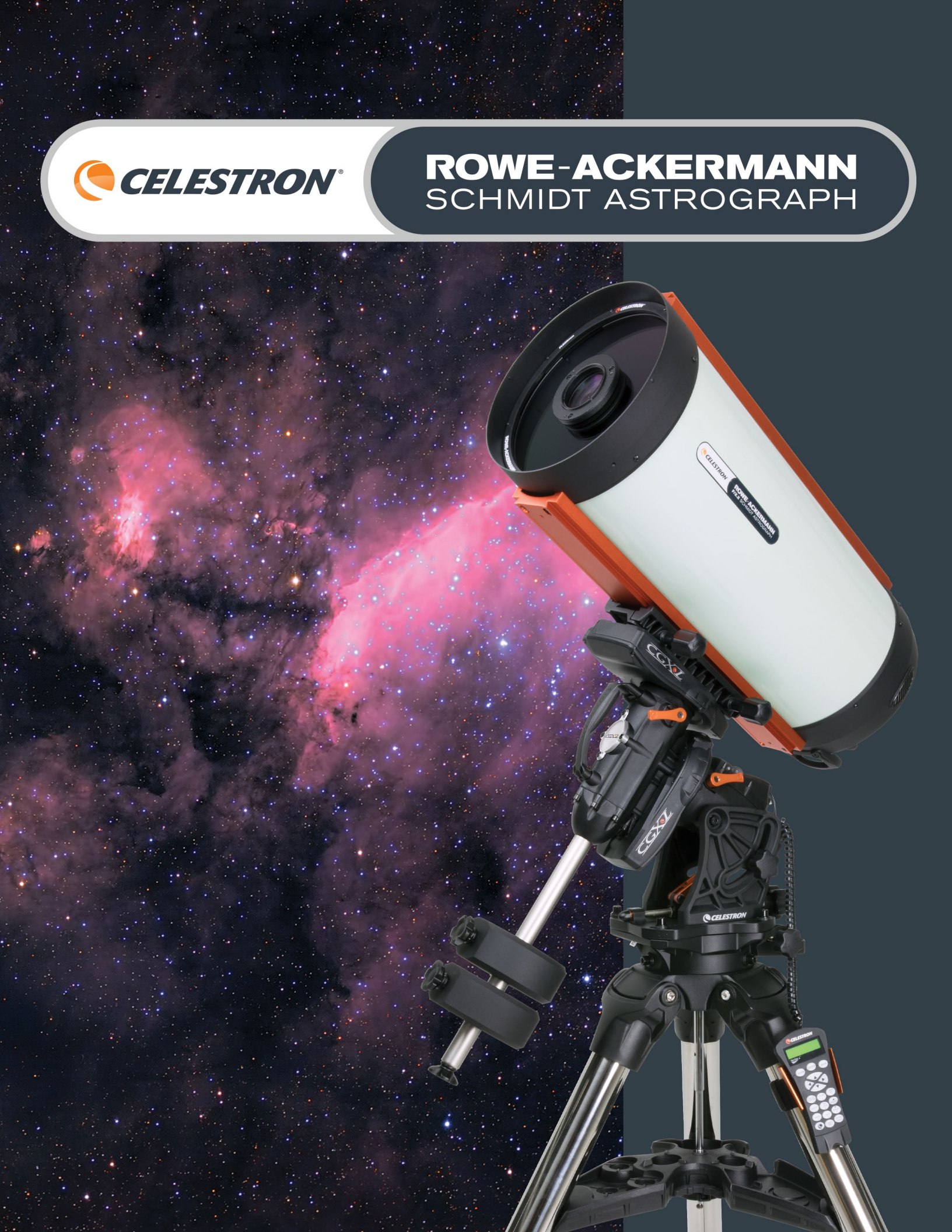
CELESTRON®

ROWE-ACKERMANN SCHMIDT ASTROGRAPH



OBJECT: Barnard 33 & NGC 2024, Horsehead and Flame Nebulae
IMAGER: Michael Jäger
EQUIPMENT: RASA 8” f/2.0

RASA 8”

COVER TELESCOPE: RASA 11”

COVER ASTROIMAGE
OBJECT: IC 4628, Prawn Nebula
IMAGER: Dylan O’Donnell
EQUIPMENT: RASA 11” f/2.2

The Rowe-Ackermann Schmidt Astrograph (RASA) is a cost-effective ultra-fast optical system ideal for astronomical imaging, scientific, and surveillance applications. Leveraging Celestron's expertise in consumer telescopes, we can offer an outstanding value in aperture, speed, field of view, and optical performance. The RASA provides an external prime-focus image capture location with a perfectly flat focal plane, small spot sizes to the edge of a wide field, and ample back-focus distance to accommodate a wide variety of imaging sensors.

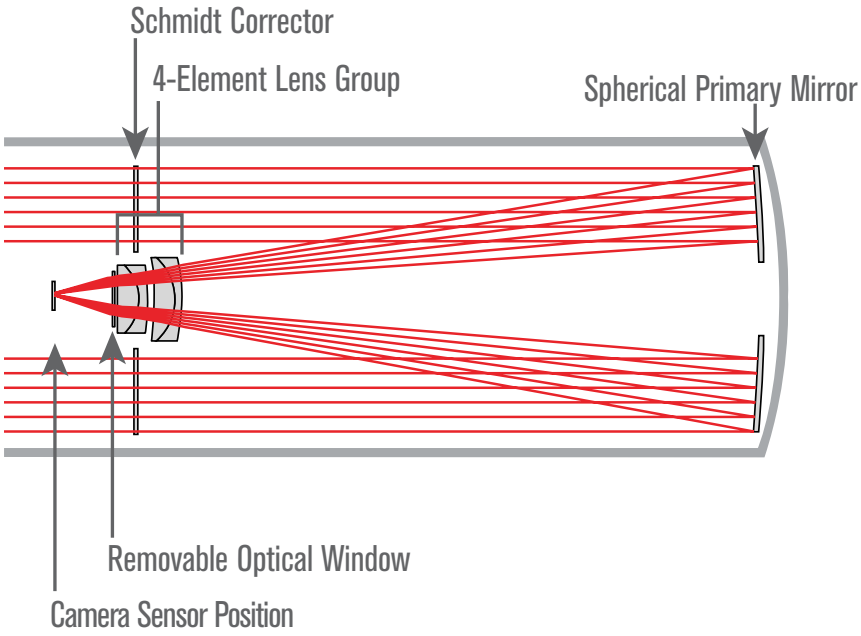
The RASA is available in three sizes: 8-inch aperture (F = 400 mm), 11-inch aperture (F = 620 mm) and 36 cm aperture (F = 790 mm). The 8" version is the most portable and affordable, a great choice for astronomical imaging in the field. The 11" version, works well in small observatories or as a survey/science camera lens for educational institutions. The 36 cm version is designed as a science-grade optical system for integration into fast, wide-angle surveillance activities.

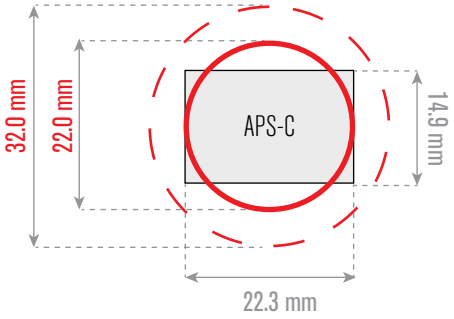
Visit our website at **celestron.com/RASA** for more information.

RASA 36cm

RASA'S PROPIETARY OPTICAL DESIGN

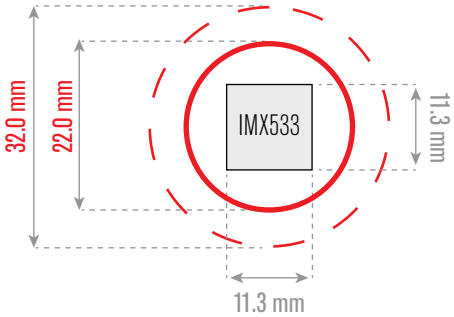
- 8-inch aperture
- f/2.0 focal ratio
- 3.2° field of view
- 22.0 mm image circle
- < 4.55 µm RMS spot size across field of view

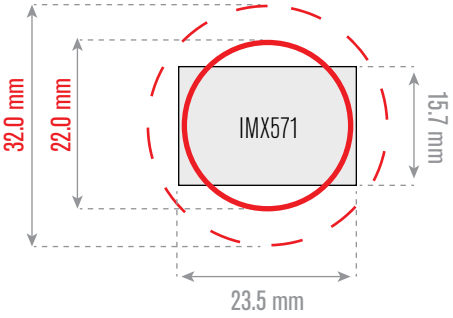




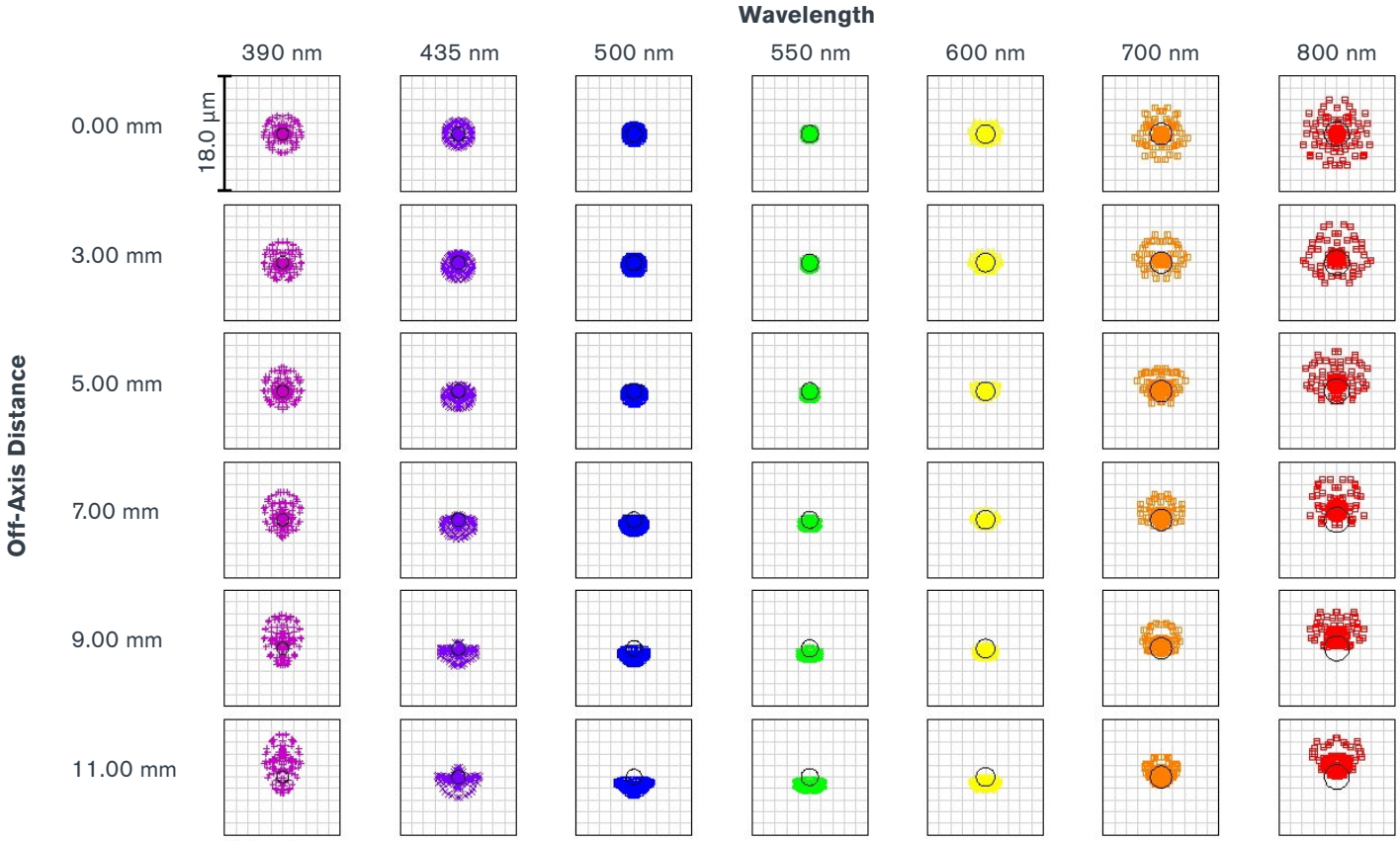
Usable Field (32.0 mm)

Image Circle (22.0 mm)





Matrix Spot Diagram (18 µm box size)

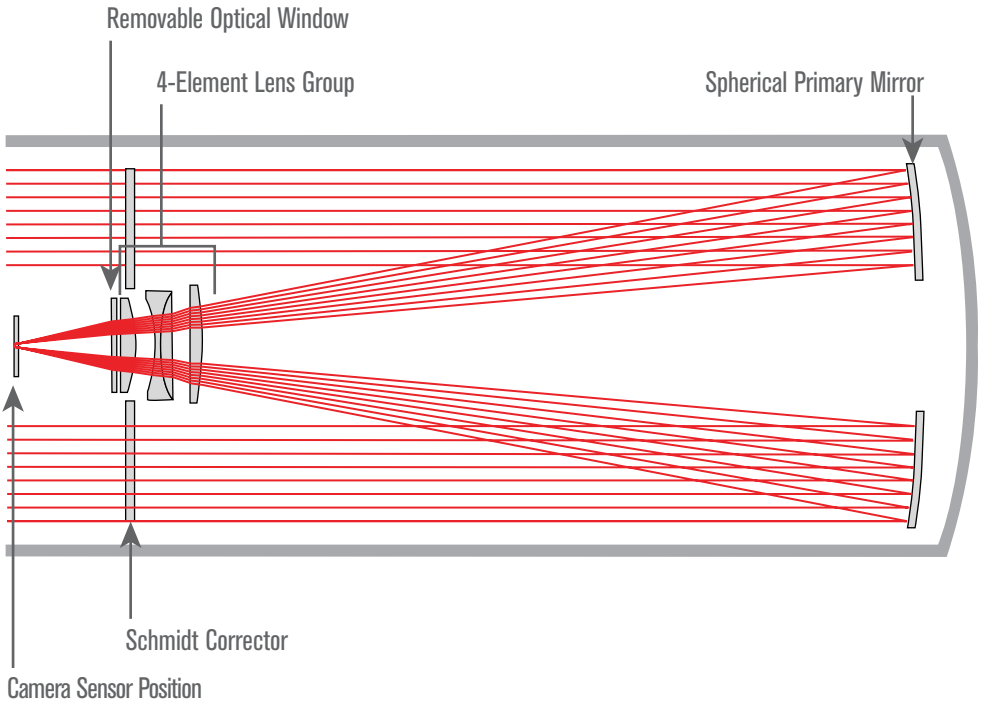


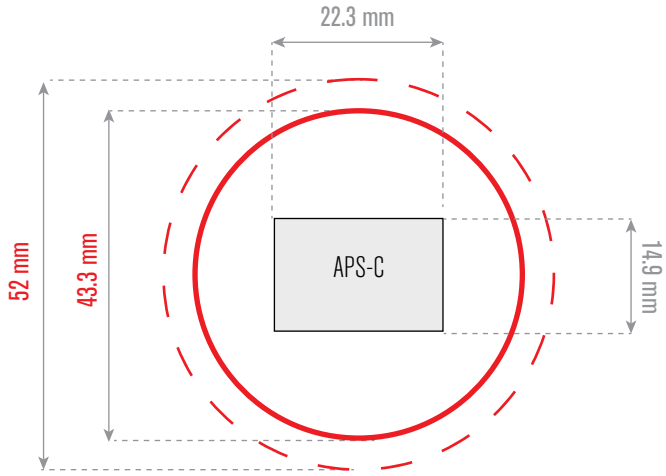
Mechanical and Optical Parameters

Clear aperture	203 mm
Focal length	400 mm
Focal ratio	f/2.0
Central obscuration	93 mm (46% of aperture diameter)
Optical design	Rowe-Ackermann Schmidt Astrograph
Image circle	22.0 mm Ø, 3.2 degrees
Image scale	7.0 mm/degree, 514 arcsec/mm
Wavelength range	390–800 nm
Spot size	< 4.55 µm RMS across FOV
Optical coatings	Enhanced aluminum, XLT multi-coatings used throughout
Off-axis Illumination	93% at 11 mm off-axis
Optical filter	46 mm Ø
Back focus (with included adapter)	25 mm
Back focus (from filter)	29 mm
Tube material	Aluminum
Tube dimensions	24.7 inches length, 9.3 inches diameter, 17 pounds
Focuser	Ultra-Stable Focus System
Other features	Ventilation fan, CGE dovetail mounting bar

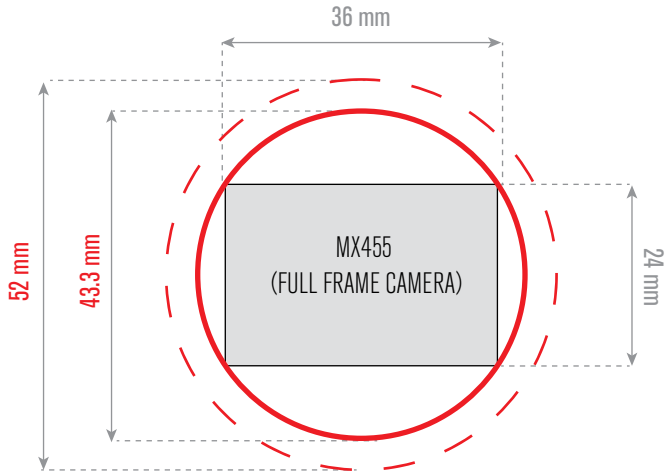
RASA'S PROPIETARY OPTICAL DESIGN

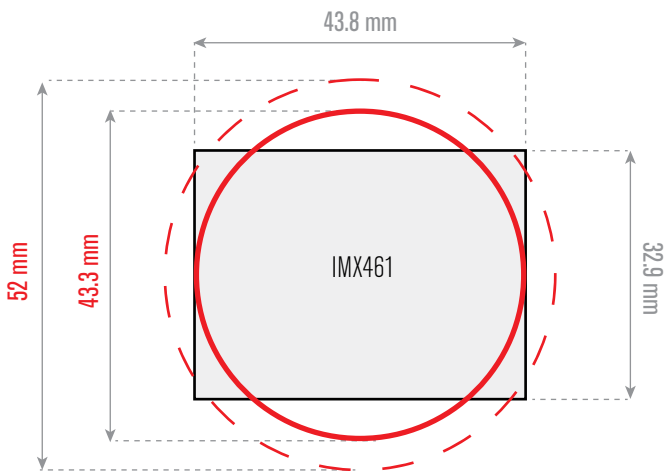
- 11-inch aperture
- f/2.2 focal ratio
- 4.0° field of view
- 43.3 mm image circle
- < 4.4 µm RMS spot size across field of view



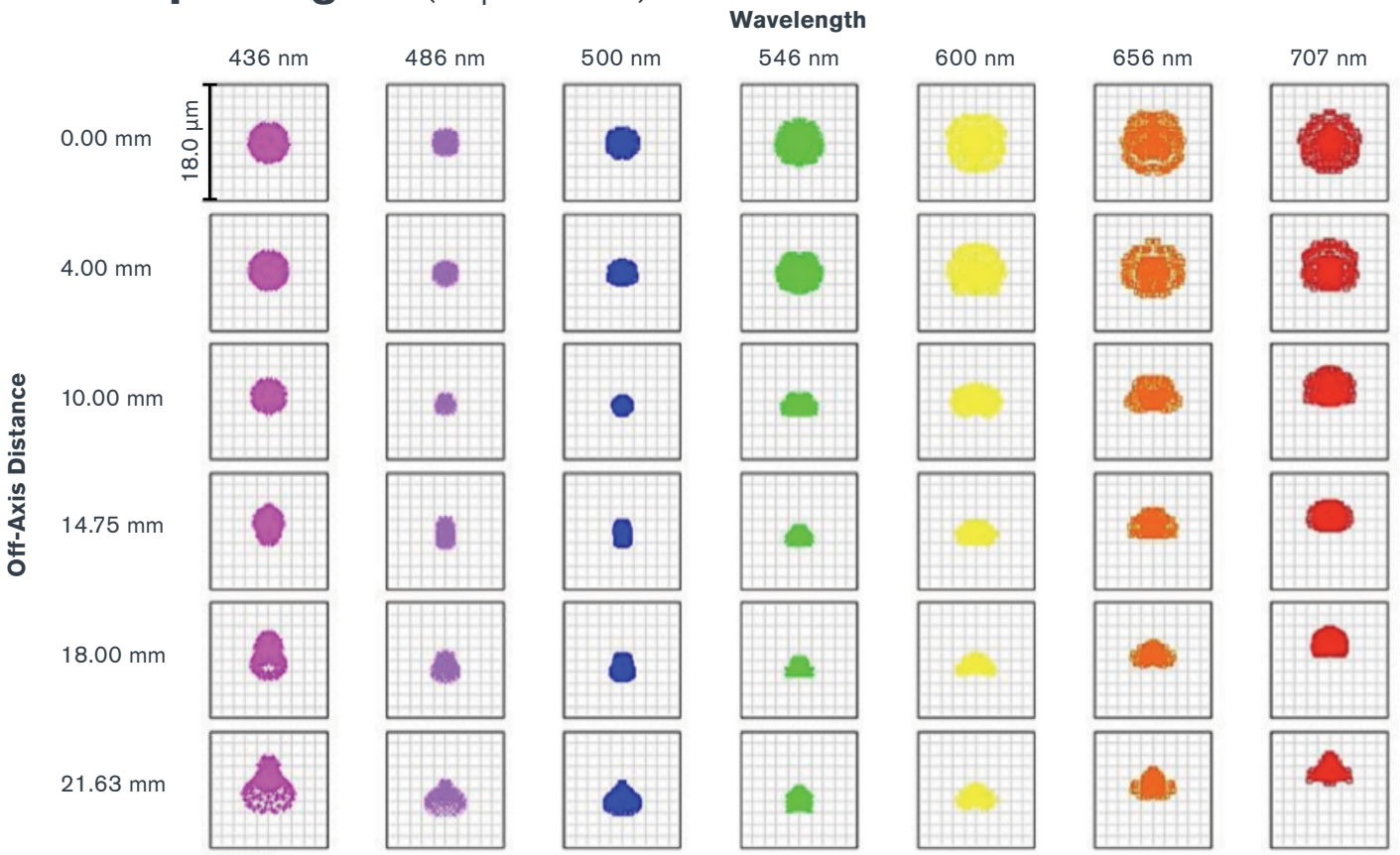


- Usable Field (52 mm)
- Image Circle (43.3 mm)





Matrix Spot Diagram (18 µm box size)

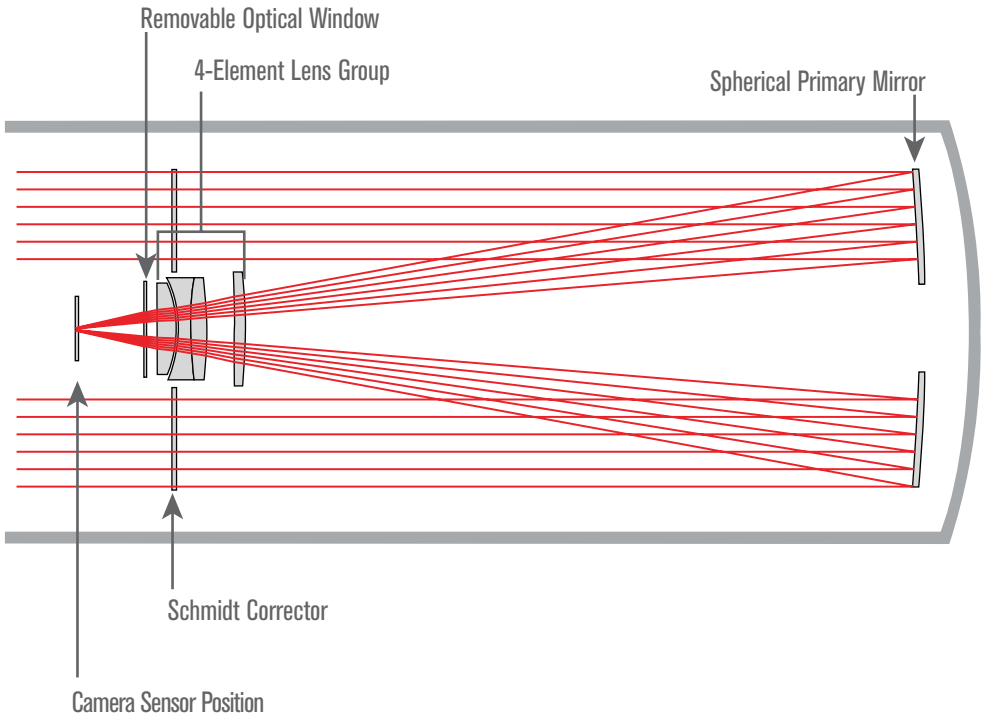


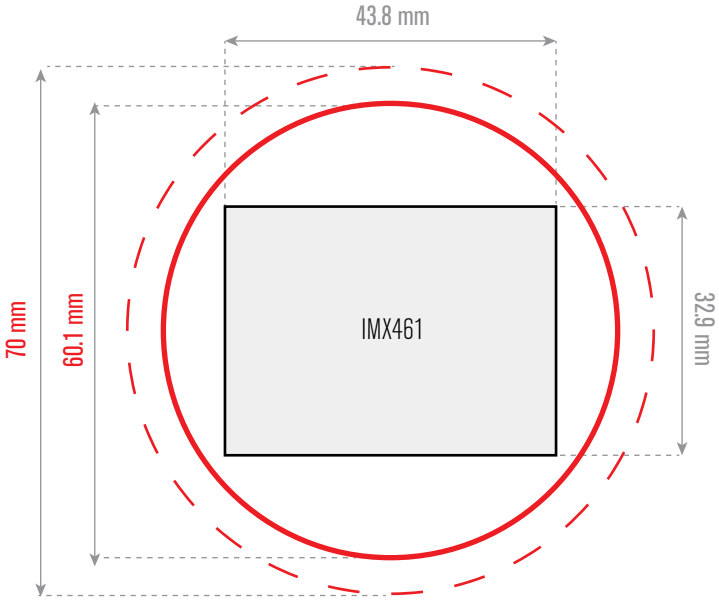
Mechanical and Optical Specifications

Clear aperture	280 mm
Focal length	620 mm
Focal ratio	f/2.2
Central obscuration	114 mm (41% of aperture diameter)
Optical design	Rowe-Ackermann Schmidt Astrograph
Image circle	43.3 mm Ø , 4.0 degrees
Image scale	10.8 mm/degree, 332 arcsec/mm
Wavelength range	400-700 nm
Spot size	< 4.4 µm RMS across FOV
Optical coatings	Enhanced aluminum, XLT multi-coatings used throughout
Off-axis Illumination	83% at 21 mm off-axis
Optical filter	68 mm Ø
Back focus (with included adapter)	55 mm
Back focus (from filter)	81 mm
Tube material	Aluminum
Tube dimensions	33 inches length, 13 inches diameter, 43 pounds
Focuser	Ultra-Stable Focus System
Other features	Ventilation fan, dual CGE dovetail mounting bars

RASA'S PROPIETARY OPTICAL DESIGN

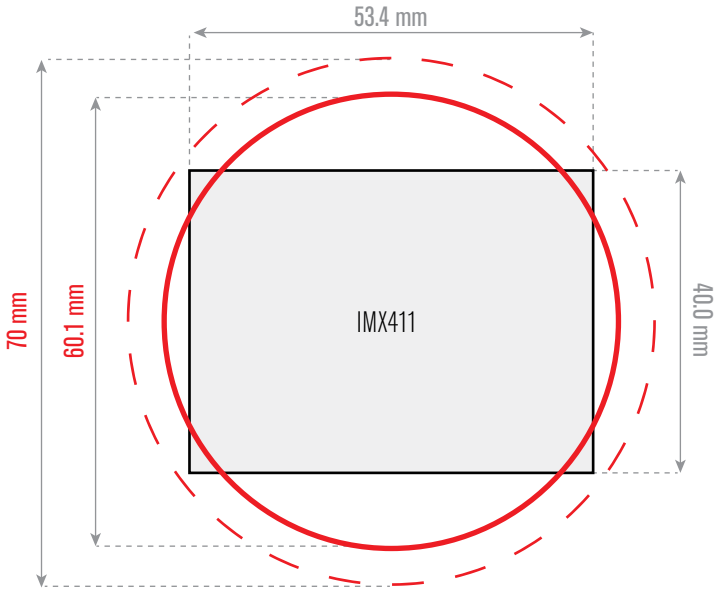
- 36 cm aperture
- f/2.2 focal ratio
- 4.3° field of view
- 60.1 mm image circle
- < 6.3 µm RMS spot size across field of view





Usable Field (70 mm)

Image Circle (60.1 mm)

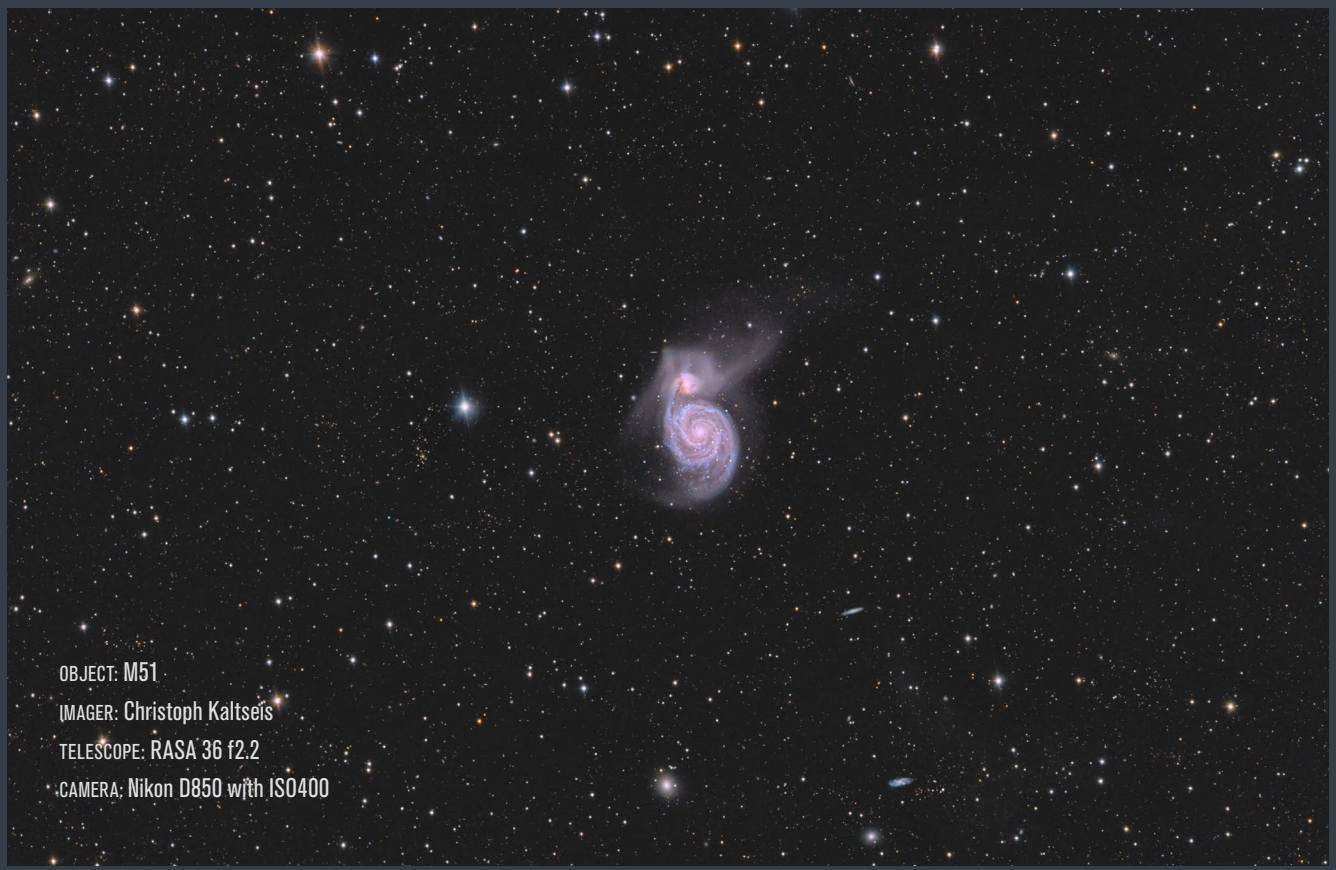


Matrix Spot Diagram (18 µm box size)

Mechanical and Optical Specifications

Clear aperture	355.6 mm
Focal length	790 mm
Focal ratio	f/2.2
Central obscuration	158 mm (44% of aperture diameter)
Optical design	Rowe-Ackermann Schmidt Astrograph
Image circle	60.1 mm Ø , 4.3 degrees
Image scale	13.8 mm/degree, 261 arcsec/mm
Wavelength range	400 – 900 nm
Spot size	< 6.3 µm RMS across FOV
Optical coatings	Enhanced aluminum, XLT multi-coatings used throughout
Off-axis Illumination	83% at 30 mm off-axis
Optical filter	104 mm Ø
Back focus (with included adapter)	55 mm
Back focus (from filter)	82.5 mm
Tube material	Aluminum
Tube dimensions	42.5 inches length, 16 inches diameter, 75 pounds
Focuser	Ultra-Stable Focus System
Other features	Ventilation fan, dual CGE dovetail mounting bars

OBJECT: Pleiades Star Cluster, M45
IMAGER: Richard Berry
TELESCOPE: RASA 11 f2.2
CAMERA: Nightscape CCD camera



OBJECT: M51
IMAGER: Christoph Kaltseis
TELESCOPE: RASA 36 f2.2
CAMERA: Nikon D850 with ISO400

OBJECT: NGC 1333 and surrounding region
IMAGER: Jimmy Walker
TELESCOPE: RASA 11" f/2.2
SENSOR: KAI-11002
EXPOSURE: 17 x 5 minute exposures

OBJECT: NGC6188 Fighting Dragons of Ara
IMAGER: Dylan O'Donnell
TELESCOPE: RASA 8" f/2.0
SENSOR: KAI-11002
EXPOSURE: 40 x 60s Hydrogen Alpha
20 x 120s Sulphur II
20 x 120s Oxygen III
Combined as HaOHS
Total integration time : 2 hours.

For more information:
VISIT: celestron.com/RASA
OR EMAIL: RASA@celestron.com

OBJECT: M8, M20 & NGC 6559
EQUIPMENT: RASA 11" f/2.2
SENSOR: KAI-11002
EXPOSURE: 45 x 60 second exposures
DETAILS: Uncropped full frame, without flat field calibration

US Patent Number: US 9,635,223 B2

US: 2835 Columbia Street, Torrance, CA 90503 USA
UK: Unit 2 Transigo, Gables Way, Thatcham RG19 4JZ, United Kingdom
This product is designed and intended for use by those 14 years of age and older.
Made in China

08-25

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