

# Ruggedized Lens

## Cinegon 1.4/8 – Ruggedized

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
- 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	1.4
Focal length	8.2 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	90 gr.
Option	Optical filter

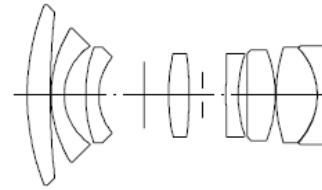
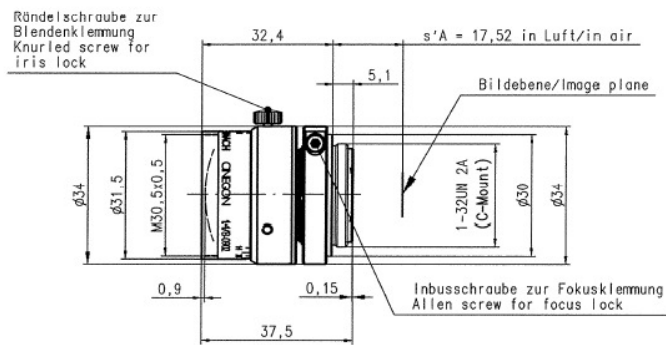
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# Cinegon 1.4/8 Ruggedized Lens



## CINEGON 1.4/8.0MM

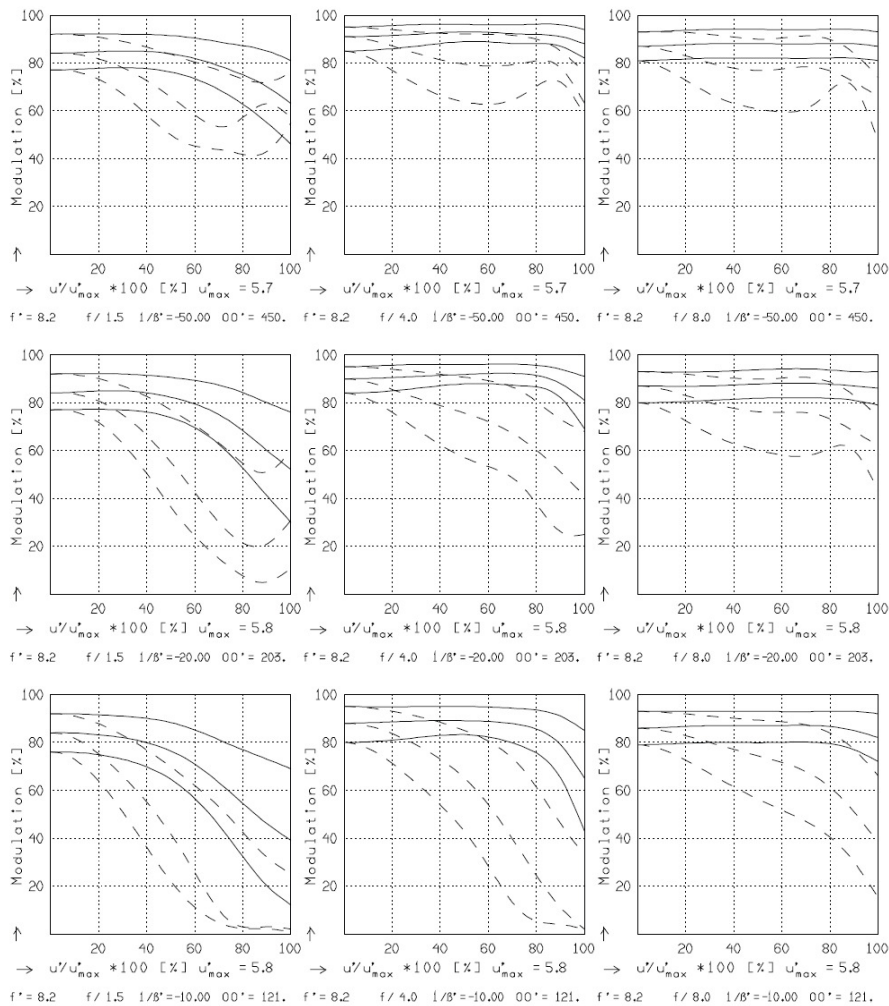
$f^*$	=	8.2 mm	$\beta_p^*$	=	4.796
$s_F$	=	11.7 mm	$s_{EP}$	=	13.4 mm
$s_F^*$	=	12.6 mm	$s_{AP}^*$	=	-27.0 mm
$HH^*$	=	20.9 mm	$\Sigma d$	=	36.5 mm

## CINEGON 1.4/8.0MM

MODULATION with reference to the relative image height

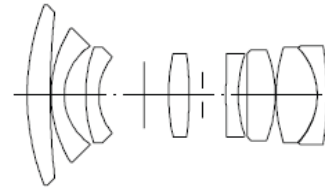
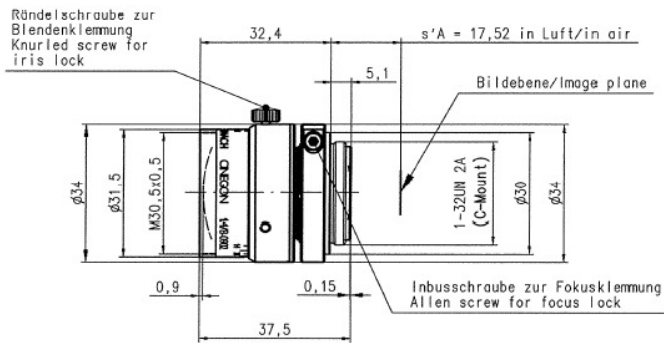
Wavelength $\lambda$	[nm]	555	655	605	505	455	405
Spectral weighting	[%]	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R	[1/mm]	10	20	30			
Format	[mm X mm]	6.6	X	8.8			
Diagonal $2u'$	[mm]	11.0					

radial —  
tangential - -



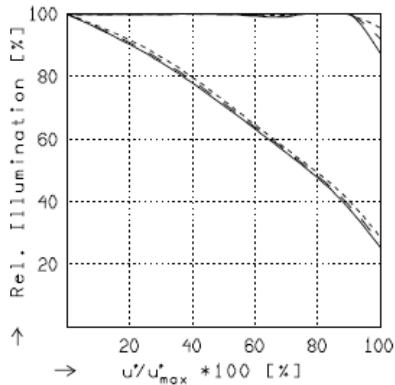
Focusing :  $MTF_{max}$  at  $f / 1.4$  ,  $R = 30$  1/mm,  $u'/u'_{max} = 0$

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## CINEGON 1.4/8.0MM

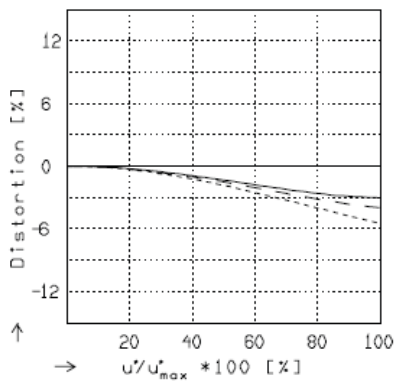
$f'$	=	8.2 mm	$\beta'_p$	=	4.796
$s_F$	=	11.7 mm	$s_{EP}$	=	13.4 mm
$s_{F'}$	=	12.6 mm	$s_{AP}$	=	-27.0 mm
$HH'$	=	20.9 mm	$\Sigma d$	=	36.5 mm



## RELATIVE ILLUMINATION

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

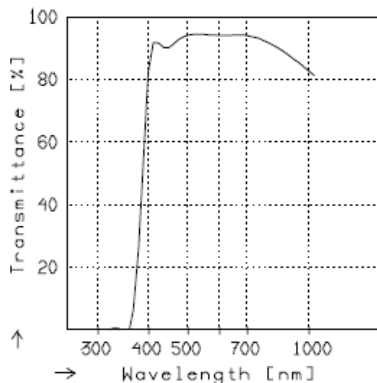
	$f / 1.5$	$f / 4.0$	$f / 8.0$
—	$\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 450.$
- -	$\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 203.$
- - -	$\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 121.$



## 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.