

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.



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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

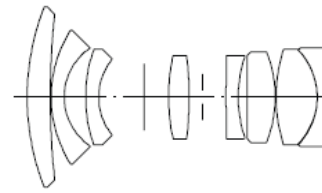
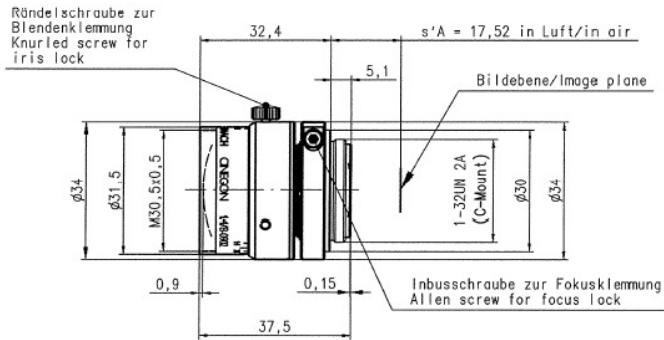
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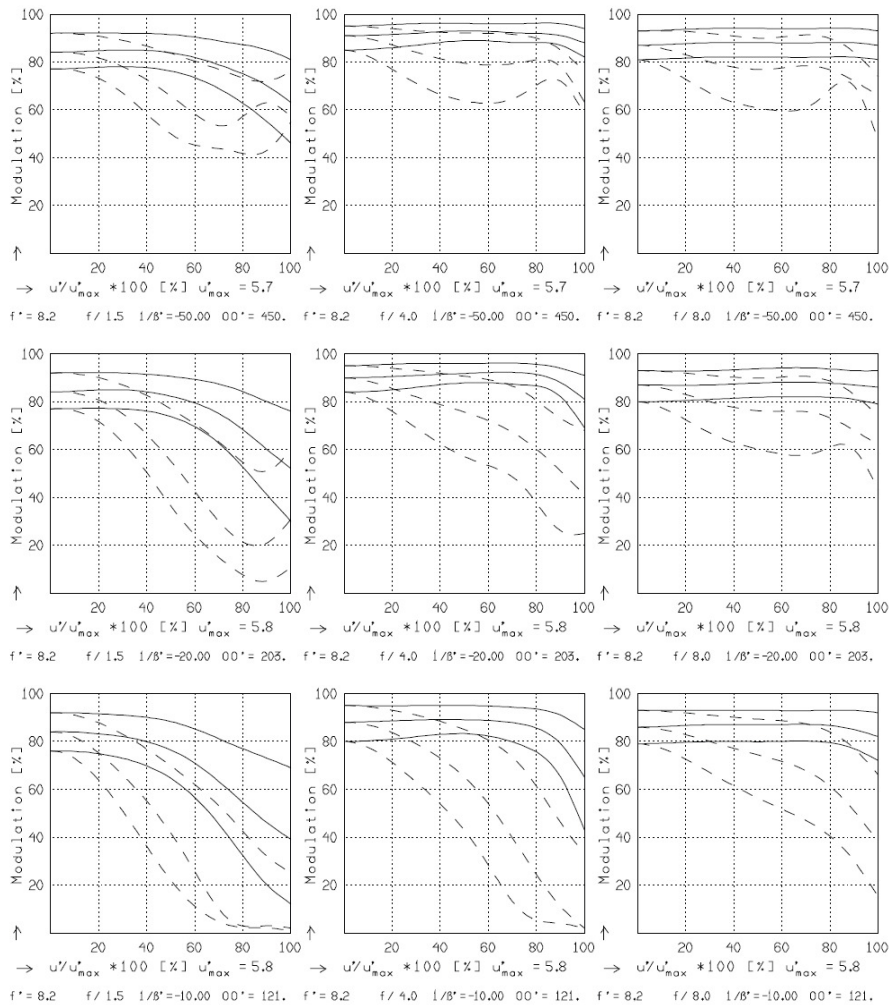
f^*	=	8,2 mm	β_p	=	4,796
s_F	=	11,7 mm	s_{EP}	=	13,4 mm
s_F^*	=	12,6 mm	s_{AP}^*	=	-27,0 mm
HH^*	=	20,9 mm	Σd	=	36,5 mm

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MODULATION with reference to the relative image height

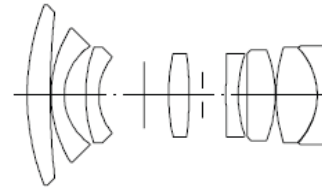
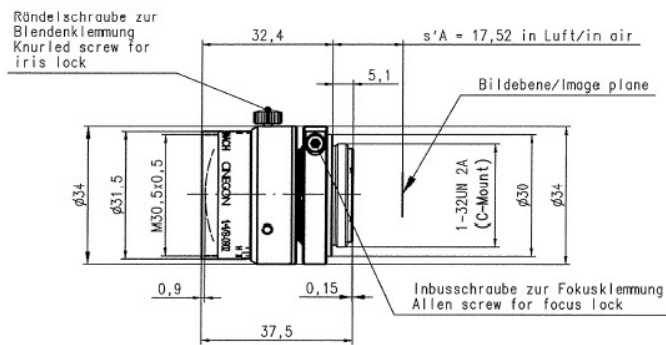
Wavelength λ	[nm]	555	655	605	505	455	405
Spectral weighting	[%]	19,6	23,7	22,2	15,7	12,1	6,7
Spatial frequency R	[1/mm]	10	20	30			
Format	[mm X mm]	6,6	X	8,8			
Diagonal $2u'$	[mm]	11,0					

radial —
 tangential - -



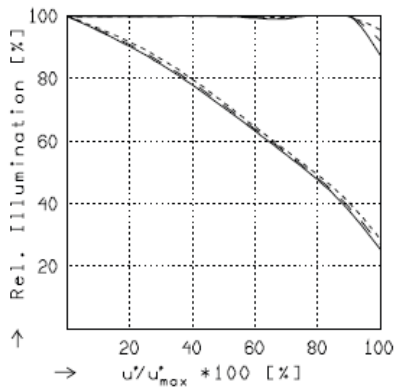
Focusing : MTF_{max} at $f / 1,4$, $R = 30$ 1/mm, $u'/u'_{max} = 0$

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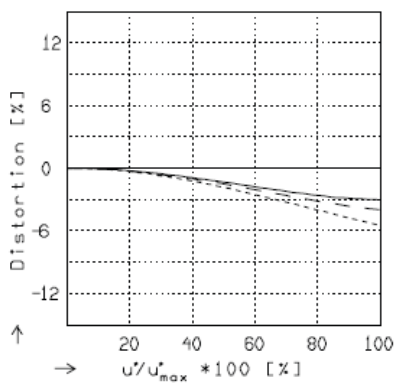
f'	=	8.2 mm	β'_p	=	4.796
s_F	=	11.7 mm	s_{EP}	=	13.4 mm
$s_{F'}$	=	12.6 mm	s_{AP}	=	-27.0 mm
HH'	=	20.9 mm	Σd	=	36.5 mm



RELATIVE ILLUMINATION

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

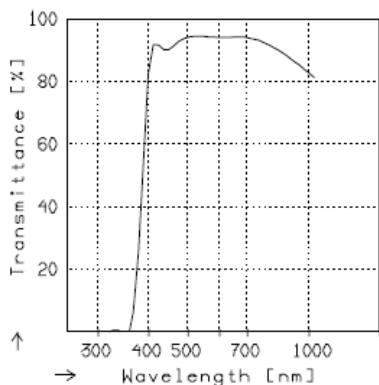
	$f / 1.5$	$f / 4.0$	$f / 8.0$
—	$\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 450.$
- -	$\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 203.$
- · - ·	$\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 121.$



DISTORTION

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

—	$\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 450.$
- -	$\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 203.$
- · - ·	$\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 121.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.