

# 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

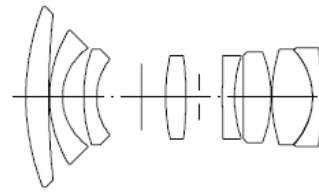
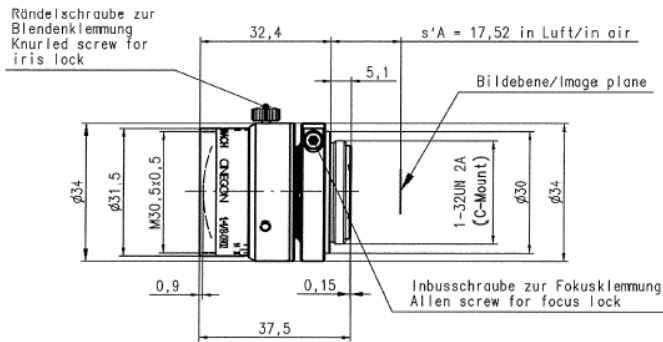
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# Cinegon 1.4/8



## CINEGON 1.4/8.0MM

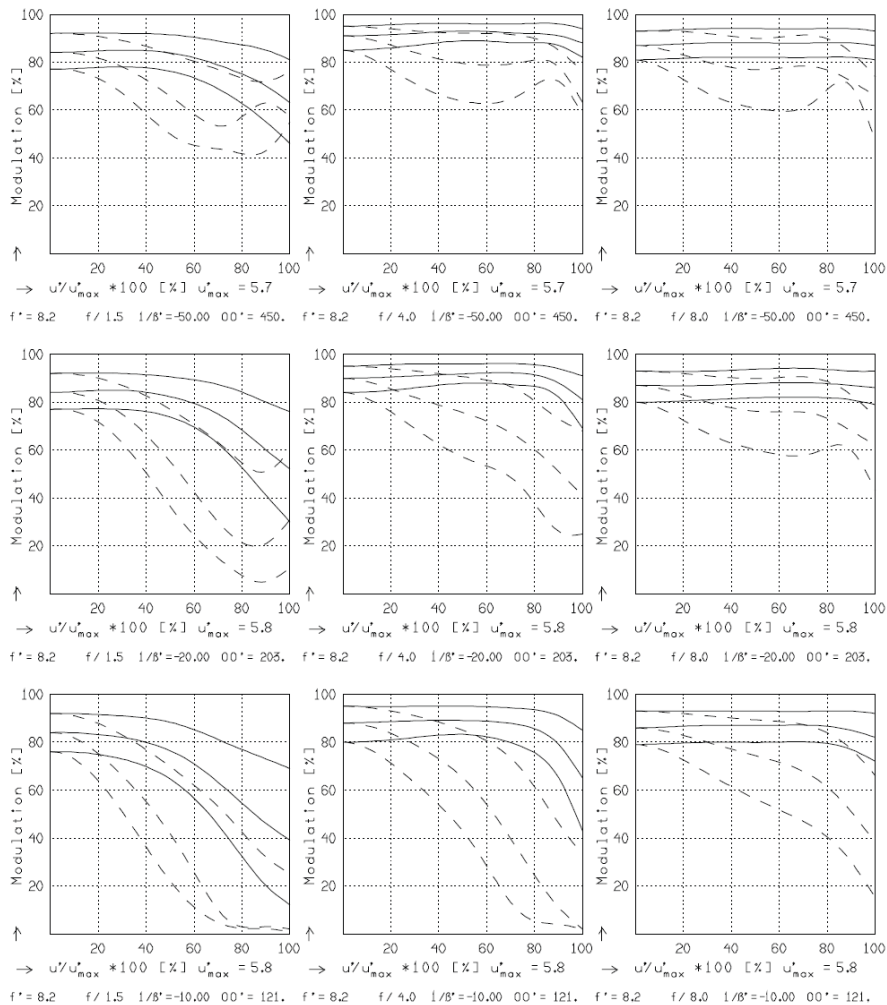
$f^*$	=	8,2 mm	$\beta_p^*$	=	4,796
$s_F$	=	11,7 mm	$s_{EP}$	=	13,4 mm
$s_F^*$	=	12,6 mm	$s_{AP}^*$	=	-27,0 mm
$HH^*$	=	20,9 mm	$\Sigma d$	=	36,5 mm

## CINEGON 1.4/8.0MM

MODULATION with reference to the relative image height

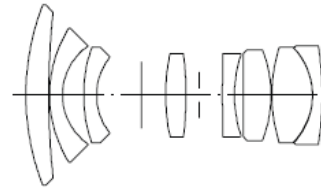
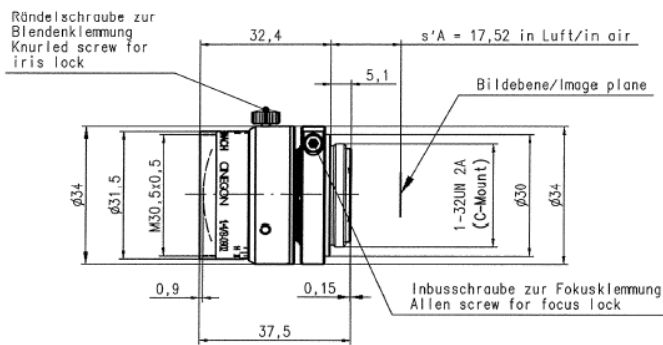
Wavelength $\lambda$	[nm]	555	655	605	505	455	405
Spectral weighting	[%]	19,6	23,7	22,2	15,7	12,1	6,7
Spatial frequency R	[1/mm]	10	20	30			
Format	[mm X mm]	6,6	X	8,8			
Diagonal $2u'$	[mm]	11,0					

radial —  
 tangential - -



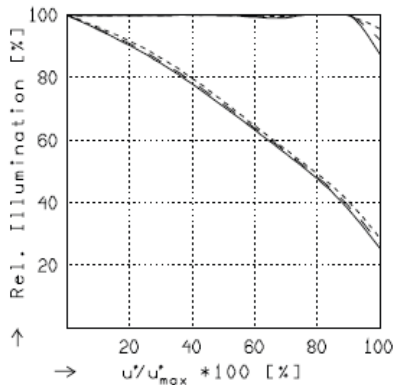
Focusing : MTF<sub>max</sub> at  $f / 1,4$  ,  $R = 30$  1/mm,  $u'/u'_{max} = 0$

# Cinegon 1.4/8



## CINEGON 1.4/8.0MM

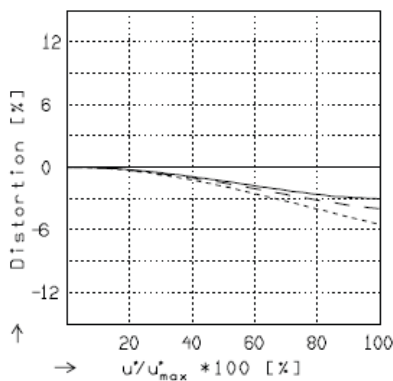
$f'$	= 8,2 mm	$\beta_p'$	= 4,796
$s_F$	= 11,7 mm	$s_{EP}$	= 13,4 mm
$s_F^*$	= 12,6 mm	$s_{AP}^*$	= -27,0 mm
$HH'$	= 20,9 mm	$\Sigma d$	= 36,5 mm



## RELATIVE ILLUMINATION

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

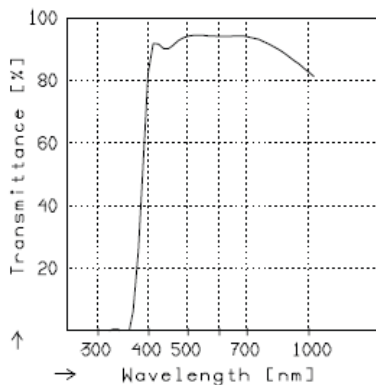
	$f / 1,5$	$f / 4,0$	$f / 8,0$
—	$\beta' = -0,0200$	$u'_{max} = 5,5$	$00' = 450.$
- -	$\beta' = -0,0500$	$u'_{max} = 5,5$	$00' = 203.$
- · -	$\beta' = -0,1000$	$u'_{max} = 5,5$	$00' = 121.$



## 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.