

# ObservationReport

all measures in mm

ObservationID

325

on

2024-05-13 23:06

## Object

Common Name	Black Eye Galaxy
Alternate Name	NGC4826
Visual Magnitude	8,52
Distance ► Object	17.3 Mly
Apparent Size	10,71x5.128'
Object R.A.	12h 56m 43.696s
Object DEC	+21° 40' 57.57"
WikiLink	<a href="https://en.wikipedia.org/wiki/Black_Eye_Galaxy">https://en.wikipedia.org/wiki/Black_Eye_Galaxy</a>

## M64



20240514-000723\_M64\_ZWOASI294\_0002\_WM.jpg

Link ► Picture	<a href="#">M64_20240513</a>
Description	Galaxy
Constellation	Coma Berenices

## Picture Data

Work Status	Published	Quality	***
Format	Photo	Picture Center R.A.	12 56 43.178
Tot./Act. Frames/Pane	57 45	Picture Center DEC	+21 40 55.32
H / V Panes	1 1	H/V FoV [°]	0,6739 0,4586
Exp. [s] / Frame	60	Above horizon [°]	0
Total Time / Pane [min]	45,00 45,00	View Direction	N

## Camera Data

Camera Angle [°]	-81,836	Pixel Pitch [µm]	4,63
Gain or ISO	120	Camera Temp. °C	-10

## Observation Data

Observation Start	2024-05-13T23:06:01 UTC+/- +1h	Observation End	2024-05-14T00:07:23
Observation Site	DE Göttingen MBR	Site Elevation /Bortle	182 5
Province	NDS	Site Coordinates	51° 34' N, 9° 56' E

## Sky & Moon

Sky Index   Total Clouds	4,5 22 %	Moon Rise   Set	
Outside Temp. °C	13	Moon Age [d]	0
Moon Phase  % Illum.	UNKNOWN 0 %	Moon ► Target Dist.	UNKNOWN

## Optical Config.

Lens or Scope	TSO RC 203/1624	Focuser	M90 2.5" Rack Pinion Foc
Type Of Build	Ritchey-Chretien Reflector	Focuser Position [mm]	34,18 EAF Steps 10374
Brand	TS-Optics	Optical Factor	1
Additional Optics	-	FoL norm   actual	1624 1609
Filter	-	<a href="#">DawesLimitLink</a>	<a href="#">1,45 Arcsec</a>
Diameter [mm]	203	Optical Scale ["/px]	0,588
Aperture / f-stop	8,00		

## Other Hardware & Software

GuideScope	ZWO 30/120 mini	Mount	iOptron iEQ45 Pro
GuiderHW	ASIAIR	SessionControl	ASIAIR
GuiderSW	ASIAIR	PostProcessingSW	NoiseXTerminator, BlurXTerminator, PixInsight

## More ...

Work Folder [2024\20240513-230601\\_M64\\_GOE-MBR](#)

Comment

Remarks New collimation test for the TSO RC 203/1624 telescope in the new configuration TS1624AS294rtT228.

### 1. Session Planning

Had just to wait for a clear sky.

### 2. Location and sky

OK

### 3. Session Results

EAF was at 10374 (focuser position  $V=34,18\text{mm}$ ).

Backfocus=  $228,30\text{ (T)} + 34,18\text{ (V)} = 262.48\text{ mm}$  instead of 7800 (which correlates with the nominal backfocus of 254mm). Fback difference: 8,48mm

Focal Length (or plate solved)=1609 mm instead of 1624mm.

==> Mirror distance too small, must be increased by  $\sim 8,48/6 = 1,4\text{mm}$  to obtain a nominal fbak of 254mm.

### 4. Plate Solving and Camera Rotation Results

Plate solve rotation measurement:

### 5. Post Processing

Image selection, registration, background enhancement 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 were made; the final image has natural colors.

### 6. Lessons Learned

The distance between the mirrors was reduced too much compared to the previous collimation.