

Mega Pixel lens for image circle 16 mm

Cinegon 1.8/16

In accordance with the sensitivity of modern 1" CCD and CMOS sensors, the 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	1.8
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

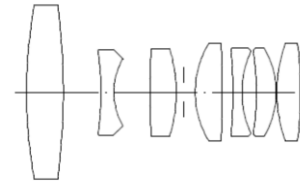
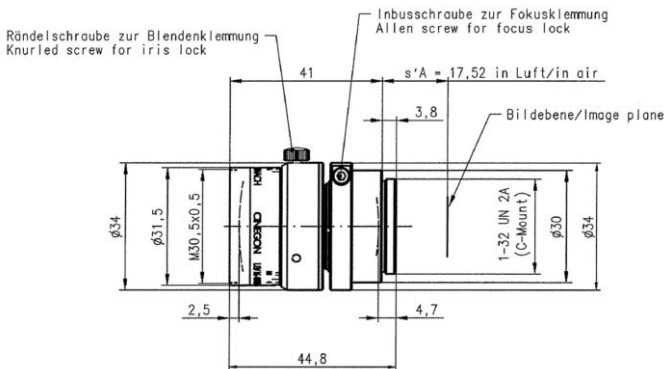
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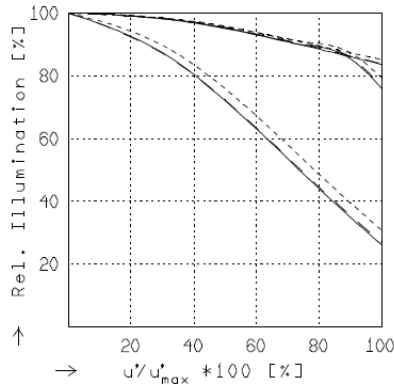
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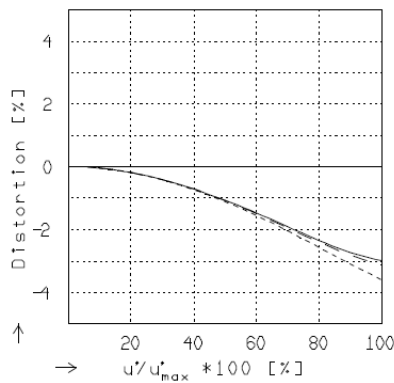
f'	= 16.4 mm	β'_p	= 2.591
s_F	= 11.1 mm	s_{EP}	= 17.4 mm
s'_F	= 18.5 mm	s'_{AP}	= -24.1 mm
HH'	= 12.0 mm	Σd	= 37.5 mm



RELATIVE ILLUMINATION

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

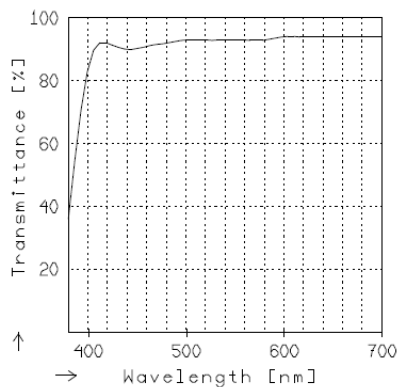
	$f / 1.8$	$f / 4.0$	$f / 8.0$
— $\beta' = 0.0000$	$u'_{max} = 8.0$	$00' = \infty$	
- - $\beta' = -0.0200$	$u'_{max} = 8.0$	$00' = 867.$	
- · - $\beta' = -0.1000$	$u'_{max} = 8.0$	$00' = 211.$	



DISTORTION

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

— $\beta' = 0.0000$	$u'_{max} = 8.0$	$00' = \infty$
- - $\beta' = -0.0200$	$u'_{max} = 8.0$	$00' = 867.$
- · - $\beta' = -0.1000$	$u'_{max} = 8.0$	$00' = 211.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

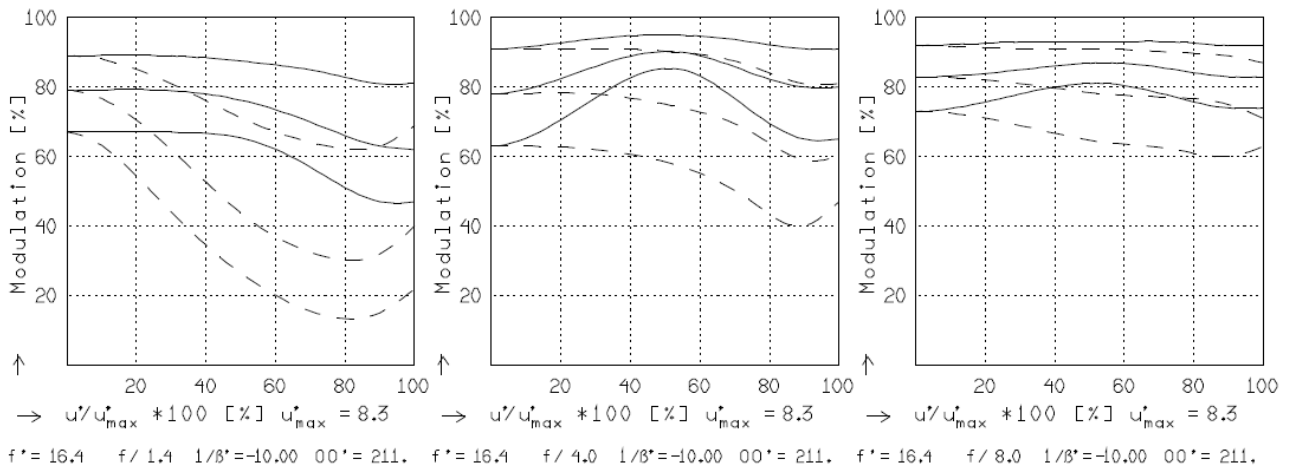
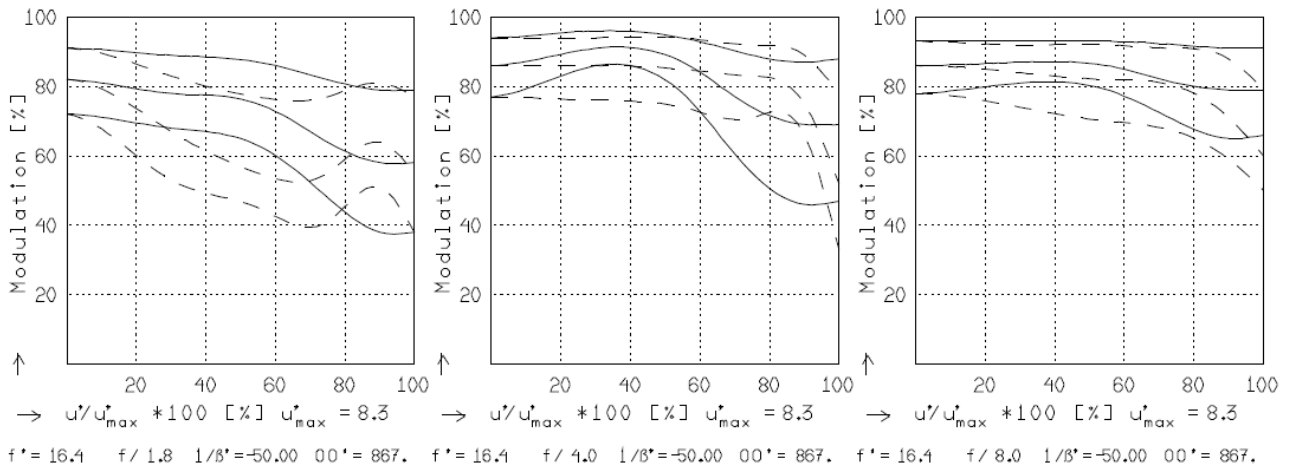
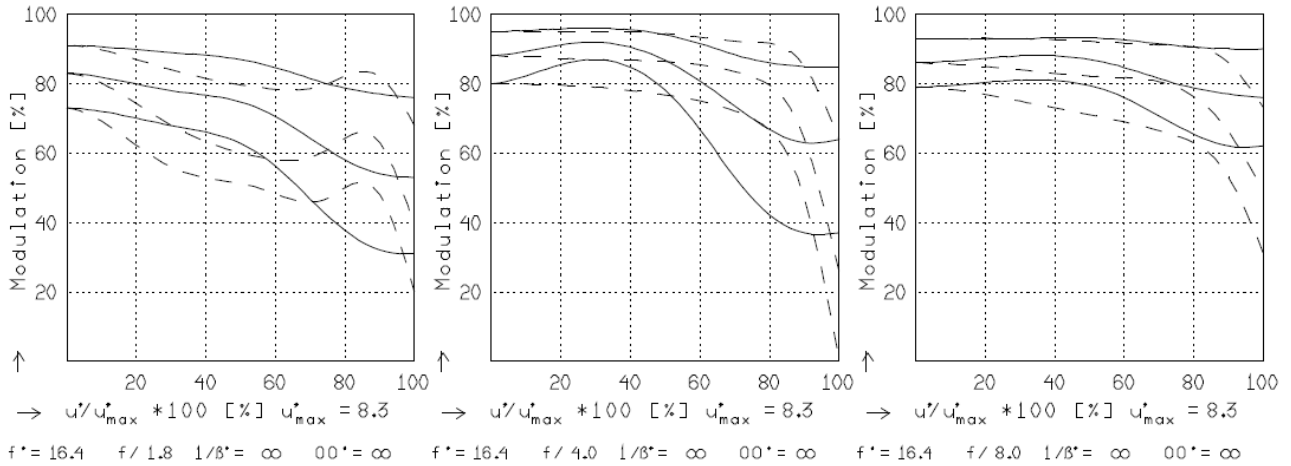
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MODULATION with reference to the relative image height

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 - -



↑ Modulation [%]

→ $u'/u'_{max} * 100$ [%] $u'_{max} = 8.3$

$f' = 16.4$ $f / 1.4$ $1/\beta' = -10.00$ $00' = 211.$ $f' = 16.4$ $f / 4.0$ $1/\beta' = -10.00$ $00' = 211.$ $f' = 16.4$ $f / 8.0$ $1/\beta' = -10.00$ $00' = 211.$

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