

Lenses for image circle 22 mm

Xenoplan 2.0/28

These high-resolution, high-speed lenses are optimized for the use of 4 and 8 megapixel 1.3" sensors. 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)
- 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
- Compact and low weight
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- 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
Code No.	1001972

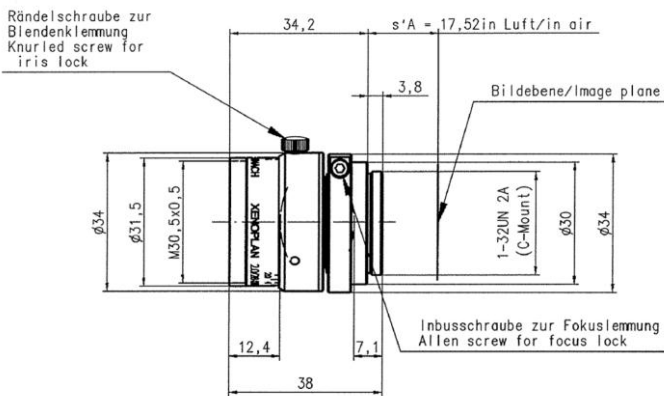
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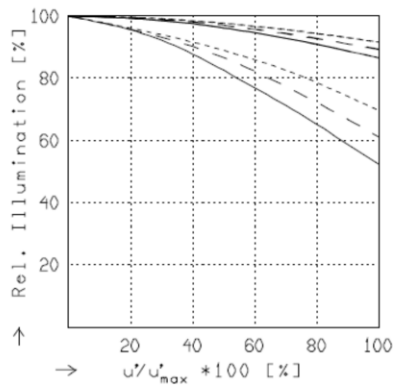
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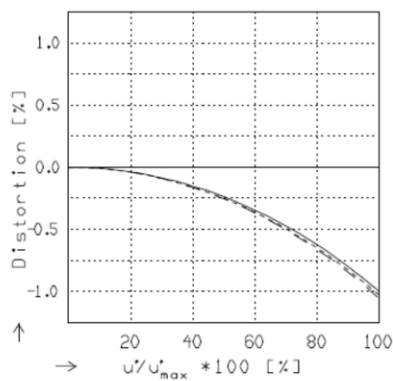
f'	= 29.3 mm	β'_p	= 1.041
s_F	= -16.3 mm	s_{EP}	= 11.8 mm
$s_{F'}$	= 20.8 mm	s_{AP}	= -9.7 mm
HH'	= -2.9 mm	Σd	= 18.5 mm



RELATIVE ILLUMINATION

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

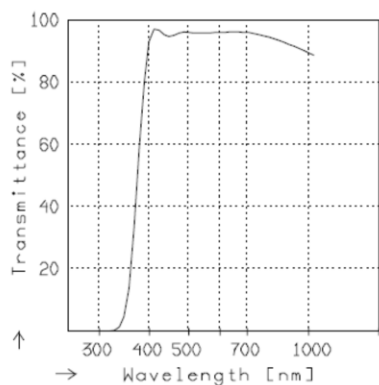
	$f / 2.0$	$f / 4.0$	$f / 8.0$
— $\beta' = -0.2000$	$u'_{max} = 10.9$	$00' = 208.$	
- - $\beta' = -0.3333$	$u'_{max} = 10.9$	$00' = 153.$	
... $\beta' = -0.5000$	$u'_{max} = 10.9$	$00' = 129.$	



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.

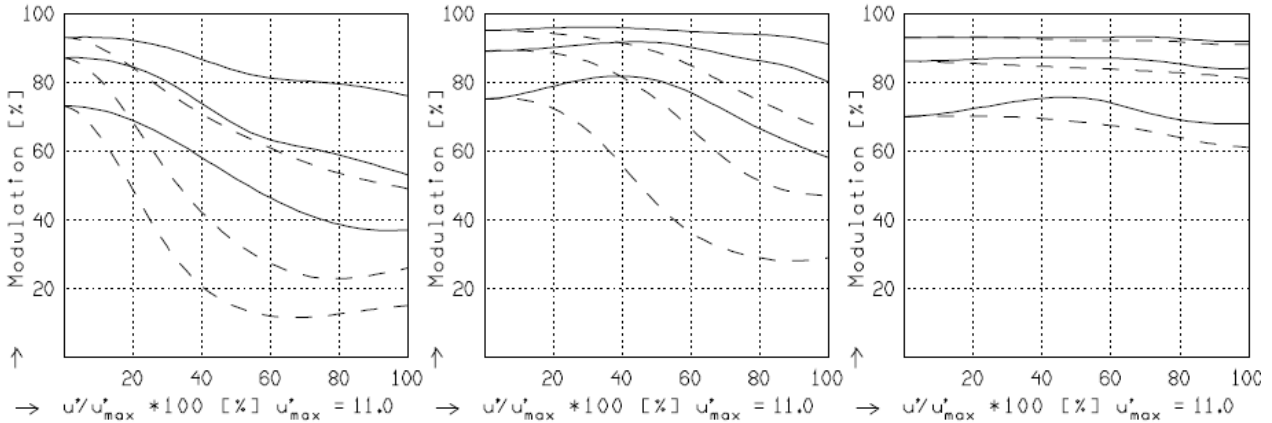
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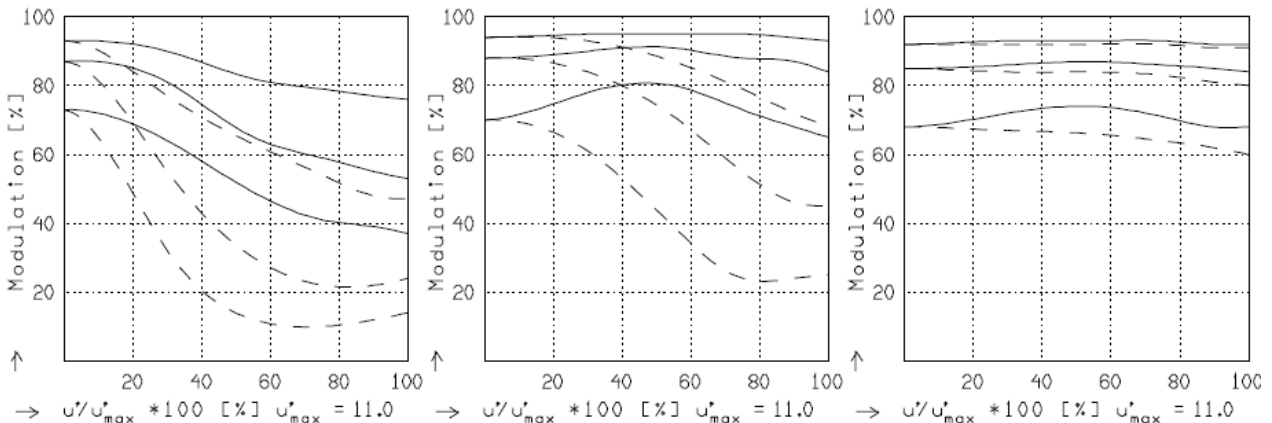
MODULATION with reference to the relative image height

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					

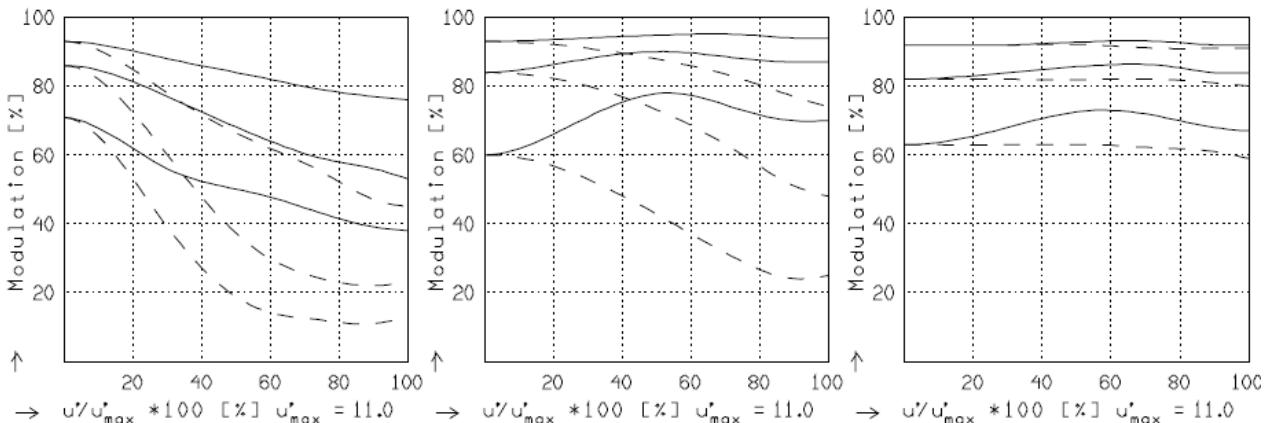
radial —
tangential - -



$f' = 29,3$ $f / 2,0$ $1/8' = -50,00$ $00' = 1521$. $f' = 29,3$ $f / 4,0$ $1/8' = -50,00$ $00' = 1521$. $f' = 29,3$ $f / 8,0$ $1/8' = -50,00$ $00' = 1521$.



$f' = 29,3$ $f / 2,0$ $1/8' = -20,00$ $00' = 643$. $f' = 29,3$ $f / 4,0$ $1/8' = -20,00$ $00' = 643$. $f' = 29,3$ $f / 8,0$ $1/8' = -20,00$ $00' = 643$.



$f' = 29,3$ $f / 2,0$ $1/8' = -10,00$ $00' = 352$. $f' = 29,3$ $f / 4,0$ $1/8' = -10,00$ $00' = 352$. $f' = 29,3$ $f / 8,0$ $1/8' = -10,00$ $00' = 352$.

Focusing : MTF_{max} at $f / 2,0$, $R = 40$ 1/mm, $u'/u'_{max} = 0$

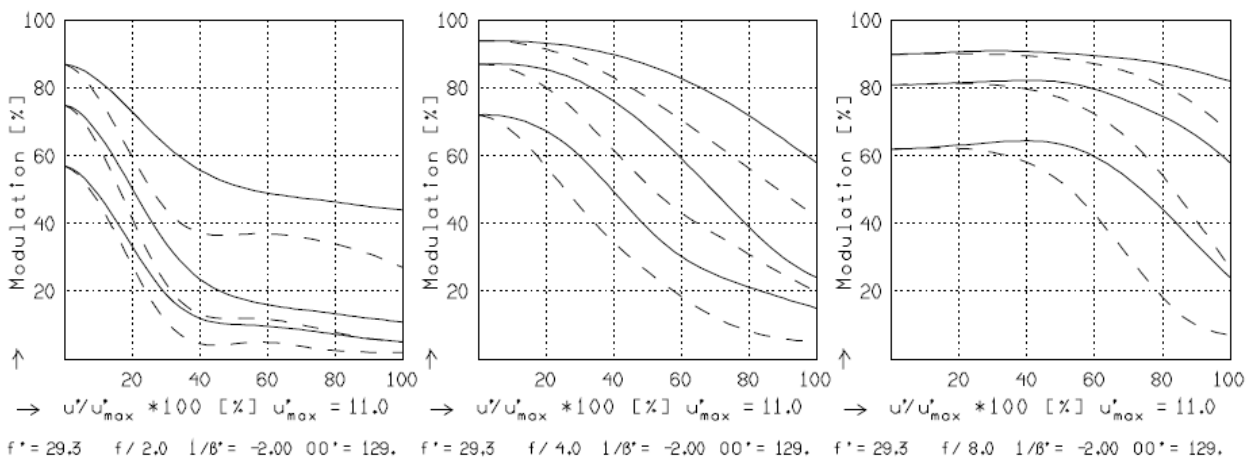
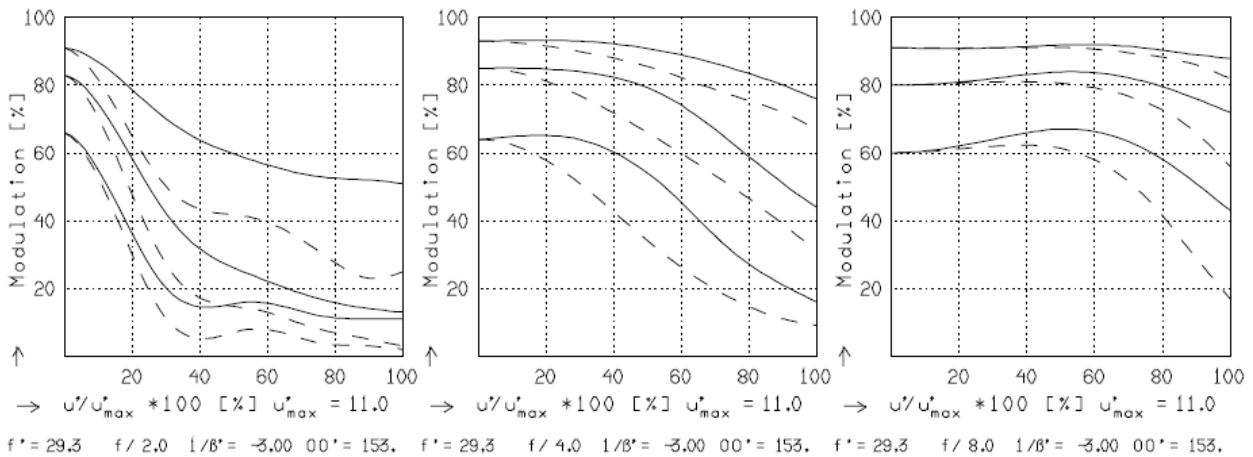
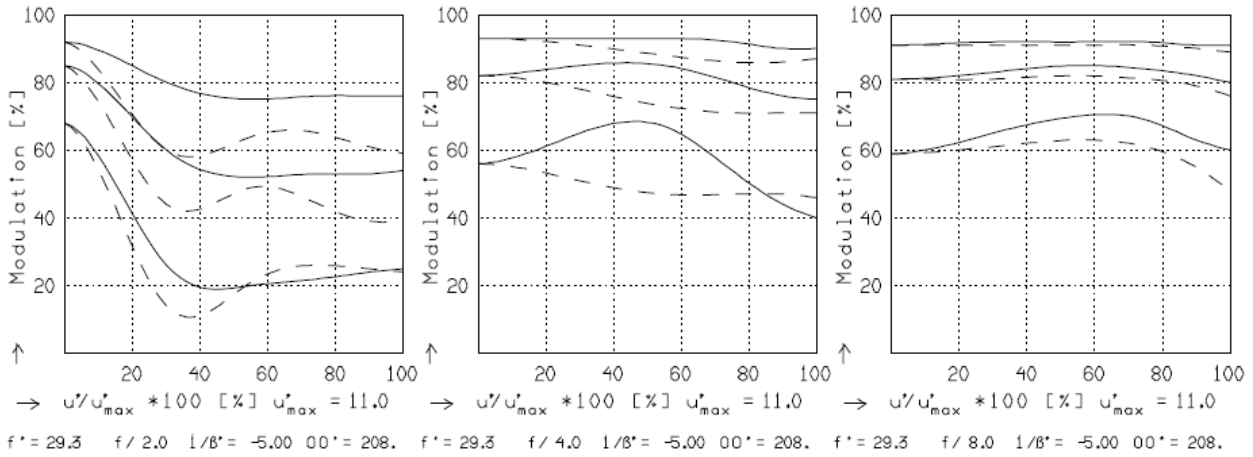
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Wavelength λ	[nm]	555	655	605	505	455	405
Spectral weighting	[%]	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R	[1/mm]	10	20	40			
Format	[mm X mm]	15.2	X 15.2				
Diagonal $2u'$	[mm]	22.0					

radial —
tangential - -



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