

Object

NGC2238

Common Name	Rosette Nebula
Alternate Name	NGC2237, NGC2239, NGC2244, N
Visual Magnitude	9
Distance ► Object	5200 ly
Apparent Size	1.3 °
Object R.A.	06h 33m 45s
Object DEC	+04° 59' 54"
WikiLink	https://en.wikipedia.org/wiki/Rosette_Nebula



20231116-063835_NGC2238_ZWOASI294_0001-02-WM.jpg

Link ► Picture	NGC2238_20231116
Description	Emission Nebula
Constellation	Monoceros

Picture Data

Work Status	Published	Quality	*****		
Format	Photo	Picture Center R.A.	06h 32m 02.917s		
Tot./Act. Frames/Pane	110	110	Picture Center DEC	+04° 57' 33.072"	
H / V Panes	1	1	H/V FoV [°]	1,8268	1,2434
Exp. [s] / Frame	180	Above horizon [°]	30°		
Total Time / Pane [min]	330,00	330,00	View Direction	3h 51m E	

Camera Data

ZWO

ASI294MC-Pro

ZWOASI294

Camera Angle [°]	124,8	Pixel Pitch [µm]	4,63
Gain or ISO	120	Camera Temp. °C	-10

Observation Data

Observation Start	2023-11-16T00:13:32 UTC+/- +h	Observation End	2023-11-16T06:38:35	
Observation Site	ES La Palma Jardin	Site Elevation /Bortle	470	3
Province	La Palma	Site Coordinates	28° 38' 52.0" N, 017° 53' 4	

Sky & Moon

Sky Index Total Clouds	3,9	0	%	Moon Rise Set	10:46:00	20:54:00
Outside Temp. °C	20	Moon Age [d]	2			
Moon Phase % Illum.	1st quarter	8	%	Moon ► Target Dist.	29° 18'	

Optical Config.

TS600AS294

TS600AS294T252

Lens or Scope	TSO APO 90/600	Focuser	M90 TS600 Rack + Pinion		
Type Of Build	APO Triplet Refractor	Focuser Position [mm]	59,83	EAF Steps	20629
Brand	TS-Optics	FoL norm actual	599	599	
Additional Optics	M63 WO Rotator				
Filter	-				
Diameter [mm]	90	DawesLimitLink	1,74 Arcsec		
Aperture / f-stop	6,66	Optical Scale ["/px]	1,595		

Other Hardware & Software

GuideScope	ZWO 30/120 mini	Mount	EQ6R-PRO
GuiderHW	ASIAIR	SessionControl	ASIAIR
GuiderSW	ASIAIR	PostProcessingSW	NoiseXTerminator, BlurXTerminator, LrC, PixInsight

More ...

Work Folder	2023\20231116-001332_NGC2238_La-Palma-Jardin
Comment	image center = SatelliteCluster NGC2244 , image size: 1.83 x 1.25 deg, radius: 1.109 deg
Remarks	1. Session Planning Used ASIAIR SkyAtlas to setup the image acquisition plan and the camera rotation.

2. Location and sky

All light frames were taken on La Palma (Canary Islands, Spain) at about 500 meters above sea level.

Seeing conditions were quite good, but arc.sec. was only at about 1.5, which is quite bad for this location.

3. Session Results

Good quality even without using any filter.

4. Plate Solving and Camera Rotation Results

ASI AIR rotation measurement: -124.842 deg, RA: 6h 32m 02.878s, DEC: +4° 57' 33.12"

Astrometry.net rotation measurement: Orientation: Up is 124.8 degrees E of N, RA: 06h 32m 02.917s, DEC: +04° 57' 33.072"

Plate Solve result (ASI AIR):

5. Post Processing

Image selection, registration, background improvement and color correction were done in PixInsight (Post Processing using PixInsight (starlust.de)).

No further image post processing was required.

No color or hue changes have been applied; the final image is showing natural colors.

6. Lessons Learned

The Optolong 2" L-eNhanche would have improved the image even more.

7. Main logfile entries

```
2023/11/15 23:42:02 Plan NGC2238 Start
2023/11/15 23:42:02 [Autorun|Begin] NGC2244SatelliteCluster
Start
2023/11/15 23:42:02 Wait 17min57s
2023/11/16 00:06:29 [Guide] Stop Guiding
2023/11/16 00:06:29 [AutoCenter|Begin] Auto-Center 1#
2023/11/16 00:06:29 Mount slews to target position:
RA:6h33m15s DEC:+4°56'18"
2023/11/16 00:06:34 Exposure 2.0s
2023/11/16 00:06:37 Plate Solve
2023/11/16 00:06:39 Solve succeeded: RA:6h33m15s DEC:+4°
56'58" Angle = -124.856, Star number = 1001
2023/11/16 00:06:40 [AutoCenter|End] The target is centered
2023/11/16 00:06:40 Start Tracking
2023/11/16 00:06:40 [Guide] Start Tracking failed
...
2023/11/16 00:09:27 Auto focus succeeded, the focused
position is 20629
2023/11/16 00:09:27 [AutoFocus|End] Auto focus succeeded
2023/11/16 00:09:29 [Guide] ReSelect Guide star
2023/11/16 00:09:30 [Guide] Start Guiding
2023/11/16 00:09:31 [Guide] Guide Settle
2023/11/16 00:10:31 [Guide] Settle Timeout
2023/11/16 00:10:31 Exposure 180.0s image 1#
2023/11/16 00:13:32 Exposure 180.0s image 2#
2023/11/16 00:16:33 Exposure 180.0s image 3#
2023/11/16 00:16:39 Stop Autorun Manually
2023/11/16 00:16:39 [Guide] Stop Guiding
2023/11/16 00:16:40 [Autorun|End] Pause Autorun
2023/11/16 00:16:40 Pause Plan NGC2238
Log disabled at 2023/11/16 00:16:40
Log enabled at 2023/11/16 00:23:19
2023/11/16 00:23:19 Plan NGC2238 Start
2023/11/16 00:23:20 [Autorun|Begin] NGC2244SatelliteCluster
Start
2023/11/16 00:23:20 [Guide] Stop Guiding
2023/11/16 00:23:21 [AutoCenter|Begin] Auto-Center 1#
2023/11/16 00:23:21 Mount slews to target position:
RA:6h33m15s DEC:+4°56'18"
2023/11/16 00:23:26 Exposure 2.0s
2023/11/16 00:23:29 Plate Solve
2023/11/16 00:23:31 Solve succeeded: RA:6h33m15s DEC:+4°
56'48" Angle = -124.853, Star number = 1160
```

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2023/11/16 00:23:31 [AutoCenter|End] The target is centered
2023/11/16 00:23:32 Start Tracking
2023/11/16 00:23:32 [Guide] Start Tracking failed
...
2023/11/16 00:23:39 Shooting 130 light frames, exposure
180.0s Bin1
2023/11/16 00:23:39 Exposure 180.0s image 3#
2023/11/16 00:26:40 Exposure 180.0s image 4#
2023/11/16 00:29:42 Exposure 180.0s image 5#
2023/11/16 00:32:43 [Guide] Dither
...
2023/11/16 00:33:44 Exposure 180.0s image 6#
...
2023/11/16 01:18:01 Exposure 180.0s image 20#
2023/11/16 01:21:02 [Guide] Dither
2023/11/16 01:21:02 [Guide] Dither Settle
2023/11/16 01:22:03 [Guide] Settle Timeout
2023/11/16 01:22:03 Start Tracking
2023/11/16 01:22:03 [Guide] Start Tracking failed
2023/11/16 01:22:03 [Guide] Stop Guiding
2023/11/16 01:22:03 [AutoFocus|Begin] Run AF 1 hours later,
exposure 5.0s Bin1, temperature 23.0°C
2023/11/16 01:24:43 Auto focus succeeded, the focused
position is 20601
2023/11/16 01:24:43 [AutoFocus|End] Auto focus succeeded
2023/11/16 01:24:46 [Guide] ReSelect Guide star
2023/11/16 01:24:46 [Guide] Start Guiding
2023/11/16 01:24:48 [Guide] Guide Settle
2023/11/16 01:25:48 [Guide] Settle Timeout
2023/11/16 01:25:48 Exposure 180.0s image 21#
...
2023/11/16 02:23:08 Exposure 180.0s image 39#
2023/11/16 02:26:09 Start Tracking
...
2023/11/16 02:28:41 Auto focus succeeded, the focused
position is 20610
2023/11/16 02:28:41 [AutoFocus|End] Auto focus succeeded
...
2023/11/16 02:32:52 Exposure 180.0s image 41#
...
2023/11/16 03:59:12 Exposure 180.0s image 67#
2023/11/16 04:02:14 [Meridian Flip|Begin] Wait 4min42s to
Meridian Flip
2023/11/16 04:06:56 Meridian Flip 1# Start
2023/11/16 04:06:56 [AutoCenter|Begin] Auto-Center 1#
2023/11/16 04:06:56 Mount slews to target position:
RA:6h33m15s DEC:+4°56'18"
2023/11/16 04:07:49 Exposure 2.0s
2023/11/16 04:07:52 Plate Solve
2023/11/16 04:07:54 Solve succeeded: RA:6h35m4s DEC:+5°13'29"
Angle = 55.1165, Star number = 1809
...
2023/11/16 04:08:09 Solve succeeded: RA:6h33m18s DEC:+4°
56'21" Angle = 55.1598, Star number = 1522
2023/11/16 04:08:09 [AutoCenter|End] The target is centered
2023/11/16 04:08:09 [Meridian Flip|End] Meridian Flip
succeeded
2023/11/16 04:08:09 Start Tracking
...
2023/11/16 04:10:53 Auto focus succeeded, the focused
position is 20591
2023/11/16 04:10:53 [AutoFocus|End] Auto focus succeeded
...
2023/11/16 04:15:10 Exposure 180.0s image 68#
...

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2023/11/16 05:09:29 Exposure 180.0s image 85#
...
2023/11/16 05:16:11 Auto focus succeeded, the **focused position is 20592**
...
2023/11/16 05:16:19 Exposure 180.0s image 86#
...
2023/11/16 06:13:40 Exposure 180.0s image 104#
...
2023/11/16 06:19:20 Auto focus succeeded, the **focused position is 20598**
2023/11/16 06:19:20 [AutoFocus|End] Auto focus succeeded
...
2023/11/16 06:23:30 Exposure 180.0s image 106#
...
2023/11/16 06:35:34 Exposure 180.0s image 110#
...
2023/11/16 06:38:48 Stop Autorun Manually
2023/11/16 06:38:48 [Guide] Stop Guiding
2023/11/16 06:38:49 [Autorun|End] Pause Autorun
2023/11/16 06:38:49 Pause Plan NGC2238
...
2023/11/16 06:41:26 Plan NGC2238 Start
2023/11/16 06:41:27 [Autorun|Begin] NGC2244SatelliteCluster Start
2023/11/16 06:41:27 [AutoCenter|Begin] Auto-Center 1#
...
2023/11/16 06:41:52 Plate Solve
2023/11/16 06:41:54 Solve succeeded: RA:6h33m17s DEC:+4° 56'18" Angle = 55.1144, Star number = 1000
...
2023/11/16 06:42:03 [AutoFocus|Begin] Run AF before Autorun start, exposure 5.0s Bin1, temperature 22.1°C
...
2023/11/16 06:44:51 Auto focus succeeded, the focused position is 20592
2023/11/16 06:44:51 [AutoFocus|End] Auto focus succeeded
2023/11/16 06:44:53 [Guide] ReSelect Guide star
2023/11/16 06:44:54 [Guide] Start Guiding
2023/11/16 06:44:55 [Guide] Guide Settle
2023/11/16 06:44:59 [Guide] Settle Done
2023/11/16 06:44:59 Exposure 180.0s image 1#
2023/11/16 06:48:00 Exposure 180.0s image 2#
2023/11/16 06:48:20 Stop Autorun Manually
2023/11/16 06:48:20 [Guide] Stop Guiding
2023/11/16 06:48:20 [Autorun|End] Pause Autorun
2023/11/16 06:48:20 Pause Plan NGC2238
Log disabled at 2023/11/16 06:48:20