

ObservationReport

all measures in mm

Observation-ID

0407 v 02

on

2025-09-19 20:59

Rating

Status

Published



Main Object	Sh2-142		
Common Name	Wizard Nebula		
Alternate Name	Sh2-142		
Visual Mag. Size	7,20	25'	
Distance	8.5 kly		
Object R.A. DEC coord.	22h 46m 50s	+58° 02' 21"	
Description	Emission Nebula		
Constellation	Cepheus		
Other Objects			



20250919_NGC7380_ASI2600_0407-02.jpg

StarImage Link	OID0407
Telescopius Link	https://telescopius.com/sh
Wikipedia Link	https://en.wikipedia.org/wi

Image Properties

Source Format	Photo	Optical Scale ["/px]	0,4822	
Tot./Act. Frames/Pane	30	30	Picture Center R.A.	22h47m08.018s
H / V Panes	1	1	Picture Center DEC	+58°05m40.74s
Exp. [s] / Frame	180	FoV measured H/V [°]	0,837	0,559
Total Time / Pane [min]	90,00	90,00	Above horizon [°]	74.3°
		View Direction	NE 55.2°	

Camera Data

ZWO Optical

ASI2600MCAir

ZWOASI2600

Camera Angle [°]	269,8	Pixel Pitch [µm]	3,761
Gain or ISO	100	Camera Temp. °C	-10

Observation Site

Observation Start	2025-09-19T20:59:59 UTC+/- +1h	Observation End	2025-09-19T22:34:36
Observation Site	DE Göttingen Weende	Site Elevation / Bortle	182 4
Province	NDS	Site Coordinates	9° 56' 11" E; 51° 34' 26" N

Sky & Moon

Sky Index Total Clouds	5,0	20	%	Moon Rise Set	03:57:00	18:46:00
SQM Outside Temp. °C	20,31	17		Moon Age [d]	27,2	
Moon Phase % Illum.	4th quarter	4	%	Moon ► Target Dist.	UNKNOWN	

Optical Configuration

TS1624cASI2600CAA

TS1624cASI2600rtT249CAA

Lens or Scope	TSO RC 203/1624c	Mechanical Focuser	M90 TS1624 Rack Pinion Focuser (Tilt Flange)		
Type Of Build	Ritchey-Chretien Reflector	Electronic Focuser	<input checked="" type="checkbox"/>		
Brand	TS-Optics	Focuser Position Steps	3955	[mm]	13,03
Additional Optics	M54 ZWO ASI CAA Rotator	► Optical Factor	1		
Filter	Optolong 2" L-eNhanche	FoL norm actual [mm]	1609	1607,863	
Diameter [mm]	203	DawesLimitLink	1,46 Arcsec		
Aperture / f-stop	7,93				

Other Hardware & Software

Guide Scope + Camera	ASI2600 Guide Sens ASI120MM	Mount	iOptron iEQ45 Pro		
GuiderHW	ASIAIR	SessionControl	ASIAIR		
GuiderSW	ASIAIR	PostProcessingSW	PI-PixInsight, GraXpert, BlurXTerminator, PI-SPCC, NoiseXTerminator, StarXTerminator, PI-MAS		

More ... (see also next page)

Work Folder	2025\20250919_0407_Sh2-142_Weende
Comment/Title	Wizard Nebula (NGC7380) in Cepheus

Remarks

Post Processing

Image selection, registration, background enhancement and color correction were done in PixInsight.

Culling

- None -

Alignment and Integration

FBPP: Fast Batch PreProcessor (Autocrop, Drizzle)

Linear Image Processing

DC: Dynamic Crop + Plate Solve

GX: GraXpert

BX: BlurXTerminator

SPCC: Spectrometric Color Calibration

NX: NoiseXTerminator

Splitting and De-Linearizing the image

SX: StarXTerminator: splitting the image into Stars and DSO objects

Stars Image:

HT: Histogram Transfer

CT: Curves Transformation

DSO Image:

MAS: Multiscale Adaptive Stretch

FAME: Free Hand Adaptive Mask to enhance the DSO image

CT: Curves Transformation

Combining Stars and DSO Image

PixMath: Add DSO and Stars into final image

No further image post processing was required.

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

Image Keywords

ObservationID=#0407, NGC7380, Wizard Nebula, ****, Constellation=Cepheus, 2025, SEP, Type=Photo, Site=Göttingen Weende, DE, Config=TS1624cASI2600CAA, D=203mm, f/7.9, f=1608mm, Filter=OLeN, Gain=100, Lens=TS1624c, LensName=TSO RC 203/1624c, Mount=iOptron iEQ45 Pro, n=30, OtherOptics=M54 ZWO ASI CAA Rotator, PanesH=1, PanesV=1, Status=Published, t=180s, ZWOASI2600, AstroSW=PI-PixInsight, AstroSW=BlurXTerminator, AstroSW=NoiseXTerminator