

# Mega Pixel Ruggedized Lens for image circle 16 mm

## Cinegon 1.9/10 - Ruggedized

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.



Cinegon 1.9/10

### Key Features

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

### Applications

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

### Technical Specifications

F-number	1.9
Focal length	10.4 mm
Image circle	16 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	136 gr.
Option	Filter holder for Optical filter
Order No.	1060005

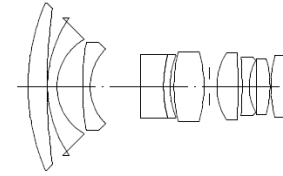
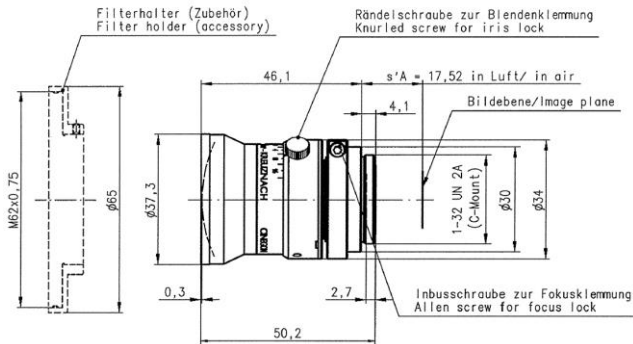
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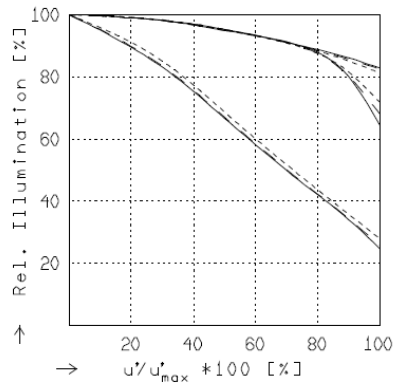
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# Cinegon 1.9/10 Ruggedized Lens



## CINEGON 1.9/10MM

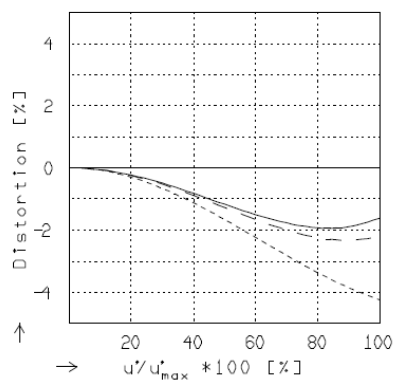
$f^*$	= 10.4 mm	$\beta_p^*$	= 2.823
$s_F$	= 13.9 mm	$s_{EP}$	= 17.5 mm
$s_F^*$	= 16.1 mm	$s_{AP}^*$	= -13.1 mm
HH'	= 28.7 mm	$\Sigma d$	= 47.2 mm



## RELATIVE ILLUMINATION

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

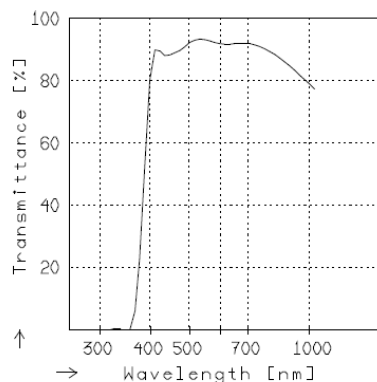
$f / 1.9$	$f / 4.0$	$f / 8.0$
— $\beta^* = 0.0000$	$u'_{max} = 8.0$	$00' = \infty$
- - $\beta^* = -0.0200$	$u'_{max} = 8.0$	$00' = 567.$
---- $\beta^* = -0.1000$	$u'_{max} = 8.0$	$00' = 154.$



## DISTORTION

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

— $\beta^* = 0.0000$	$u'_{max} = 7.8$	$00' = \infty$
- - $\beta^* = -0.0200$	$u'_{max} = 7.8$	$00' = 567.$
---- $\beta^* = -0.1000$	$u'_{max} = 8.0$	$00' = 154.$



## TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

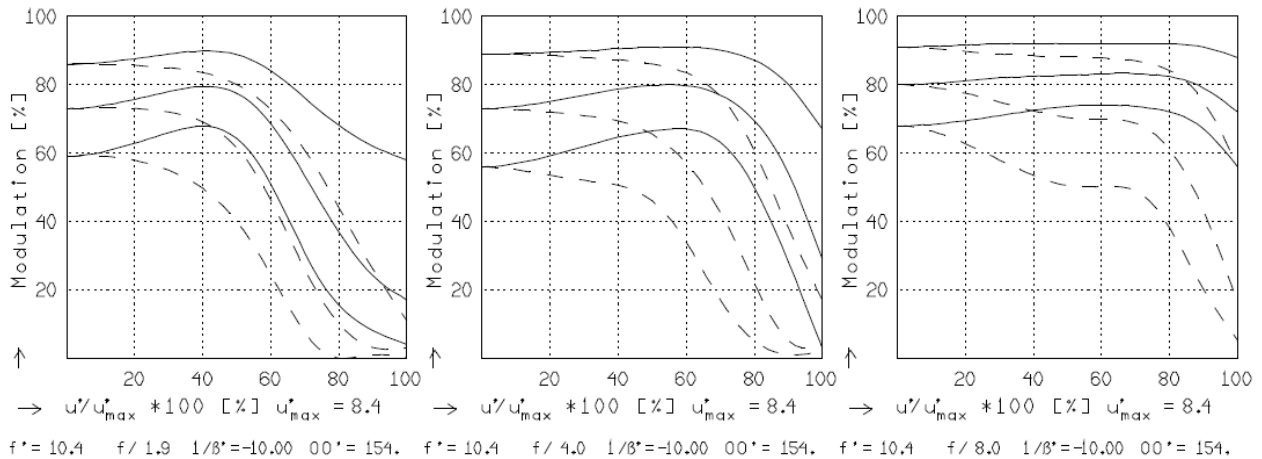
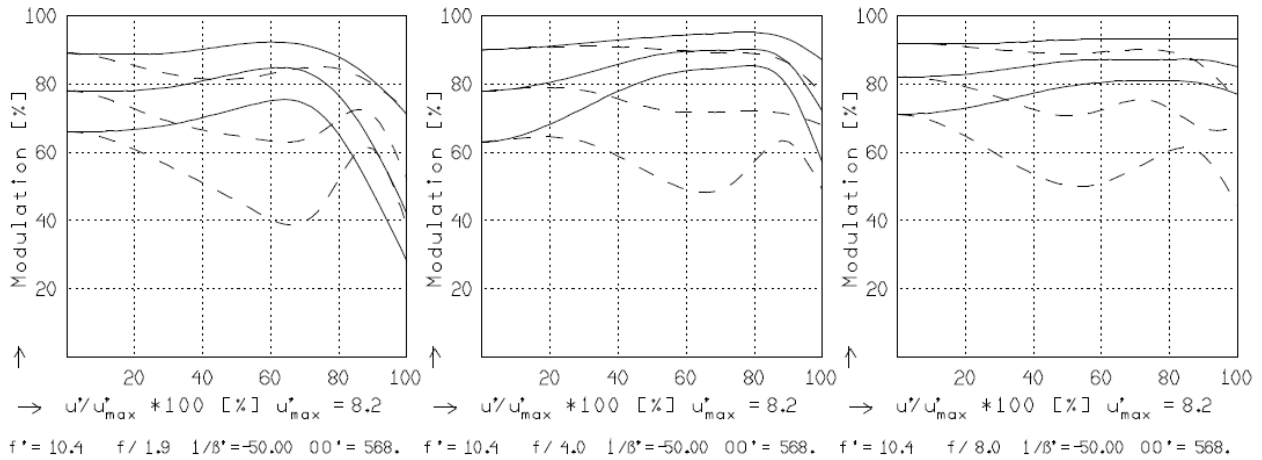
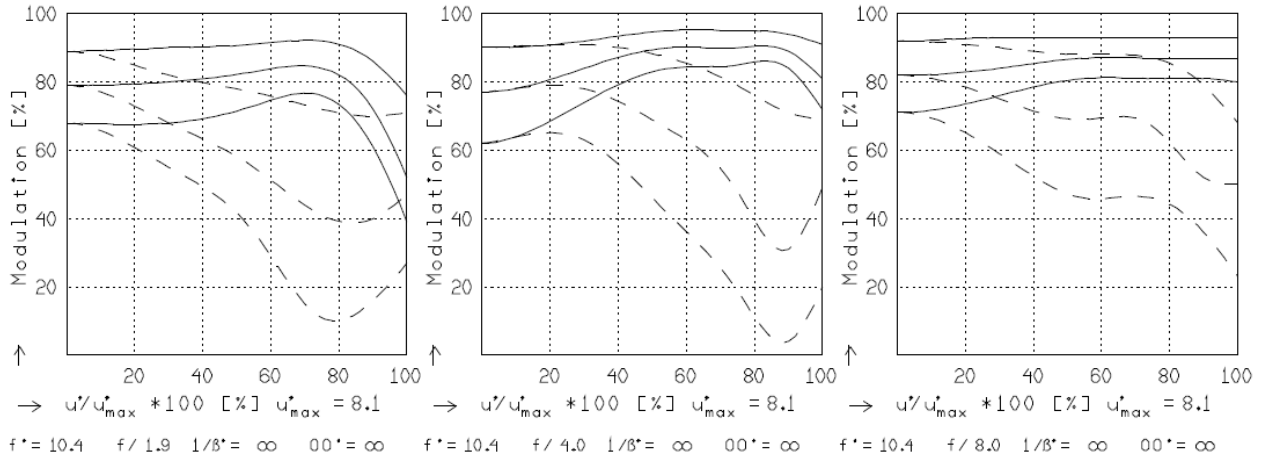
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## CINEGON 1.9/10MM

MODULATION with reference to the relative image height

Wavelength $\lambda$	[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 - -



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