

# 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

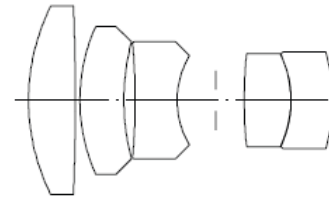
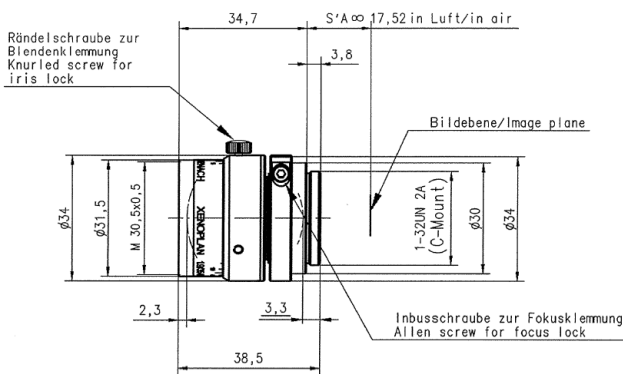
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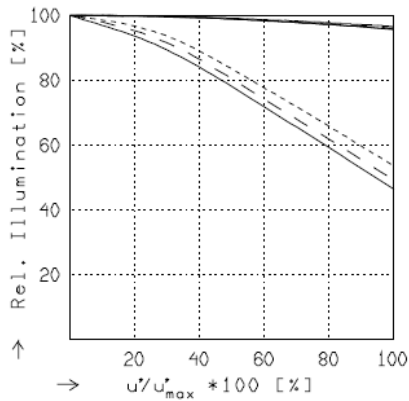
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# Xenoplan 1.9/35



## XENOPLAN 1.9/35MM

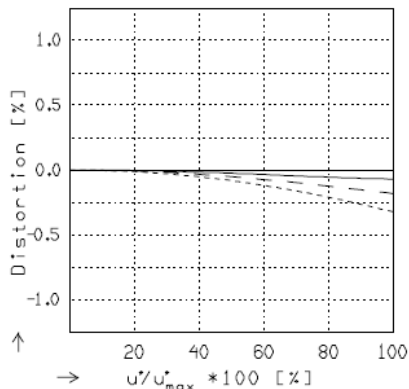
$f^*$ = 34.9 mm	$\beta_p^*$ = 0.879
$s_F$ = -6.5 mm	$s_{EP}$ = 33.3 mm
$s_{F^*}$ = 17.0 mm	$s_{AP}^*$ = -13.7 mm
$HH^*$ = -13.8 mm	$\Sigma d$ = 32.6 mm



## RELATIVE ILLUMINATION

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

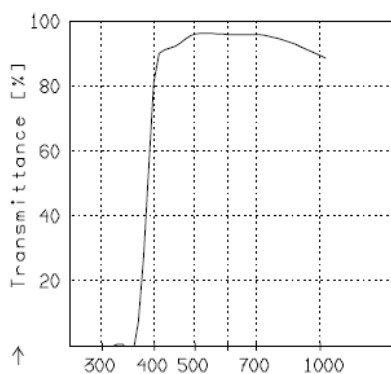
	$f / 2.0$	$f / 4.0$	$f / 8.0$
— $\beta' = -0.0200$	$u_{max}^* = 5.5$	$00' = 1803.$	
- - $\beta' = -0.0500$	$u_{max}^* = 5.5$	$00' = 756.$	
- · - $\beta' = -0.1000$	$u_{max}^* = 5.5$	$00' = 409.$	



## 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.

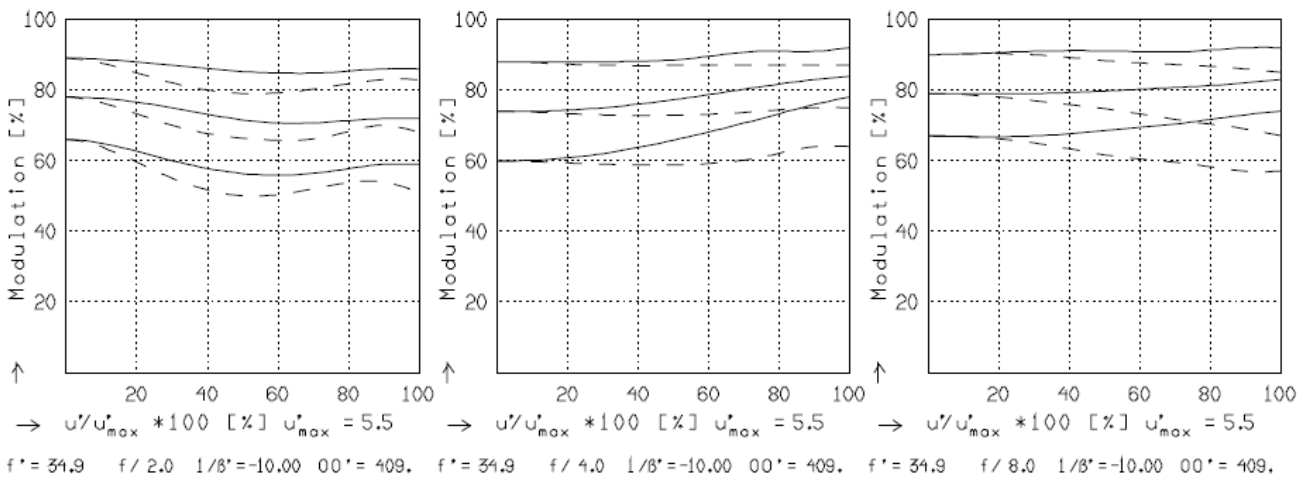
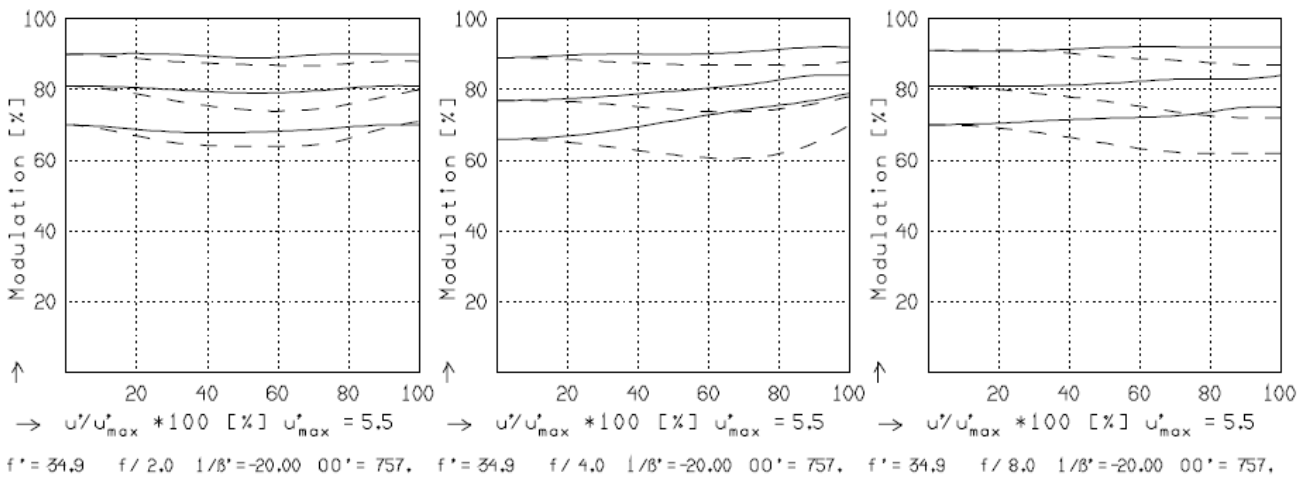
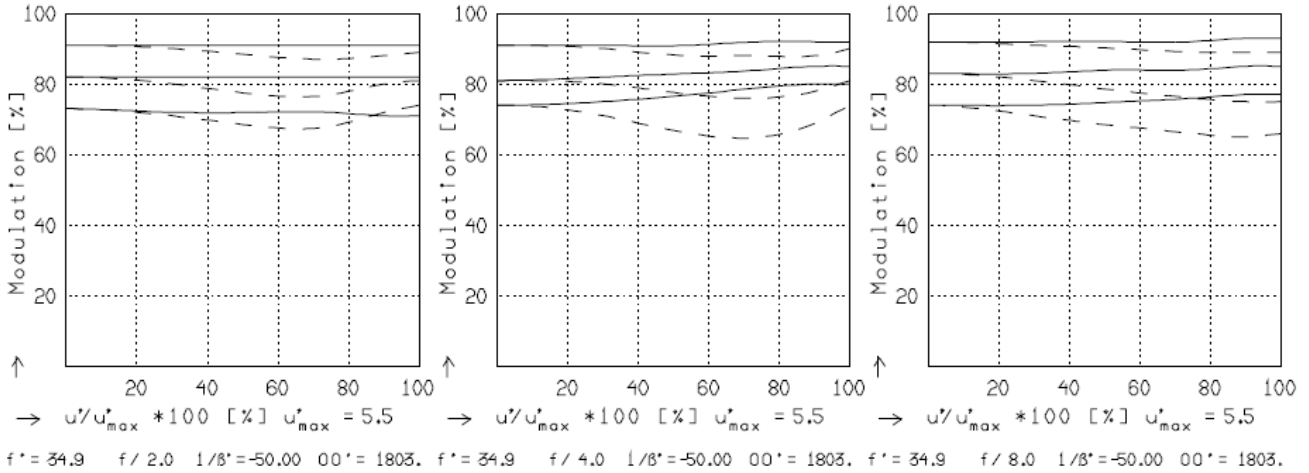
# Xenoplan 1.9/35

## XENOPLAN 1.9/35MM

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

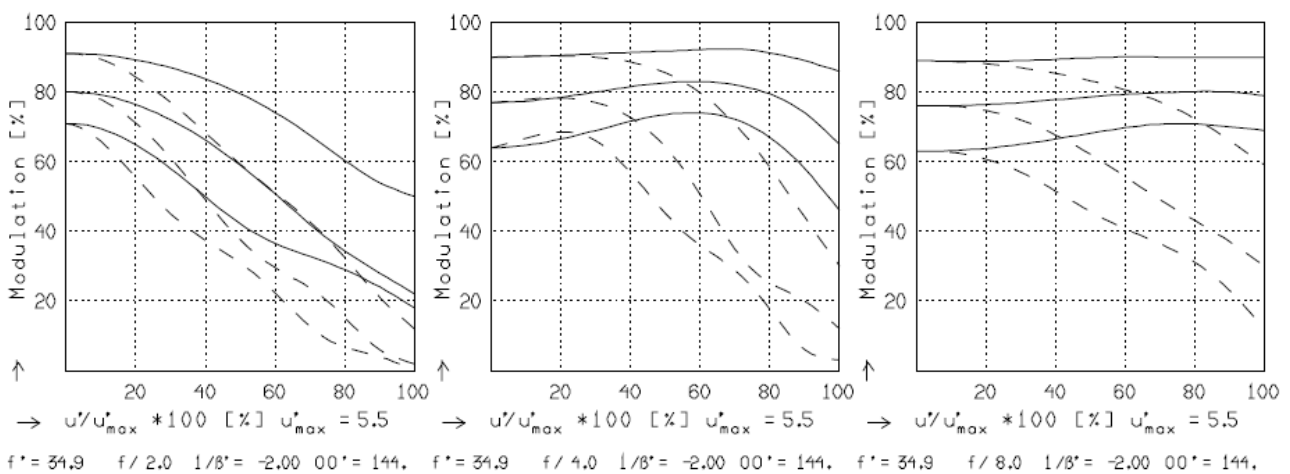
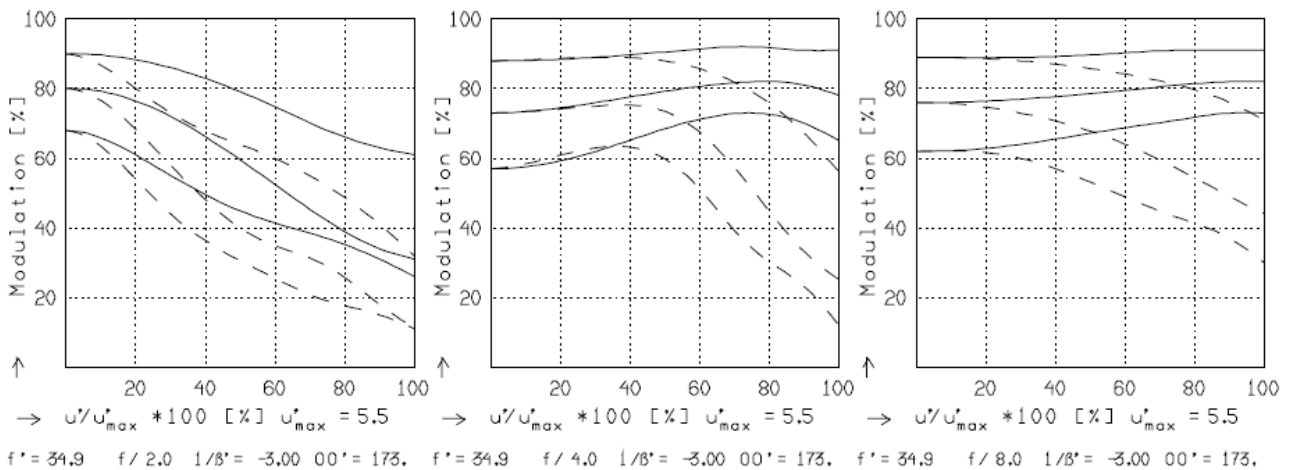
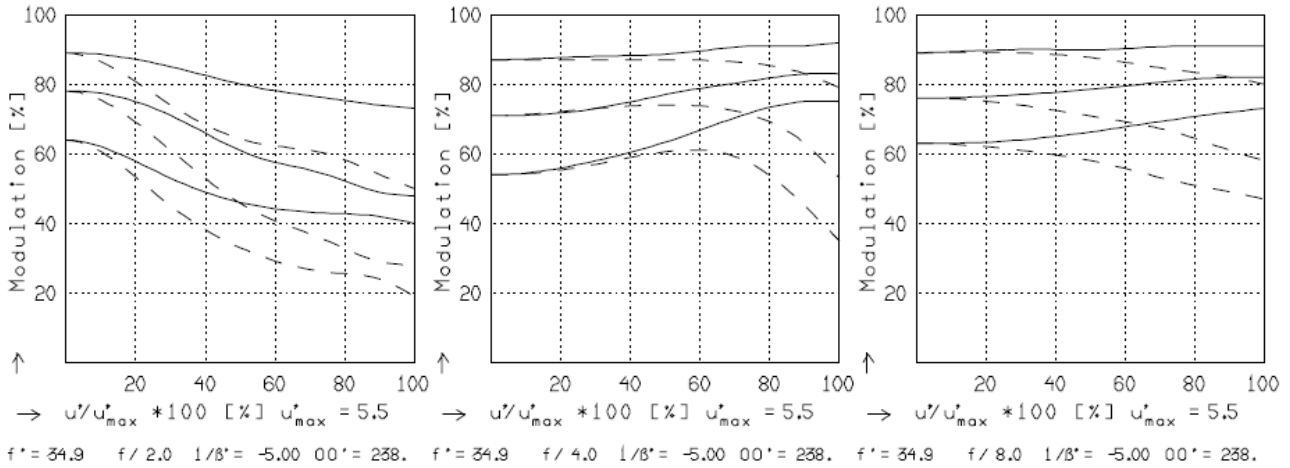
# Xenoplan 1.9/35

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tangential - -



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