The Insider's Guide to the Galaxy Presents...

Messier Minutes

a guide to completing RASC's Messier Observing Certificate

Part 16 -

October 11th – October 24th, 2022

The following pages include a list of objects discussed on October 11th, 2022, the final episode of Messier Minutes. Including finder charts and log pages.

List of Targets Discussed:

October 11 waning after the full moon; last of the autumn Messiers (We're all done!!!!)

Messier #	Constellation	Magnitude	Type	NGC	Name
52	Cas	6.9	OC	7654	Cassiopeia Salt-and-Pepper Cluster
103	Cas	7.4	OC	581	Melotte 8
76	Per	10.1	PN	650/1	Little Dumbbell Nebula
34	Per	5.2	OC	1039	Spiral Cluster & Melotte 17

Notes:

M52:

(16 arc-minutes)

A large and relatively prominent open cluster situated between the naked-eye star 4 Cas and the Bubble Nebula. M52 is easily located by doubling the line from Schedar to Caph in Cassiopeia. It can be seen easily in binoculars and in any telescope. Larger aperture telescopes will see more of its 193 stars. How many do you see? Notice its shape, degree of compactness, and distinctiveness from the surrounding star field. About 500 l-y away, but watch for brighter, more colourful stars that are in the foreground.

M103:

(6 arc-minutes)

Small, but dense open cluster that can be seen in binoculars and any size of telescope. It is located a finger's width from Ruchbah, extending the line drawn from Schedar to Ruchbah. This extremely distant open cluster (9,790 l-y away) was the final entry in Messier's original list. Note the arrangement and colours of the most prominent stars and then count the surrounding fainter members. What shape do you see? Watch for more very nice open clusters nearby.

M76:

(3x2 arc-minutes)

A challenging Messier because it is small and faint. It requires a telescope to see it well, the larger the better. M76 is located halfway between Almach and Navi (Gamma Cas), in the sky between the Andromeda Galaxy and the Double Cluster. Better when higher in late evening, or wait a few weeks. Use an O-III or UHC filter to brighten it, and try different magnifications. Take note of its shape, and try to see the fainter lobes. It's about 2,435 l-y away.
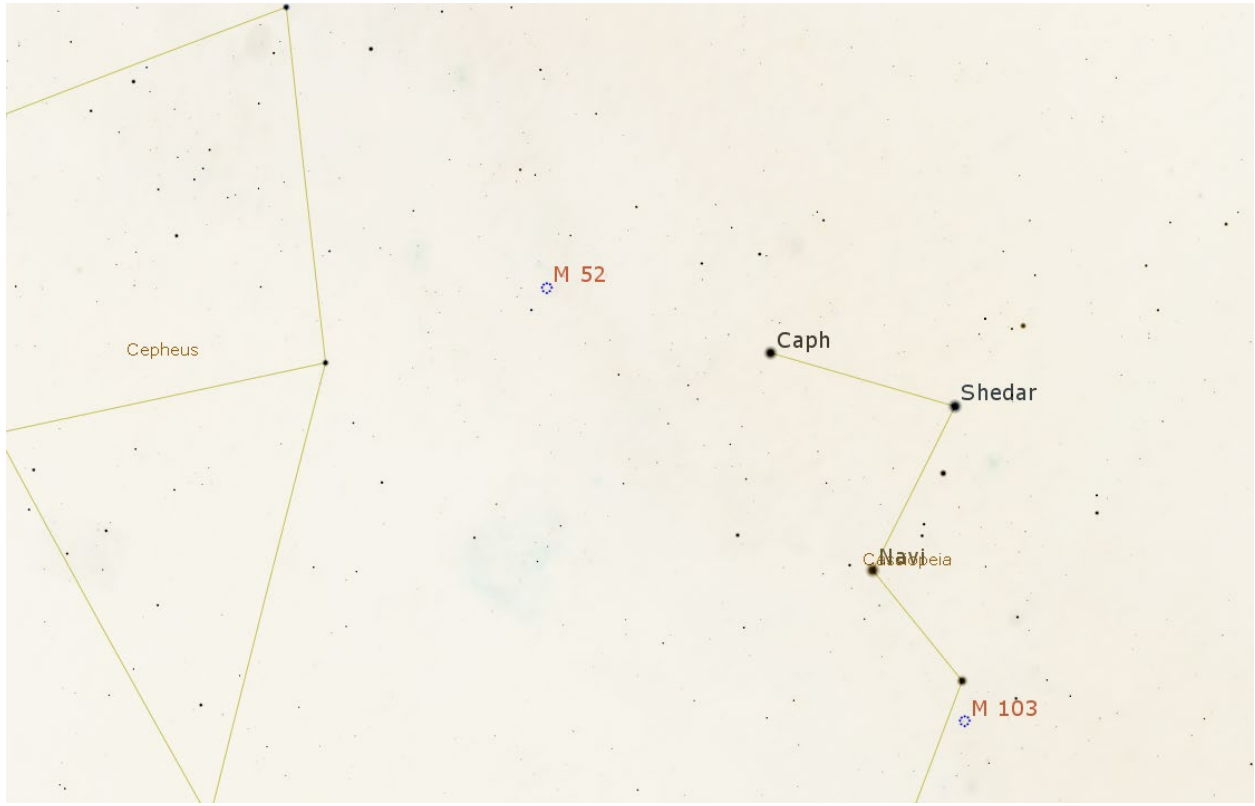
M34:

(25 arc-minutes)

A bright open cluster that is large enough to see its stars in binoculars. Any telescope will work, but not too much magnification. At 1,530 l-y distance, it is the 7th closest Messier to us. Perhaps wait until late evening to view it now or in early evening come winter. Count the major stars and their colours and see how many of the minor stars you can detect. Note any shapes or asterisms and its overall density.
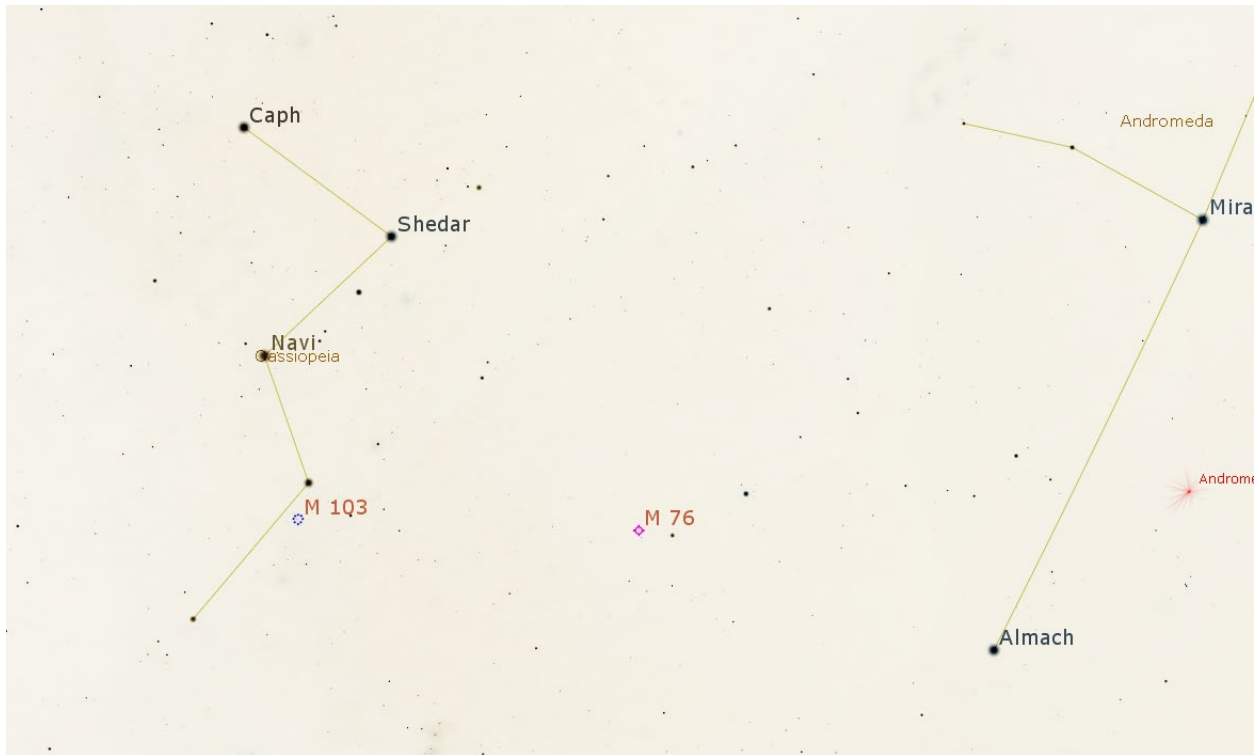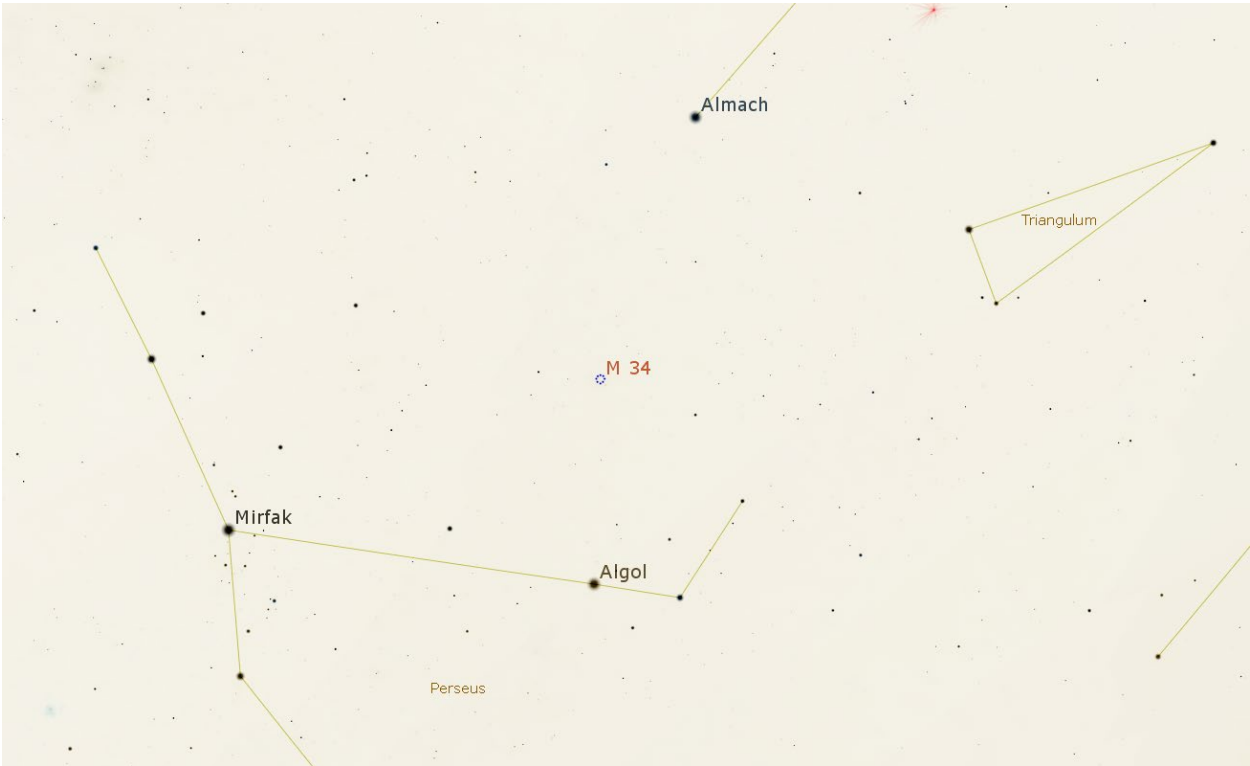
Target Finder Charts:

Overview of Targets -
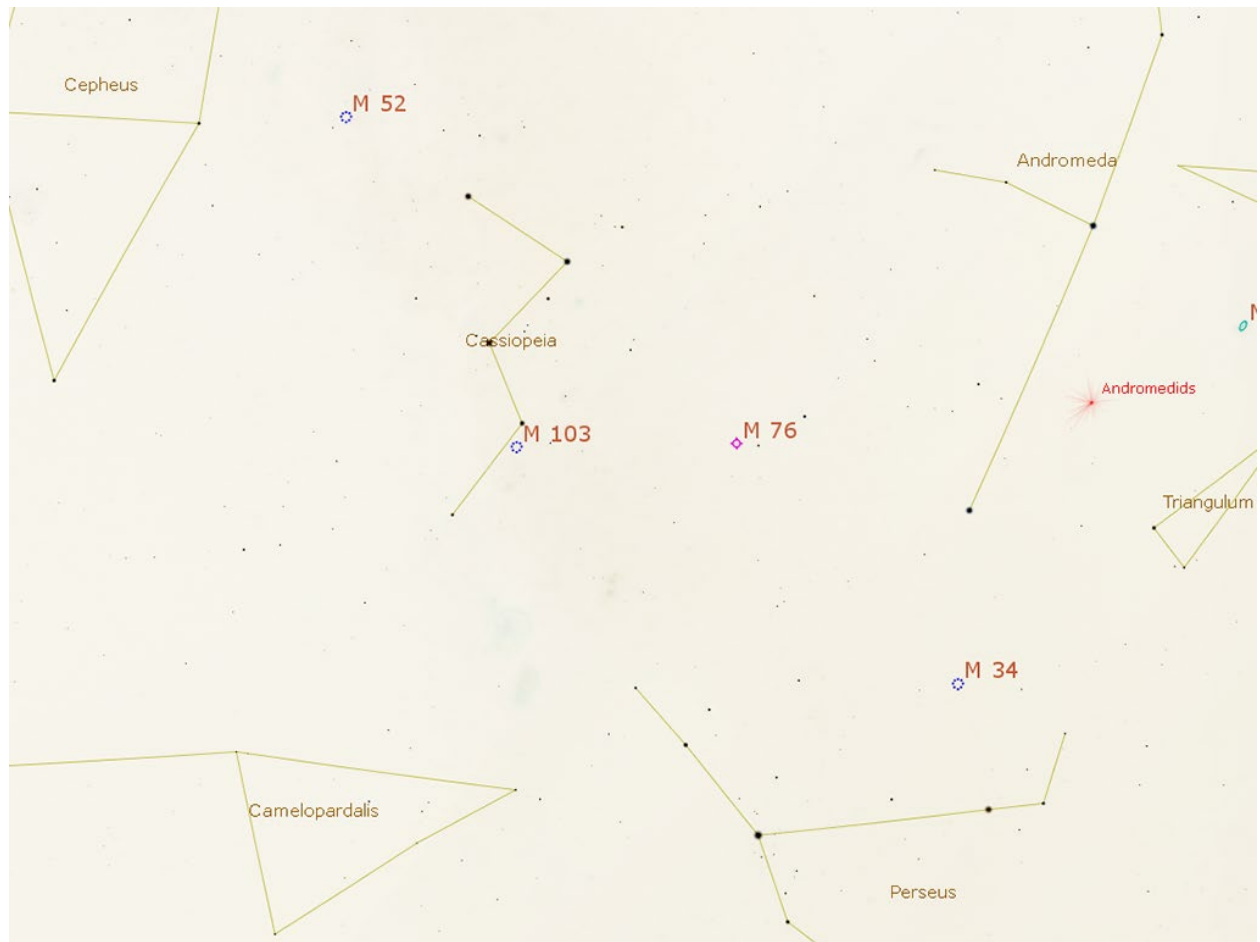
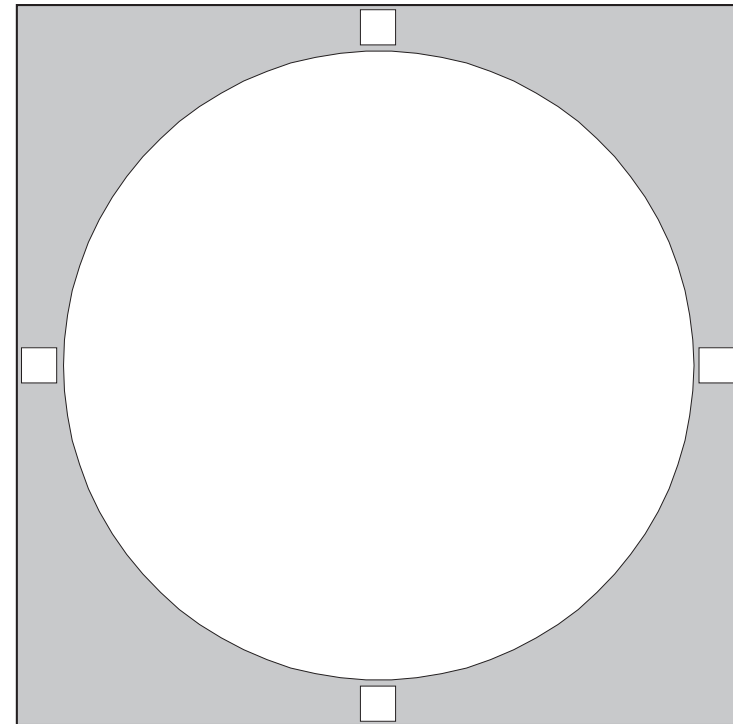*M52 Closer View –*

M103 & M76 Closer View –

M34 Closer View –

Messier Object	M52	
NGC	7654	
Constellation	Cassiopeia	
Type	Open Cluster	
Magnitude	6.9	
Distance (Kilo light-years)	5.0	
RA	23 24.2	
Dec	+61:35	
Size	12.0'	
UM I	UM II 15,34,58	18
SA	3	
Remarks	young, rich cluster; faint Bubble Nebula near by	
Time (hh:mm)		
Seeing	1 2 3 4 5	
Transparency	1 2 3 4 5	
Observing Location		
Telescope		
Date (dd:mm:yyyy)		

Notes

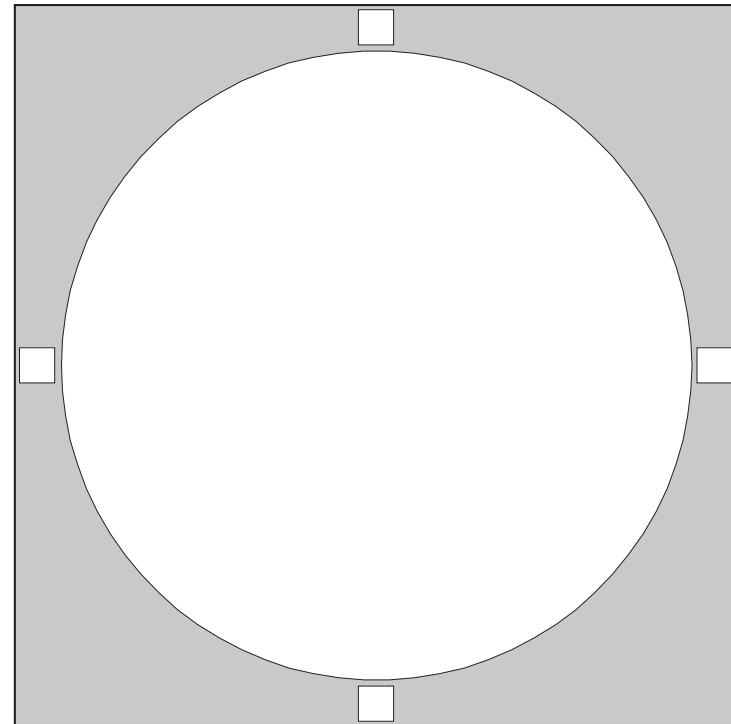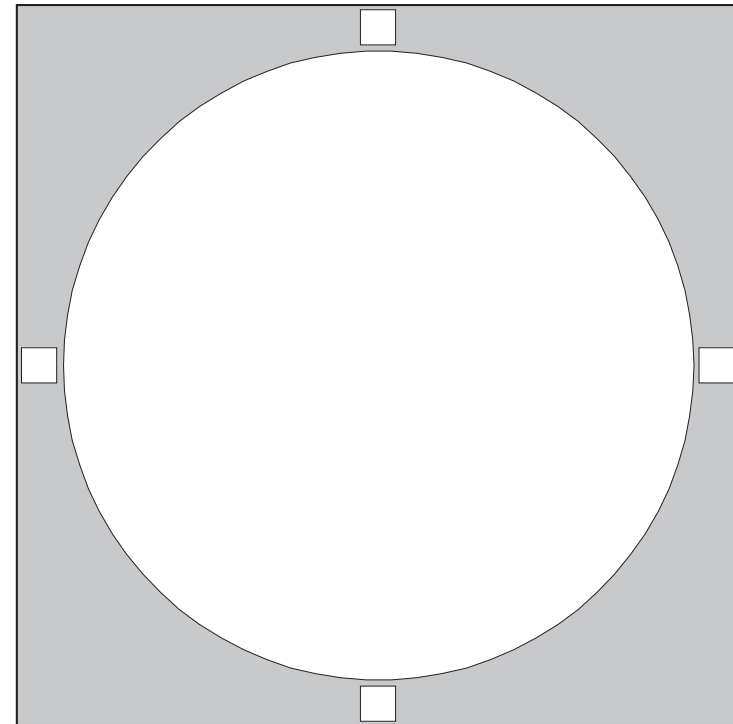| Messier Object	**M103**	
NGC	**581**	
Constellation	**Cassiopeia**	
Type	**Open Cluster**	
Magnitude	**7.4**	
Distance (Kilo light-years)	**8.5**	
RA	**01 33.2**	
Dec	**+60:42**	
Size	**6.0'**	
UM I | UM II	**16,36,37**	**29**
SA	**1**	
Remarks	**three NGC open clusters near by**	
Time (hh:mm)		
Seeing	1 2 3 4 5	
Transparency	1 2 3 4 5	
Observing Location		
Telescope		
Date (dd:mm:yyyy)		

Notes

PN: Planetary Nebula	RN: (diffuse) Reflection Nebula	Seeing: 1 = Best 5 = Poor	* = Number of stars in cluster
SNR: Supernova Remnant	EN: (diffuse) Emission Nebula	Transparency: 1 = Best 5 = Poor	** p = Photographic Magnitude
GC: Globular Cluster	G-: Galaxy, with Hubble type given	Time: DD:MM:YYYY	*** !! = Showpiece Object
OC: Open Cluster	E/RN: Diffuse emission and reflection Nebula	Date: Specify Time Zone or UT	http://www.rasc.ca

Little Dumbbell Nebula

Messier Object	**M76**
NGC	**650/51**
Constellation	**Perseus**
Type	**Planetary Nebula**
Magnitude	**10.1**
Distance (Kilo light-years)	**3.4**
RA	**01 42.4**
Dec	**+51:34**
Size	**> 1' 5"**

UM I	UM II	
	37	**29,44**

SA	**1, 4**
Remarks	**Little Dumbbell; faint but distinct**
Time (hh:mm)	
Seeing	1 2 3 4 5
Transparency	1 2 3 4 5
Observing Location	
Telescope	
Date (dd:mm:yyyy)	

Notes

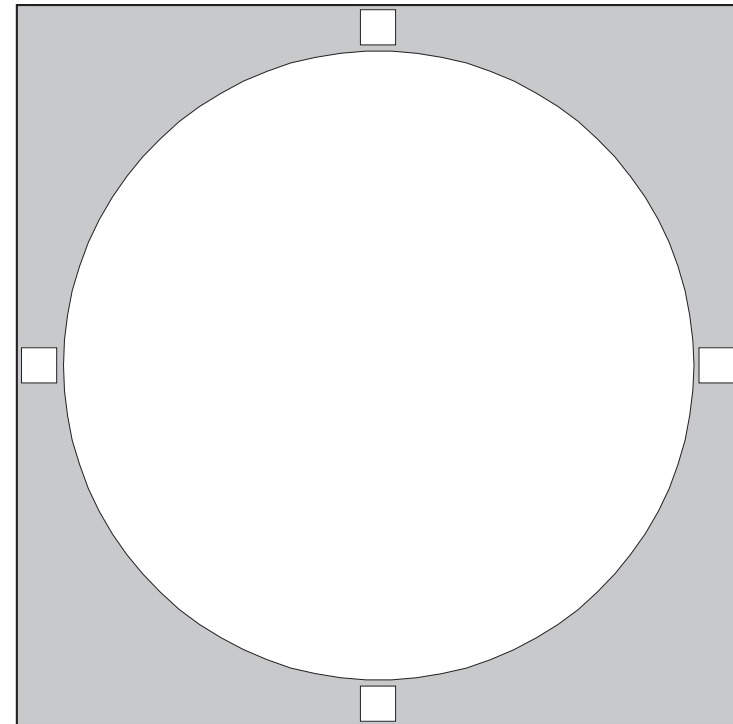---
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Messier Object	**M34**	
NGC	**1039**	
Constellation	**Perseus**	
Type	**Open Cluster**	
Magnitude	**5.2**	
Distance (Kilo light-years)	**1.4**	
RA	**02 42.0**	
Dec	**+42:47**	
Size	**35.0'**	
UM I	UM II	**62**	**43**
SA	**1, 4**	
Remarks	**best at low power**	
Time (hh:mm)		
Seeing	1 2 3 4 5	
Transparency	1 2 3 4 5	
Observing Location		
Telescope		
Date (dd:mm:yyyy)		

Notes

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