Messier Objects with Data

Type:

1=Open Cluster,

2=Globular Cluster,

3=Planetary Nebula,

4=Diffuse Nebula,

5=Spiral Galaxy,

6=Elliptical Galaxy,

7=Irregular Galaxy,

8=Lenticular (S0) Galaxy,

9=Supernova Remnant,

A=System of 4 stars or Asterism,

B=Milky Way Patch,

C=Binary star

Description:

RA: right ascension in hours minutes.decimal seconds. Epoch is 2000.0

Dec: declination in degrees minutes. Epoch is 2000.0

B: apparent visual magnitude

D: apparent (angular) dimension in arc minutes

d: distance in kilo-light-years

M NGC Con Type RA Dec B D d

M1 001 1952 Tau 9 05 34.5 +22 01 8.4 6x4 6.3

M2 002 7089 Aqr 2 21 33.5 -00 49 6.5 12.9 36.2

M3 003 5272 CVn 2 13 42.2 +28 23 6.2 16.2 30.6

M4 004 6121 Sco 2 16 23.6 -26 32 5.6 26.3 6.8

M5 005 5904 Ser 2 15 18.6 +02 05 5.6 17.4 22.8

M6 006 6405 Sco 1 17 40.1 -32 13 5.3 25.0 2

M7 007 6475 Sco 1 17 53.9 -34 49 4.1 80.0 0.8

M8 008 6523 Sgr 4 18 03.8 -24 23 6.0 90x40 5.2

M9 009 6333 Oph 2 17 19.2 -18 31 7.7 9.3 26.4

M10 010 6254 Oph 2 16 57.1 -04 06 6.6 15.1 13.4

M11 011 6705 Sct 1 18 51.1 -06 16 6.3 14.0 6

M12 012 6218 Oph 2 16 47.2 -01 57 6.7 14.5 17.6

M13 013 6205 Her 2 16 41.7 +36 28 5.8 16.6 22.8

M14 014 6402 Oph 2 17 37.6 -03 15 7.6 11.7 27.4

M15 015 7078 Peg 2 21 30.0 +12 10 6.2 12.3 32.6

M16 016 6611 Ser 1 18 18.8 -13 47 6.4 7.0 7

M17 017 6618 Sgr 4 18 20.8 -16 11 7.0 11.0 5

M18 018 6613 Sgr 1 18 19.9 -17 08 7.5 9.0 4.9

M19 019 6273 Oph 2 17 02.6 -26 16 6.8 13.5 27.1

M20 020 6514 Sgr 4 18 02.6 -23 02 9.0 28.0 5.2

M21 021 6531 Sgr 1 18 04.6 -22 30 6.5 13.0 4.25

M22 022 6656 Sgr 2 18 36.4 -23 54 5.1 24.0 10.1

M23 023 6494 Sgr 1 17 56.8 -19 01 6.9 27.0 2.15

M24 024 >6603 Sgr B 18 16.9 -18 29 4.6 90 10

M25 025 I4725 Sgr 1 18 31.6 -19 15 6.5 40.0 2

M26 026 6694 Sct 1 18 45.2 -09 24 8.0 15.0 5

M27 027 6853 Vul 3 19 59.6 +22 43 7.4 8.0x5.7 1.25

M28 028 6626 Sgr 2 18 24.5 -24 52 6.8 11.2 17.9

M29 029 6913 Cyg 1 20 23.9 +38 32 7.1 7.0 4.0

M30 030 7099 Cap 2 21 40.4 -23 11 7.2 11.0 24.8

M31 031 224 And 5 00 42.7 +41 16 3.4 178x63 2900.0

M32 032 221 And 6 00 42.7 +40 52 8.1 8x6 2900.0

M33 033 598 Tri 5 01 33.9 +30 39 5.7 73x45 3000.0

M34 034 1039 Per 1 02 42.0 +42 47 5.5 35.0 1.4

M35 035 2168 Gem 1 06 08.9 +24 20 5.3 28.0 2.8

M36 036 1960 Aur 1 05 36.1 +34 08 6.3 12.0 4.1

M37 037 2099 Aur 1 05 52.4 +32 33 6.2 24.0 4.4

M38 038 1912 Aur 1 05 28.4 +35 50 7.4 21.0 4.2

M39 039 7092 Cyg 1 21 32.2 +48 26 5.2 32.0 0.825

M40 040 Win4 UMa C 12 22.4 +58 05 8.4 0.8 0.51

M41 041 2287 CMa 1 06 46.0 -20 44 4.6 38.0 2.3

M42 042 1976 Ori 4 05 35.4 -05 27 4.0 85x60 1.6

M43 043 1982 Ori 4 05 35.6 -05 16 9.0 20x15 1.6

M44 044 2632 Cnc 1 08 40.1 +19 59 3.7 95.0 0.577

M45 045 - Tau 1 03 47.0 +24 07 1.6 110.0 0.38

M46 046 2437 Pup 1 07 41.8 -14 49 6.0 27.0 5.4

M47 047 2422 Pup 1 07 36.6 -14 30 5.2 30.0 1.6

M48 048 2548 Hya 1 08 13.8 -05 48 5.5 54.0 1.5

M49 049 4472 Vir 6 12 29.8 +08 00 8.4 9x7.5 60000.0

M50 050 2323 Mon 1 07 03.2 -08 20 6.3 16.0 3

M51 051 5194 CVn 5 13 29.9 +47 12 8.4 11x7 37000.0

M52 052 7654 Cas 1 23 24.2 +61 35 7.3 13.0 5.0

M53 053 5024 Com 2 13 12.9 +18 10 7.6 12.6 56.4

M54 054 6715 Sgr 2 18 55.1 -30 29 7.6 9.1 82.8

M55 055 6809 Sgr 2 19 40.0 -30 58 6.3 19.0 16.6

M56 056 6779 Lyr 2 19 16.6 +30 11 8.3 7.1 31.6

M57 057 6720 Lyr 3 18 53.6 +33 02 8.8 1.4x1.0 4.1

M58 058 4579 Vir 5 12 37.7 +11 49 9.7 5.5x4.5 60000.0

M59 059 4621 Vir 6 12 42.0 +11 39 9.6 5x3.5 60000.0

M60 060 4649 Vir 6 12 43.7 +11 33 8.8 7x6 60000.0

M61 061 4303 Vir 5 12 21.9 +04 28 9.7 6x5.5 60000.0

M62 062 6266 Oph 2 17 01.2 -30 07 6.5 14.1 21.5

M63 063 5055 CVn 5 13 15.8 +42 02 8.6 10x6 37000.0

M64 064 4826 Com 5 12 56.7 +21 41 8.5 9.3x5.4 19000.0

M65 065 3623 Leo 5 11 18.9 +13 05 9.3 8x1.5 35000.0

M66 066 3627 Leo 5 11 20.2 +12 59 8.9 8x2.5 35000.0

M67 067 2682 Cnc 1 08 50.4 +11 49 6.1 30.0 2.7

M68 068 4590 Hya 2 12 39.5 -26 45 7.8 12.0 32.3

M69 069 6637 Sgr 2 18 31.4 -32 21 7.6 7.1 26.7

M70 070 6681 Sgr 2 18 43.2 -32 18 7.9 7.8 28.0

M71 071 6838 Sge 2 19 53.8 +18 47 8.2 7.2 11.7

M72 072 6981 Aqr 2 20 53.5 -12 32 9.3 5.9 52.8

M73 073 6994 Aqr A 20 58.9 -12 38 9.0 2.8 0.0

M74 074 628 Psc 5 01 36.7 +15 47 9.4 10.2x9.5 35000.0

M75 075 6864 Sgr 2 20 06.1 -21 55 8.5 6.0 57.7

M76 076 650 Per 3 01 42.4 +51 34 10.1 2.7x1.8 3.4

M77 077 1068 Cet 5 02 42.7 -00 01 8.9 7x6 60000.0

M78 078 2068 Ori 4 05 46.7 +00 03 8.3 8x6 1.6

M79 079 1904 Lep 2 05 24.5 -24 33 7.7 8.7 41.1

M80 080 6093 Sco 2 16 17.0 -22 59 7.3 8.9 27.4

M81 081 3031 UMa 5 09 55.6 +69 04 6.9 21x10 12000.0

M82 082 3034 UMa 7 09 55.8 +69 41 8.4 9x4 12000.0

M83 083 5236 Hya 5 13 37.0 -29 52 7.6 11x10 15000.0

M84 084 4374 Vir 8 12 25.1 +12 53 9.1 5.0 60000.0

M85 085 4382 Com 8 12 25.4 +18 11 9.1 7.1x5.2 60000.0

M86 086 4406 Vir 8 12 26.2 +12 57 8.9 7.5x5.5 60000.0

M87 087 4486 Vir 6 12 30.8 +12 24 8.6 7.0 60000.0

M88 088 4501 Com 5 12 32.0 +14 25 9.6 7x4 60000.0

M89 089 4552 Vir 6 12 35.7 +12 33 9.8 4.0 60000.0

M90 090 4569 Vir 5 12 36.8 +13 10 9.5 9.5x4.5 60000.0

M91 091 4548 Com 5 12 35.4 +14 30 10.2 5.4x4.4 60000.0

M92 092 6341 Her 2 17 17.1 +43 08 6.4 11.2 26.4

M93 093 2447 Pup 1 07 44.6 -23 52 6.0 22.0 3.6

M94 094 4736 CVn 5 12 50.9 +41 07 8.2 7x3 14500.0

M95 095 3351 Leo 5 10 44.0 +11 42 9.7 4.4x3.3 38000.0

M96 096 3368 Leo 5 10 46.8 +11 49 9.2 6x4 38000.0

M97 097 3587 UMa 3 11 14.8 +55 01 9.9 3.4x3.3 2.6

M98 098 4192 Com 5 12 13.8 +14 54 10.1 9.5x3.2 60000.0

M99 099 4254 Com 5 12 18.8 +14 25 9.9 5.4x4.8 60000.0

M100 100 4321 Com 5 12 22.9 +15 49 9.3 7x6 60000.0

M101 101 5457 UMa 5 14 03.2 +54 21 7.9 22.0 27000.0

M102? 102? 5457 UMa 5 14 03.2 +54 21 7.9 22.0 27000.0

M102? 102? 5866 Dra 8 15 06.5 +55 46 9.9 5.2x2.3 40000.0

M103 103 581 Cas 1 01 33.2 +60 42 7.4 6.0 8.0

M104 104 4594 Vir 5 12 40.0 -11 37 8.0 9x4 50000.0

M105 105 3379 Leo 6 10 47.8 +12 35 9.3 2.0 38000.0

M106 106 4258 CVn 5 12 19.0 +47 18 8.4 19x8 25000.0

M107 107 6171 Oph 2 16 32.5 -13 03 7.9 10.0 19.6

M108 108 3556 UMa 5 11 11.5 +55 40 10.0 8x1 45000.0

M109 109 3992 UMa 5 11 57.6 +53 23 9.8 7x4 55000.0

M110 110 205 And 6 00 40.4 +41 41 8.5 17x10 2900.0

Homogenous data for all the Messier objects of their various types are plainly unavailable from professional sources, so our compilation is necessarily preliminary and far from being perfect, even if we completely disregard the generally poor availability of accurate distances.

An amateur attempt was undertaken by Don Machholz, who determined apparent visual brightness (in magnitudes) and apparent diameters (in arc minutes) in his booklet, Messier Marathon Observer’s Guide; look at his list.