl 15mm
PNe	NGC 6905	He 2-466	Del	05.59558	20.1047	44"	12.0	4700 ly	21:28	23:44 	01:58	9	66	detectable	E-Lux 2" 26mm 2.0x
Open	NGC 6910	Collinder 420	Cyg	05.80000	40.7783	10.0'	7.3	3700 ly	21:49	23:44 	01:38	9	32	detectable	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Open	NGC 6913	M 29	Cyg	05.98750	38.5083	10.0'	7.5	3700 ly	21:46	23:45 	01:44	9	48	detectable	Ultima 42mm
Gal	NGC 6902	MCG -7-42-2	Sgr	06.11580	-43.6535	3.3'x 2.6'	11.9		20:13	23:46 	03:18	23	179	detectable	Ultima 42mm 2.0x
Gal	NGC 6907	MCG -4-48-6	Cap	06.27720	-24.8083	3.5'x 2.6'	11.9	140.0 Mly	20:36	23:46 	02:57	23	144	detectable	Ultima 42mm 2.0x
Gal	NGC 6909	ESO 285 12	Tel	06.91080	-47.0261	2.5'x 1.3'	12.6		20:22	23:49 	03:16	23	179	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 6923	MCG -5-48-17	Mic	07.91280	-30.8319	2.6'x 1.4'	12.7		20:53	23:53 	02:53	23	162	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 6925	MCG -5-48-22	Mic	08.58675	-31.9805	4.5'x 1.2'	12.0		20:43	23:55 	03:08	23	162	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 6940	Collinder 424	Vul	08.60833	28.2833	25.0'	7.2	2500 ly	23:00	23:55 	00:51	9	66	detectable	Ultima 42mm
Glob	NGC 6934		Del	08.54583	7.4050	7.1'	8.9	62000 ly	21:00	23:55 	02:51	16	84	detectable	Ultima 42mm
Gal	NGC 6935	ESO 234 59	Ind	09.58335	-52.1102	2.3'x 2.0'	12.8	210.0 Mly	20:51	00:00 	03:08	26	194	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 6942	ESO 186 73	Ind	10.15770	-54.3031	2.3'x 1.7'	13.0	150.0 Mly	21:03	00:02 	03:01	26	194	difficult	Celestron Plössl 15mm
Gal	IC 5039	MCG -5-49-1	Mic	10.80975	-29.8535	2.5'x 0.7'	13.2		21:20	00:04 	02:48	23	161	challenging	Celestron Plössl 9mm
Gal	NGC 6943	ESO 74 6	Pav	11.13705	-68.7473	3.7'x 2.0'	12.1	140.0 Mly	20:20	00:06 	03:51	26	205	difficult	Celestron Plössl 32mm 2.0x
Neb	NGC 6960	Veil Nebula (West)	Cyg	11.42500	30.7167	63.0'x 6.0'	7.0		21:25	00:07 	02:49	9	47	very challenging	Ultima 42mm
Gal	NGC 6958	MCG -6-45-17	Mic	12.17730	-37.9974	2.3'x 2.0'	12.4		20:47	00:10 	03:34	23	161	detectable	Celestron Plössl 32mm 2.0x
Gal	IC 5052	ESO 74 15	Pav	13.02585	-69.2037	6.5'x 1.0'	11.8		20:29	00:13 	03:57	26	205	difficult	Celestron Plössl 32mm 2.0x
Gal	IC 5063	ESO 187 23	Ind	13.00965	-57.0688	2.5'x 1.8'	13.0	150.0 Mly	21:26	00:13 	03:01	26	194	challenging	Celestron Plössl 15mm
Gal	NGC 6970	ESO 235 8	Ind	13.03950	-48.7780	1.5'x 0.8'	13.2	240.0 Mly	20:39	00:13 	03:48	23	179	difficult	E-Lux 2" 26mm 2.0x
Glob	NGC 6981	M 72	Aqr	13.36667	-12.5367	6.6'	9.2	68000 ly	20:56	00:14 	03:34	16	124	detectable	Ultima 42mm
Neb	NGC 6992	Veil Nebula (East)	Cyg	14.10000	31.7167	60.0'x 7.0'	7.0		21:37	00:17 	02:58	9	47	very challenging	Ultima 42mm
Gal	NGC 6984	ESO 235 20	Ind	14.47485	-51.8709	1.8'x 1.1'	13.2	210.0 Mly	21:01	00:19 	03:37	23	194	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 6994	M 73	Aqr	14.72916	-12.6333	9.0'	8.9	2000 ly	21:10	00:20 	03:30	16	124	detectable	Ultima 42mm
Glob	NGC 7006		Del	15.37083	16.1883	3.6'	10.6	160000 ly	22:05	00:23 	02:39	16	83	difficult	E-Lux 2" 40mm
PNe	NGC 7009	Saturn Nebula	Aqr	16.04532	-11.3634	28"	8.3	3200 ly	20:19	00:25 	04:32	16	123	obvious	Celestron Plössl 9mm
Gal	NGC 7007	ESO 187 48	Ind	16.36785	-52.5518	2.6'x 1.2'	12.9		21:18	00:27 	03:35	26	193	difficult	E-Lux 2" 26mm 2.0x
PNe	NGC 7026	Cheeseburger Nebula	Cyg	16.57587	47.8515	25"	12.0	4500 ly	23:07	00:27 	01:47	9	32	difficult	Celestron Plössl 9mm
PNe	NGC 7027	PN G084.9-03.4	Cyg	16.75707	42.2360	18"	9.6	2600 ly	21:53	00:28 	03:03	9	32	obvious	Plössl 6mm
Gal	NGC 7014	ESO 286 57	Ind	16.96665	-47.1786	2.0'x 1.8'	13.3	220.0 Mly	21:52	00:29 	03:06	23	179	challenging	Celestron Plössl 15mm
Gal	NGC 7020	ESO 107 13	Pav	17.83380	-64.0252	3.2'x 1.7'	12.7	140.0 Mly	21:33	00:32 	03:33	26	205	challenging	Celestron Plössl 15mm
Gal	NGC 7029	ESO 235 72	Ind	17.96805	-49.2828	2.5'x 1.5'	12.4		20:55	00:33 	04:12	23	179	detectable	E-Lux 2" 26mm 2.0x
PNe	NGC 7048	PN G088.7-01.6	Cyg	18.56343	46.2882	1.0'	11.0	3800 ly	23:12	00:35 	01:59	9	32	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7038	ESO 286 79	Ind	18.78135	-47.2205	3.2'x 1.7'	12.7	220.0 Mly	21:46	00:36 	03:26	23	179	difficult	Celestron Plössl 15mm
Gal	NGC 7041	ESO 235 82	Ind	19.13490	-48.3636	3.1'x 1.3'	12.1		20:48	00:38 	04:27	23	179	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7049	ESO 236 1	Ind	19.75005	-48.5627	4.3'x 3.0'	11.7		21:14	00:40 	04:07	23	179	detectable	E-Lux 2" 26mm
Open	NGC 7062	Collinder 434	Cyg	20.86251	46.3783	5.0'	8.3	4800 ly	23:13	00:44 	02:15	9	32	detectable	E-Lux 2" 40mm
Gal	IC 5105	MCG -7-44-1	Mic	21.09045	-40.5369	2.9'x 1.6'	12.6	240.0 Mly	21:43	00:45 	03:48	23	179	difficult	Celestron Plössl 15mm
Gal	NGC 7064	ESO 188 9	Ind	22.25955	-52.7660	3.2'x 0.5'	12.7		21:28	00:50 	04:13	26	193	difficult	Celestron Plössl 9mm
Open	NGC 7082	OCL 209	Cyg	22.32083	47.1267	25.0'	7.2	4700 ly	22:51	00:51 	02:48	9	32	challenging	Ultima 42mm
Gal	NGC 7070	MCG -7-44-16	Gru	22.60560	-43.0871	2.5'x 1.9'	12.8		21:54	00:51 	03:49	23	179	difficult	Celestron Plössl 32mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Glob	NGC 7078	M 15	Peg	22.49167	12.1667	18.0'	6.3	42000 ly	21:54	00:51 	03:47	16	83	easy	Ultima 42mm
Open	NGC 7092	M 39	Cyg	22.95000	48.4333	29.0'	5.3	1100 ly	23:23	00:52 	02:21	9	32	detectable	Plössl 4mm
PNe	IC 5117	PN G089.8-05.1	Cyg	23.12928	44.5968	2.0"	13.3	12000 ly	23:03	00:53 	02:43	9	32	detectable	Plössl 4mm
Gal	NGC 7079	MCG -7-44-22	Gru	23.14590	-44.0666	2.2'x 1.4'	12.5		21:17	00:54 	04:30	23	179	detectable	E-Lux 2" 26mm 2.0x
Glob	NGC 7089	M 2	Aqr	23.36250	-0.8233	16.0'	6.6	49000 ly	21:20	00:54 	04:29	17	103	easy	Ultima 42mm
Gal	NGC 7083	ESO 107 36	Ind	23.93535	-63.9027	3.5'x 2.1'	11.9	140.0 Mly	20:54	00:57 	04:59	26	205	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 7090	ESO 188 12	Ind	24.11895	-54.5572	8.3'x 1.6'	11.3		21:30	00:58 	04:25	26	193	difficult	Celestron Plössl 15mm
Gal	NGC 7097	MCG -7-44-29	Gru	25.05360	-42.5394	2.0'x 1.4'	12.6		21:23	01:01 	04:40	23	178	detectable	E-Lux 2" 26mm 2.0x
Glob	NGC 7099	M 30	Cap	25.09167	-23.1783	12.0'	6.9	39000 ly	20:47	01:01 	05:15	23	143	easy	Ultima 42mm
Gal	NGC 7096	ESO 107 46	Ind	25.33035	-63.9087	1.9'x 1.7'	12.9		21:26	01:02 	04:39	26	205	difficult	Celestron Plössl 15mm
Gal	NGC 7107	ESO 287 52	Gru	25.61010	-44.7918	1.9'x 1.0'	13.4		22:15	01:03 	03:51	23	178	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 7119B	ESO 288 1	Gru	26.56245	-46.5201	45"x 16"	14.2	430.0 Mly	21:44	01:07 	04:31	23	178	difficult	Celestron Plössl 9mm 2.0x
Gal	NGC 7119A	ESO 288 2	Gru	26.56650	-46.5162	48"x 33"	13.8	440.0 Mly	21:22	01:07 	04:52	23	178	detectable	Celestron Plössl 9mm
Gal	NGC 7130	MCG -6-47-15	PsA	27.08100	-34.9514	1.5'x 1.3'	12.9	220.0 Mly	21:38	01:09 	04:40	23	161	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7124	ESO 236 49	Ind	27.02355	-50.5656	2.6'x 1.0'	13.1	230.0 Mly	22:20	01:09 	03:59	23	178	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 7137	MCG 4-51-5	Peg	27.05460	22.1596	1.6'x 1.4'	13.1		23:20	01:09 	02:59	9	65	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7125	ESO 145 17	Ind	27.31635	-60.7132	2.6'x 1.7'	12.9	140.0 Mly	22:11	01:10 	04:11	26	193	difficult	Celestron Plössl 15mm
Gal	NGC 7126	ESO 145 18	Ind	27.32550	-60.6091	2.4'x 1.1'	13.0	140.0 Mly	21:56	01:10 	04:26	26	193	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7135	MCG -6-48-1	PsA	27.44160	-34.8771	2.7'x 2.0'	12.8		22:29	01:11 	03:53	23	161	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 7144	ESO 237 11	Gru	28.17840	-48.2544	3.4'x 3.0'	11.7		21:33	01:14 	04:54	23	178	detectable	E-Lux 2" 26mm
Gal	NGC 7145	ESO 237 13	Gru	28.33260	-47.8832	2.6'x 0.8'	12.1		21:10	01:15 	05:19	23	178	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7154	MCG -6-48-5	PsA	28.83795	-34.8142	2.2'x 1.8'	12.8		22:16	01:17 	04:18	23	161	difficult	Celestron Plössl 15mm
Gal	NGC 7155	ESO 237 16	Ind	29.04015	-49.5205	2.1'x 1.7'	13.1		22:20	01:17 	04:13	23	178	difficult	Celestron Plössl 15mm
Gal	NGC 7162	MCG -7-45-3	Gru	29.91360	-43.3050	2.8'x 1.0'	13.3		23:09	01:21 	03:33	23	178	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 7166	MCG -7-45-4	Gru	30.13590	-43.3886	1.1'x 0.6'	13.0		21:15	01:21 	05:28	23	178	detectable	Celestron Plössl 9mm
Gal	NGC 7177	MCG 3-56-3	Peg	30.17190	17.7381	2.9'x 2.0'	11.9		23:02	01:22 	03:41	17	64	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 7171	MCG -2-56-5	Aqr	30.25875	-13.2701	2.3'x 1.2'	13.1		22:57	01:22 	03:47	17	123	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7168	ESO 237 26	Ind	30.53085	-51.7431	2.2'x 1.6'	12.9		22:11	01:23 	04:35	23	193	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7172	MCG -5-52-7	PsA	30.50790	-31.8699	2.5'x 1.6'	12.9		22:39	01:23 	04:07	23	160	difficult	E-Lux 2" 26mm 2.0x
Gal	IC 5152	ESO 237 27	Ind	30.67200	-51.2966	5.1'x 3.6'	10.4		20:57	01:24 	05:45	23	178	detectable	Celestron Plössl 32mm
Gal	NGC 7184	MCG -4-52-9	Aqr	30.66585	-20.8130	6.2'x 1.4'	11.7		22:28	01:24 	04:19	23	142	difficult	E-Lux 2" 26mm 2.0x
Gal	IC 5156	MCG -6-48-19	PsA	30.81060	-33.8374	2.3'x 0.9'	13.0		22:27	01:24 	04:20	23	160	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 7209	Collinder 444	Lac	31.27917	46.4833	14.0'	7.8	3800 ly	00:29	01:26 	02:23	9	31	difficult	Ultima 42mm
Gal	NGC 7196	ESO 237 36	Ind	31.47930	-50.1187	2.5'x 2.0'	12.4		21:54	01:27 	05:00	23	178	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 7217	MCG 5-52-1	Peg	31.96845	31.3593	3.9'x 3.3'	11.1		23:33	01:28 	03:24	9	46	detectable	E-Lux 2" 26mm
Gal	NGC 7192	ESO 108 12	Ind	31.70895	-64.3161	2.2'x 2.0'	12.3		21:20	01:28 	05:35	26	205	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 7205	ESO 146 9	Tuc	32.14260	-57.4428	3.3'x 1.7'	11.6		21:12	01:29 	05:43	26	193	detectable	Celestron Plössl 15mm
Gal	NGC 7205	ESO 146 9	Tuc	32.14260	-57.4428	3.3'x 1.7'	11.6		21:12	01:29 	05:43	26	193	detectable	Celestron Plössl 15mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 7213	ESO 288 43	Gru	32.32005	-47.1659	3.8'x 3.3'	11.0		21:22	01:30 	05:35	23	178	detectable	E-Lux 2" 26mm
Gal	NGC 7218	MCG -3-56-8	Aqr	32.54865	-16.6601	2.6'x 1.1'	12.4		22:23	01:31 	04:40	17	123	detectable	E-Lux 2" 26mm 2.0x
Gal	IC 5181	ESO 289 1	Gru	33.34050	-46.0177	2.6'x 0.8'	12.5		21:58	01:35 	05:09	23	178	detectable	E-Lux 2" 26mm 2.0x
Open	NGC 7243	Collinder 448	Lac	33.78334	49.8983	29.0'	6.7	2600 ly	23:39	01:36 	03:33	9	31	challenging	Plössl 4mm
Open	NGC 7245	Collinder 449	Lac	33.79583	54.3433	5.0'	9.2	6900 ly	00:11	01:36 	03:01	3	19	challenging	E-Lux 2" 40mm
Gal	NGC 7233	ESO 289 8	Gru	33.95370	-45.8463	1.5'x 1.1'	13.2		22:11	01:37 	05:02	23	178	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7232	ESO 289 7	Gru	33.90645	-45.8507	2.6'x 0.9'	12.9		22:32	01:37 	04:41	23	178	difficult	E-Lux 2" 26mm 2.0x
Gal	IC 5186	MCG -6-49-1	Gru	34.69365	-36.8007	1.6'x 1.1'	12.6	220.0 Mly	21:50	01:40 	05:29	23	160	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7252	Arp 226	Aqr	35.18595	-24.6786	1.9'x 1.6'	12.8	210.0 Mly	22:35	01:41 	04:48	23	142	detectable	E-Lux 2" 26mm 2.0x
Gal	IC 5201	ESO 289 18	Gru	35.23935	-46.0343	6.8'x 3.1'	11.4		22:34	01:42 	04:50	23	178	difficult	E-Lux 2" 26mm
PNe	IC 5217	PN G100.6-05.4	Lac	35.98219	50.9668	7.5"	12.6	9400 ly	00:20	01:45 	03:10	9	31	detectable	Plössl 4mm
PNe	NGC 7293	Helix	Aqr	37.41045	-20.8371	16.0'	6.3	530 ly	21:36	01:50 	05:55	23	142	easy	Ultima 42mm
Gal	NGC 7300	MCG -2-57-11	Aqr	37.74870	-14.0006	2.1'x 0.9'	13.6	220.0 Mly	21:40	01:52 	05:56	17	122	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 7302	MCG -2-57-13	Aqr	38.09940	-14.1205	1.8'x 1.1'	13.1		23:05	01:53 	04:41	17	122	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7307	MCG -7-46-3	Gru	38.46930	-40.9328	3.6'x 0.9'	12.9		23:27	01:54 	04:22	23	178	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 7309	MCG -2-57-16	Aqr	38.58525	-10.3564	2.0'x 1.7'	13.1	180.0 Mly	23:32	01:55 	04:19	17	122	difficult	Celestron Plössl 15mm
Gal	NGC 7314	Arp 14	PsA	38.94240	-26.0509	4.4'x 1.9'	11.6		22:39	01:57 	05:14	23	142	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 7331	MCG 6-49-45	Peg	39.26790	34.4163	9.1'x 3.4'	10.2		00:14	01:58 	03:42	9	46	detectable	E-Lux 2" 26mm
Gal	NGC 7329	ESO 109 12	Tuc	40.09785	-66.4787	3.2'x 2.3'	12.4	150.0 Mly	22:36	02:01 	05:27	26	205	difficult	E-Lux 2" 40mm 2.0x
Gal	IC 5240	ESO 290 2	Gru	40.46835	-44.7681	3.1'x 2.0'	12.7		23:19	02:03 	04:47	23	178	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 7361	MCG -5-53-27	PsA	40.57545	-30.0555	3.5'x 0.9'	12.8		23:30	02:03 	04:36	23	160	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 7371	MCG -2-58-1	Aqr	41.51550	-11.0011	2.1'x 2.0'	12.7		23:25	02:07 	04:49	17	122	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 7377	MCG -4-53-38	Aqr	41.94780	-22.3114	4.2'x 3.3'	12.1	150.0 Mly	23:36	02:09 	04:42	23	142	difficult	E-Lux 2" 26mm
Gal	NGC 7392	MCG -4-53-40	Aqr	42.95295	-20.6081	2.2'x 1.3'	12.6	140.0 Mly	23:04	02:13 	05:21	23	142	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7412	MCG -7-47-4	Gru	43.93995	-42.6421	3.8'x 2.8'	11.8		22:53	02:16 	05:38	23	178	detectable	E-Lux 2" 26mm
Gal	NGC 7410	MCG -7-47-2	Gru	43.75260	-39.6614	5.9'x 1.7'	11.3		22:41	02:16 	05:45	23	160	detectable	Celestron Plössl 15mm
Gal	NGC 7418	MCG -6-50-13	Gru	44.15055	-37.0301	3.8'x 2.9'	11.8		23:01	02:17 	05:31	23	160	detectable	E-Lux 2" 26mm
Gal	IC 5267	MCG -7-47-7	Gru	44.30535	-43.3957	5.4'x 3.8'	11.4		23:00	02:18 	05:34	23	178	detectable	Celestron Plössl 32mm
Gal	NGC 7421	MCG -6-50-15	Gru	44.22630	-37.3472	2.2'x 1.9'	12.6		23:02	02:18 	05:32	23	160	detectable	Celestron Plössl 32mm 2.0x
Gal	IC 5269	MCG -6-50-17	PsA	44.43195	-36.0262	1.9'x 0.8'	13.2		23:16	02:18 	05:21	23	160	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7424	MCG -7-47-8	Gru	44.32635	-41.0705	6.2'x 4.1'	11.0		22:49	02:18 	05:43	23	178	detectable	Celestron Plössl 32mm
Gal	IC 1459	MCG -6-50-16	Gru	44.29365	-36.4634	5.1'x 3.5'	11.0		22:40	02:18 	05:49	23	160	detectable	Celestron Plössl 32mm
Gal	IC 5271	MCG -6-50-19	PsA	44.50755	-33.7422	2.6'x 1.0'	12.4		22:52	02:19 	05:42	23	160	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7448	Arp 13	Peg	45.01515	15.9802	2.3'x 1.0'	12.1		23:46	02:21 	04:55	17	82	detectable	E-Lux 2" 26mm 2.0x
Gal	IC 5273	MCG -6-50-20	Gru	44.86125	-37.7029	2.6'x 1.7'	12.6		23:14	02:20 	05:27	23	160	difficult	Celestron Plössl 15mm
Gal	NGC 7454	MCG 3-58-20	Peg	45.27735	16.3883	1.5'x 0.8'	12.8		23:58	02:22 	04:45	17	82	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7457	MCG 5-54-26	Peg	45.24975	30.1448	3.9'x 2.2'	11.9		00:51	02:22 	03:53	9	46	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 7456	MCG -7-47-11	Gru	45.54300	-39.5696	4.8'x 1.7'	12.4		23:50	02:23 	04:55	23	160	challenging	Celestron Plössl 15mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 7462	MCG -7-47-13	Gru	45.69375	-40.8352	4.2'x 0.9'	12.4	220.0 Mly	23:23	02:24 	05:25	23	178	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7469	Arp 298	Peg	45.81435	8.8747	1.4'x 1.1'	12.9		23:46	02:24 	05:03	17	82	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7479	MCG 2-58-60	Peg	46.23615	12.3229	3.7'x 2.8'	11.7		00:06	02:26 	04:45	17	82	detectable	E-Lux 2" 26mm
Gal	NGC 7496	MCG -7-47-20	Gru	47.44545	-43.4285	3.1'x 1.9'	12.1		23:01	02:30 	05:50	23	178	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 7507	MCG -5-54-22	Scl	48.03135	-28.5402	3.2'x 3.0'	11.4	160.0 Mly	22:56	02:33 	05:54	23	142	detectable	E-Lux 2" 26mm
Gal	NGC 7531	MCG -7-47-25	Gru	48.70260	-43.5989	4.1'x 1.9'	12.0		23:17	02:35 	05:46	23	177	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 7541	MCG 1-59-17	Psc	48.68265	4.5339	3.2'x 1.0'	12.5		00:14	02:36 	04:57	17	102	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7552	MCG -7-47-28	Gru	49.04505	-42.5836	3.9'x 3.1'	11.2		22:45	02:37 	05:57	23	177	detectable	E-Lux 2" 26mm
Gal	NGC 7585	Arp 223	Aqr	49.50495	-4.6504	2.6'x 2.0'	12.4		00:00	02:38 	05:19	17	102	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 7582	MCG -7-47-29	Gru	49.59660	-42.3697	6.2'x 2.5'	11.4	160.0 Mly	23:17	02:39 	05:49	23	177	detectable	Ultima 42mm 2.0x
Gal	NGC 7590	MCG -7-47-30	Gru	49.72890	-42.2379	3.0'x 1.2'	12.1		22:55	02:39 	05:57	23	177	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7606	MCG -2-59-12	Aqr	49.77000	-8.4851	3.8'x 2.3'	11.7		23:42	02:39 	05:35	17	122	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 7600	MCG -1-59-19	Aqr	49.72470	-7.5797	2.3'x 1.2'	12.9		00:05	02:39 	05:14	17	122	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7619	MCG 1-59-52	Peg	50.06055	8.2062	2.5'x 2.0'	12.1		00:06	02:41 	05:17	17	82	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 7625	Arp 212	Peg	50.12565	17.2263	1.5'x 1.5'	12.9	200.0 Mly	00:29	02:41 	04:53	17	82	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7599	MCG -7-47-33	Gru	49.83690	-42.2562	4.6'x 1.5'	12.1		23:34	02:41 	05:41	23	177	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7626	MCG 1-59-57	Peg	50.17725	8.2169	2.5'x 2.1'	12.2		00:08	02:41 	05:14	17	82	detectable	E-Lux 2" 40mm 2.0x
Gal	IC 5315	MCG 4-55-6	Peg	50.32605	25.3854	55"x 46"	14.6		01:09	02:42 	04:15	9	63	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 7640	MCG 7-48-2	And	50.52735	40.8455	8.7'x 1.7'	11.6		00:28	02:42 	04:57	9	30	very challenging	Celestron Plössl 15mm
PNe	NGC 7662	Blue Snowball	And	51.47487	42.5347	17"	8.6	4600 ly	23:58	02:46 	05:34	9	30	obvious	Plössl 6mm
Gal	NGC 7678	Arp 28	Peg	52.11600	22.4205	2.1'x 1.5'	12.5	160.0 Mly	00:50	02:49 	04:48	9	63	difficult	E-Lux 2" 26mm 2.0x
Gal	IC 5325	MCG -7-48-4	Phe	52.17960	-41.3326	2.8'x 2.1'	11.9	230.0 Mly	23:05	02:49 	05:58	23	177	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 7679	Arp 216	Psc	52.19445	3.5114	1.3'x 0.8'	13.4		00:20	02:49 	05:19	17	101	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 7686	Collinder 456	And	52.52918	49.1333	14.0'	5.6		01:01	02:50 	04:40	9	30	easy	Ultima 42mm
Gal	NGC 7689	ESO 192 7	Phe	53.31960	-54.0946	3.1'x 2.0'	12.2	140.0 Mly	23:21	02:54 	05:55	26	192	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 7690	ESO 240 6	Phe	53.25930	-51.6970	2.0'x 0.9'	13.0		23:31	02:54 	05:53	23	192	difficult	E-Lux 2" 26mm 2.0x
Gal	IC 5328	ESO 291 29	Phe	53.31780	-45.0145	3.0'x 1.8'	12.3		23:31	02:54 	05:53	23	177	detectable	Celestron Plössl 15mm
Gal	IC 5332	MCG -6-51-12	Scl	53.61450	-36.1017	7.4'x 6.9'	11.3		00:22	02:55 	05:28	23	159	difficult	Ultima 42mm
Gal	NGC 7702	ESO 192 9	Phe	53.87040	-56.0124	2.3'x 1.1'	13.1		23:50	02:56 	05:48	26	192	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7713	MCG -6-51-13	Scl	54.06255	-37.9396	4.6'x 2.0'	11.5	140.0 Mly	23:24	02:57 	05:56	23	159	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 7716	MCG 0-60-19	Psc	54.13110	0.2974	2.0'x 1.5'	13.0		00:36	02:57 	05:19	17	101	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7721	MCG -1-60-17	Aqr	54.70305	-6.5179	3.3'x 1.0'	12.2		00:08	02:59 	05:47	17	121	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7723	MCG -2-60-5	Aqr	54.73725	-12.9617	3.3'x 2.3'	11.9		23:59	03:00 	05:51	17	121	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 7727	Arp 222	Aqr	54.97410	-12.2915	3.7'x 2.9'	11.6		00:00	03:01 	05:50	17	121	detectable	E-Lux 2" 26mm
Gal	NGC 7743	MCG 2-60-11	Peg	56.08815	9.9340	2.8'x 0.7'	12.4	140.0 Mly	00:37	03:04 	05:32	17	81	difficult	Celestron Plössl 9mm
Gal	NGC 7741	MCG 4-55-50	Peg	55.97730	26.0762	3.8'x 2.5'	11.8		01:39	03:05 	04:30	9	63	difficult	Ultima 42mm 2.0x
Gal	NGC 7742	MCG 2-60-10	Peg	56.06565	10.7670	1.7'x 1.6'	12.3		00:21	03:05 	05:46	17	81	detectable	Celestron Plössl 15mm
Gal	NGC 7744	MCG -7-48-17	Phe	56.24685	-42.9109	2.3'x 2.0'	12.8		00:07	03:06 	05:50	23	177	difficult	Celestron Plössl 32mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 7755	MCG -5-56-14	ScI	56.96550	-30.5222	3.5'x 2.5'	12.5		00:35	03:08 	05:39	23	159	difficult	Ultima 42mm 2.0x
Gal	NGC 7764	MCG -7-48-27	Phe	57.72450	-40.7319	1.9'x 1.4'	12.7		23:39	03:11 	05:59	23	177	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7769	MCG 3-60-30	Peg	57.76785	20.1508	1.7'x 0.8'	12.5	190.0 Mly	00:56	03:12 	05:26	9	63	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 7782	MCG 1-60-48	Psc	58.47510	7.9705	2.2'x 1.3'	13.1	240.0 Mly	01:16	03:15 	05:12	17	81	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 7785	MCG 1-60-49	Psc	58.82925	5.9159	2.3'x 1.3'	12.6	170.0 Mly	00:45	03:16 	05:43	17	81	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 7793	MCG -6-1-9	ScI	59.45715	-32.5910	10.0'x 5.9'	9.7	12.0 Mly	23:29	03:18 	06:01	23	159	detectable	Ultima 42mm
Gal	NGC 7796	ESO 149 7	Phe	59.74905	-55.4584	2.6'x 2.3'	12.5	150.0 Mly	23:56	03:19 	05:56	26	192	difficult	E-Lux 2" 40mm 2.0x
Open	NGC 7023	Collinder 429	Psc	0.00000	0.0000	5.0'	7.1		23:44	03:20 	06:06	17	101	obvious	E-Lux 2" 40mm
Gal	NGC 7814	MCG 3-1-20	Peg	0.81255	16.1451	4.9'x 2.1'	11.6		01:14	03:24 	05:32	17	81	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 16	MCG 4-1-32	Peg	2.26800	27.7294	1.9'x 1.0'	13.0	140.0 Mly	02:26	03:29 	04:34	4	63	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 23	Markarian 545	Peg	2.47260	25.9237	1.7'x 1.3'	12.8	210.0 Mly	02:03	03:30 	04:57	4	63	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 24	MCG -4-1-18	ScI	2.48565	-24.9631	5.5'x 1.5'	12.1		00:56	03:30 	05:50	18	141	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 45	MCG -4-1-21	Cet	3.51630	-23.1821	7.1'x 4.6'	11.4	14.0 Mly	00:58	03:34 	05:52	18	141	difficult	E-Lux 2" 40mm
Gal	NGC 55	MCG -7-1-13	ScI	3.78510	-39.2203	30.2'x 3.4'	8.5	4.9 Mly	23:29	03:35 	06:03	18	159	detectable	Celestron Plössl 9mm
Gal	NGC 95	MCG 2-2-3	Psc	5.55660	10.4915	1.8'x 1.3'	13.2	240.0 Mly	01:40	03:42 	05:42	17	81	difficult	E-Lux 2" 26mm 2.0x
Glob	NGC 104	47 Tucanae	Tuc	6.02083	-72.0817	50.0'	4.0	20000 ly	22:04	03:44 	06:06	24	204	easy	Celestron Plössl 15mm
Gal	NGC 128	MCG 0-2-51	Psc	7.31280	2.8639	3.0'x 0.8'	12.7	190.0 Mly	01:33	03:49 	05:52	17	101	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 134	MCG -6-2-12	ScI	7.59090	-33.2441	8.3'x 1.9'	11.2		00:42	03:51 	05:59	18	159	detectable	Celestron Plössl 15mm 2.0x
Gal	NGC 148	MCG -5-2-17	ScI	8.56560	-31.7861	2.1'x 0.8'	13.1		00:57	03:54 	05:59	18	159	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 150	MCG -5-2-18	ScI	8.56455	-27.8038	3.7'x 1.8'	12.0		00:44	03:55 	05:59	18	141	detectable	Celestron Plössl 15mm
Gal	NGC 151	MCG -2-2-54	Cet	8.51160	-9.7053	3.2'x 1.8'	12.3	170.0 Mly	01:14	03:54 	05:57	10	121	difficult	Celestron Plössl 15mm
Gal	NGC 157	MCG -2-2-56	Cet	8.69415	-8.3963	4.1'x 2.3'	11.0		00:32	03:55 	06:03	10	121	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 171	MCG -3-2-24	Cet	9.34155	-19.9350	1.7'x 1.3'	13.0	180.0 Mly	00:59	03:58 	05:59	18	141	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 178	MCG -2-2-78	Cet	9.78525	-14.1715	2.1'x 0.6'	13.1		01:12	03:59 	05:58	10	140	difficult	Celestron Plössl 9mm
Gal	NGC 185	MCG 8-2-10	Cas	9.74145	48.3374	10.7'x 8.9'	10.2		02:00	03:59 	05:55	4	30	very challenging	Ultima 42mm
Gal	NGC 210	MCG -2-2-81	Cet	10.14630	-13.8739	5.0'x 3.1'	11.7		01:22	04:01 	05:58	10	140	difficult	E-Lux 2" 26mm
Gal	NGC 205	M 110	And	10.09290	41.6858	17.8'x 9.8'	8.9	2.6 Mly	02:43	04:01 	05:19	4	30	difficult	Ultima 42mm
Gal	NGC 214	MCG 4-2-44	And	10.36680	25.4993	1.9'x 1.3'	12.9	200.0 Mly	02:31	04:01 	05:34	4	80	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 227	MCG 0-2-135	Cet	10.65360	-1.5288	1.9'x 1.4'	13.1	240.0 Mly	01:39	04:02 	05:56	10	120	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 221	M 32	And	10.67430	40.8660	8.5'x 5.9'	8.9	2.6 Mly	02:10	04:03 	05:51	4	30	detectable	Ultima 42mm
Gal	NGC 224	M 31	And	10.68465	41.2687	2.6"x 1.1°	4.3	2.6 Mly	02:17	04:03 	05:47	4	30	detectable	Ultima 42mm
Gal	NGC 237	MCG 0-2-136	Cet	10.86615	-0.1254	1.4'x 0.9'	13.7	190.0 Mly	01:57	04:04 	05:52	10	120	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 245	Markarian 555	Cet	11.52240	-1.7234	1.2'x 1.1'	12.7	180.0 Mly	00:56	04:06 	06:02	10	120	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 254	MCG -5-3-5	ScI	11.86500	-31.4217	2.8'x 1.8'	12.6		01:14	04:08 	05:59	18	176	difficult	Celestron Plössl 15mm
Gal	NGC 247	MCG -4-3-5	Cet	11.78595	-20.7604	20.0'x 5.0'	9.7	8.1 Mly	01:03	04:08 	06:01	18	158	detectable	Ultima 42mm
PNe	NGC 246	PN G118.8-74.7	Cet	11.76395	-11.8720	4.0'	10.4	1600 ly	01:05	04:08 	06:01	10	140	detectable	Ultima 42mm
Gal	NGC 253	Sculptor Galaxy	ScI	11.88810	-25.2888	28.2'x 5.5'	7.9	13.0 Mly	00:02	04:08 	06:05	18	158	easy	Ultima 42mm
Gal	NGC 255	MCG -2-3-17	Cet	11.94615	-11.4688	2.3'x 2.1'	12.4		01:13	04:08 	06:00	10	140	detectable	E-Lux 2" 40mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 268	MCG -1-3-17	Cet	12.53985	-5.1938	1.5'x 1.0'	13.5	240.0 Mly	01:45	04:10 	05:56	10	120	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 275	Arp 140	Cet	12.76995	-7.0663	1.6'x 1.3'	12.9		01:18	04:11 	06:01	10	140	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 274	Arp 140	Cet	12.75675	-7.0562	1.5'x 1.1'	13.3		01:33	04:11 	05:59	10	140	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 278	MCG 8-2-16	Cas	13.01805	47.5505	2.3'x 2.3'	11.5		03:17	04:12 	05:09	4	44	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 289	MCG -5-3-10	Scl	13.17645	-31.2058	3.5'x 2.6'	11.7		00:48	04:13 	06:03	18	176	detectable	Ultima 42mm 2.0x
Glob	NGC 288		Scl	13.18750	-26.5833	13.0'	8.1	39000 ly	00:40	04:13 	06:02	18	158	detectable	Ultima 42mm
Open	NGC 281	IC 1590	Cas	13.20417	56.6283	4.0'	7.4	9600 ly	03:23	04:13 	05:03	1	18	detectable	Celestron Plössl 32mm
Gal	NGC 292	Small Magellanic Cl	Tuc	13.15830	-72.8002	5.3'x 3.4°	2.8	200000 ly	22:31	04:13 	06:05	24	204	easy	Ultima 42mm
Gal	NGC 300	MCG -6-3-5	Scl	13.72305	-37.6849	20.0'x 12.3'	8.8	7.1 Mly	00:34	04:15 	06:03	18	176	detectable	Ultima 42mm
Gal	NGC 309	MCG -2-3-50	Cet	14.17770	-9.9139	2.2'x 2.0'	12.7	250.0 Mly	01:40	04:17 	05:59	10	140	difficult	Celestron Plössl 32mm 2.0x
Gal	MCG -6-3-15	ESO 351 30	Scl	15.03885	-33.7090	1.3'x 1.0'	10.4		23:32	04:20 	06:10	18	176	obvious	E-Lux 2" 26mm 2.0x
Gal	NGC 337	MCG -1-3-53	Cet	14.95875	-7.5779	3.0'x 1.8'	12.0		01:23	04:20 	06:00	10	140	detectable	Celestron Plössl 15mm
Glob	NGC 362		Tuc	15.80833	-70.8483	14.0'	6.8	39000 ly	22:43	04:23 	06:06	24	204	easy	Ultima 42mm
Gal	NGC 357	MCG -1-3-81	Cet	15.84120	-6.3393	2.1'x 1.7'	13.2		02:16	04:24 	05:55	10	140	challenging	Celestron Plössl 15mm
Gal	IC 1613	MCG 0-3-70	Cet	16.22565	2.1333	15.5'x 13.8'	10.1		02:30	04:25 	05:53	10	120	difficult	Ultima 42mm
Gal	NGC 406	ESO 51 18	Tuc	16.85040	-69.8755	2.7'x 1.2'	13.1		01:30	04:28 	05:55	24	204	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 404	Mirach's Ghost	And	17.36235	35.7182	4.7'	11.2	11.0 Mly	03:04	04:30 	05:47	4	62	difficult	E-Lux 2" 40mm
Gal	NGC 434	ESO 113 23	Tuc	18.05880	-58.2479	2.3'x 1.3'	12.8	220.0 Mly	00:58	04:32 	06:01	24	203	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 428	MCG 0-4-36	Cet	18.23205	0.9816	3.2'x 2.3'	11.9		01:51	04:33 	06:00	10	120	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 439	MCG -5-4-15	Scl	18.44685	-31.7472	3.0'x 1.9'	12.9	260.0 Mly	02:09	04:34 	05:57	18	176	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 450	MCG 0-4-62	Cet	18.87840	-0.8606	3.0'x 2.0'	12.7		02:31	04:36 	05:55	10	120	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 470	MCG 0-4-84	Psc	19.93695	3.4099	2.7'x 1.5'	12.6		02:20	04:40 	05:58	10	120	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 474	Arp 227	Psc	20.02800	3.4152	3.0'x 2.4'	12.4		02:24	04:40 	05:58	10	120	difficult	E-Lux 2" 40mm 2.0x
Open	NGC 457	ET Cluster	Cas	19.89583	58.2867	20.0'	5.1	7900 ly	04:18	04:40 	05:02	1	29	challenging	Ultima 42mm
Gal	NGC 491	MCG -6-4-11	Scl	20.33415	-34.0634	1.4'x 1.0'	13.2	180.0 Mly	01:20	04:42 	06:03	18	176	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 488	MCG 1-4-33	Psc	20.44515	5.2567	5.0'x 3.6'	11.1		02:02	04:42 	06:00	10	120	detectable	Celestron Plössl 32mm
Gal	NGC 520	Arp 157	Psc	21.13830	3.8005	4.0'x 1.6'	12.2		02:29	04:45 	05:59	10	120	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 514	MCG 2-4-35	Psc	21.01635	12.9173	3.5'x 2.7'	12.3		02:53	04:44 	05:55	10	100	difficult	Ultima 42mm 2.0x
Gal	NGC 521	MCG 0-4-118	Cet	21.14085	1.7313	2.5'x 2.3'	12.7	230.0 Mly	02:31	04:45 	05:57	10	120	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 524	MCG 1-4-53	Psc	21.19890	9.5388	3.3'	11.4		02:05	04:45 	06:01	10	100	detectable	E-Lux 2" 26mm
Gal	NGC 533	MCG 0-4-131	Cet	21.38115	1.7592	3.6'x 2.5'	12.5	250.0 Mly	02:49	04:46 	05:55	10	120	challenging	Ultima 42mm 2.0x
Gal	NGC 578	MCG -4-4-20	Cet	22.61895	-22.6672	4.1'x 2.7'	11.6		01:39	04:51 	06:03	18	158	detectable	Ultima 42mm 2.0x
Gal	NGC 584	MCG -1-4-60	Cet	22.83660	-6.8682	3.7'x 2.4'	11.3		01:38	04:52 	06:04	10	140	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 596	MCG -1-5-5	Cet	23.21625	-7.0315	2.5'x 1.8'	11.8		01:39	04:53 	06:03	10	140	detectable	Celestron Plössl 15mm
Gal	NGC 598	M 33	Tri	23.46210	30.6599	61.7'x 36.3'	6.4	2.9 Mly	02:48	04:54 	06:01	4	62	detectable	Celestron Plössl 15mm
Gal	NGC 613	MCG -5-4-44	Scl	23.57745	-29.4176	5.5'x 4.4'	10.7		01:16	04:55 	06:03	18	158	detectable	E-Lux 2" 40mm
Gal	NGC 625	MCG -7-4-17	Phe	23.76975	-41.4372	6.5'x 2.0'	11.7	13.0 Mly	01:57	04:56 	06:00	18	191	difficult	Celestron Plössl 15mm 2.0x
Gal	NGC 615	MCG -1-5-8	Cet	23.77365	-7.3403	3.0'x 1.1'	12.4		02:09	04:55 	06:02	10	140	difficult	E-Lux 2" 26mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 628	M 74	Psc	24.17415	15.7834	9.5'x 8.9'	9.7	2400 ly	02:26	04:57 	06:00	10	100	detectable	Ultima 42mm
Gal	NGC 636	MCG -1-5-13	Cet	24.77715	-7.5127	2.7'x 2.2'	12.4		02:19	04:59 	06:00	10	140	difficult	E-Lux 2" 40mm 2.0x
PNe	NGC 650	M 76	Per	25.58312	51.5753	2.7'	10.1		04:13	05:03 	05:47	4	29	very challenging	E-Lux 2" 26mm
Gal	NGC 685	ESO 152 24	Eri	26.92845	-52.7621	3.4'x 2.7'	11.8		01:21	05:07 	06:03	24	203	detectable	Ultima 42mm 2.0x
Gal	NGC 670	MCG 5-5-12	Tri	26.85375	27.8857	2.2'x 0.8'	13.5	170.0 Mly	04:07	05:08 	06:07	4	80	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 672	MCG 4-5-11	Tri	26.97660	27.4331	6.2'x 2.3'	11.4		04:00	05:08 	05:56	4	80	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 681	MCG -2-5-52	Cet	27.29520	-10.4266	2.7'x 1.9'	12.8		02:50	05:09 	05:59	10	139	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 701	MCG -2-5-60	Cet	27.76605	-9.7026	2.5'x 1.2'	12.8		02:33	05:11 	06:01	10	139	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 720	MCG -2-5-68	Cet	28.25220	-13.7387	4.7'x 2.5'	11.1		01:53	05:13 	06:03	10	139	detectable	Ultima 42mm 2.0x
Gal	NGC 718	MCG 1-5-41	Psc	28.30545	4.1959	2.2'x 2.0'	12.6	250.0 Mly	02:49	05:13 	06:01	10	119	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 741	MCG 1-6-3	Psc	29.08725	5.6288	2.8'x 2.4'	12.3		02:54	05:16 	06:00	10	99	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 782	ESO 114 15	Eri	29.40735	-57.7902	2.5'x 2.0'	12.6		01:53	05:17 	06:01	24	203	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 750	Arp 166	Tri	29.38650	33.2093	1.5'x 1.4'	13.1		03:55	05:17 	05:55	4	62	challenging	E-Lux 2" 26mm 2.0x
Open	NGC 752	Collinder 23	And	29.42083	37.7850	75.0'	6.6		02:59	05:17 	06:05	4	62	very challenging	Celestron Plössl 15mm
Gal	NGC 753	MCG 6-5-66	And	29.42580	35.9161	1.9'x 1.3'	13.0	220.0 Mly	02:45	05:18 	06:08	4	62	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 779	MCG -1-6-16	Cet	29.92710	-5.9644	1.5'x 0.6'	11.9		01:37	05:19 	06:07	10	139	detectable	Celestron Plössl 9mm
Gal	NGC 788	MCG -1-6-25	Cet	30.27690	-6.8158	1.9'x 1.5'	13.0	180.0 Mly	02:50	05:20 	06:01	10	139	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 777	MCG 5-5-38	Tri	30.06225	31.4295	2.8'x 2.0'	12.5		04:04	05:20 	05:55	4	61	challenging	Celestron Plössl 32mm 2.0x
Gal	NGC 864	MCG 1-6-61	Cet	33.86460	6.0017	4.0'x 2.8'	11.6		03:02	05:29 	06:00	10	99	detectable	E-Lux 2" 26mm
Gal	NGC 1515	ESO 156 36	Dor	61.01130	-54.1000	5.5'x 1.4'	11.9		03:40	05:31 	06:00	24	202	difficult	E-Lux 2" 26mm 2.0x
Gal	IC 1933	ESO 155 25	Hor	51.41610	-52.7855	2.2'x 1.1'	12.9		03:13	05:31 	06:00	24	202	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1433	ESO 249 14	Hor	55.50645	-47.2221	6.2'x 3.6'	10.8		03:00	05:31 	06:02	18	190	detectable	Celestron Plössl 32mm
Gal	NGC 1317	MCG -6-8-6	For	50.68620	-37.1029	3.1'x 2.6'	11.9		03:06	05:31 	06:02	18	174	detectable	Ultima 42mm 2.0x
Gal	NGC 1097	Arp 77	For	41.57955	-30.2749	9.3'x 5.6'	10.2		02:36	05:31 	06:04	18	175	detectable	Ultima 42mm
Gal	NGC 922	MCG -4-6-37	For	36.26805	-24.7881	2.0'x 1.6'	12.4	140.0 Mly	02:21	05:31 	06:04	18	157	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1332	MCG -4-9-11	Eri	51.57165	-21.3352	4.5'x 3.4'	11.2		03:19	05:31 	06:02	18	156	detectable	E-Lux 2" 26mm
Gal	NGC 1300	MCG -3-9-18	Eri	49.92015	-19.4111	5.9'x 3.3'	11.2		03:30	05:31 	06:02	18	157	detectable	E-Lux 2" 26mm
Gal	NGC 1179	MCG -3-8-60	Eri	45.66120	-18.8976	4.1'x 3.0'	12.7		02:10	05:31 	06:08	18	157	challenging	E-Lux 2" 26mm
Gal	NGC 1052	MCG -1-7-34	Cet	40.26975	-8.2550	2.9'x 2.0'	11.4		02:38	05:31 	06:04	10	139	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 1084	MCG -1-8-7	Eri	41.49960	-7.5786	3.1'x 2.0'	11.2	70.0 Mly	02:38	05:31 	06:04	10	139	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 936	MCG 0-7-17	Cet	36.90630	-1.1555	4.5'x 3.4'	11.2		02:57	05:31 	06:02	10	119	detectable	E-Lux 2" 26mm
Gal	NGC 1090	MCG 0-8-11	Cet	41.64150	-0.2471	3.4'x 1.5'	12.6		03:53	05:31 	05:58	10	119	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1068	M 77	Cet	40.66995	-0.0133	6.6'x 5.8'	9.7		02:40	05:31 	06:04	10	119	easy	Ultima 42mm
Gal	NGC 1379	MCG -6-9-1	For	54.01635	-35.4415	3.0'x 2.9'	11.8		03:15	05:31 	06:02	18	174	detectable	E-Lux 2" 26mm
Gal	NGC 1381	MCG -6-9-3	For	54.13095	-35.2941	2.9'x 0.9'	12.4		03:23	05:31 	06:02	18	174	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1374	MCG -6-8-29	For	53.81925	-35.2263	2.8'x 2.6'	12.0		03:17	05:32 	06:02	18	174	detectable	Ultima 42mm 2.0x
Gal	NGC 1351	MCG -6-8-22	For	52.64460	-34.8533	3.5'x 2.2'	12.4		03:46	05:32 	06:01	18	174	difficult	E-Lux 2" 40mm 2.0x
PNe	NGC 1360	M 1-3	For	53.31102	-25.8716	6.0'	9.4		03:10	05:31 	06:04	18	156	detectable	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 1232	Arp 41	Eri	47.43855	-20.5809	6.3'x 5.5'	10.6	95000 ly	03:06	05:31 	06:02	18	157	detectable	Ultima 42mm
Gal	NGC 925	MCG 5-6-45	Tri	36.82050	33.5788	10.5'x 5.8'	10.6		04:34	05:31 	05:57	4	61	challenging	Ultima 42mm
Gal	NGC 1297	MCG -3-9-17	Eri	49.80960	-19.1005	2.1'x 1.8'	13.2		04:08	05:32 	05:59	18	157	challenging	Celestron Plössl 15mm
Gal	NGC 1055	MCG 0-7-81	Cet	40.43835	0.4421	6.2'x 2.9'	11.4		03:32	05:31 	06:00	10	119	difficult	E-Lux 2" 26mm
Glob	NGC 1261	ESO 200 36	Hor	48.06667	-55.2167	6.8'	8.3	95000 ly	01:31	05:32 	06:05	24	202	easy	Ultima 42mm
Gal	IC 1954		Hor	52.88085	-51.9049	3.2'x 1.7'	12.1		03:01	05:32 	06:01	18	202	detectable	Celestron Plössl 15mm
Gal	NGC 1411		Hor	54.68700	-44.0998	2.6'x 1.9'	12.2		03:12	05:32 	06:03	18	190	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 1291		Eri	49.32750	-41.1080	9.1'x 6.6'	9.5		02:22	05:32 	06:05	18	190	detectable	Ultima 42mm
Gal	NGC 986		For	38.39220	-39.0451	4.1'x 2.9'	11.7		02:33	05:32 	06:03	18	175	detectable	E-Lux 2" 26mm
Gal	NGC 1316	Fornax A radio sour	For	50.67285	-37.2076	12.6'x 7.9'	9.4		02:46	05:32 	06:05	18	174	detectable	Ultima 42mm
Gal	NGC 1326	MCG -6-8-11	For	50.98635	-36.4640	4.5'x 3.2'	11.4		03:10	05:32 	06:03	18	174	detectable	E-Lux 2" 26mm
Gal	NGC 1387	MCG -6-9-7	For	54.23775	-35.5067	3.5'x 3.4'	11.7		03:25	05:32 	06:03	18	174	detectable	E-Lux 2" 26mm
Gal	NGC 1079	MCG -5-7-17	For	40.93485	-29.0033	3.5'x 2.2'	12.3		03:10	05:32 	06:01	18	157	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 1292	MCG -5-8-26	For	49.56315	-27.6111	3.0'x 1.3'	12.8		03:46	05:32 	06:01	18	157	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1302	MCG -4-8-58	For	49.96290	-26.0605	4.2'x 3.5'	11.6		03:25	05:32 	06:03	18	157	detectable	Celestron Plössl 32mm
Gal	NGC 1199	MCG -3-8-67	Eri	45.91005	-15.6136	2.7'x 2.2'	12.4		03:27	05:32 	06:01	10	138	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 1309	MCG -3-9-28	Eri	50.52735	-15.4001	2.3'x 2.2'	12.0		03:16	05:32 	06:03	10	138	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 1172	MCG -3-8-59	Eri	45.40005	-14.8366	2.3'x 1.7'	12.8		03:35	05:32 	06:01	10	138	difficult	Celestron Plössl 15mm
Gal	NGC 1042	MCG -2-7-54	Cet	40.09965	-8.4327	3.8'x 2.6'	11.6		02:59	05:32 	06:03	10	139	detectable	Ultima 42mm 2.0x
Gal	NGC 991	MCG -1-7-23	Cet	38.88615	-7.1544	1.6'x 1.5'	12.9		03:05	05:32 	06:03	10	139	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1022	MCG -1-7-25	Cet	39.63630	-6.6774	2.6'x 1.9'	12.1		03:00	05:31 	06:02	10	139	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 895	MCG -1-7-2	Cet	35.40090	-5.5201	3.2'x 2.1'	12.3		03:06	05:32 	06:01	10	139	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 1087	MCG 0-8-9	Cet	41.60490	-0.4987	3.6'x 2.3'	11.5		03:06	05:32 	06:03	10	119	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 891	MCG 7-5-46	And	35.64000	42.3461	11.7'x 2.3'	10.9		03:34	05:32 	06:08	4	44	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 1511	ESO 55 4	Hyi	59.90385	-67.6342	3.7'x 1.3'	11.9	200.0 Mly	02:42	05:32 	06:01	24	212	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1249	ESO 155 6	Hor	47.50455	-53.3360	4.3'x 1.8'	12.2		03:16	05:32 	05:59	24	202	difficult	Celestron Plössl 15mm
Glob	NGC 1049	Fornax-3	For	39.95000	-34.2583		12.6		01:11	05:32 	06:18	18	175	unknown	Plössl 4mm
Gal	NGC 1350	MCG -6-8-23	For	52.78470	-33.6289	5.9'x 3.0'	11.2		03:22	05:32 	06:03	18	174	detectable	E-Lux 2" 26mm
Gal	NGC 1288	MCG -5-8-25	For	49.30515	-32.5758	2.2'x 1.7'	12.9		03:35	05:32 	06:01	18	175	difficult	Celestron Plössl 15mm
Gal	NGC 1366	MCG -5-9-13	For	53.47350	-31.1941	2.0'x 0.9'	12.8		03:26	05:32 	06:03	18	174	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1340	MCG -5-9-5	For	52.08180	-31.0682	5.2'x 3.2'	11.2		03:18	05:32 	06:03	18	174	detectable	E-Lux 2" 26mm
Gal	NGC 1255	MCG -4-8-50	For	48.38205	-25.7252	4.2'x 2.5'	11.6		03:11	05:32 	06:03	18	157	detectable	Ultima 42mm 2.0x
Gal	NGC 1187	MCG -4-8-16	Eri	45.65730	-22.8676	4.8'x 3.5'	11.3		03:09	05:32 	06:03	18	157	detectable	E-Lux 2" 26mm
Gal	NGC 908	MCG -4-6-35	Cet	35.76900	-21.2338	6.2'x 2.8'	10.8		02:18	05:32 	06:03	18	157	detectable	E-Lux 2" 26mm
Gal	NGC 1209	MCG -3-8-73	Eri	46.51260	-15.6113	2.6'x 1.1'	12.3	180.0 Mly	03:11	05:32 	06:03	10	138	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1140	Markarian 1063	Eri	43.63995	-10.0285	1.9'x 1.0'	12.8		03:14	05:32 	06:03	10	139	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1241	Arp 304	Eri	47.81115	-8.9222	2.8'x 1.6'	13.0		04:16	05:32 	05:57	10	138	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 1035	MCG -1-7-27	Cet	39.87195	-8.1345	1.9'x 0.5'	12.9		02:59	05:32 	06:03	10	139	difficult	Celestron Plössl 9mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 958	MCG -1-7-19	Cet	37.67790	-2.9396	2.7"x 0.8'	12.9	260.0 Mly	03:29	05:32 	05:59	10	119	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 941	MCG 0-7-22	Cet	37.11615	-1.1515	2.2"x 1.6'	13.0		03:35	05:32 	05:59	10	119	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 955	MCG 0-7-27A	Cet	37.63830	-1.1084	2.4"x 0.7'	12.9		03:24	05:32 	06:01	10	119	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1073	MCG 0-8-1	Cet	40.91775	1.3758	4.1"x 3.1'	11.6		03:25	05:32 	06:01	10	119	detectable	E-Lux 2" 26mm
Gal	NGC 890	MCG 5-6-30	Tri	35.50425	33.2660	1.4"x 0.9'	12.8	180.0 Mly	03:55	05:32 	06:01	4	61	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 949	MCG 6-6-48	Tri	37.70370	37.1367	3.0"x 1.6'	12.5		03:22	05:32 	06:07	4	61	challenging	E-Lux 2" 26mm 2.0x
Open	NGC 869	h Persei	Per	34.75000	57.1283	18.0'	4.3	6800 ly	04:48	05:32 	06:03	1	29	detectable	Ultima 42mm
Gal	NGC 1341	MCG -6-8-20	For	51.99240	-37.1490	1.6"x 1.3'	12.9		03:09	05:39 	06:03	18	174	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1399	MCG -6-9-12	For	54.62070	-35.4494	7.2"x 6.6'	10.4		03:14	05:40 	06:03	18	174	detectable	Ultima 42mm
Gal	NGC 1380	MCG -6-9-2	For	54.11460	-34.9752	5.1"x 2.8'	10.9		03:01	05:40 	06:03	18	174	detectable	E-Lux 2" 26mm
Gal	NGC 1533	ESO 157 3	Dor	62.46465	-56.1194	3.2"x 2.3'	11.8		03:09	05:40 	06:02	24	202	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 1448	MCG -7-8-5	Hor	56.13300	-44.6439	7.6"x 1.7'	11.4		03:32	05:40 	06:02	18	190	difficult	Celestron Plössl 15mm
Gal	NGC 1365	MCG -6-8-26	For	53.40180	-36.1406	10.5"x 6.2'	10.4		03:28	05:40 	06:02	18	174	detectable	Ultima 42mm
Gal	NGC 1339	MCG -5-9-4	For	52.02660	-32.2849	2.0"x 1.5'	12.6		03:15	05:40 	06:04	18	174	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1325	Holmberg VI	Eri	51.10665	-21.5439	4.4"x 1.6'	12.3		03:58	05:40 	06:00	18	156	difficult	Celestron Plössl 15mm
Open	NGC 884	Chi Persei	Per	35.57500	57.1367	18.0'	4.4	7600 ly	04:52	05:40 	06:03	1	29	detectable	Ultima 42mm
Gal	NGC 1574	ESO 157 22	Ret	65.49510	-56.9748	4.2"x 3.0'	11.3		03:13	05:41 	06:02	24	202	detectable	E-Lux 2" 26mm
Gal	NGC 1553	ESO 157 17	Dor	64.04295	-55.7808	6.2"x 4.1'	10.3		02:51	05:41 	06:04	24	202	detectable	Celestron Plössl 32mm
Gal	NGC 1494	ESO 201 12	Hor	59.42805	-48.9075	3.5"x 1.9'	12.3		03:43	05:41 	06:00	18	190	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 1493	ESO 249 33	Hor	59.36610	-46.2098	3.6"x 3.3'	11.8		03:34	05:40 	06:02	18	190	detectable	E-Lux 2" 26mm
Gal	NGC 1386	MCG -6-9-5	Eri	54.19260	-35.9993	3.7"x 1.3'	12.1		03:23	05:40 	06:02	18	174	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1389	MCG -6-9-10	Eri	54.29865	-35.7448	2.9"x 1.7'	12.4		03:34	05:40 	06:02	18	174	difficult	Celestron Plössl 15mm
Gal	NGC 1436	MCG -6-9-25	Eri	55.90455	-35.8539	3.0"x 1.9'	12.5		03:47	05:41 	06:00	18	174	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 1404	MCG -6-9-13	For	54.71535	-35.5931	4.7"x 3.7'	10.9		03:02	05:40 	06:04	18	174	detectable	Celestron Plössl 32mm
Gal	NGC 1406	MCG -5-9-20	For	54.84705	-31.3213	4.1"x 0.8'	12.4		03:51	05:40 	06:00	18	174	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1425	MCG -5-9-23	For	55.54770	-29.8944	5.8"x 2.5'	11.3		03:30	05:40 	06:02	18	174	detectable	Ultima 42mm 2.0x
Gal	NGC 1398	MCG -4-9-40	For	54.71715	-26.3379	7.1"x 5.0'	10.6		03:25	05:41 	06:02	18	156	detectable	Ultima 42mm
Gal	NGC 1367	MCG -4-9-29	For	53.75505	-24.9335	5.4"x 3.5'	11.6		03:51	05:41 	06:00	18	156	difficult	Celestron Plössl 32mm
Gal	NGC 1023	Arp 135	Per	40.10010	39.0633	7.6"x 2.8'	9.6		04:04	05:40 	06:04	4	61	detectable	E-Lux 2" 26mm
Gal	Large Magellanic Cl	ESO 56 115	Dor	80.89410	-69.7561	10.8"x 9.2°	0.8	200000 ly	03:04	05:41 	06:04	24	212	easy	Ultima 42mm
Gal	NGC 1546	ESO 157 12	Dor	63.65265	-56.0608	3.2"x 1.8'	12.1		03:29	05:41 	06:00	24	202	detectable	Celestron Plössl 15mm
Gal	NGC 1549	ESO 157 16	Dor	63.93825	-55.5922	5.0"x 4.3'	10.7		02:57	05:41 	06:02	24	202	detectable	E-Lux 2" 40mm
Gal	NGC 1566	ESO 157 20	Dor	65.00175	-54.9378	8.1"x 4.8'	10.3		03:10	05:41 	06:03	24	202	detectable	E-Lux 2" 40mm
Gal	NGC 1487	MCG -7-9-2	Eri	58.94370	-42.3672	3.0"x 2.0'	12.3		03:40	05:41 	06:00	18	190	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 1512	MCG -7-9-7	Hor	60.97605	-43.3488	7.1"x 3.6'	11.1		03:44	05:41 	06:01	19	189	detectable	Celestron Plössl 32mm
Gal	IC 2006	MCG -6-9-37	Eri	58.61850	-35.9671	2.1"x 1.8'	12.3		03:23	05:41 	06:02	18	174	detectable	Celestron Plössl 15mm
Gal	NGC 1427	MCG -6-9-21	For	55.58115	-35.3935	3.9"x 2.6'	11.8		03:29	05:41 	06:03	18	174	detectable	Ultima 42mm 2.0x
Gal	NGC 1385	MCG -4-9-36	For	54.36795	-24.5013	3.8"x 2.5'	11.5		03:21	05:41 	06:02	18	156	detectable	Ultima 42mm 2.0x

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 1395	MCG -4-9-39	Eri	54.62325	-23.0276	5.2"x 4.3'	10.6		03:12	05:41 	06:04	18	156	detectable	E-Lux 2" 40mm
Gal	NGC 1353	MCG -4-9-22	Eri	53.01300	-20.8177	3.7"x 1.5'	12.4		03:58	05:41 	06:00	18	156	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1359	MCG -3-10-7	Eri	53.44965	-19.4913	2.0"x 1.4'	12.6		03:30	05:41 	06:02	18	156	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1357	MCG -2-10-1	Eri	53.32125	-13.6641	3.3"x 2.6'	12.4		04:08	05:41 	06:00	11	138	difficult	Ultima 42mm 2.0x
Gal	NGC 1337	MCG -2-9-42	Eri	52.02405	-8.3882	5.2"x 1.3'	12.4		04:28	05:41 	05:58	10	138	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 1439	MCG -4-9-56	Eri	56.20755	-21.9202	2.9"x 2.8'	12.3		03:57	05:41 	06:01	18	156	difficult	E-Lux 2" 26mm
Gal	IC 1953	MCG -4-9-26	Eri	53.42445	-21.4786	2.5"x 1.5'	12.4		03:36	05:41 	06:02	18	156	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1400	MCG -3-10-22	Eri	54.87855	-18.6881	2.6"x 2.2'	12.0		03:31	05:41 	06:03	18	156	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 1407	MCG -3-10-30	Eri	55.04940	-18.5803	5.5"x 5.0'	10.7		03:27	05:41 	06:03	18	156	detectable	Ultima 42mm
Gal	NGC 1358	MCG -1-10-3	Eri	53.41545	-5.0895	2.2"x 1.4'	13.2	180.0 Mly	04:27	05:41 	05:59	11	118	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 1376	MCG -1-10-11	Eri	54.27465	-5.0427	1.9"x 1.8'	12.9	190.0 Mly	04:10	05:41 	06:01	11	118	difficult	Celestron Plössl 15mm
Neb	NGC 1743	Dunlop 114	Dor	73.52500	-69.2000	18"			02:35	05:41 	06:09	24	212	unknown	Plössl 6mm
Gal	NGC 1672	ESO 118 43	Dor	71.42715	-59.2474	6.6"x 5.4'	10.3		03:12	05:41 	06:03	24	202	detectable	Ultima 42mm
Gal	NGC 1415	MCG -4-9-47	Eri	55.23690	-22.5644	3.4"x 1.5'	12.7		04:14	05:41 	05:59	18	156	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 1596	ESO 157 31	Dor	66.90735	-55.0268	4.1"x 1.1'	12.0		03:35	05:42 	06:01	24	202	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1617	ESO 157 41	Dor	67.91700	-54.6017	5.2"x 2.5'	11.2		03:25	05:41 	06:03	24	202	detectable	Ultima 42mm 2.0x
Gal	NGC 1527	ESO 201 20	Hor	62.10075	-47.8970	4.5"x 1.8'	11.7		03:31	05:41 	06:01	19	189	detectable	Celestron Plössl 15mm
Gal	IC 2035	ESO 250 7	Hor	62.25615	-45.5178	1.4"x 1.1'	12.4		02:56	05:42 	06:05	19	189	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1532	MCG -5-11-2	Eri	63.01800	-32.8741	11.7"x 3.5'	10.7		04:07	05:42 	05:59	19	174	difficult	E-Lux 2" 26mm
Gal	NGC 1426	MCG -4-9-54	Eri	55.70460	-22.1084	2.7"x 1.7'	12.3		03:42	05:41 	06:01	18	156	detectable	Celestron Plössl 15mm
Gal	NGC 1452	MCG -3-10-44	Eri	56.34270	-18.6336	2.3"x 1.7'	12.8		04:05	05:41 	06:01	18	156	difficult	Celestron Plössl 15mm
Gal	NGC 1440	MCG -3-10-43	Eri	56.26200	-18.2661	2.5"x 1.7'	12.7		04:03	05:41 	06:01	11	156	difficult	Celestron Plössl 15mm
Gal	NGC 1417	MCG -1-10-21	Eri	55.48935	-4.7047	2.6"x 1.4'	12.8	190.0 Mly	04:20	05:41 	05:59	11	118	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1058	MCG 6-7-1	Per	40.87650	37.3410	2.7"x 1.9'	11.9		04:29	05:41 	05:59	4	61	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 1461	MCG -3-10-47	Eri	57.11325	-16.3936	3.0"x 0.8'	12.8		04:15	05:42 	06:00	11	138	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 1039	M 34	Per	40.52083	42.7617	35.0'	5.8	1600 ly	04:30	05:42 	06:01	4	43	detectable	Celestron Plössl 32mm
Neb	NGC 2070	Tarantula Nebula	Dor	84.65000	-69.1000	5.0'	8.3		03:21	05:42 	06:08	24	212	easy	Ultima 42mm
Gal	NGC 1947	ESO 85 87	Dor	81.69795	-63.7613	3.2"x 2.9'	11.7		03:45	05:42 	06:02	24	212	detectable	E-Lux 2" 26mm
Gal	NGC 1688	ESO 119 6	Dor	72.09855	-59.7994	2.5"x 1.7'	12.1		03:28	05:42 	06:02	24	202	detectable	Celestron Plössl 15mm
Gal	NGC 1705	ESO 158 13	Pic	73.55625	-53.3622	1.9"x 1.5'	12.8		03:56	05:42 	06:02	24	202	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1531	MCG -5-11-1	Eri	62.99640	-32.8521	1.4"x 0.9'	12.9		03:37	05:42 	06:04	19	174	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1537	MCG -5-11-5	Eri	63.41955	-31.6454	4.3"x 2.7'	11.5		03:47	05:42 	06:02	19	174	detectable	Ultima 42mm 2.0x
Gal	NGC 1518	MCG -4-10-13	Eri	61.70355	-21.1780	3.5"x 1.4'	12.2		04:04	05:42 	06:02	19	156	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1521	MCG -4-10-15	Eri	62.07900	-21.0518	3.1"x 1.8'	12.4	190.0 Mly	04:15	05:42 	06:00	19	156	difficult	Celestron Plössl 15mm
Gal	NGC 1421	MCG -2-10-8	Eri	55.62225	-13.4881	2.9"x 0.7'	12.0		03:28	05:42 	06:04	11	138	detectable	Celestron Plössl 9mm
Gal	NGC 1453	MCG -1-10-34	Eri	56.61315	-3.9692	2.5"x 2.0'	12.6	180.0 Mly	04:19	05:42 	06:00	11	118	difficult	Celestron Plössl 32mm 2.0x
Gal	NGC 1507	Markarian 1080	Eri	61.11270	-2.1897	3.2"x 0.8'	12.8		04:43	05:42 	05:58	11	118	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 2082	ESO 86 21	Dor	85.46340	-64.3011	1.9"x 1.7'	12.8		04:12	05:43 	05:59	24	212	difficult	Celestron Plössl 15mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Glob	NGC 1851		Col	78.52500	-40.0467	12.0'	7.1	55000 ly	03:37	05:43 	06:05	19	173	easy	Ultima 42mm
Gal	NGC 1792	MCG -6-12-4	Col	76.31265	-37.9797	6.0'x 3.0'	10.8		04:03	05:43 	06:01	19	173	detectable	E-Lux 2" 26mm
Gal	NGC 1808	MCG -6-12-5	Col	76.92630	-37.5130	6.8'x 3.0'	10.8		04:11	05:43 	06:01	19	173	detectable	E-Lux 2" 26mm
Gal	NGC 1679	MCG -5-12-4	Cae	72.48150	-31.9673	2.9'x 2.0'	12.2		04:18	05:43 	06:01	19	173	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 1744	MCG -4-12-29	Lep	74.99250	-26.0266	5.8'x 2.3'	11.7		04:41	05:43 	05:59	19	155	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 1640	MCG -3-12-18	Eri	70.56060	-20.4347	2.7'x 2.5'	12.4		04:31	05:43 	05:59	19	155	difficult	Ultima 42mm 2.0x
PNe	NGC 1535	Cleopatra's Eye	Eri	63.56567	-12.7395	20"	9.4	5800 ly	03:26	05:43 	06:12	11	137	obvious	Celestron Plössl 15mm 2.0x
Gal	NGC 1600	MCG -1-12-17	Eri	67.91610	-5.0860	3.3'x 2.1'	11.9	210.0 Mly	04:27	05:43 	06:01	11	117	detectable	E-Lux 2" 40mm 2.0x
Gal	NGC 1625	MCG -1-12-38	Eri	69.27615	-3.3033	2.5'x 0.6'	13.1	220.0 Mly	04:59	05:43 	05:57	11	117	challenging	Celestron Plössl 9mm
Gal	NGC 1637	MCG 0-12-68	Eri	70.36845	-2.8571	3.3'x 2.8'	11.5		04:29	05:43 	06:01	11	117	detectable	E-Lux 2" 26mm
Open	M 45	Pleiades	Tau	56.75000	24.1167	120.0'	1.5	490 ly	05:22	05:43 	06:07	4	78	obvious	Plössl 4mm
Glob	NGC 1904	M 79	Lep	81.04583	-24.5250	9.6'	7.7	49000 ly	04:11	05:44 	06:04	19	155	detectable	Ultima 42mm
Gal	NGC 1667	MCG -1-13-13	Eri	72.15405	-6.3204	1.8'x 1.4'	12.8	210.0 Mly	04:41	05:44 	06:00	11	137	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1659	MCG -1-13-6	Eri	71.62470	-4.7888	1.5'x 1.0'	13.2	210.0 Mly	04:45	05:44 	06:00	11	117	difficult	E-Lux 2" 26mm 2.0x
Gal	NGC 1638	MCG 0-12-69	Eri	70.40115	-1.8086	2.2'x 1.5'	13.1	150.0 Mly	05:02	05:44 	05:58	11	117	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 1832	MCG -3-14-10	Lep	78.01410	-15.6865	2.5'x 1.2'	11.6		04:15	05:44 	06:04	11	137	detectable	E-Lux 2" 26mm 2.0x
Gal	NGC 1784	MCG -2-13-42	Lep	76.36305	-11.8715	3.7'x 1.8'	12.5		05:06	05:44 	05:57	11	137	challenging	Celestron Plössl 15mm
Gal	NGC 1726	MCG -1-13-42	Eri	74.92470	-7.7560	2.8'x 1.8'	12.7	180.0 Mly	05:02	05:44 	05:57	11	137	challenging	Celestron Plössl 15mm
Gal	NGC 1700	MCG -1-13-38	Eri	74.23395	-4.8657	3.1'x 2.0'	12.0	180.0 Mly	04:43	05:44 	06:00	11	117	detectable	Celestron Plössl 32mm 2.0x
Neb	NGC 1788	LBN 916	Ori	76.72500	-3.3333	10.0'x 6.0'			05:04	05:44 	05:58	11	117	challenging	Ultima 42mm
Neb	NGC 1714	ESO 85-EN8	Dor	73.02500	-66.9333				02:36	05:45 	06:12	24	212	unknown	Plössl 4mm
Gal	NGC 2090	MCG -6-13-9	Col	86.75970	-34.2514	4.3'x 1.9'	11.5		04:34	05:45 	06:01	19	173	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 1964	MCG -4-14-3	Lep	83.33955	-21.9470	5.2'x 2.2'	11.5		04:48	05:45 	05:59	19	155	difficult	E-Lux 2" 40mm 2.0x
Open	NGC 1981	OCL 525	Ori	83.78750	-4.4317	28.0'	4.2	1300 ly	05:05	05:45 	06:05	11	116	obvious	Plössl 4mm
Neb	NGC 1936	IC 2127	Dor	80.55000	-67.9833				03:05	05:46 	06:11	24	212	unknown	Plössl 4mm
Gal	NGC 2369	ESO 122 18	Car	09.16025	-62.3443	3.5'x 0.9'	13.2	150.0 Mly	05:07	05:46 	06:07	24	200	very challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 2188	MCG -6-14-8	Col	92.53965	-34.1061	5.1'x 1.2'	12.1		05:07	05:46 	05:58	19	172	challenging	E-Lux 2" 26mm 2.0x
Open	NGC 2243	Collinder 98	CMa	97.39167	-31.2833	5.0'	10.5	15000 ly	05:13	05:46 	05:58	19	172	difficult	E-Lux 2" 40mm
Gal	NGC 2217	MCG -5-15-10	CMa	95.41650	-27.2341	4.9'x 4.4'	11.6		05:13	05:46 	05:58	19	154	difficult	E-Lux 2" 40mm
Gal	NGC 2139	MCG -4-15-5	Lep	90.28320	-23.6723	2.8'x 2.0'	12.0		04:54	05:46 	06:00	19	154	detectable	Celestron Plössl 32mm 2.0x
Gal	NGC 2196	MCG -4-15-14	Lep	93.04020	-21.8059	2.9'x 2.2'	12.0		05:03	05:46 	06:00	19	154	difficult	E-Lux 2" 40mm 2.0x
Gal	NGC 2179	MCG -4-15-11	Lep	92.00925	-21.7465	2.0'x 1.4'	13.3		05:00	05:46 	06:05	19	154	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 2207	MCG -4-15-20	CMa	94.09200	-21.3727	4.7'x 2.6'	12.2		05:09	05:46 	06:05	19	154	challenging	Ultima 42mm 2.0x
Open	NGC 2204	Collinder 88	CMa	93.88750	-18.6650	10.0'	9.3	8600 ly	05:16	05:46 	05:58	19	154	difficult	Ultima 42mm
PNe	Spirograph Nebula	IC 418	Lep	81.86752	-12.6973	14"	10.7	5000 ly	04:37	05:46 	06:09	11	136	obvious	Plössl 6mm
Neb	NGC 1999	LBN 979	Ori	84.10000	-6.7167	2.0'			05:22	05:46 	05:56	11	136	very challenging	Ultima 42mm
Neb	NGC 1976	M 42	Ori	83.82500	-5.3833	40.0'x 20.0'	4.0		05:03	05:46 	06:05	11	116	easy	Ultima 42mm
Neb	NGC 1982	M 43	Ori	83.87500	-5.2667	7.0'x 6.0'	9.0		05:15	05:46 	05:58	11	116	challenging	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Neb	NGC 1977		Ori	83.82500	-4.8500	20.0'	7.0		05:03	05:46 	06:05	11	116	very challenging	Ultima 42mm
Neb	IC 434	LBN 954	Ori	85.25000	-2.4500	50.0'x 8.0'	11.0		05:16	05:46 	06:05	11	116	very challenging	Ultima 42mm
Neb	IC 435	vdB 57	Ori	85.75000	-2.3167	5.0'			05:18	05:46 	06:05	11	116	very challenging	Ultima 42mm
Neb	NGC 2023	LBN 953	Ori	85.40000	-2.2667	10.0'			05:16	05:46 	06:05	11	116	very challenging	Ultima 42mm
Neb	NGC 2024	Flame Nebula	Ori	85.42500	-1.8500	20.0'			05:18	05:46 	05:56	11	116	challenging	Ultima 42mm
Neb	IC 432	LBN 946	Ori	85.22500	-1.5000	8.0'x 4.0'			05:18	05:46 	06:05	11	116	very challenging	Ultima 42mm
Neb	NGC 2068	M 78	Ori	86.70000	0.0833	8.0'	8.0		05:28	05:46 	05:56	11	116	challenging	Ultima 42mm
Neb	NGC 2071	LBN 938	Ori	86.78750	0.3000	7.0'	8.0		05:30	05:46 	06:03	11	116	very challenging	Ultima 42mm
PNe	PN G190.3-17.7	PK 190-17.1	Ori	76.39297	10.7063	26"	12.9	16000 ly	05:24	05:46 	06:01	11	97	difficult	Celestron Plössl 9mm
Neb	IC 348	IC 1985	Per	56.15000	32.1667	8.0'x 5.0'	7.3		04:12	05:45 	06:07	4	60	easy	Ultima 42mm
Open	NGC 1342	Collinder 40	Per	52.90833	37.3767	15.0'	7.2	2200 ly	04:45	05:46 	06:02	4	60	detectable	Ultima 42mm
Open	NGC 957	Collinder 28	Per	38.33750	57.5600	10.0'	7.2	5900 ly	04:52	05:46 	06:07	1	29	very challenging	Ultima 42mm
Open	NGC 2516	Collinder 172	Car	19.51667	-60.7533	30.0'	3.3	1300 ly	03:34	05:47 	06:08	24	200	obvious	Ultima 42mm
Gal	NGC 2310	MCG -7-15-1	Pup	03.47300	-40.8621	4.6'x 0.9'	11.9		05:14	05:47 	05:59	19	188	difficult	E-Lux 2" 26mm 2.0x
Glob	NGC 2298		Pup	02.24583	-36.0050	5.0'	9.3	98000 ly	05:18	05:47 	06:03	19	172	detectable	Ultima 42mm
Gal	NGC 2223	MCG -4-16-2	CMa	96.14955	-22.8382	2.8'x 2.2'	12.6		05:21	05:47 	05:57	19	154	challenging	E-Lux 2" 40mm 2.0x
Open	NGC 2287	M 41	CMa	01.50417	-20.7567	39.0'	5.0	2300 ly	05:40	05:47 	06:03	19	154	easy	Celestron Plössl 32mm
Gal	NGC 2283	MCG -3-18-2	CMa	01.47170	-18.2106	3.0'x 2.2'	13.1		05:44	05:47 	06:04	12	154	very challenging	E-Lux 2" 40mm 2.0x
Open	NGC 2215	Collinder 90	Mon	95.20417	-7.2833	7.0'	8.6	4200 ly	05:44	05:47 	06:01	11	136	detectable	Ultima 42mm
Neb	NGC 2170	LBN 994	Mon	91.87500	-6.4000	5.0'			05:33	05:47 	05:57	11	136	challenging	Ultima 42mm
Open	NGC 2232	Collinder 93	Mon	96.81250	-4.7583	53.0'	4.2	1200 ly	04:59	05:47 	06:03	11	116	easy	Celestron Plössl 15mm
Open	NGC 1807	Collinder 59	Tau	77.67917	16.5217	15.0'	8.3		05:16	05:47 	05:59	11	97	difficult	Ultima 42mm
Open	NGC 1817	Collinder 60	Tau	78.06250	16.6900	16.0'	7.8	6400 ly	05:10	05:47 	06:01	11	97	detectable	Ultima 42mm
PNe	NGC 1514	Crystal Ball Nebula	Tau	62.32079	30.7760	2.0'	10.8	2300 ly	04:57	05:47 	06:03	5	60	difficult	Ultima 42mm 2.0x
Gal	NGC 1275	Perseus A radio sou	Per	49.95090	41.5117	2.5'x 1.7'	12.6	240.0 Mly	04:21	05:47 	06:08	4	43	very challenging	Celestron Plössl 15mm
Gal	NGC 2427	ESO 208 27	Pup	14.11625	-47.6345	5.6'x 2.3'	12.3		05:46	05:47 	06:05	19	187	very challenging	E-Lux 2" 40mm 2.0x
Gal	NGC 2325	MCG -5-17-5	CMa	05.66825	-28.6973	3.7'x 2.2'	12.4		05:43	05:47 	06:05	19	154	challenging	E-Lux 2" 40mm 2.0x
Open	NGC 1746	Collinder 57	Tau	75.95834	23.7700	42.0'	6.1	1400 ly	05:15	05:48 	06:00	5	77	detectable	Celestron Plössl 32mm
Open	NGC 2354	Collinder 131	CMa	08.54166	-25.6900	18.0'	8.9	13000 ly	04:55	05:48 	06:04	19	154	very challenging	Ultima 42mm
Open	NGC 2186	Collinder 85	Ori	93.02916	5.4583	5.0'	9.2	4700 ly	05:15	05:48 	06:02	11	116	detectable	E-Lux 2" 40mm
Neb	NGC 1499	California Nebula	Per	60.80000	36.3667	120.0'x 41.0'	5.0		04:36	05:48 	06:06	5	60	very challenging	Ultima 42mm
Open	NGC 2547	Collinder 177	Vel	22.53750	-49.2150	25.0'	5.0	1500 ly	04:44	05:49 	06:05	20	187	easy	Ultima 42mm
Open	NGC 2477	Collinder 165	Pup	18.04167	-38.5300	15.0'	5.7	4000 ly	04:54	05:49 	06:05	19	171	easy	Ultima 42mm
Open	NGC 2451	Collinder 161	Pup	16.34589	-37.9559	45.0'	3.7	720 ly	04:52	05:49 	06:05	19	171	easy	Celestron Plössl 32mm
Open	NGC 2439	Collinder 158	Pup	15.18751	-31.6933	9.0'	7.1	13000 ly	05:03	05:49 	06:05	19	171	easy	Ultima 42mm
Open	NGC 2362	Collinder 136	CMa	09.67083	-24.9550	5.0'	3.8	4500 ly	04:27	05:49 	06:12	19	154	obvious	E-Lux 2" 40mm
Open	NGC 2383	Collinder 141	CMa	11.16667	-20.9483	5.0'	8.7	5400 ly	05:14	05:49 	06:03	19	153	detectable	E-Lux 2" 40mm
Open	NGC 2360	Collinder 134	CMa	09.42917	-15.6417	13.0'	9.1	6200 ly	05:09	05:49 	06:05	12	135	challenging	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
PNe	IC 2165	PN G221.3-12.3	CMa	95.42823	-12.9872	9.0"	10.6	9600 ly	05:31	05:49 	06:10	11	136	obvious	Plössl 4mm
Open	NGC 2343	Collinder 128	Mon	07.02500	-10.6167	5.0'	7.5	3400 ly	05:07	05:49 	06:05	12	135	easy	E-Lux 2" 40mm
Open	NGC 2353	Collinder 130	Mon	08.62500	-10.2667	18.0'	5.2	3600 ly	05:12	05:49 	06:05	12	135	easy	Ultima 42mm
Open	NGC 2323	M 50	Mon	05.67500	-8.3833	14.0'	7.2	3300 ly	05:20	05:49 	06:01	12	135	detectable	Ultima 42mm
Open	NGC 2309	Collinder 122	Mon	04.01250	-7.1750	5.0'	10.5	8200 ly	05:05	05:49 	06:05	12	135	challenging	E-Lux 2" 40mm
Open	NGC 2302	OCL 554	Mon	02.97917	-7.0833	5.0'	8.9	3900 ly	05:16	05:49 	06:01	12	135	detectable	E-Lux 2" 40mm
Neb	NGC 1980		Ori	83.85000	-5.9167		2.5		05:01	05:49 	06:27	11	136	unknown	Plössl 4mm
Open	NGC 2301	Collinder 119	Mon	02.93750	0.4600	14.0'	6.3	2800 ly	05:18	05:49 	06:03	12	115	easy	Ultima 42mm
Open	NGC 2244	Collinder 99	Mon	97.97917	4.9417	29.0'	5.2	4700 ly	05:16	05:49 	06:03	12	116	easy	Plössl 4mm
Open	NGC 2169	37 Cluster	Ori	92.10000	13.9650	5.0'	7.0	3400 ly	05:03	05:49 	06:07	11	96	easy	E-Lux 2" 40mm
PNe	IC 2003	PN G161.2-14.8	Per	59.09160	33.8752	11"	12.6	12000 ly	04:29	05:49 	06:07	4	60	detectable	Plössl 4mm
PNe	IC 351	PN G159.0-15.1	Per	56.88810	35.0468	8.0"	11.9	12000 ly	04:12	05:49 	06:11	4	60	easy	Plössl 4mm
PNe	IC 2448	He 2-19	Car	36.77609	-69.9419	8.0"	11.5	11000 ly	02:31	05:49 	06:12	25	210	easy	Plössl 4mm
Open	IC 2391	Collinder 191	Vel	30.13333	-53.0333	60.0'	2.6	570 ly	04:40	05:49 	06:07	25	200	obvious	Celestron Plössl 15mm
Open	NGC 2546	Collinder 178	Pup	23.06250	-37.5950	70.0'	5.2	3000 ly	05:28	05:50 	06:00	20	171	detectable	Celestron Plössl 15mm
Open	NGC 2489	Collinder 169	Pup	19.06251	-30.0633	6.0'	9.3	13000 ly	05:28	05:50 	06:00	19	171	detectable	Ultima 42mm
PNe	NGC 2452	He 2-4	Pup	16.85937	-27.3353	22"	12.6	8000 ly	05:21	05:50 	06:04	19	153	detectable	Celestron Plössl 15mm 2.0x
Open	NGC 2467	Collinder 164	Pup	18.10833	-26.4367	14.0'	7.1	4400 ly	05:23	05:50 	06:02	19	153	detectable	Ultima 42mm
Open	NGC 2447	M 93	Pup	16.12500	-23.8567	10.0'	6.5	3400 ly	05:13	05:50 	06:04	19	153	easy	Ultima 42mm
Open	NGC 2421	Collinder 151	Pup	14.05417	-20.6117	6.0'	9.0	7200 ly	05:27	05:50 	06:00	19	153	detectable	Ultima 42mm
Open	NGC 2422	M 47	Pup	14.14583	-14.4833	25.0'	4.3	1600 ly	05:17	05:50 	06:06	12	135	easy	Ultima 42mm
Open	NGC 2374	Collinder 139	CMa	10.98333	-13.2633	12.0'	7.3	4800 ly	05:23	05:50 	06:02	12	135	detectable	Ultima 42mm
Open	NGC 2324	Collinder 125	Mon	06.02917	1.0450	10.6'	7.9	12000 ly	05:32	05:50 	06:00	12	115	detectable	Ultima 42mm
Open	NGC 2251	Collinder 101	Mon	98.65833	8.3667	10.0'	8.8	4300 ly	05:36	05:50 	05:58	12	96	difficult	Ultima 42mm
Open	NGC 2264	Collinder 112	Mon	00.24167	9.8950	39.0'	4.1	2200 ly	05:21	05:50 	06:04	12	95	easy	Celestron Plössl 32mm
Open	NGC 2432	Collinder 157	Pup	15.22084	-19.0767	6.0'	10.2	6200 ly	05:14	05:51 	06:07	19	153	challenging	Ultima 42mm
Open	NGC 2423	Collinder 153	Pup	14.27500	-13.8717	12.0'	7.0	2500 ly	05:27	05:51 	06:03	12	135	detectable	Ultima 42mm
Open	NGC 2259	Collinder 108	Mon	99.58750	10.8833	3.0'	10.8	11000 ly	05:40	05:51 	05:57	12	95	challenging	E-Lux 2" 26mm
Open	IC 2395	Collinder 192	Vel	30.62500	-48.1133	18.6'	4.6	2600 ly	04:55	05:51 	06:08	20	187	obvious	Ultima 42mm
Open	Collinder 168	Harvard 2	Pup	18.91667	-25.8833	5.0'	9.1	7500 ly	05:28	05:51 	06:01	19	153	detectable	E-Lux 2" 40mm
Open	NGC 2482	Collinder 166	Pup	18.79999	-24.2583	10.0'	8.8	4400 ly	05:39	05:51 	05:59	19	153	difficult	Ultima 42mm
Open	NGC 2455	Collinder 163	Pup	17.25417	-21.3017	5.0'	10.2		05:16	05:51 	06:05	19	153	challenging	E-Lux 2" 40mm
PNe	NGC 2440	PN G234.8+02.4	Pup	15.48071	-18.2086	54"	11.5	3700 ly	05:29	05:51 	06:01	12	153	difficult	E-Lux 2" 26mm 2.0x
Open	NGC 2437	M 46	Pup	15.44167	-14.8100	20.0'	6.6	4500 ly	05:31	05:51 	06:01	12	135	detectable	Ultima 42mm
Open	NGC 2670	Collinder 200	Vel	31.37500	-48.8000	7.0'	9.2	3900 ly	05:29	05:51 	06:01	20	187	difficult	Ultima 42mm
Open	NGC 2660	Collinder 193	Vel	30.65834	-47.2000	3.5'	10.8	9200 ly	05:01	05:51 	06:07	20	187	challenging	E-Lux 2" 26mm
Open	NGC 2533	Collinder 175	Pup	21.76667	-29.8833	5.0'	10.0	11000 ly	05:39	05:51 	06:00	20	171	difficult	E-Lux 2" 40mm
Open	NGC 2527	Collinder 174	Pup	21.24166	-28.1467	10.0'	8.3	2000 ly	05:34	05:51 	06:02	20	153	detectable	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
PNe	NGC 2438	PN G231.8+04.1	Pup	15.46428	-14.7319	1.1'	11.0	3700 ly	05:30	05:51 	06:02	12	135	detectable	E-Lux 2" 26mm 2.0x
Open	Collinder 155	Melotte 71	Pup	14.37500	-12.0667	7.0'	9.0	10000 ly	05:37	05:51 	06:00	12	135	difficult	Ultima 42mm
Open	NGC 2129	Collinder 77	Gem	90.27917	23.3222	5.0'	7.0	4900 ly	05:15	05:52 	06:08	5	76	easy	E-Lux 2" 40mm
Open	NGC 2659	Collinder 194	Vel	30.65417	-44.9833	5.0'	9.8	5600 ly	05:34	05:52 	06:00	20	187	difficult	E-Lux 2" 40mm
Open	NGC 2567	Collinder 180	Pup	24.63333	-30.6400	7.0'	8.4	5500 ly	05:31	05:52 	06:03	20	171	detectable	Ultima 42mm
Open	NGC 2580	Collinder 183	Pup	25.36666	-30.3000	3.5'	9.7	13000 ly	05:34	05:52 	06:03	20	171	detectable	E-Lux 2" 26mm
Open	NGC 2571	Collinder 181	Pup	24.73334	-29.7500	8.0'	7.4	4400 ly	05:27	05:52 	06:04	20	171	detectable	Ultima 42mm
Open	NGC 2509	Collinder 171	Pup	20.20000	-19.0517	6.0'	9.3		05:40	05:52 	06:01	20	153	difficult	Ultima 42mm
Open	Collinder 156	Melotte 72	Mon	14.60000	-10.6833	5.0'	10.1	3000 ly	05:23	05:52 	06:06	12	135	challenging	E-Lux 2" 40mm
Open	IC 2157	Collinder 80	Gem	91.20833	24.0558	5.0'	9.1	6700 ly	05:34	05:52 	06:03	5	76	detectable	E-Lux 2" 40mm
Open	NGC 2168	M 35	Gem	92.25000	24.3500	25.0'	5.6	3000 ly	05:31	05:52 	06:04	5	76	detectable	Ultima 42mm
Open	NGC 1664	Collinder 56	Aur	72.77500	43.6750	9.0'	7.2	3900 ly	05:25	05:52 	06:06	5	42	detectable	Ultima 42mm
Open	NGC 2635	Collinder 190	Pyx	29.60833	-34.7700	1.0'	10.2	19000 ly	05:26	05:53 	06:06	20	171	easy	E-Lux 2" 26mm 2.0x
Open	NGC 2587	Collinder 184	Pup	25.85417	-29.5083	2.0'	9.2		05:28	05:53 	06:06	20	171	easy	Celestron Plössl 32mm 2.0x
PNe	PN G194.2+02.5	PK 194-2.1	Gem	96.48865	17.7909	12"	12.4	7000 ly	05:26	05:53 	06:06	11	76	detectable	Celestron Plössl 9mm 2.0x
Open	NGC 1931	Collinder 68	Aur	82.85417	34.2450	5.0'	10.1	10000 ly	05:15	05:53 	06:09	5	59	very challenging	E-Lux 2" 40mm
Open	NGC 1778	Collinder 58	Aur	77.01667	37.0233	8.0'	8.5	4800 ly	05:36	05:53 	06:02	5	59	difficult	Ultima 42mm
Open	NGC 1960	M 36	Aur	84.07500	34.1400	10.0'	6.5	4300 ly	05:25	05:54 	06:06	5	59	easy	Ultima 42mm
Open	NGC 1912	M 38	Aur	82.16666	35.8483	20.0'	6.8	3500 ly	05:40	05:54 	06:02	5	59	difficult	Ultima 42mm
Open	NGC 2627	Collinder 188	Pyx	29.31250	-29.9550	8.0'	8.4	6500 ly	05:42	05:54 	06:03	20	171	difficult	Ultima 42mm
Open	NGC 1528	Collinder 47	Per	63.84584	51.2150	16.0'	6.4	2500 ly	05:38	05:54 	06:04	5	42	difficult	Ultima 42mm
Open	NGC 2658	Collinder 195	Pyx	30.86250	-32.6583	6.0'	9.2	6600 ly	05:44	05:54 	06:03	20	170	difficult	Ultima 42mm
Open	NGC 2099	M 37	Aur	88.07500	32.5533	14.0'	6.2	4500 ly	05:29	05:55 	06:07	5	59	detectable	Ultima 42mm
Open	NGC 2539	Collinder 176	Pup	22.65416	-12.8183	9.0'	8.0	4400 ly	05:43	05:56 	06:02	12	134	difficult	Ultima 42mm
Open	NGC 2304	Collinder 120	Gem	03.79583	17.9883	3.0'	10.0	13000 ly	05:45	05:56 	06:02	12	76	challenging	E-Lux 2" 26mm
Open	NGC 1857	Collinder 61	Aur	80.02500	39.3433	10.0'	8.4	6200 ly	05:15	05:56 	06:10	5	59	challenging	Ultima 42mm

Symbol Key:

Open	Open Cluster	Doub	Double or Multiple Star	Con	Constellation
Glob	Globular Cluster	Bin	Binary Star (with orbit)	MSS	Major Solar System Object
PNe	Planetary Nebula	Var	Variable Star	Com	Comet
Neb	Diffuse Nebula	DVar	Double & Variable	MP	Minor Planet
Gal	Galaxy	BVar	Binary & Variable		
GalCl	Galaxy Cluster				
Dark	Dark Nebula				
QSO	Quasar				

Observation status: Y = observed, N = not observed, R = re-observe

Quality of opportunity (Q): A = optimum, B = near optimum, F = far from optimum