

# 3 Mega Pixel lens

## Cinegon 1.4/12

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.



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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	1.4
Focal length	12.7 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	99 gr.
Option	Optical filter

### Contact

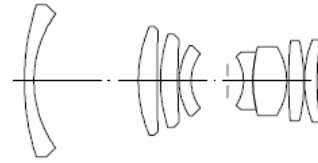
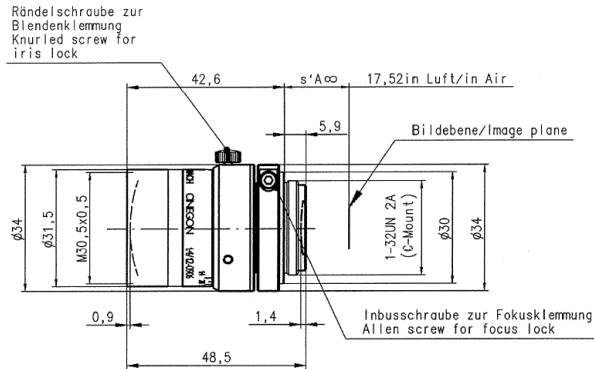
Jos. Schneider Optische Werke GmbH  
 Ringstraße 132  
 55543 Bad Kreuznach  
 Germany  
 Phone +49 671 601-387  
 Fax +49 671 601-286  
[www.schneiderkreuznach.com/industrialoptics](http://www.schneiderkreuznach.com/industrialoptics)  
[industrie@schneiderkreuznach.com](mailto:industrie@schneiderkreuznach.com)

Schneider Asia Pacific Ltd.  
 20/F Central Tower, 28 Queen's Road  
 Central, Hong Kong  
 China  
 Phone +852 8302 0301  
 Fax +852 8302 4722  
[www.schneider-asiapacific.com](http://www.schneider-asiapacific.com)  
[info@schneider-asiapacific.com](mailto:info@schneider-asiapacific.com)

Schneider Optics Inc.  
 285 Oser Ave.  
 Hauppauge, NY 11788  
 USA  
 Phone +1 631 761-5000  
 Fax +1 631 761-5090  
[www.schneideroptics.com/industrial](http://www.schneideroptics.com/industrial)  
[industrial@schneideroptics.com](mailto:industrial@schneideroptics.com)

# Cinegon 1.4/12

# Pyramid Imaging



## CINEGON 1.4/12MM

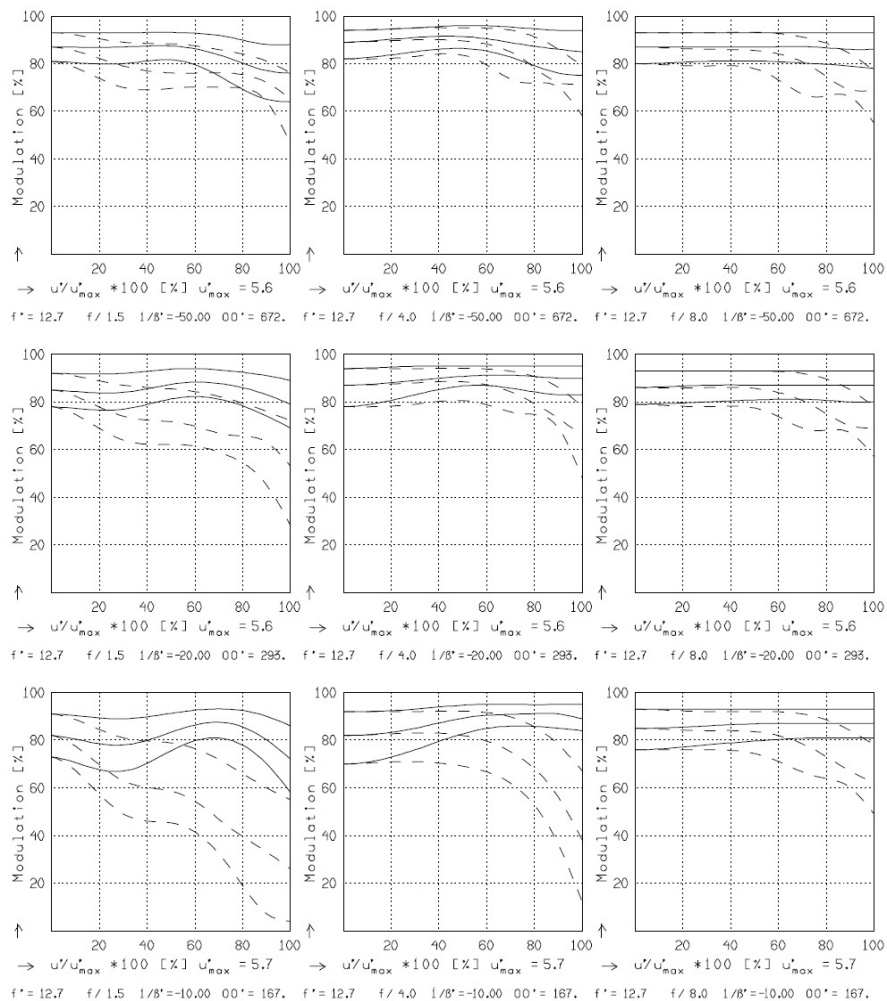
$f'$	= 12.7 mm	$\beta'_p$	= 4.217
$s_F$	= 20.1 mm	$s_{EP}$	= 23.1 mm
$s_{F'}$	= 12.7 mm	$s_{AP}$	= -40.7 mm
HH'	= 13.5 mm	$\Sigma d$	= 46.3 mm

### CINEGON 1.4/12MM

MODULATION with reference to the relative image height

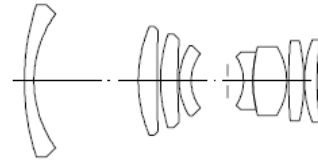
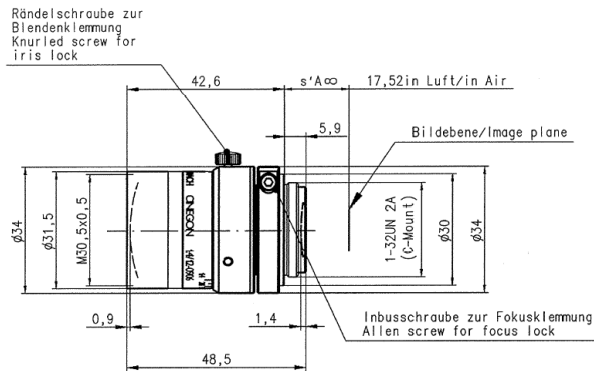
Wavelength $\lambda$	[nm] :	555	655	605	555	455	405
Spectral weighting	[%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R	[1/mm] :	10	20	30			
Format	[mm X mm] :	6.6	X	8.8			
Diagonal $2u'$	[mm] :	11.0					

radial —  
tangential - -



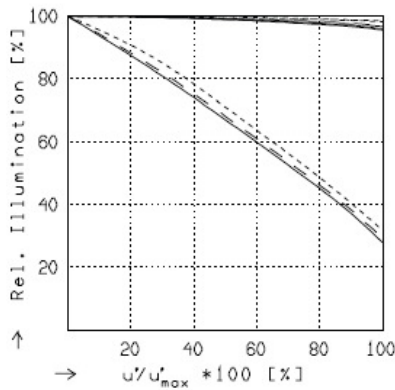
Focusing : MTF<sub>max</sub> at f / 1.4 . R = 30 1/mm.  $u/u'_{max} = 0$

# Cinegon 1.4/12



## CINEGON 1.4/12MM

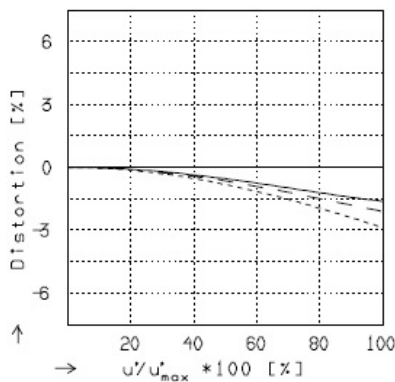
$f'$ = 12.7 mm	$\beta'_p$ = 4.217
$s_F$ = 20.1 mm	$s_{EP}$ = 23.1 mm
$s_{F'}$ = 12.7 mm	$s_{AP}$ = -40.7 mm
$HH'$ = 13.5 mm	$\Sigma d$ = 46.3 mm



## RELATIVE ILLUMINATION

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

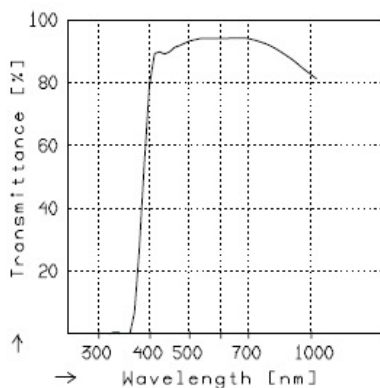
	$f / 1.5$	$f / 4.0$	$f / 8.0$
— $\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 672.$	
- - $\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 293.$	
.... $\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 167.$	



## DISTORTION

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

— $\beta' = -0.0200$	$u'_{max} = 5.4$	$00' = 672.$
- - $\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 293.$
.... $\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 167.$



## TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.



945 East 11<sup>th</sup> Avenue Tampa, FL 33605

Phone: (813) 984-0125

Contact: Sales@pyramidimaging.com

<https://pyramidimaging.com>