

ObservationReport

all measures in mm

Observation-ID

0391 v 01

on

2025-05-31 23:33

Rating

Status

Published



Main Object	Rho Ophiuchi Cloud Complex	
Common Name	Rho Ophiuchi Cloud Complex	
Alternate Name		
Visual Mag. Size	0,00	4.5° × 6.5°
Distance	460 ly	
Object R.A. DEC coord.	16hr 28' 06"	-24° 32' 30"
Description	Star forming region	
Constellation	Ophiuchus	
Other Objects	<input type="text" value="a-Scorpio"/>	<input type="text" value="NGC6121"/>
	<input type="text" value="M4"/>	



20250531_IC4604_FUJXT3_0391-02.jpg

StarImage Link	OID0391
Telescopius Link	https://telescopius.com/de
Wikipedia Link	https://en.wikipedia.org/wi

Image Properties

Source Format	Photo	Optical Scale ["/px]	14,0284	
Tot./Act. Frames/Pane	20	19	Picture Center R.A.	16h22m16.526s
H / V Panes	1	1	Picture Center DEC	-23°58m43.12s
Exp. [s] / Frame	30	FoV measured H/V [°]	24,118	16,144
Total Time / Pane [min]	9,50	9,50	Above horizon [°]	37° 9' 3,6"
		View Direction	S 173° 50' 46,9"	

Camera Data

FUJIFILM

FUJXT3

FUJXT3

Camera Angle [°]	325,3	Pixel Pitch [µm]	3,740
Gain or ISO	3200	Camera Temp. °C	20

Observation Site

Observation Start	2025-05-31T23:33:11 UTC+/- 1h	Observation End	2025-05-31T23:53:08
Observation Site	ES LP - Llanos de Jable	Site Elevation / Bortle	1350 3
Province	La Palma	Site Coordinates	017° 50' 51.2" W; 28° 37' 02.3" N

Sky & Moon

Sky Index Total Clouds	4,0	35	%	Moon Rise Set	11:30:00	00:52:00
SQM Outside Temp. °C	20,41	20		Moon Age [d]	4,3	
Moon Phase % Illum.	1st quarter	26	%	Moon ► Target Dist.	UNKNOWN	

Optical Configuration

FUXT3FU55

FU16-55FUJXT3

Lens or Scope	Fujinon XF 16-55mm	Mechanical Focuser	-
Type Of Build	Camera Lens	Electronic Focuser	<input type="checkbox"/>
Brand	Fujifilm	Focuser Position	0 [mm] 0,00
Additional Optics	-	► Optical Factor	1
Filter	NONE	FoL norm actual [mm]	55 64,23385
Diameter [mm]	77	DawesLimitLink	16,24 Arcsec
Aperture / f-stop	0,71		

Other Hardware & Software

Guide Scope + Camera	NONE	NONE	Mount	ZWO AM3
GuiderHW	ASI AIR Pro		SessionControl	ASI AIR Pro
GuiderSW	ASi air App		PostProcessingSW	PI-PixInsight, PI-FBPP, PI-ABE, GraXpert, BlurXTerminator, PI-SPCC, NoiseXTerminator, PI-MAS, PI-CT

More ... (see also next page)

Work Folder	2025\20250531_0391_Rho-Ophiuchi-Cloud-Complex_Llanos-de-Jable
Comment/Title	Rho Ophiuchi Cloud Complex Wide Field

1. Session Planning

This shot was planned from the outset as an experiment: the Rho Ophiuchi Cloud Complex and its surroundings were to be photographed. Actually, a focal length of approx. 100mm would have been ideal, but this was not available to me. So I used the Fujifilm X-T3 camera together with the Fujinon 16-55 zoom lens at 55mm focal length and mounted the camera on the ZWO AM3 mount for tracking to take this picture. Unfortunately, the cars that frequently drove up to the Mirador, which often didn't switch off their headlights, interfered, so that the sky was well lit from time to time.

2. Location and sky

At night at the Mirador Llanos de Jable on La Palma (Canary Islands, Spain). It was a bit disturbing, the sky was not really dark (SQM: 20.4).

3. Session Results

The field of view was too large, so I had to crop the final image in half and rotate it by about 45° to achieve the best viewing angle.

4. Plate Solving and Camera Rotation Results

Astrometry.net rotation measurement: 325,3°

5. Post Processing

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

Steps in PixInsight:

Version 01:**Culling**

No Culling

Alignment and Integration

Star alignment

Image Integration

Linear Image Processing

DC: Dynamic Crop + Plate Solve

ABE: Automatic Background Extraction

BX: BlurXTerminator

NX: NoiseXTerminator

PCC: Photometric Color Calibration

De-Linearizing the image

HT: Histogram Transfer

CT: Curves Transformation

Version 02: excluded the RAW image (DSCF4079.RAF) because it contained jitter.

Culling

Blink

Alignment and Integration

FBPP: Fast Batch PreProcessor (Autocrop, Drizzle)

Linear Image Processing

DC: Dynamic Crop + Plate Solve

ABE: Automatic Background Extraction

GX: Graxpert

BX: BlurXTerminator

SPCC: Spectrometric Color Calibration

NX: NoiseXTerminator

De-Linearizing the image

MAS: Multiscale Adaptive Stretch

CT: Curves Transformation

No further image post processing was required.

No color or hue changes were made; the final image has natural colors.

6. Lessons Learned

As always with this setup, it was difficult to set the correct focus manually.

7. Main logfile entries

no log files available.

Image Keywords

ObservationID=#0391, Rho Ophiuchi Cloud Complex, Rho Ophiuchi Cloud Complex, ****,
Constellation=Ophiuchus, 2025, MAI, Type=Photo, Site=LP - Llanos de Jable, ES,
Config=FUXT3FU55, D=77mm, f/0.7, f=64mm, Filter=NONE, Gain=3200, Lens=FU16-55,

LensName=Fujinon XF 16-55mm, Mount=ZWO AM3, n=19, OtherOptics=-, PanesH=1, PanesV=1, Status=Published, t=30s, FUJXT3, AstroSW=PI-PixInsight, AstroSW=PI-FBPP, AstroSW=PI-ABE, AstroSW=GraXpert, AstroSW=BlurXTerminator, AstroSW=PI-SPCC, AstroSW=NoiseXTerminator, AstroSW=PI-MAS, AstroSW=PI-CT