3 Mega-Pixel Lens

Cinegon 1.4/8-0902

In accordance with the sensitivity of modern 2 / 3“ CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). Even under production and / or extreme conditions, the robust mechanical design with lockable focus and iris setting mechanism guarantees reliable continuous use in which the set optical parameters remain in place.

Cinegon 1.4/8

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.4
Focal length	8.2 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	90 gr.
Filter tread	M30.5 x 0.5
Code no.	1001919

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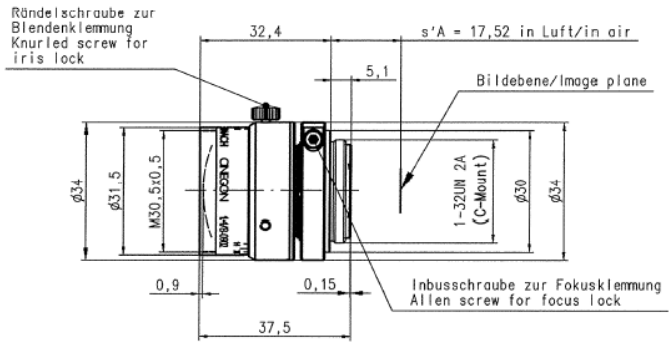
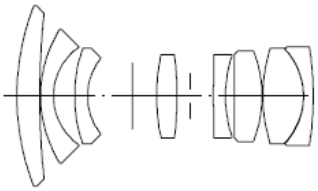




CINEGON 1.4/8.0MM

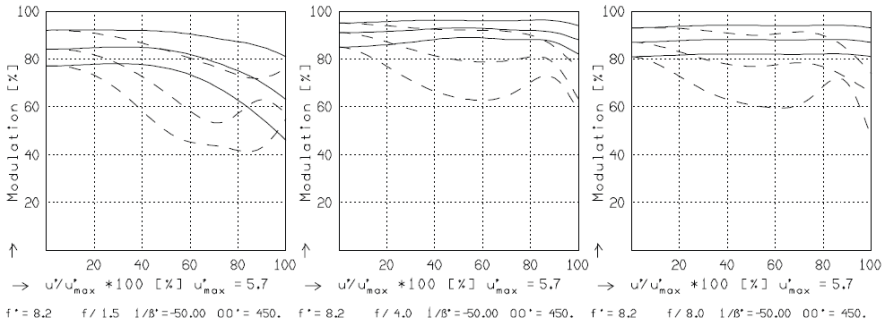
f'	=	8.2 mm	β'_p	=	4.796
s_F	=	11.7 mm	s_{EP}	=	13.4 mm
s'_F	=	12.6 mm	s'_{AP}	=	-27.0 mm
HH'	=	20.9 mm	Σ d	=	36.5 mm

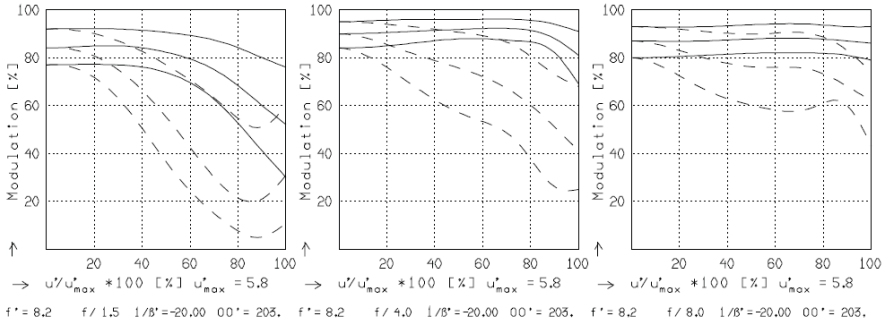
CINEGON 1.4/8.0MM

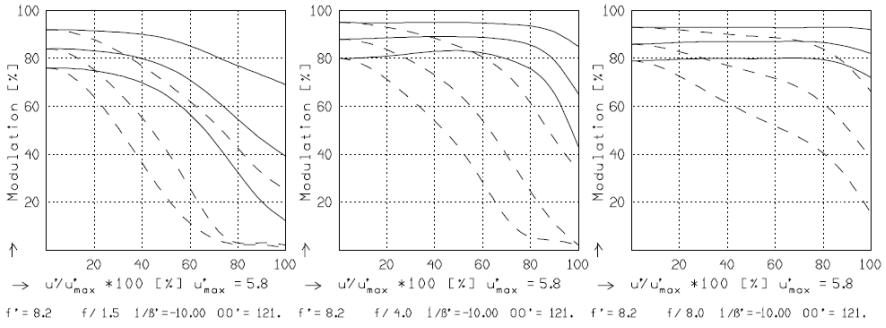
MODULATION with reference to the relative image height

Wavelength λ	[nm] :	555	655	605	505	455	405
Spectral weighting	[%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R	[1/mm] :	10	20	30			
Format	[mm X mm] :	6.6 X 8.8					
Diagonal 2u'	[mm] :	11.0					

radial ——
tangential — —

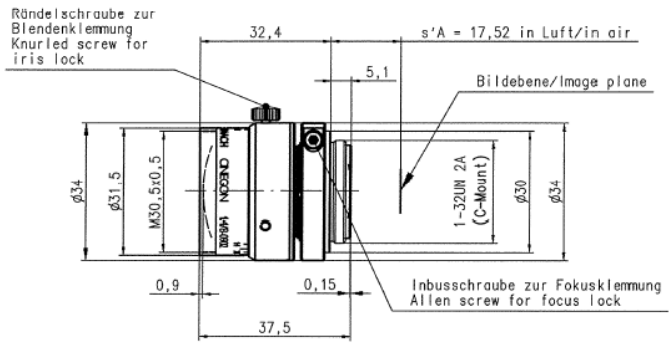


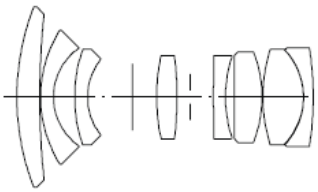




Focusing : MTF_{max} at f / 1.4 , R = 30 1/mm, u'/u'_{max} = 0

Cinegon 1.4/8





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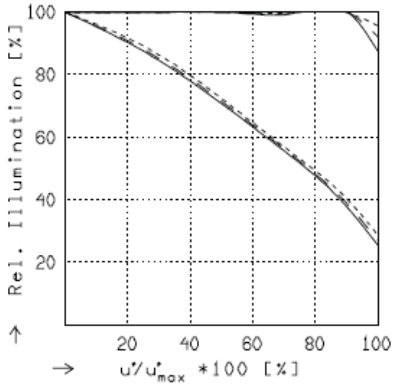
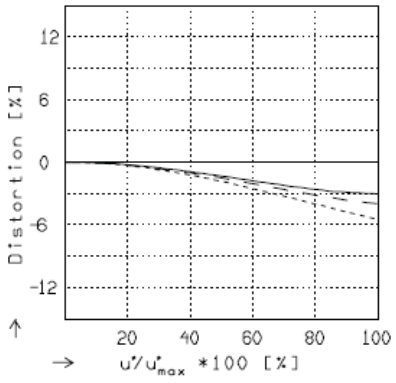


RELATIVE ILLUMINATION

The relativ illumination is shown for the given focal distances or magnifications.

f / 1.5 f / 4.0 f / 8.0

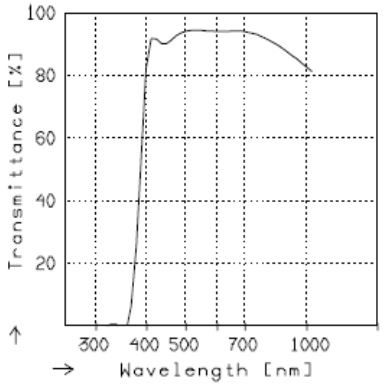
—— β' = -0.0200 u'_{max} = 5.5 ω' = 45°.
— — β' = -0.0500 u'_{max} = 5.5 ω' = 20°.
----- β' = -0.1000 u'_{max} = 5.5 ω' = 12°.



DISTORTION

Distortion is shown for the given focal distances or magnifications. Positive values indicate pincushion distortion and negative values barrel distortion.

—— β' = -0.0200 u'_{max} = 5.5 ω' = 45°.
— — β' = -0.0500 u'_{max} = 5.5 ω' = 20°.
----- β' = -0.1000 u'_{max} = 5.5 ω' = 12°.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.