

Ruggedized Lens for image circle 22 mm

Xenoplan 2.0/28 - Ruggedized

These high-resolution, high-speed lenses are optimized for the use of 4 and 8 megapixel 1.3" sensors with micro-lenses on the sensor surface. The special optical design prevents unwanted shading on the sensor. This makes it much easier to combine a homogeneous luminance distribution with high imaging performance. The image circles are very large for C-Mount lenses. With a 1.3" sensor, the relatively short focal lengths allow a large coverage range at a short working distance. The lenses are also broadband coated and can be used in the visible range 400 – 700 nm or the near infrared range 700 – 1000 nm.



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Key Features

- Lens for sensor sizes up to 1.3"(image circle 22 mm)
- Stabilized mechanism
- Designed for 4 Mpix sensors
- High resolution optics 400 - 700 nm (VIS) / 700 - 1000 nm (NIR)
- Very high MTF across the entire sensor
- Robust mechanics for industrial environment, secured ring
- Compact and low weight
- Focus and iris setting lockable

Applications

- 3D measurement
- Machine Vision and other imaging applications
- Traffic
- Etc.

Technical Specifications

F-number	2.0
Focal length	29,3 mm
Image circle	22 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	78 gr.
Option	Optical filter

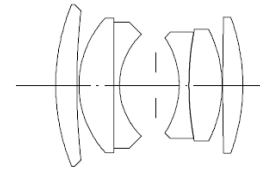
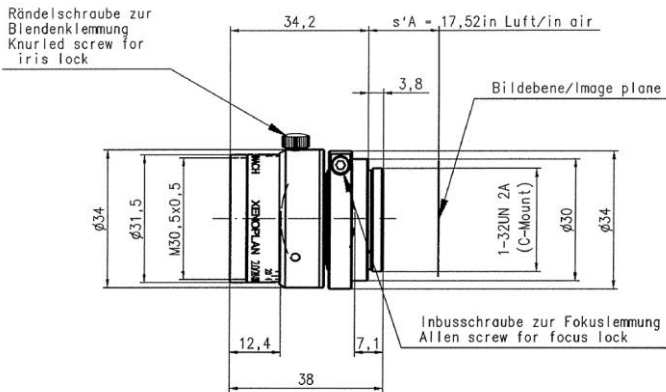
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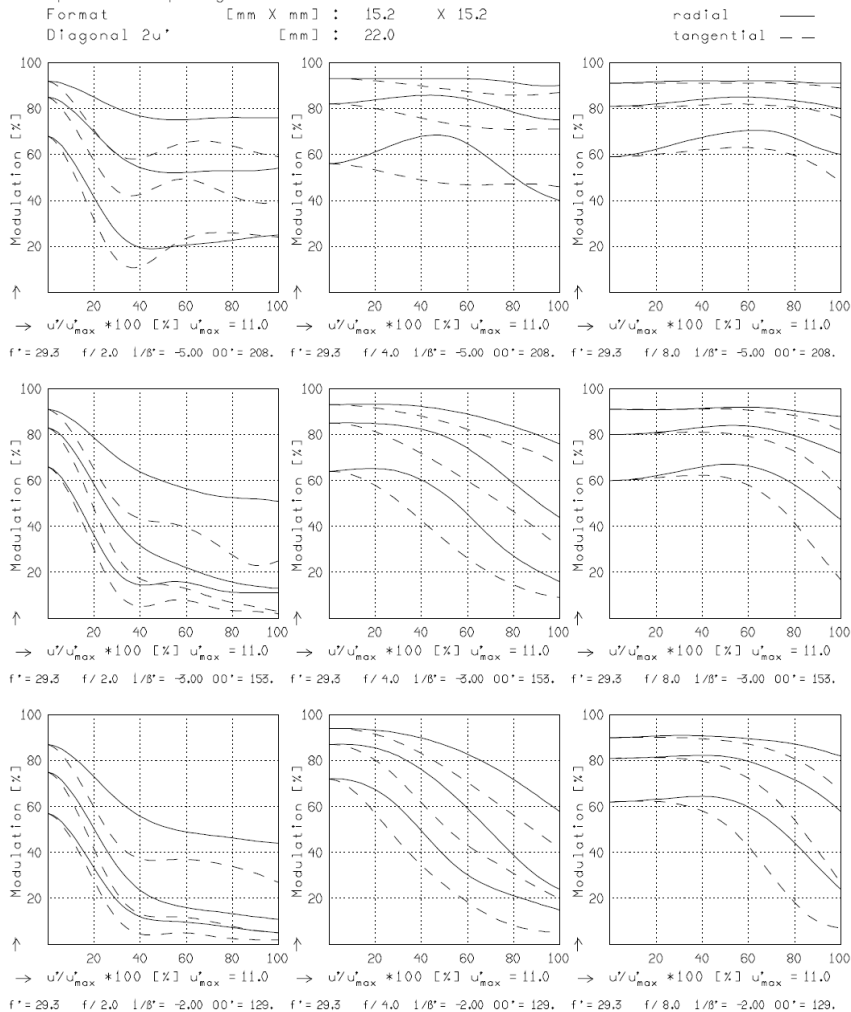
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f'	= 29.3 mm	β_p	= 1.041
s_F	= -16.3 mm	s_{EP}	= 11.8 mm
$s_{F'}$	= 20.8 mm	s_{AP}	= -9.7 mm
HH'	= -2.9 mm	Σd	= 18.5 mm

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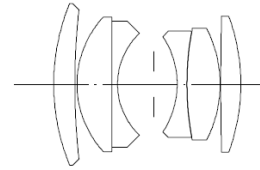
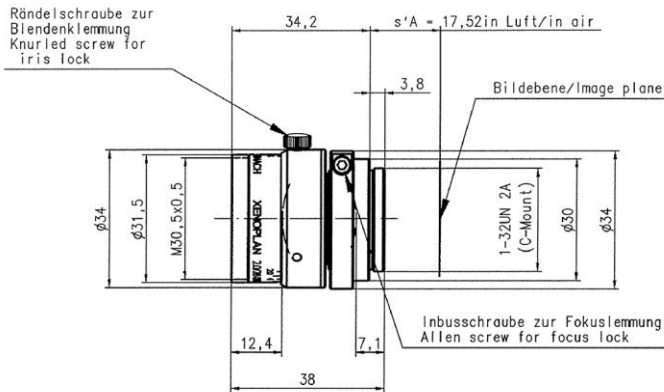
MODULATION with reference to the relative image height

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	40			
Format	[mm X mm]	15.2		X 15.2			
Diagonal $2u'$	[mm]	22.0					



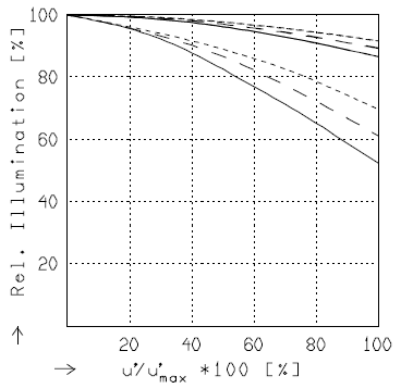
Focusing : MTF_{max} at f / 2.0 , R = 40 1/mm. $u/u'_{max} = 0$

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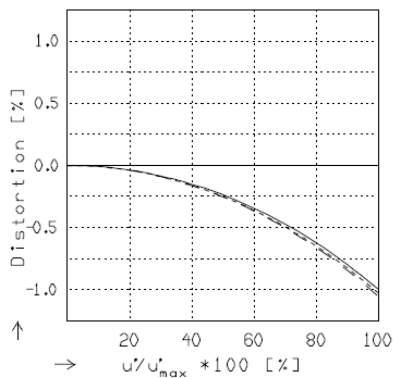
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RELATIVE ILLUMINATION

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

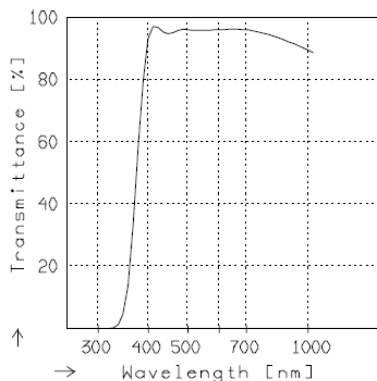
	$f / 2.0$	$f / 4.0$	$f / 8.0$
—	$\beta' = -0.2000$	$u_{max}' = 10.9$	$00' = 208.$
- -	$\beta' = -0.3333$	$u_{max}' = 10.9$	$00' = 153.$
----	$\beta' = -0.5000$	$u_{max}' = 10.9$	$00' = 129.$



DISTORTION

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

—	$\beta' = -0.2000$	$u_{max}' = 10.9$	$00' = 208.$
- -	$\beta' = -0.3333$	$u_{max}' = 10.9$	$00' = 153.$
----	$\beta' = -0.5000$	$u_{max}' = 10.9$	$00' = 129.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.