

ObservationReport

ObservationID

0370

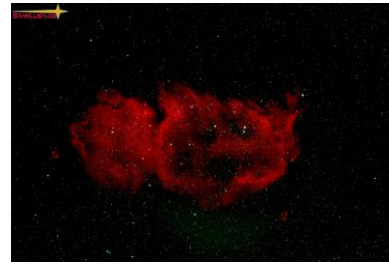
on

2025-03-09 00:00

all measures in mm



Main Object	IC1848		
Common Name	Soul Nebula		
Alternate Name	Westerhout 5		
Visual Mag. Size	6,50	60'x30'	
Distance	6,500 ly		
Object R.A. DEC coord.	02h 55m 24s	⊞60° 24' 36"	
Description	Emission Nebula		
Constellation	Cassiopeia		
Other Objects	<input type="text" value="IC1871"/>		



20250309_IC1848_ASI2600_0370-02WM.jpg

StarImage Link [IC1848_20250309](#)

Telescopius Link

Wikipedia Link <https://en.wikipedia.org/>

Image Properties

Work Status	Published		Rating	**
Source Format	Photo		Picture Center R.A.	2° 53' 43.606"
Tot./Act. Frames/Pane	50	40	Picture Center DEC	+60° 26' 18.13"
H / V Panes	1	1	FoV measured H/V [°]	2° 59' 16.9 1° 59' 49.1"
Exp. [s] / Frame	180		Above horizon [°]	57,13°
Total Time / Pane [min]	120,00	120,00	View Direction	NW309°

Camera Data

ZWO Optical	ASI2600MCAir	ZWOASI2600	
Camera Angle [°]	-10,694	Pixel Pitch [µm]	3,761
Gain or ISO	100	Camera Temp. °C	-10

Observation Site

Observation Start	2025-03-09T00:00:00 UTC+/- +1h	Observation End	2025-03-09T00:00:00
Observation Site	DE Göttingen MBR	Site Elevation / Bortle	182 4
Province	NDS	Site Coordinates	51° 34' N, 9° 56' E

Sky & Moon

Sky Index Total Clouds	5,0	60	%	Moon Rise Set	13:45:00	05:47:00
Outside Temp. °C	5			Moon Age [d]	9,5	
Moon Phase % Illum.	2nd quarter	86	%	Moon ► Target Dist.	62,5°	

Optical Configuration

TS600ASI2600x075i	TS600ASI2600T173R75		
Lens or Scope	TSO APO 90/600	Focuser	M90 TS600 Rack + Pinion
Type Of Build	APO Triplet Refractor	Focuser Position [mm]	39,89 EAF Steps 13754
Brand	TS-Optics	Optical Factor	0,75
Additional Optics	M63 Riccardi 0.75 Reducer	FoL norm actual [mm]	449,25 449,25
Filter	Optolong 2" L-eNhance	DawesLimitLink	2,32 Arcsec
Diameter [mm]	90	Optical Scale ["/px]	1,727
Aperture / f-stop	4,99		

Other Hardware & Software

GuideScope	ASI2600 Guide Sensor	Mount	ZWO AM3
GuiderHW	ASIAIR Pro	SessionControl	ASIAIR Pro
GuiderSW	ASiAir App	PostProcessingSW	PixInsight, BlurXTerminator, NoiseXTerminator

More ...

Work Folder [2025\20250309_IC1848_0370_GOE-MBR](#)

Comment

Remarks [1. Session Planning](#)

Chose an object that was high enough despitelots of haze in the atmosphere

2. Location and sky

Not suitable for the rather dim target.

3. Session Results

see lessons learned

4. Plate Solving and Camera Rotation Results

```
Iteration 3, delta = 2.701 as (1.57 px)
Image center ... RA: 02 53 43.611 Dec: +60 26 18.05
Resolution ..... 1.72 as/px
RMS error ..... 0.153 px (7216 stars)
```

```
Projection ..... Gnomonic
Projection origin ..... [3123.240260 2087.175196] px -> [RA: 2 53 43.586 Dec: +
60 26 18.13]
Resolution ..... 1.722 arcsec/px
Rotation ..... -10.694 deg
Reference system ..... ICRS
Observation start time ... 2025-03-09 19:26:42 UTC
Observation end time .... 2025-03-09 22:04:55 UTC
Geodetic coordinates ..... 9 56 07 E 51 34 26 N
Focal distance ..... 450.39 mm
Pixel size ..... 3.76 um
Field of view ..... 2d 59' 17.0" x 1d 59' 49.1"
Image center ..... RA: 2 53 43.585 Dec: +60 26 18.13 ex: -0.066753 px
ey: +0.015516 px
Image bounds:
  top-left ..... RA: 3 04 31.101 Dec: +61 39 50.16 ex: +5.178250 px
ey: -2.292881 px
  top-right ..... RA: 2 40 03.514 Dec: +61 05 46.28 ex: -5.028296 px
ey: -0.008407 px
  bottom-left ..... RA: 3 06 49.091 Dec: +59 41 43.33 ex: +7.509371 px
ey: -0.909455 px
  bottom-right ..... RA: 2 43 43.247 Dec: +59 09 34.33 ex: -4.159411 px
ey: +2.850814 px
```

5. Post Processing

The typical post-processing steps in PixInsight:

- Version 01 + Version 02
 - 1. SubFrame Calibrator
 - 2. FBPP - Fast Batch Pre Processor
 - 3. PCC - Photometric Color Correction
 - 4. BlurXTerminator
 - 5. NoiseXTerminator
 - 6. CT - Curves Transformation
 - 7. HT - Histogram Transfer for a full stretch
- Version 02: different stretch in HT

No further image post processing was required.

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

6. Lessons Learned

The object was too faint for the poor sky quality and low elevation and was barely recognizable behind the rather bright sky at first. Only intensive post-processing resulted in a reasonably acceptable image, which is not suitable for publication, however.

7. Main logfile entries

```
2025/03/09 20:21:14 Plan NGC1848 Start
2025/03/09 20:21:14 [Aautorun|Begin] IC1848 Start
2025/03/09 20:22:23 Solve succeeded: RA:2h55m34s DEC:+60°32'33" Angle = 12.792, Star
number = 384
2025/03/09 20:22:44 [AutoFocus|Begin] Run AF before Autorun start, exposure 2.0s
Bin1, temperature 6.7°C
2025/03/09 20:26:25 Auto focus succeeded, the focused position is 13754
2025/03/09 20:26:42 Exposure 180.0s image 1#
...
2025/03/09 22:11:12 Exposure 180.0s image 35#
2025/03/09 22:14:35 [Guide] Stop Guiding
2025/03/09 22:14:35 [AutoFocus|Begin] Run AF when temperature changed 2 degrees,
6.7°C changed to 4.7°C, exposure 2.0s Bin1, temperature 4.7°C
2025/03/09 22:18:33 Auto focus succeeded, the focused position is 13721
2025/03/09 22:18:49 Exposure 180.0s image 36#
...
2025/03/09 23:01:55 Exposure 180.0s image 50#
2025/03/09 23:04:58 [Guide] Stop Guiding
2025/03/09 23:04:58 [Aautorun|End] Finish Autorun
2025/03/09 23:04:58 Plan NGC1848 Finish
2025/03/09 23:04:58 Turn Off Cooling
2025/03/09 23:04:58 [Guide] Stop Looping
2025/03/09 23:04:58 Stop Tracking
2025/03/09 23:05:08 Mount GoTo Home POS
```