Mega Pixel lens for image circle 16 mm

Cinegon 1.8/16 -0901

In accordance with the sensitivity of modern 1“ CCD and CMOS sensors the megapixel lenses are broadband coated and can be used in the visible range 400 – 700 nm or the near infrared range 700 – 1000 nm. 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 coated (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	1.8
Focal length	16.4 mm
Image circle	16 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	102 gr.
Filter Thread	M30.5 x 0.5
Order No.	1001482

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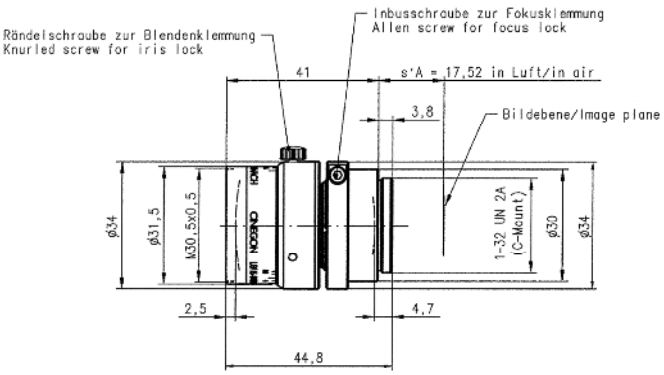

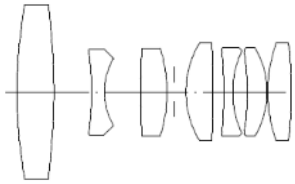

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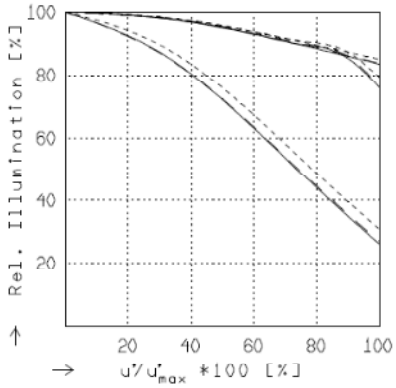
f'	=	16.4 mm	β'_P	=	2.591
s_F	=	11.1 mm	s_{EP}	=	17.4 mm
s'_F	=	18.5 mm	s'_{AP}	=	-24.1 mm
HH'	=	12.0 mm	Σ d	=	37.5 mm

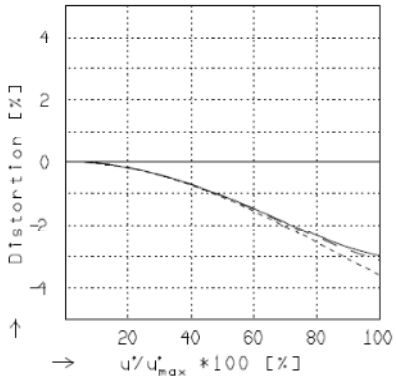


RELATIVE ILLUMINATION

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

f / 1.8 f / 4.0 f / 8.0

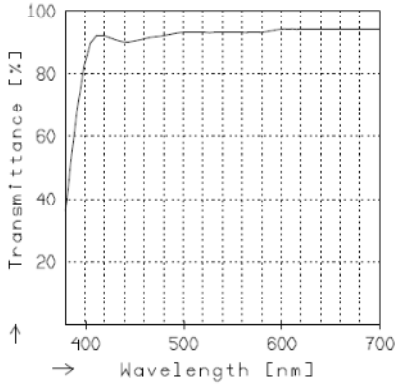
—— β' = 0.0000 u'_{max} = 8.0 OO' = ∞
— — β' = -0.0200 u'_{max} = 8.0 OO' = 867.
----- β' = -0.1000 u'_{max} = 8.0 OO' = 211.



DISTORTION

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

—— β' = 0.0000 u'_{max} = 8.0 OO' = ∞
— — β' = -0.0200 u'_{max} = 8.0 OO' = 867.
----- β' = -0.1000 u'_{max} = 8.0 OO' = 211.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

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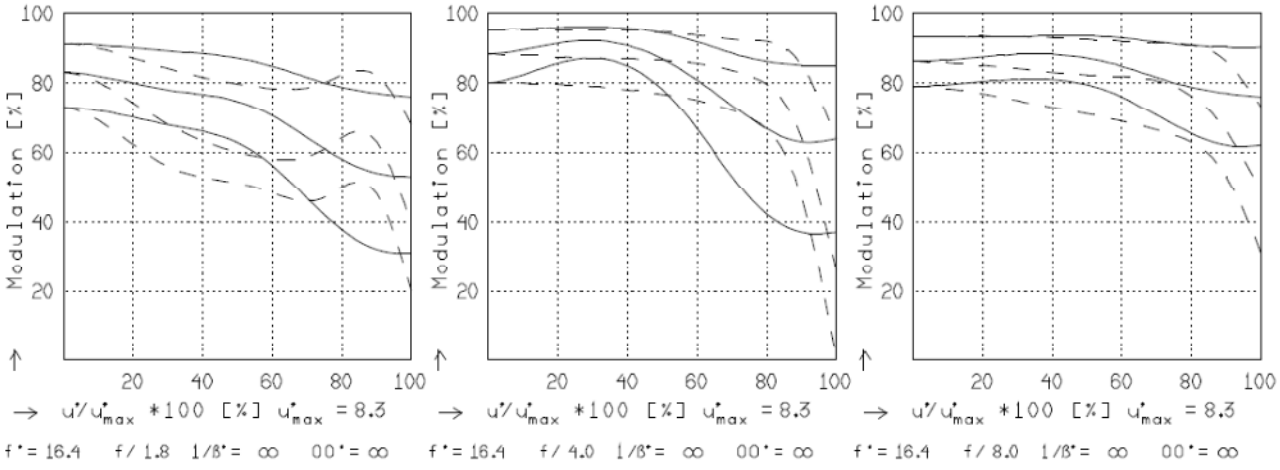
MODULATION with reference to the relative image height

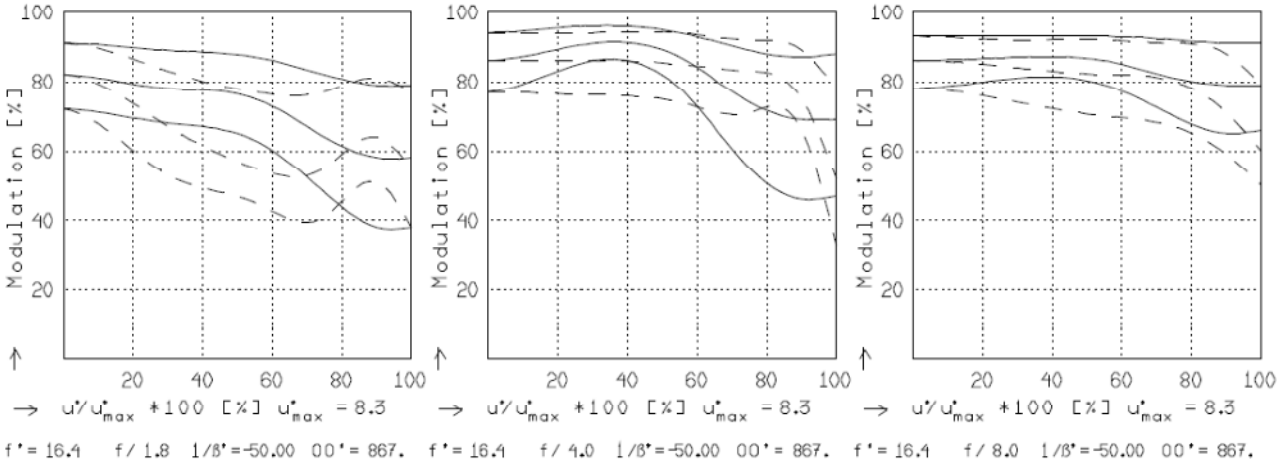
Wavelength λ [nm] :	555	655	605	505	455	405
Spectral weighting [%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R [1/mm] :	10	20	30			
Format [mm X mm] :	9.6 X 12.8					
Diagonal 2u' [mm] :	16.0					

radial ——

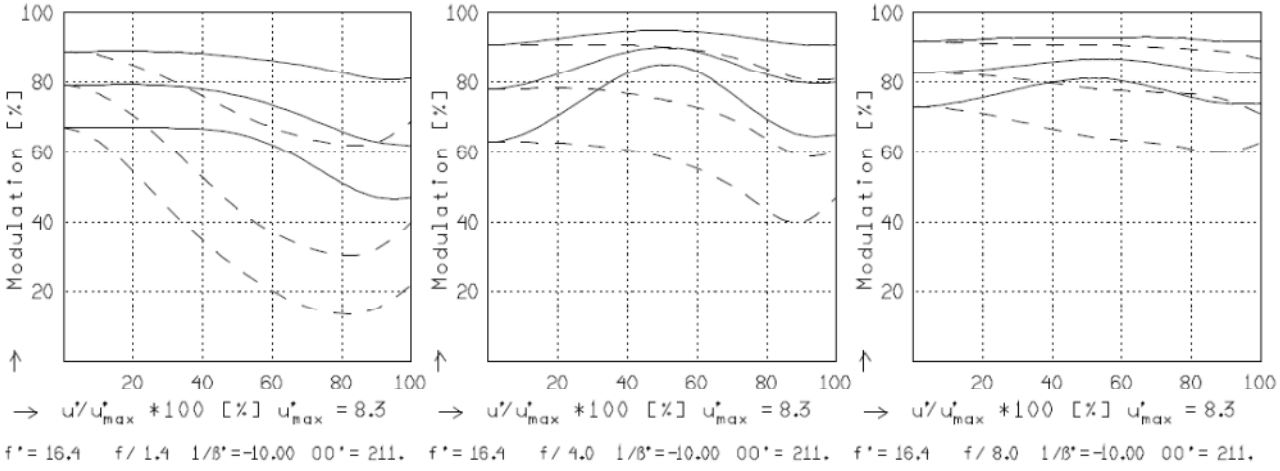
tangential — —



f' = 16.4 f/ 1.8 1/ß' = ∞ OO' = ∞ | f' = 16.4 f/ 4.0 1/ß' = ∞ OO' = ∞ | f' = 16.4 f/ 8.0 1/ß' = ∞ OO' = ∞



f' = 16.4 f/ 1.8 1/ß' = -50.00 OO' = 867. | f' = 16.4 f/ 4.0 1/ß' = -50.00 OO' = 867. | f' = 16.4 f/ 8.0 1/ß' = -50.00 OO' = 867.



f' = 16.4 f/ 1.4 1/ß' = -10.00 OO' = 211. | f' = 16.4 f/ 4.0 1/ß' = -10.00 OO' = 211. | f' = 16.4 f/ 8.0 1/ß' = -10.00 OO' = 211.

Focusing : MTF_{max} at f / 1.8 , R = 30 1/mm, u'/u'_{max} = 0