ASA Astrosysteme GmbH Galgenau 19 A-4212 Neumarkt i. M.
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ASTRO SYSTEME AUSTRIA

2" ASA COMA CORR QUATTRO X 1.175

30 mm corrected FOV
(30 mm optimized – up to 40mm possible)

Dipl. Phys. Philipp Keller– known for his high quality corrector design – has now developed a new 2inch coma corrector suited for all Newtonian and Dobson telescopes intended to be used for CCD photography. The corrector is optimized for CCDs with a diameter of 30mm (APS-C Format); however, this can be extended to up to 40mm, with some minor loss of performance and increased vignetting. The corrector build by ASA will become available July 2011.

Coma is an optical aberration of all Newtonian telescopes with parabolic mirrors. Light from a point source in the center of the field – such as a star – is perfectly focused at the focal point of the mirror. But light from a point source that is off-center, will not reach focus at the same point. The result is, that the stars at the edge of the field are no longer round, but rather begin to develop tails that get longer the farther off-axis (off center) the point source is located. This problem becomes far more sever with ultra fast focal ratio mirrors.

By eliminating this effect of coma caused by the main mirror, the new ASA coma corrector can help "fast" scopes perform as aberration-free as "slow" systems. Astrophotography has pushed the trend towards ever faster systems and it is now common to have astrographs with speeds of F 4 and faster. These ultra-fast telescopes need this coma corrector specifically designed for these fast focal ratios.

Performance Overview:

Lenses:	4
Focal length extension factor:	x 1.175
Spot size diameter on axis:	6 microns*
Spot size at 10mm of-axis:	8 microns*
Spot size at 15mm of-axis:	11 microns* (location at the edge of a 30mm CCD chip).

* Our spot sizes are a true representation, as they resemble combined wavelengths between 400 to 700nm!

Back focus:	70mm
Vignetting at 30mm FOV:	< 9%.
FWHM values at 30mm:	approx. 6 micron.

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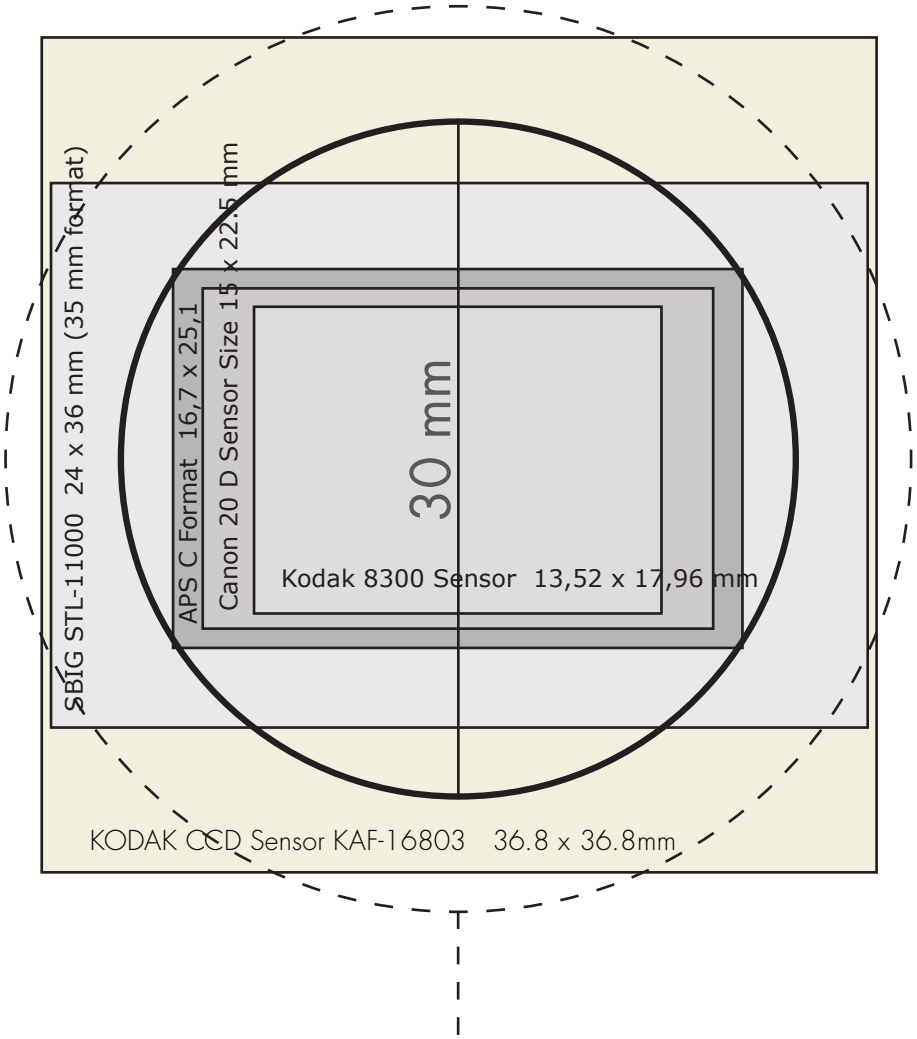

Maßstab/Scale 1:3 (50 mm = 150 mm)

The corrector is optimized for CCDs with a diameter of 30 mm (APS-C Format); however, this can be extended to up to 40 mm with some minor loss of performance and increased vignetting.

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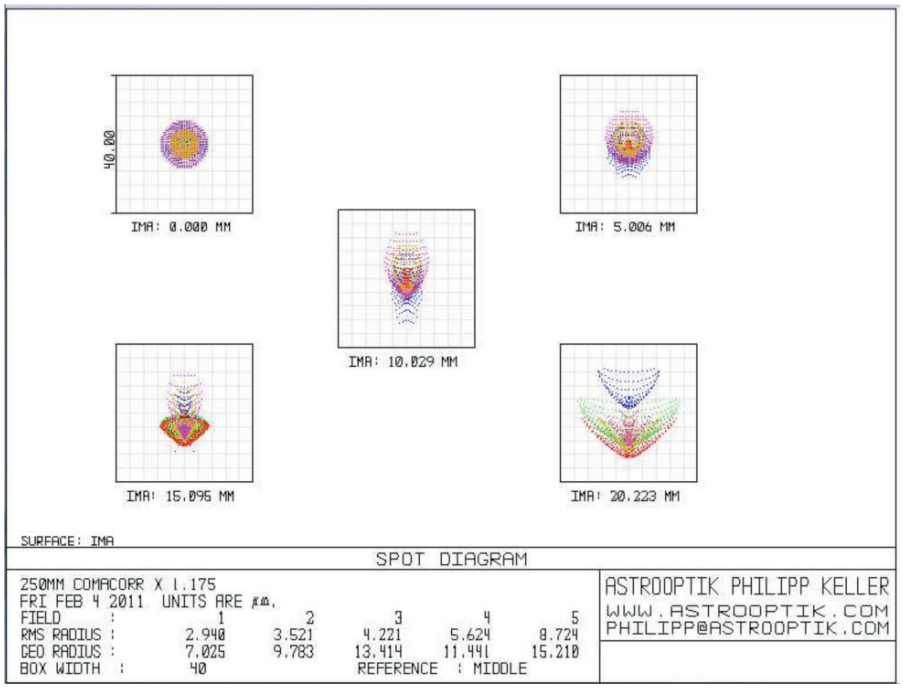
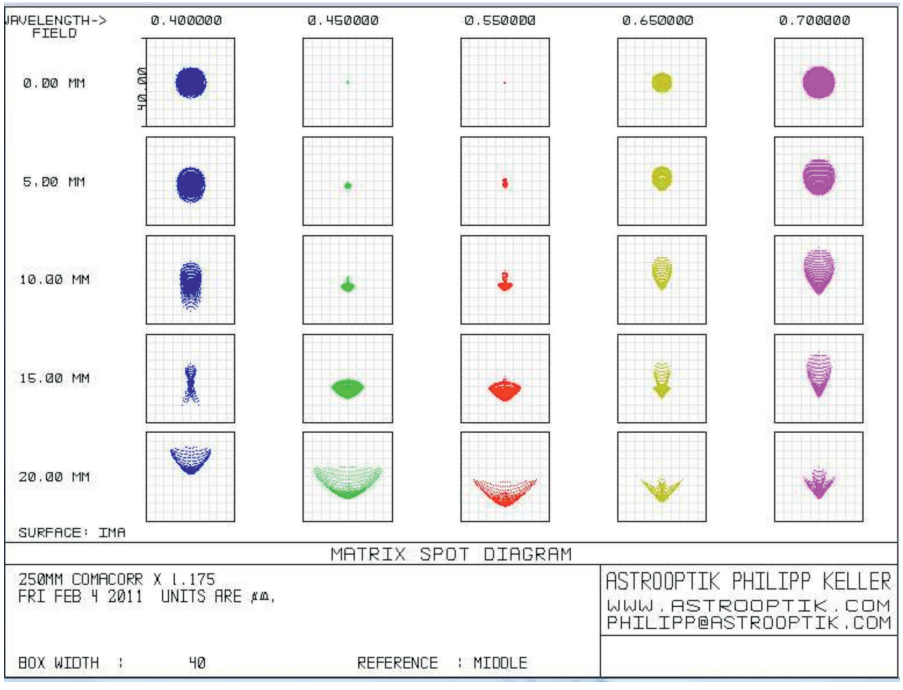


Spot diagram for 250 mm aperture (combined wavelengths)



Matrix Spot diagram for 250 mm aperture (Separated wavelengths from 400 to 700 nm)

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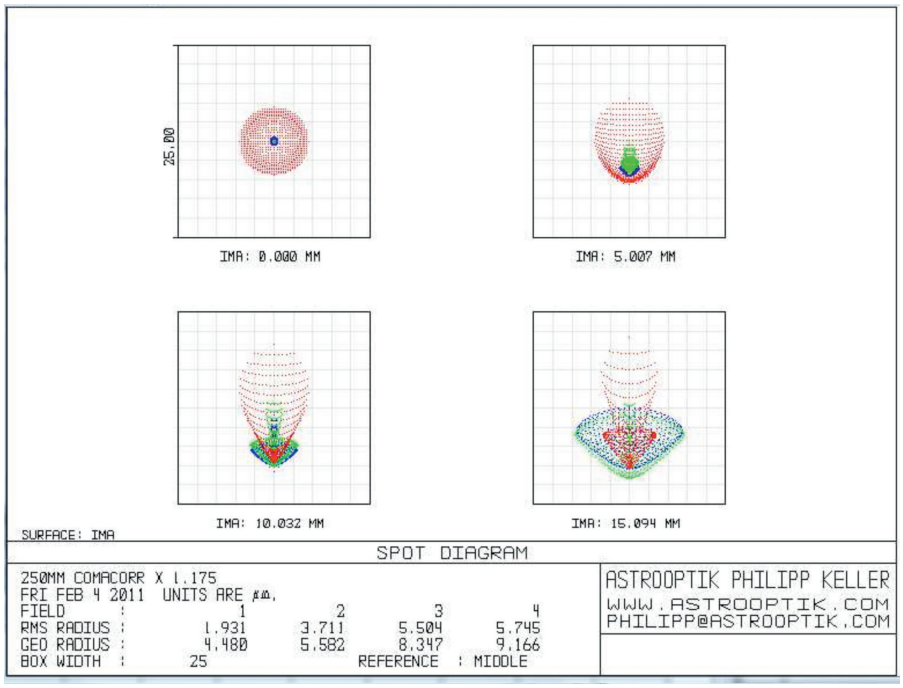
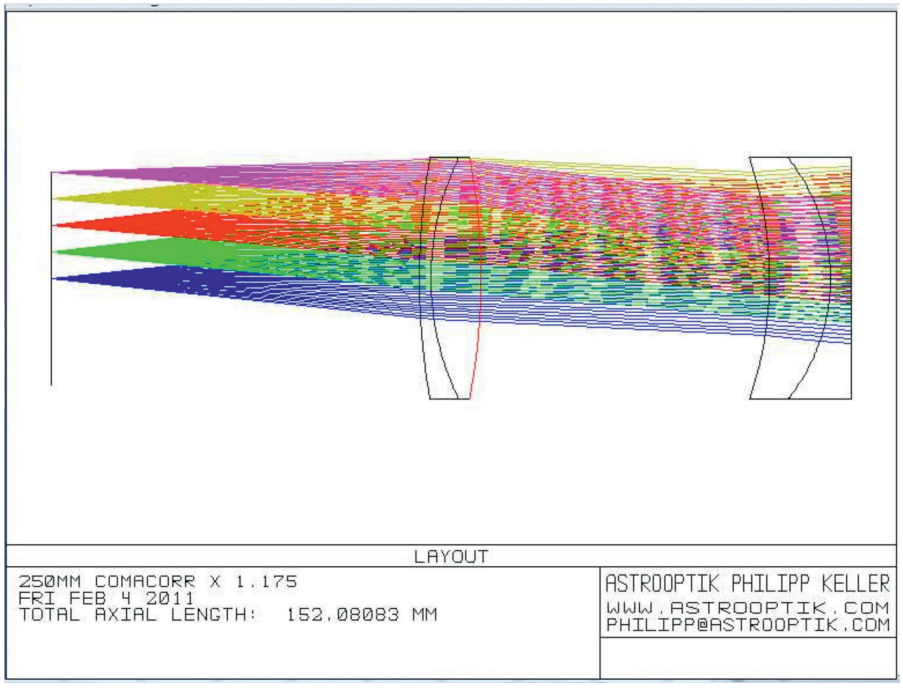


Spot diagram for 250 mm aperture (combined wavelengths)
450 to 650 nm



Corrector back focus 70mm

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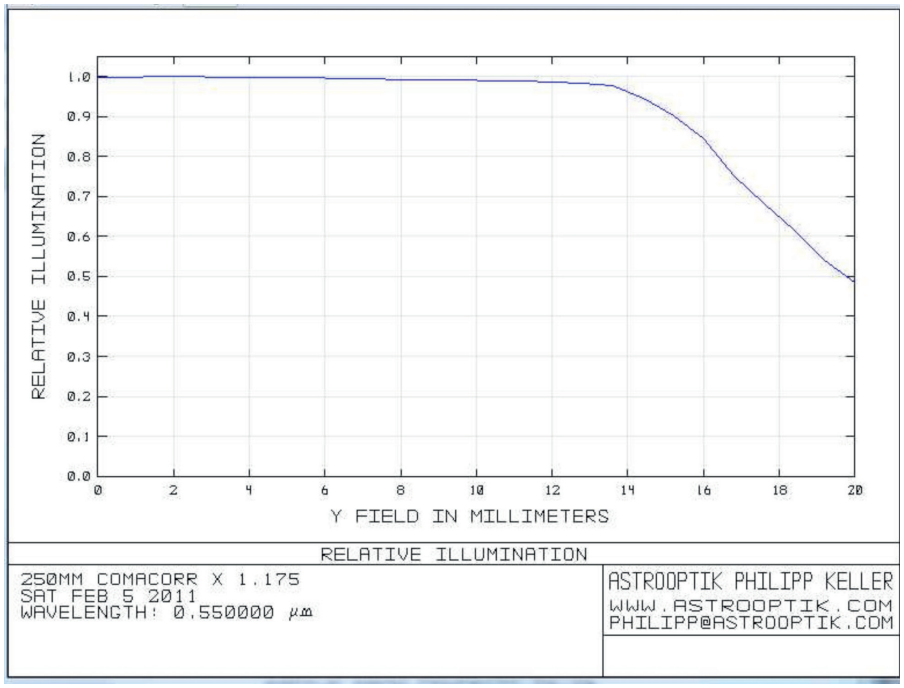
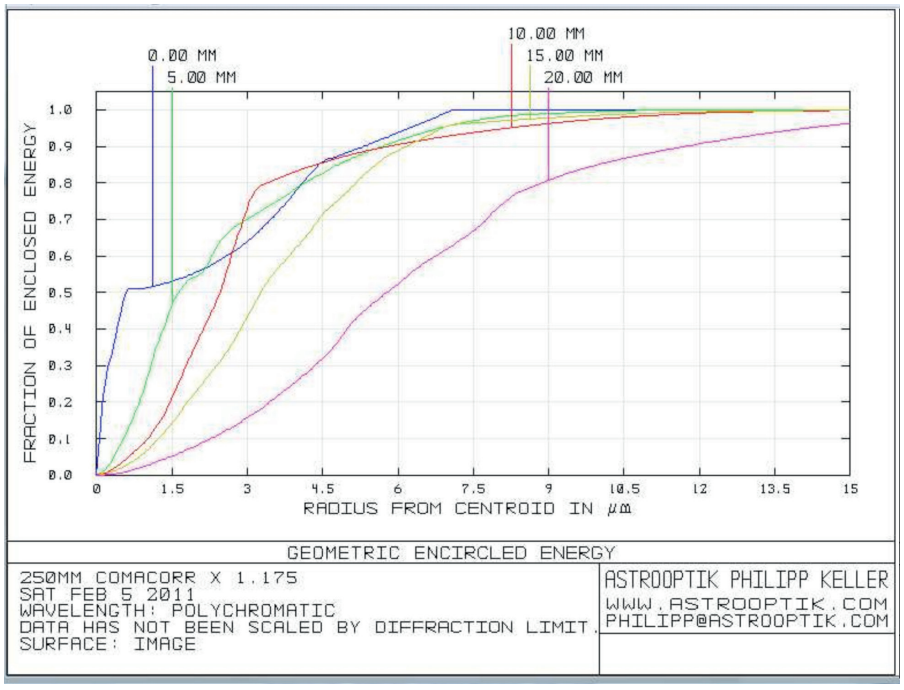


Vignetting at 30mm FOV is smaller than 9%.



FWHM values at 30mm close to 6 micron.