

3 Mega-Pixel Lens

Xenoplan 1.9/35-0901

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	1.9
Focal length	34.9 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	92 gr.
Filter thread	M30.5 x 0.5
Order no.	1001960

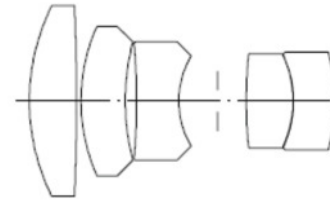
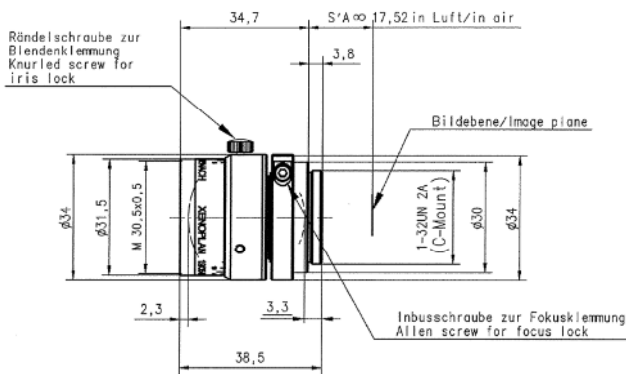
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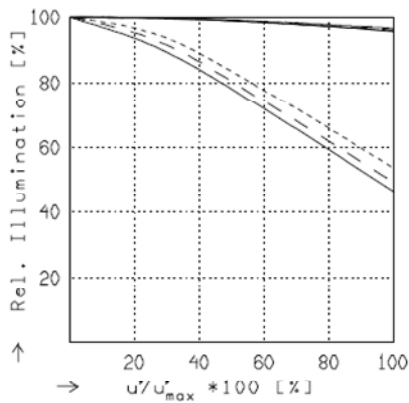
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XENOPLAN 1.9/35MM

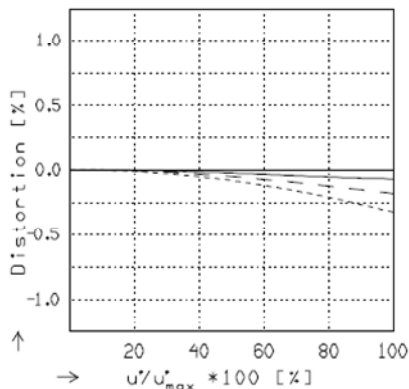
$f' = 34.9 \text{ mm}$	$\beta_p' = 0.879$
$s_F = -6.5 \text{ mm}$	$s_{EP} = 33.3 \text{ mm}$
$s_{F'} = 17.0 \text{ mm}$	$s_{AP} = -13.7 \text{ mm}$
$HH' = -13.8 \text{ mm}$	$\Sigma d = 32.6 \text{ mm}$



RELATIVE ILLUMINATION

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

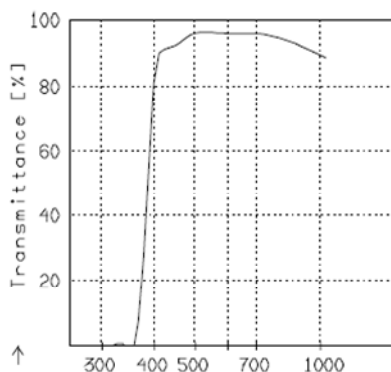
	$f / 2.0$	$f / 4.0$	$f / 8.0$
— $\beta' = -0.0200$	$u_{max}' = 5.5$	$00' = 1803.$	
- - $\beta' = -0.0500$	$u_{max}' = 5.5$	$00' = 756.$	
- - - $\beta' = -0.1000$	$u_{max}' = 5.5$	$00' = 409.$	



DISTORTION

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

— $\beta' = -0.0200$	$u_{max}' = 5.5$	$00' = 1803.$
- - $\beta' = -0.0500$	$u_{max}' = 5.5$	$00' = 756.$
- - - $\beta' = -0.1000$	$u_{max}' = 5.5$	$00' = 409.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

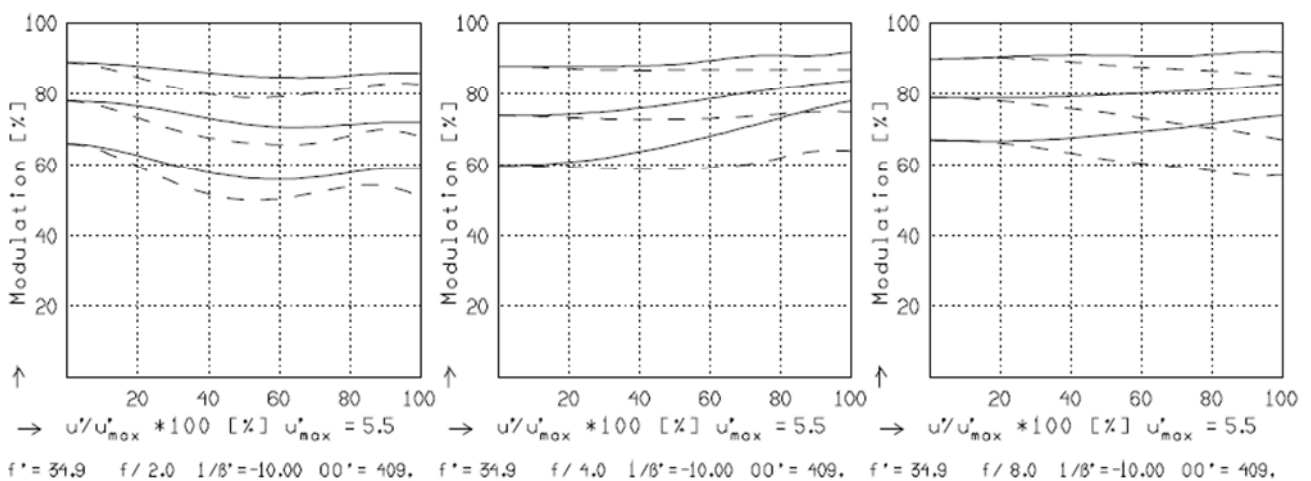
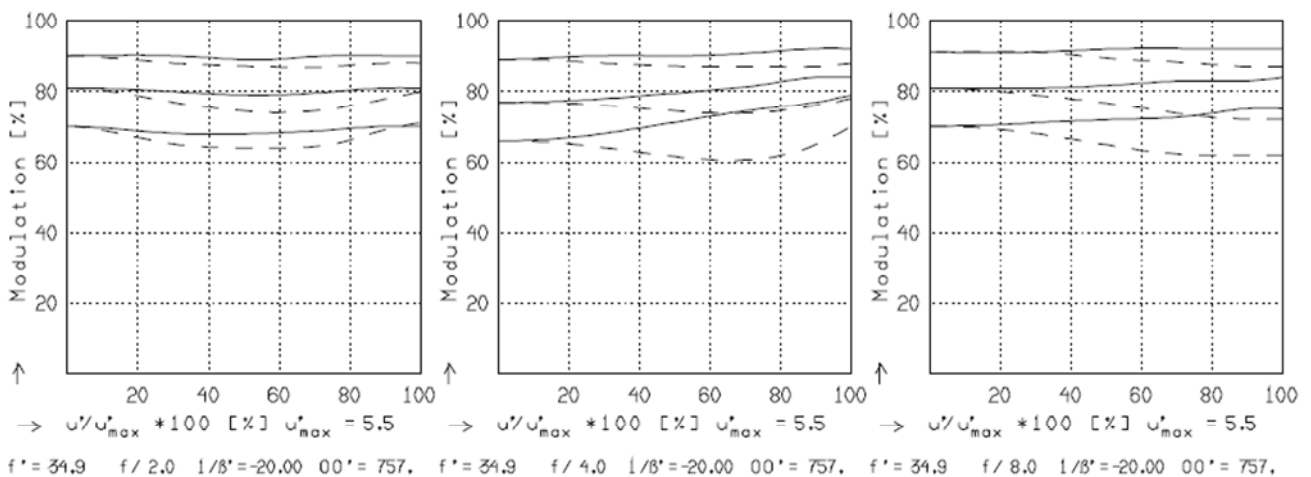
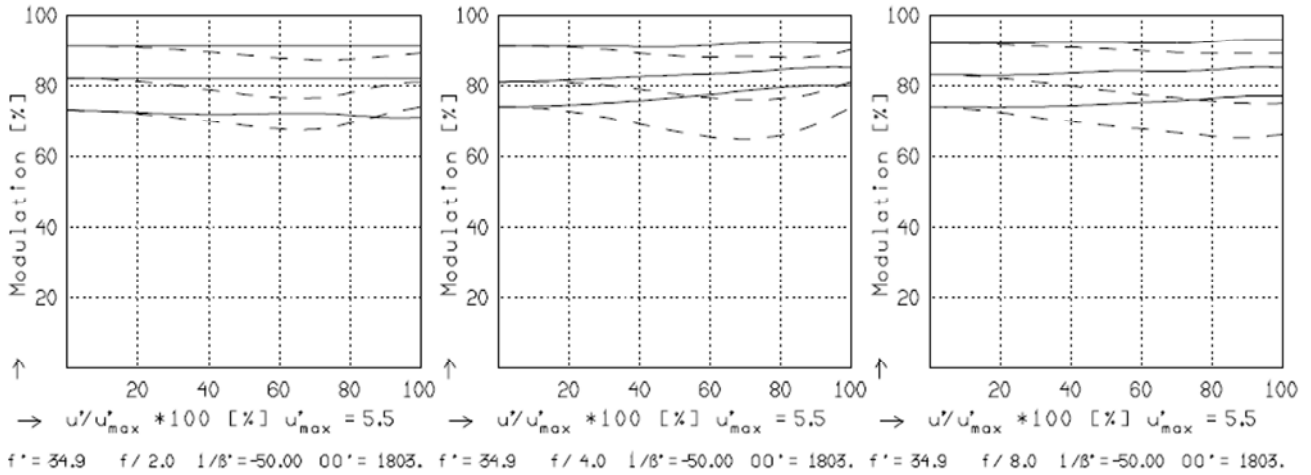
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MODULATION with reference to the relative image height

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	30			
Format	[mm X mm]	6.6	X	8.8			
Diagonal $2u'$	[mm]	11.0					

radial —
tangential - -



Focusing : MTF_{max} at $f / 1.9$, $R = 30$ $1/mm$, $u'/u'_{max} = 0$

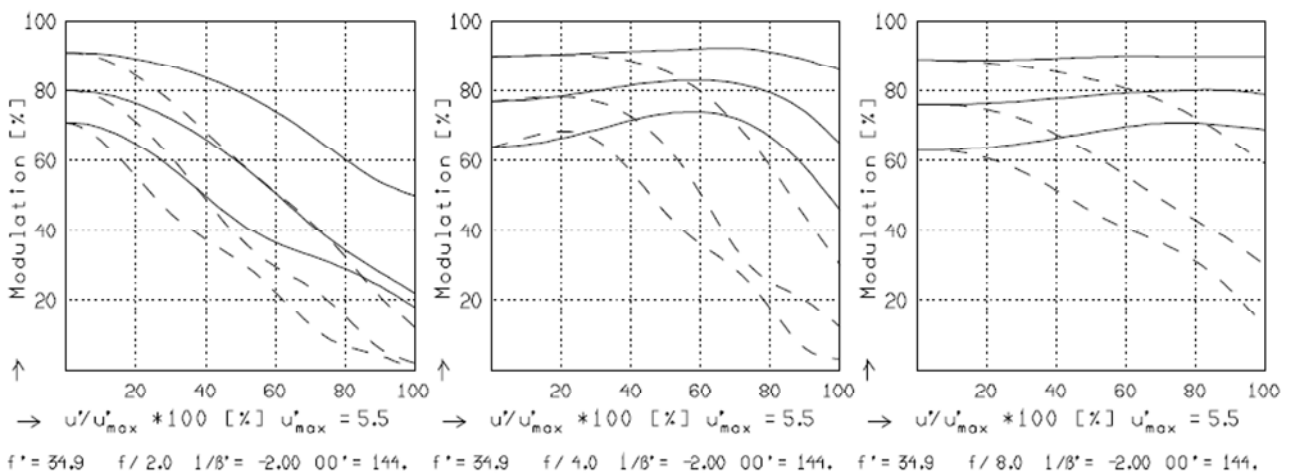
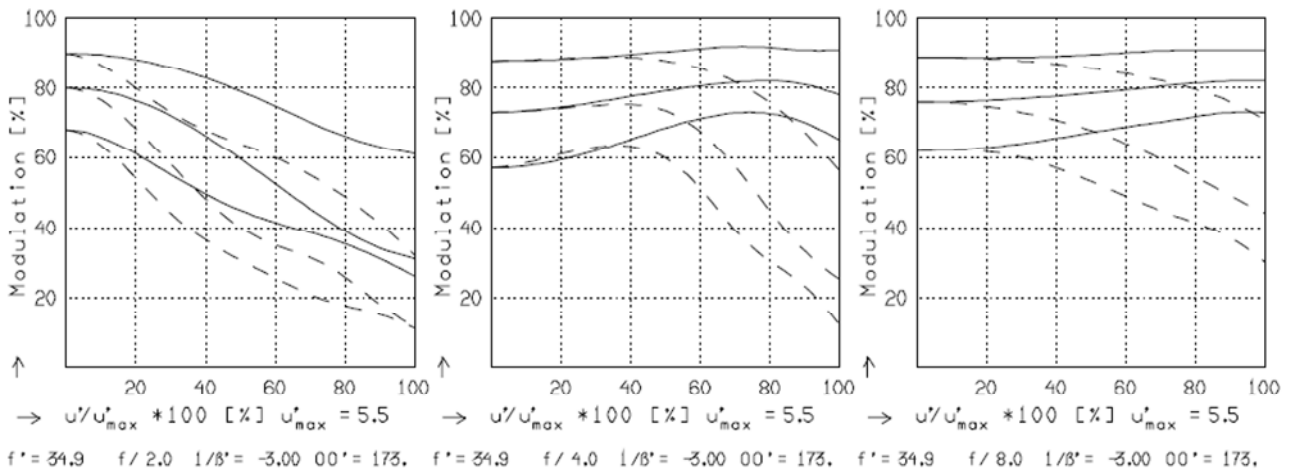
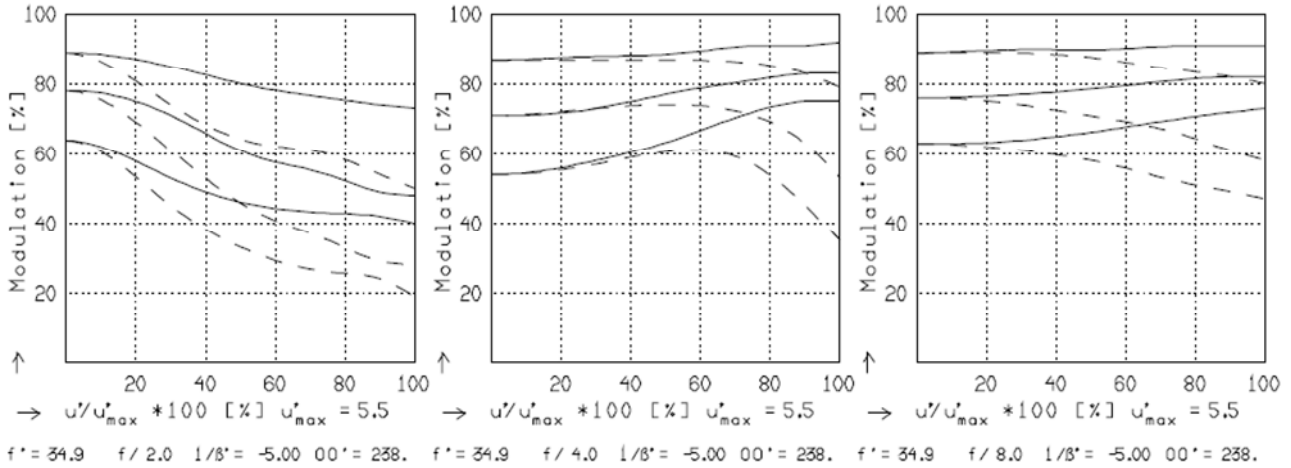
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XENOPLAN 1.9/35MM

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