

 **CELESTRON®**

ROWE-ACKERMANN
F/2.2 SCHMIDT ASTROGRAPH





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

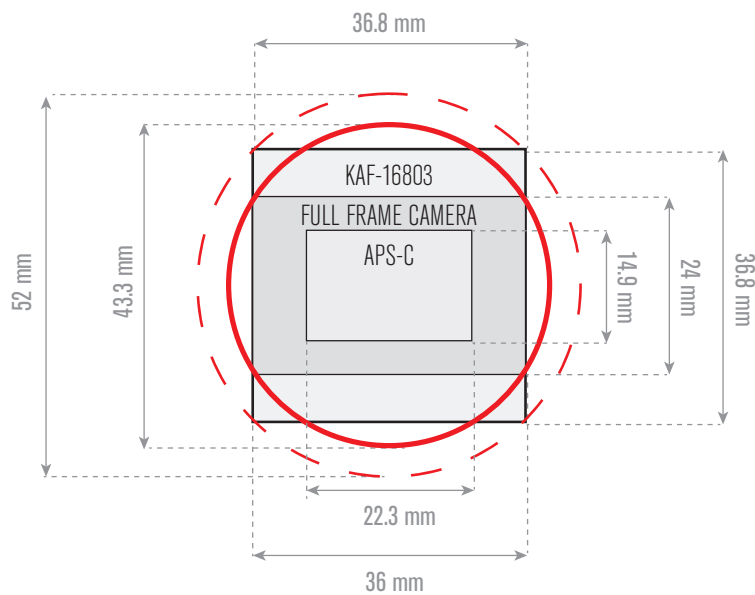
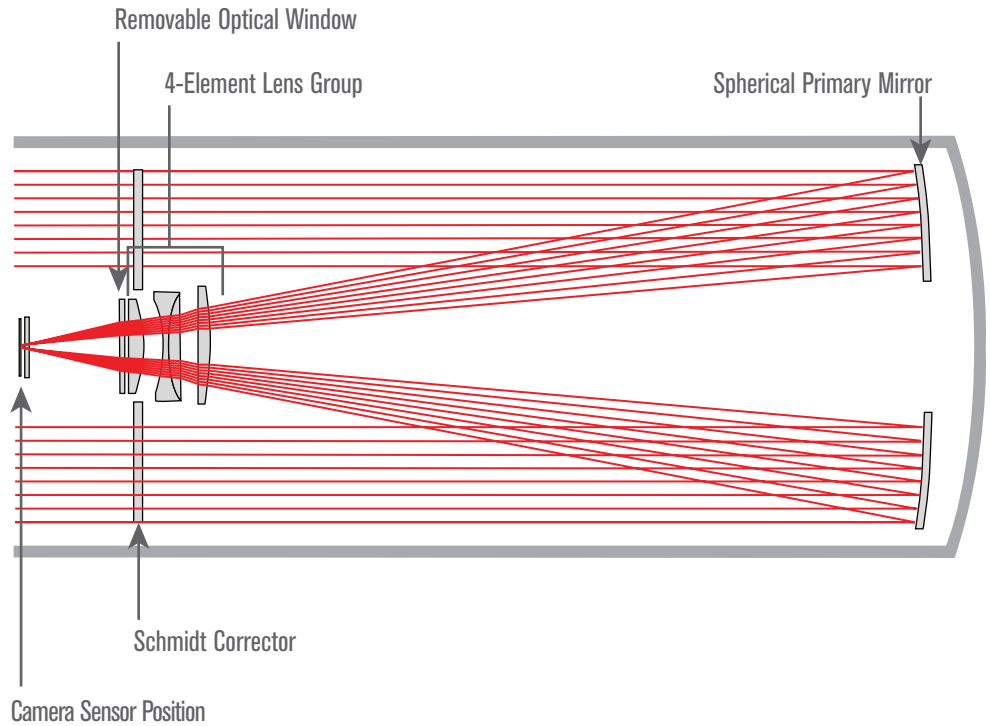
The RASA is available in two sizes: the 11-inch aperture ($F = 620$ mm) and 36 cm aperture ($F = 790$ mm) at remarkably affordable prices. The 11" version is perfect as a survey/science camera for educational institutions; the 36 cm version is designed as a science-grade optical system for integration into fast, wide-angle surveillance activities.



RASA 36cm

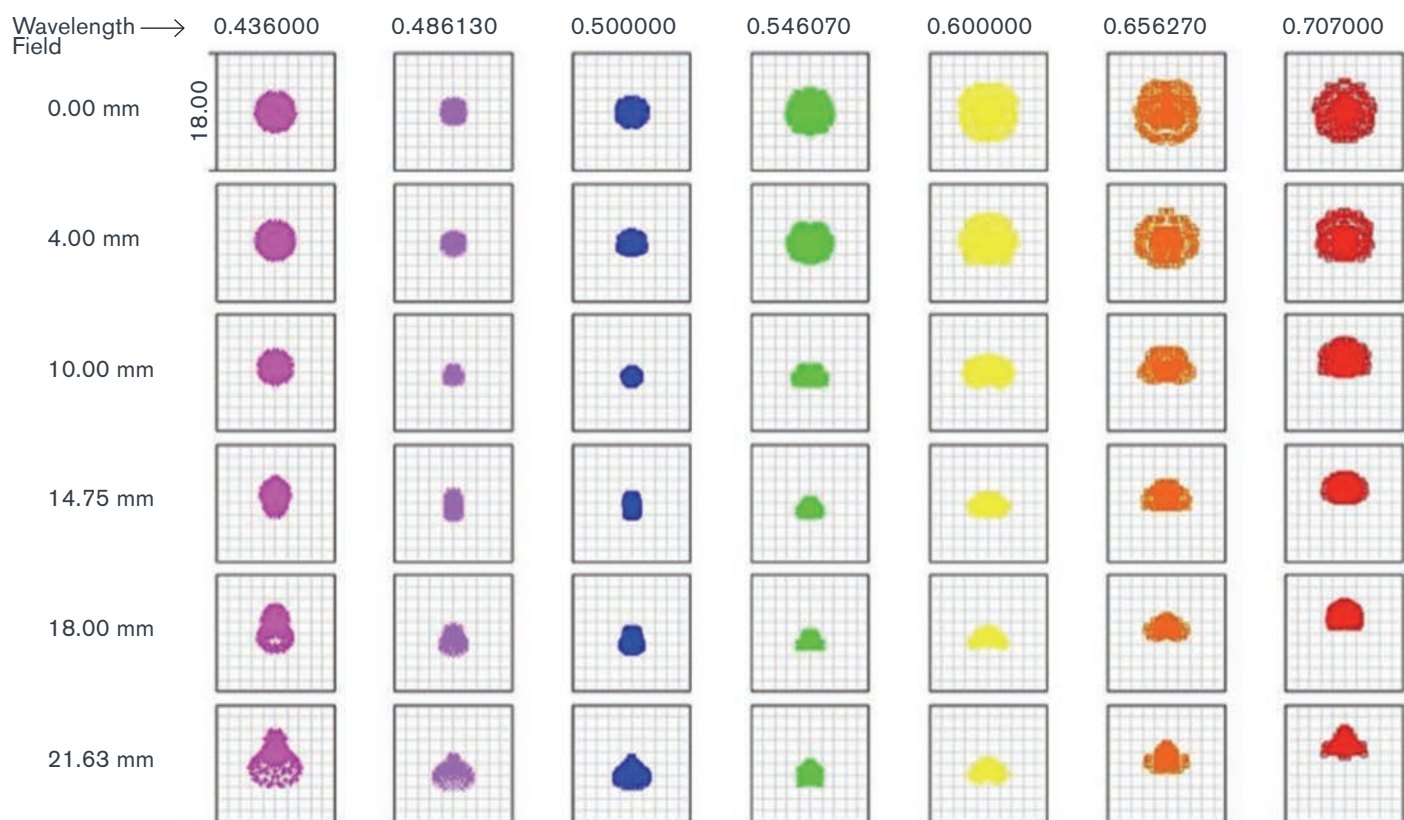
RASA'S PROPRIETARY OPTICAL DESIGN

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)

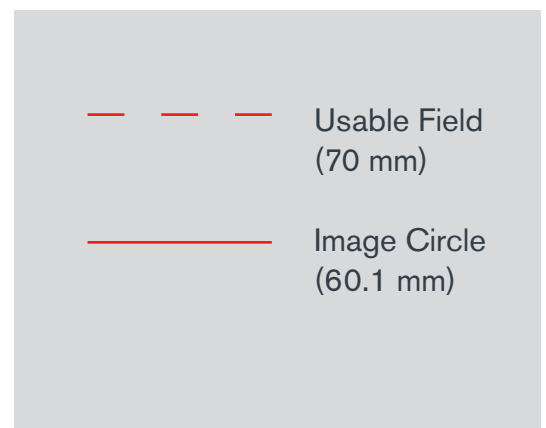
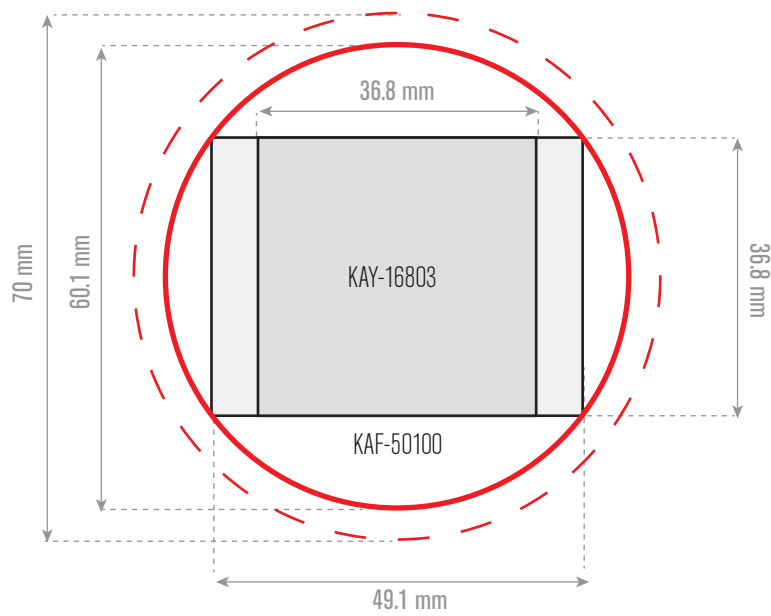
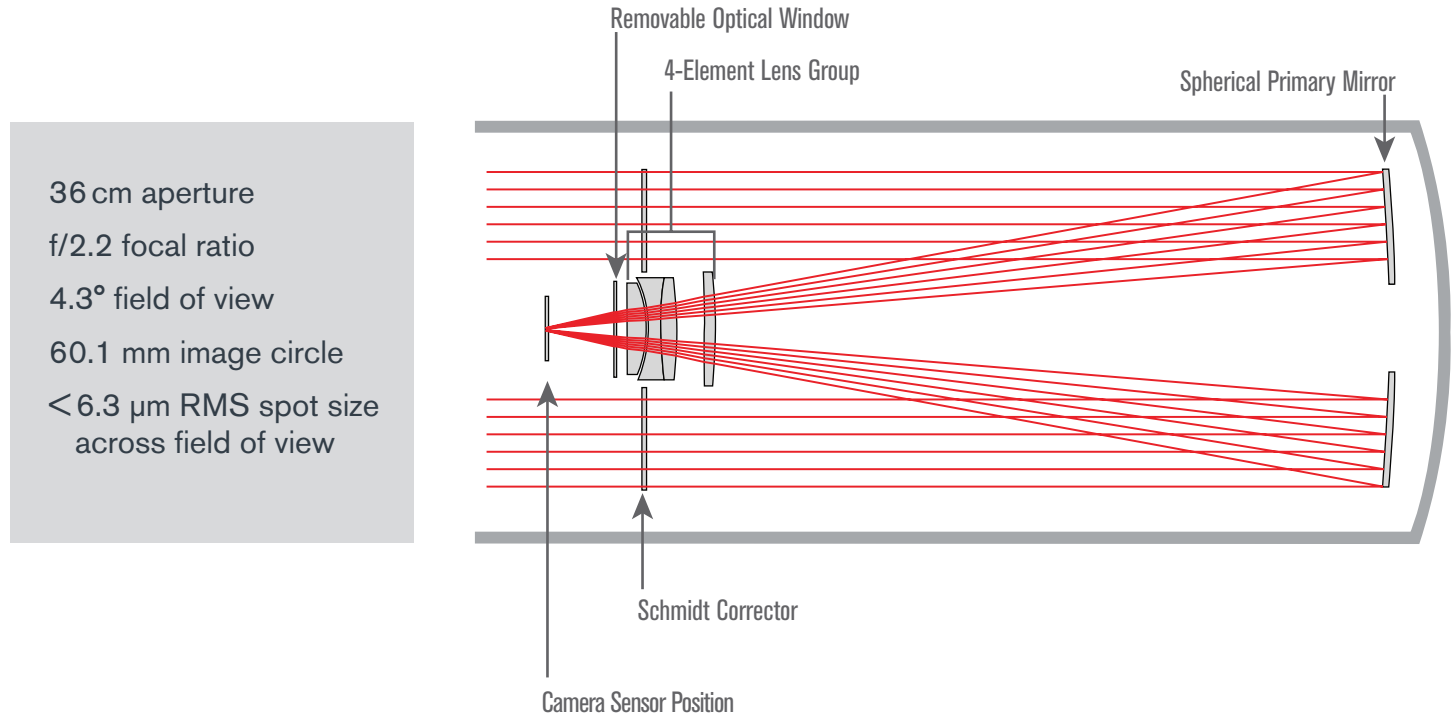
Matrix Spot Diagram (18 µm box size)



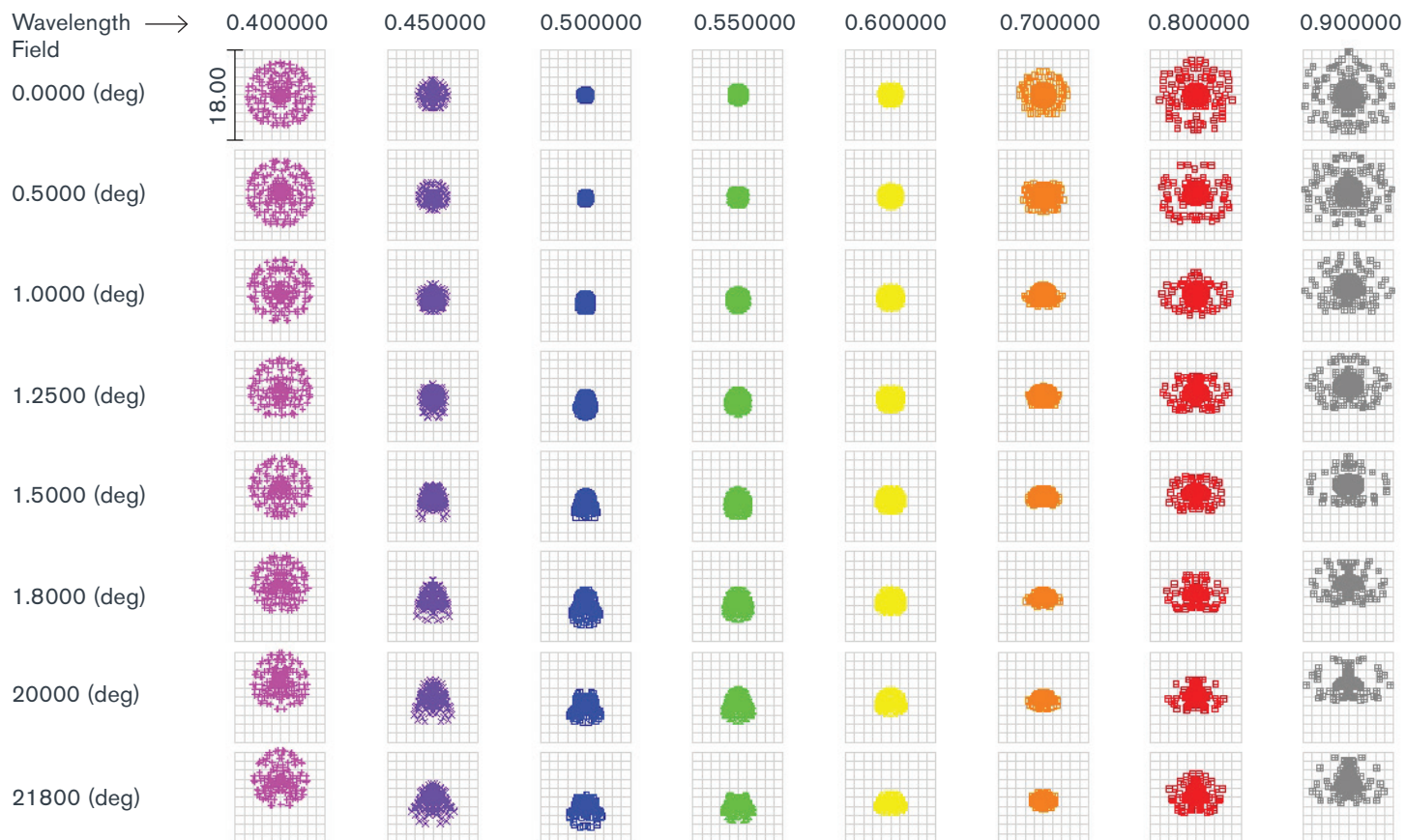
Mechanical and Optical Parameters

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	FeatherTouch microfocuser, coarse and fine focus
Other features	Ventilation fan, dual dovetail mounting bars

RASA'S PROPRIETARY OPTICAL DESIGN



Matrix Spot Diagram (18 μm box size)



Mechanical and Optical Parameters

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	New ZFS focuser design, minimizes focus shift
Other features	Ventilation fan, dual dovetail mounting bars



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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

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