

Telescope Calculation Sheet

Showing CAS Eyepieces

Parameters

Metric

Imperial

Updated on: 10/09/2005

356 mm	Objective / Mirror Diameter	355.60 mm	14.00 in
f 10.00	f Ratio	f 10.00	f 10.00
	Focal Length	3556.00 mm	140.00 in
50 °	Default Eye Piece angle of view	50 °	50 °

M0 =	5.00
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Seeing in Arcseconds (see Instructions)	5.00 arc sec
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Maximum Resolution =	0.71 arc sec	- Airy Disc Diameter
	0.33 arc sec	- Dawes Limit

Eyepiece f/l	Eyepiece Field of View (Deg)	Magnification	Exit Pupil	Notes	Angle of View	Angle of View	Visual Limiting Magnitude
1.00 mm		3556.00	0.10 mm		0.01 °	00° 00'	17.8 mag
2.00 mm		1778.00	0.20 mm		0.03 °	00° 01'	17.0 mag
3.00 mm		1185.33	0.30 mm		0.04 °	00° 02'	16.6 mag
4.00 mm		889.00	0.40 mm		0.06 °	00° 03'	16.2 mag
5.00 mm		711.20	0.50 mm		0.07 °	00° 04'	16.0 mag
6.00 mm	45.00 °	592.67	0.60 mm	Vixen Lanthium	0.08 °	00° 04'	15.8 mag
7.00 mm		508.00	0.70 mm		0.10 °	00° 05'	15.6 mag
8.00 mm		444.50	0.80 mm		0.11 °	00° 06'	15.5 mag
9.00 mm	50.00 °	395.11	0.90 mm	Meade Reticule	0.13 °	00° 07'	15.4 mag
10.00 mm		355.60	1.00 mm		0.14 °	00° 08'	15.3 mag
11.00 mm		323.27	1.10 mm		0.15 °	00° 09'	15.2 mag
12.00 mm		296.33	1.20 mm		0.17 °	00° 10'	15.1 mag
12.40 mm	52.00 °	286.77	1.24 mm	Meade Super Ploesel	0.18 °	00° 10'	15.0 mag
13.00 mm		273.54	1.30 mm		0.18 °	00° 10'	15.0 mag
14.00 mm		254.00	1.40 mm		0.20 °	00° 11'	14.9 mag
15.00 mm	80.00 °	237.07	1.50 mm	Moonfish 30 mm with x2 Barlow	0.34 °	00° 20'	14.8 mag
16.00 mm		222.25	1.60 mm		0.22 °	00° 13'	14.7 mag
17.00 mm		209.18	1.70 mm		0.24 °	00° 14'	14.7 mag
18.00 mm		197.56	1.80 mm		0.25 °	00° 15'	14.6 mag
19.00 mm		187.16	1.90 mm		0.27 °	00° 16'	14.6 mag
20.00 mm	80.00 °	177.80	2.00 mm	Moonfish 30mm with x1.5 Barlow	0.45 °	00° 27'	14.5 mag
21.00 mm		169.33	2.10 mm		0.30 °	00° 17'	14.4 mag
22.00 mm		161.64	2.20 mm		0.31 °	00° 18'	14.4 mag
23.00 mm		154.61	2.30 mm		0.32 °	00° 19'	14.4 mag
24.00 mm		148.17	2.40 mm		0.34 °	00° 20'	14.3 mag
25.00 mm	52.00 °	142.24	2.50 mm	Meade Super Ploesel	0.37 °	00° 21'	14.3 mag
26.00 mm	52.00 °	136.77	2.60 mm	Meade Super Ploesel	0.38 °	00° 22'	14.2 mag
27.00 mm		131.70	2.70 mm		0.38 °	00° 22'	14.2 mag
28.00 mm		127.00	2.80 mm		0.39 °	00° 23'	14.1 mag
29.00 mm		122.62	2.90 mm		0.41 °	00° 24'	14.1 mag
30.00 mm	80.00 °	118.53	3.00 mm	Moonfish	0.67 °	00° 40'	14.1 mag
31.00 mm		114.71	3.10 mm		0.44 °	00° 26'	14.0 mag
32.00 mm		111.13	3.20 mm		0.45 °	00° 27'	14.0 mag
33.00 mm		107.76	3.30 mm		0.46 °	00° 27'	14.0 mag
34.00 mm		104.59	3.40 mm		0.48 °	00° 28'	13.9 mag
35.00 mm		101.60	3.50 mm		0.49 °	00° 29'	13.9 mag
36.00 mm		98.78	3.60 mm		0.51 °	00° 30'	13.9 mag
37.00 mm		96.11	3.70 mm		0.52 °	00° 31'	13.8 mag
38.00 mm		93.58	3.80 mm		0.53 °	00° 32'	13.8 mag
39.00 mm		91.18	3.90 mm		0.55 °	00° 32'	13.8 mag
40.00 mm		88.90	4.00 mm		0.56 °	00° 33'	13.7 mag
41.00 mm		86.73	4.10 mm		0.58 °	00° 34'	13.7 mag
42.00 mm		84.67	4.20 mm		0.59 °	00° 35'	13.7 mag

Telescope

Eyepiece f/l	Eyepiece Field of View (Deg)	Magnification	Exit Pupil	Notes	Angle of View	Angle of View	Visual Limiting Magnitude
43.00 mm		82.70	4.30 mm		0.60 °	00° 36'	13.7 mag
44.00 mm		80.82	4.40 mm		0.62 °	00° 37'	13.6 mag
45.00 mm		79.02	4.50 mm		0.63 °	00° 37'	13.6 mag
46.00 mm		77.30	4.60 mm		0.65 °	00° 38'	13.6 mag
47.00 mm		75.66	4.70 mm		0.66 °	00° 39'	13.6 mag
48.00 mm		74.08	4.80 mm		0.67 °	00° 40'	13.6 mag
49.00 mm		72.57	4.90 mm		0.69 °	00° 41'	13.5 mag
50.00 mm		71.12	5.00 mm		0.70 °	00° 42'	13.5 mag
51.00 mm		69.73	5.10 mm		0.72 °	00° 43'	13.5 mag
52.00 mm		68.38	5.20 mm		0.73 °	00° 43'	13.5 mag
53.00 mm		67.09	5.30 mm		0.75 °	00° 44'	13.4 mag
54.00 mm		65.85	5.40 mm		0.76 °	00° 45'	13.4 mag
55.00 mm		64.65	5.50 mm		0.77 °	00° 46'	13.4 mag
56.00 mm		63.50	5.60 mm		0.79 °	00° 47'	13.4 mag
57.00 mm		62.39	5.70 mm		0.80 °	00° 48'	13.4 mag
58.00 mm		61.31	5.80 mm		0.82 °	00° 48'	13.3 mag
59.00 mm		60.27	5.90 mm		0.83 °	00° 49'	13.3 mag
60.00 mm		59.27	6.00 mm		0.84 °	00° 50'	13.3 mag
61.00 mm		58.30	6.10 mm		0.86 °	00° 51'	13.3 mag
62.00 mm		57.35	6.20 mm		0.87 °	00° 52'	13.3 mag
63.00 mm		56.44	6.30 mm		0.89 °	00° 53'	13.3 mag
64.00 mm		55.56	6.40 mm		0.90 °	00° 54'	13.2 mag
65.00 mm		54.71	6.50 mm		0.91 °	00° 54'	13.2 mag
66.00 mm		53.88	6.60 mm		0.93 °	00° 55'	13.2 mag
67.00 mm		53.07	6.70 mm		0.94 °	00° 56'	13.2 mag
68.00 mm		52.29	6.80 mm		0.96 °	00° 57'	13.2 mag
69.00 mm		51.54	6.90 mm		0.97 °	00° 58'	13.2 mag
70.00 mm		50.80	7.00 mm		0.98 °	00° 59'	13.1 mag
71.00 mm		50.08	7.10 mm		1.00 °	00° 59'	13.1 mag
72.00 mm		49.39	7.20 mm		1.01 °	01° 00'	13.1 mag
73.00 mm		48.71	7.30 mm		1.03 °	01° 01'	13.1 mag
74.00 mm		48.05	7.40 mm		1.04 °	01° 02'	13.1 mag
75.00 mm		47.41	7.50 mm		1.05 °	01° 03'	13.1 mag
76.00 mm		46.79	7.60 mm		1.07 °	01° 04'	13.1 mag
77.00 mm		46.18	7.70 mm		1.08 °	01° 04'	13.0 mag
78.00 mm		45.59	7.80 mm		1.10 °	01° 05'	13.0 mag
79.00 mm		45.01	7.90 mm		1.11 °	01° 06'	13.0 mag
80.00 mm		44.45	8.00 mm		1.12 °	01° 07'	13.0 mag
81.00 mm		43.90	8.10 mm		1.14 °	01° 08'	13.0 mag
82.00 mm		43.37	8.20 mm		1.15 °	01° 09'	13.0 mag
83.00 mm		42.84	8.30 mm		1.17 °	01° 10'	13.0 mag
84.00 mm		42.33	8.40 mm		1.18 °	01° 10'	12.9 mag
85.00 mm		41.84	8.50 mm		1.20 °	01° 11'	12.9 mag
86.00 mm		41.35	8.60 mm		1.21 °	01° 12'	12.9 mag
87.00 mm		40.87	8.70 mm		1.22 °	01° 13'	12.9 mag
88.00 mm		40.41	8.80 mm		1.24 °	01° 14'	12.9 mag
89.00 mm		39.96	8.90 mm		1.25 °	01° 15'	12.9 mag
90.00 mm		39.51	9.00 mm		1.27 °	01° 15'	12.9 mag
91.00 mm		39.08	9.10 mm		1.28 °	01° 16'	12.9 mag
92.00 mm		38.65	9.20 mm		1.29 °	01° 17'	12.8 mag
93.00 mm		38.24	9.30 mm		1.31 °	01° 18'	12.8 mag
94.00 mm		37.83	9.40 mm		1.32 °	01° 19'	12.8 mag
95.00 mm		37.43	9.50 mm		1.34 °	01° 20'	12.8 mag
96.00 mm		37.04	9.60 mm		1.35 °	01° 20'	12.8 mag
97.00 mm		36.66	9.70 mm		1.36 °	01° 21'	12.8 mag
98.00 mm		36.29	9.80 mm		1.38 °	01° 22'	12.8 mag
99.00 mm		35.92	9.90 mm		1.39 °	01° 23'	12.8 mag
100.00 mm		35.56	10.00 mm		1.41 °	01° 24'	12.8 mag