

## Messier observing list

Constellation	Messier	NGC	Type	RA	DEC	Size	PA	Stars	Br. Star	mv	SB	Remarks
Andromeda	M031	224	Spiral Galaxy	00h 42.7m	+41°16'	185' x 75'	34°	x	x	3,4	13,6	
Andromeda	M032	221	Elliptical Galaxy	00h 42.7m	+40°52'	11,0' x 7,3'	170°	x	x	8,1	12,7	
Andromeda	M110	205	Elliptical Galaxy	00h40.4m	+41°41'	19,5' x 12,5'	170°	x	x	8,1	13,9	
Cassiopeia	M103	581	Open cluster	01h 33.2m	+60°42'	6'	x	25	10.55	7,4	x	
Triangulum	M033	598	Spiral Galaxy	01h 33.9m	+30°39'	67' x 41,5'	22°	x	x	5,7	14,2	
Pisces	M074	628	Spiral Galaxy	01h 36.7m	+15°47'	11' x 11'	24°	x	x	9,4	14,4	
Perseus	M076	650-1	Planetary nebulae	01h 42.4m	+51°34'	65"	x	x	x	10,1	x	
Perseus	M034	1039	Open cluster	02h 42.0m	+42°47'	35'	x	60	7,33	5,2	x	
Cetus	M077	1068	Spiral Galaxy	02h 42.7m	-00°01'	8,2' x 7,3'	22°	x	x	8,9	13,9	
Taurus	M045		Open cluster	03h 47.0m	+24°07'	110'	x	100	2,87	1,2	x	
Lepus	M079	1904	Globular cluster	05h 24.5m	-24°33'	8,7'	x	x	x	7,8	x	
Auriga	M038	1912	Open cluster	05h 28.7m	+35°50'	21'	x	100	9,53	6,4	x	
Taurus	M001	1952	Supernova remnant	05h 34.5m	+22°01'	6' x 4'	x	x	x	x	x	
Orion	M042	1976	Diffuse Nebula	05h 35.4m	-05°27'	65' x 60'	x	x	x	x	x	
Orion	M043	1982	Diffuse Nebula	05h 35.6m	-05°16'	20' x 15'	x	x	x	x	x	
Auriga	M036	1960	Open cluster	05h 36.1m	+34°08'	12'	x	60	8,86	6	x	
Orion	M078	2068	Diffuse Nebula	05h 46.7m	+00°03'	8' x 6'	x	x	x	x	x	
Auriga	M037	2099	Open cluster	05h 52.4m	+32°33'	20'	x	150	9,21	5,6	x	
Gemini	M035	2168	Open cluster	06h 08.9m	+24°20'	28'	x	200	8,18	5,1	x	
Canis Major	M041	2287	Open cluster	06h 47.0m	-20°44'	38'	x	80	6,91	4,5	x	
Monoceros	M050	2323	Open cluster	07h 03.2m	-08°20'	16'	x	80	7,85	7,85	x	
Puppis	M047	2422	Open cluster	07h 36.6m	-14°30'	29'	x	30	5,68	4,4	x	
Puppis	M046	2437	Open cluster	07h 41.8m	-14°49'	27'	x	100	8,68	6,1	x	
Puppis	M093	2447	Open cluster	07h 44.6m	-23°52'	22'	x	80	8,2	6,2	x	
Hydra	M048	2548	Open cluster	08h 13.8m	-05°48'	54'	x	80	8,23	5,8	x	
Cancer	M044	2632	Open cluster	08h 40.1m	+19°59'	95'	x	50	6,3	3,1	x	
Cancer	M067	2682	Open cluster	08h 50.4m	+11°49'	29'	x	200	9,69	6,9	x	
Ursa Major	M081	3031	Spiral Galaxy	09h 55.6m	+69°04'	24' x 13'	157°	x	x	6,9	13	

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Ursa Major	M082	3034	Irregular Galaxy	09h 55.8m	+69°41'	12' x 5,6'	63°	x	x	8,4	12,8	
Leo	M095	3351	Spiral Galaxy	10h 44.0m	+11°42'	7,8' x 4,6'	12°	x	x	9,7	13,5	
Leo	M096	3368	Spiral Galaxy	10h 46.8m	+11°49'	6,9' x 4,6'	4°	x	x	9,2	12,9	
Leo	M105	3379	Elliptical Galaxy	10h 47.8m	+12°35'	3,9' x 3,9'	0°	x	x	9,3	12,1	
Ursa Major	M108	3556	Spiral Galaxy	11h 11.5m	+55°40'	8,1' x 2,1'	80°	x	x	10	13	
Ursa Major	M097	3587	Planetary nebulae	11h 14.8m	+55°01'	194"	x	x	x	9,9	x	
Leo	M065	3623	Spiral Galaxy	11h 18.9m	+13°05'	2,5' x 2,5'	174°	x	x	9,3	12,4	
Leo	M066	3627	Spiral Galaxy	11h 20.2m	+12°59'	8,2' x 3,9'	172°	x	x	8,9	12,5	
Ursa Major	M109	3992	Spiral Galaxy	11h 57.6m	+53°23'	7,6' x 4,3'	68°	x	x	9,8	13,5	
Coma Berenices	M098	4192	Spiral Galaxy	12h 13.8m	+14°54'	9,1' x 2,1'	154°	x	x	10,1	13,2	
Coma Berenices	M099	4254	Spiral Galaxy	12h 18.8m	+14°25'	4,6' x 4,3'	0°	x	x	9,9	13	
Canes Venatici	M106	4258	Spiral Galaxy	12h 19.0m	+47°18'	20' x 8,4'	150°	x	x	8,4	13,8	
Virgo	M061	4303	Spiral Galaxy	12h 21.9m	+04°28'	6,0' x 5,9'	0°	x	x	9,7	13,4	
Ursa Major	M040	x	Double star	12h 22.4m	+58°05'	x	85°	x	x	9.0/9.3	x	
Coma Berenices	M100	4321	Spiral Galaxy	12h 22.9m	+15°47'	6,2' x 5,3'	30°	x	x	9,3	13	
Virgo	M084	4374	Elliptical Galaxy	12h 25.1m	+12°53'	5,1' x 4,1'	134°	x	x	9,1	12,3	
Coma Berenices	M085	4382	Elliptical Galaxy	12h 25.4m	+18°11'	7,5' x 5,7'	246°	x	x	9,1	13	
Virgo	M086	4406	Elliptical Galaxy	12h 26.2m	+12°57'	12,0' x 9,3'	130°	x	x	8,9	13,9	
Virgo	M049	4472	Elliptical Galaxy	12h 29.8m	+08°00'	8,1' x 7,1'	154°	x	x	8,4	12,7	
Virgo	M087	4486	Elliptical Galaxy	12h 30.8m	+12°24'	7,1' x 7,1'	0°	x	x	8,6	12,7	
Coma Berenices	M088	4501	Spiral Galaxy	12h 32.0m	+14°25'	6,1' x 2,8'	140°	x	x	9,6	12,6	
Coma Berenices	M091	4548	Spiral Galaxy	12h 35.4m	+14°30'	5,0' x 4,1'	150°	x	x	10,2	13,3	
Virgo	M089	4552	Elliptical Galaxy	12h 35.7m	+12°33'	3,4' x 3,4'	0°	x	x	9,8	12,3	
Virgo	M090	4569	Spiral Galaxy	12h 36.8m	+13°10'	10,5' x 4,4'	22°	x	x	9,5	13,6	
Virgo	M058	4579	Spiral Galaxy	12h 37.7m	+11°49'	5,5' x 4,6'	94°	x	x	9,7	13	
Hydra	M068	4590	Globular cluster	12h 39.5m	-26°45'	12'	x	x	x	7,7	x	
Virgo	M104	4594	Spiral Galaxy	12h 40.0m	-11°37'	7,1' x 4,4'	88°	x	x	8	11,6	
Virgo	M059	4621	Elliptical Galaxy	12h 42.0m	+11°39'	4,6' x 3,6'	164°	x	x	9,6	12,5	

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Virgo	M060	4649	Elliptical Galaxy	12h 43.7m	+11°35'	7,1' x 6,1'	104°	x	x	8,8	12,8	
Canes Venatici	M094	4736	Spiral Galaxy	12h 50.9m	+41°07'	13' x 11'	104°	x	x	8,2	13,5	
Coma Berenices	M064	4826	Spiral Galaxy	12h 56.7m	+21°41'	9,2' x 4,6'	114°	x	x	8,5	12,4	
Coma Berenices	M053	5024	Globular cluster	13h 12.9m	+18°10'	12,6'	x	x	x	7,5	x	
Canes Venatici	M063	5055	Spiral Galaxy	13h 15.8m	+42°02'	13,5' x 8,3'	104°	x	x	8,6	13,6	
Canes Venatici	M051	5194-5	Spiral Galaxy	13h 29.9m	+47°12'	8,2' x 6,9'	x	x	x	8,4	12,6	
Hydra	M083	5236	Spiral Galaxy	13h 37.0m	-29°52'	15,5' x 13,0'	x	x	x	7,6	13,2	
Canes Venatici	M003	5272	Globular cluster	13h 42.2m	+28°49'	16,2'	x	x	x	5,9	x	
Ursa Major	M101	5457	Spiral Galaxy	14h 03.2m	+54°21'	26' x 26'	x	x	x	7,9	14,8	
Serpens	M005	5904	Globular cluster	15h 18.6m	-02°05'	17,4'	x	x	x	5,7	x	
Scorpius	M080	6093	Globular cluster	16h 17.0m	-22°59'	8,9'	x	x	x	7,3	x	
Scorpius	M004	6121	Globular cluster	16h 23.6m	-26°32'	26,3'	x	x	x	5,8	x	
Ophiuchus	M107	6171	Globular cluster	16h 32.5m	-13°03'	10'	x	x	x	8,1	x	
Hercules	M013	6205	Globular cluster	16h 41.7m	+36°28'	16,6'	x	x	x	5,7	x	
Ophiuchus	M012	6218	Globular cluster	16h 47.2m	-01°57'	14,5'	x	x	x	6,8	x	
Ophiuchus	M010	6254	Globular cluster	16h 57.1m	-04°06'	15,1'	x	x	x	6,6	x	
Ophiuchus	M062	6266	Globular cluster	17h 01.2m	-30°07'	14,1'	x	x	x	6,7	x	
Ophiuchus	M019	6273	Globular cluster	17h 02.6m	-26°16'	13,5	x	x	x	6,7	x	
Hercules	M092	6341	Globular cluster	17h 17.1m	+43°08'	11,2'	x	x	x	6,4	x	
Ophiuchus	M009	6333	Globular cluster	17h 19.2m	-18°31'	9,3'	x	x	x	7,6	x	
Ophiuchus	M014	6402	Globular cluster	17h 37.6m	-03°15'	11,7'	x	x	x	7,6	x	
Scorpius	M006	6405	Open cluster	17h 40.1m	-32°13'	33'	x	80	6,17	4,2	x	
Scorpius	M007	6475	Open cluster	17h 53,9m	-34°49'	80'	x	80	5,6	3,3	x	
Sagittarius	M023	6494	Open cluster	17h 56.8m	-19°01'	27'	x	150	9,21	5,5	x	
Sagittarius	M020	6514	Diffuse Nebula	18h 02.3m	-23°02'	20' x 20'	x	x	x	x	x	
Sagittarius	M008	6523	Diffuse Nebula	18h 03.8m	-24°23'	45' x 30'	x	x	x	x	x	
Sagittarius	M021	6531	Open cluster	18h 04.6m	-22°30'	13'	x	70	7,25	5,9	x	
Sagittarius	M024		Starcloud	18h 16.5m	-18°50'	95' x 35'	x	x	x	4,6	x	

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Serpens	M016	6611	Open cluster	18h 18.8m	-13°47'	21'	x	50	8,24	6	x	
Sagittarius	M018	6613	Open cluster	18h 19.9m	-17°08'	10'	x	20	8,65	6.9	x	
Sagittarius	M017	6618	Diffuse Nebula	18h 20.8m	-16°11'	20' x 15'	x	x	x	x	x	
Sagittarius	M028	6626	Globular cluster	18h 24.5m	-24°52'	11,2'	x	x	x	6,8	x	
Sagittarius	M069	6637	Globular cluster	18h 31.4m	-32°21'	7,1'	x	x	x	7,6	x	
Sagittarius	M025	IC4725	Open cluster	18h 31.6m	-19°15'	32'	x	30	6.0	4,6	x	
Sagittarius	M022	6656	Globular cluster	18h 36.4m	-23°45'	24'	x	x	x	5,1	x	
Sagittarius	M070	6681	Globular cluster	18h 42.2m	-32°18'	7,8'	x	x	x	8	x	
Scutum	M026	6694	Open cluster	18h 45.2m	-09°24'	14'	x	30	10,3	8	x	
Scutum	M011	6705	Open cluster	18h 51.1m	-06°16'	13'	x	200	8	5,8	x	
Lyra	M057	6720	Planetary nebulae	18h 53.6m	+33°02'	>71"	x	x	x	8,8	x	
Sagittarius	M054	6715	Globular cluster	18h 55.1m	-30°29'	9,1'	x	x	x	7,6	x	
Lyra	M056	6779	Globular cluster	19h 16.6m	+30°11'	7,1'	x	x	x	8,3	x	
Sagittarius	M055	6809	Globular cluster	19h 40.0m	-30°58'	19	x	x	x	6,4	x	
Sagitta	M071	6838	Globular cluster	19h 53.8m	+18°47'	7,2'	x	x	x	8	x	
Vulpecala	M027	6853	Planetary nebulae	19h 59.6m	+22°43'	348"	x	x	x	7,3	x	
Sagittarius	M075	6864	Globular cluster	20h 06.1m	-21°55'	6'	x	x	x	8,5	x	
Cygnus	M029	6913	Open cluster	20h 23.9m	+38°32'	6'	x	50	8,59	6,6	x	
Aquarius	M072	6981	Globular cluster	20h 53.5m	-12°32'	5,9'	x	x	x	9,3	x	
Aquarius	M073	6994	Small group of stars	20h 59.5m	-12°38'	2,8'	x	4	10	8,9	x	
Pegasus	M015	7078	Globular cluster	21h 30.0m	+12°10'	12,3'	x	x	x	6	x	
Cygnus	M039	7092	Open cluster	21h 32.2m	+48°26'	31'	x	30	6,83	4,6	x	
Aquarius	M002	7089	Globular cluster	21h 33.5m	-00°49'	12,9'	x	x	x	6,4	x	
Capricorni	M030	7099	Globular cluster	21h 40.4m	+23°11'	11'	x	x	x	7,3	x	
Cassiopeia	M052	7654	Open cluster	23h 24.2m	+61°35'	12'	x	100	8,22	6,9	x	
	M102		Duplicate M101									