

# Xenon-TOPAZ

## XN 2,0/50-0901

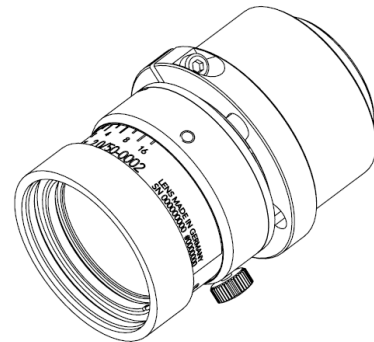
### Xenon-TOPAZ 2,0/50-0901

In accordance with the sensitivity of modern 1.1" CCD and CMOS sensors, the Xenon-TOPAZ lenses are designed for sensors up to 12 megapixel and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR).

Even under production and / or extreme environmental 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.

The lens is optimized for infinity making it perfectly suited for applications with long working distance like traffic or surveillance.

The lens is also available in a version with motorized iris (P-iris).



Xenon-TOPAZ 2,0/50-0901

### Key Features

- High-resolution optics for up to 12 megapixel sensors
- 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

- Traffic
- High-End Surveillance
- Robot Vision
- 3D measurement
- Machine Vision and other imaging applications
- Food processing

Technical Specifications	Xenon-TOPAZ 2,0/50-0901
F# range	2.0 – 16
Focal length	49.7mm
Image circle	17.6 mm / 1.1"
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	160 g
Filter thread	M30.5 x 0.5
Code no.	1079220
Code no. motorized	1084649

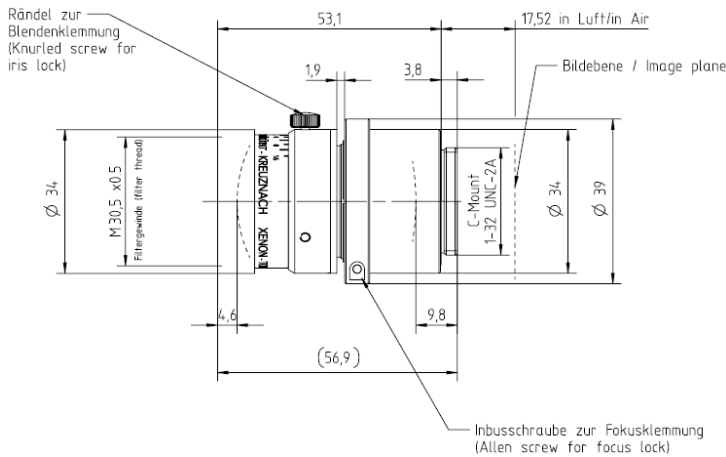
### Contact

Jos. Schneider Optische Werke GmbH  
 Ringstraße 132  
 55543 Bad Kreuznach  
 Germany  
 Phone +49 671 601-205  
 Fax +49 671 601-286  
[www.schneiderkreuznach.com](http://www.schneiderkreuznach.com)  
[industrie@schneiderkreuznach.com](mailto:industrie@schneiderkreuznach.com)

Schneider Optical Technologies Co., Ltd.  
 Rm. A505 Yingdali Science Park, Hongmian Rd.,  
 Futian Free Trade Zone, Shenzhen 518038,  
 P.R. China  
 Phone: +86 755 88 32 11 70  
 Fax: +86 755 88 32 11 75  
[www.schneiderkreuznach.com](http://www.schneiderkreuznach.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)

# Xenon-TOPAZ 2,0/50-0901



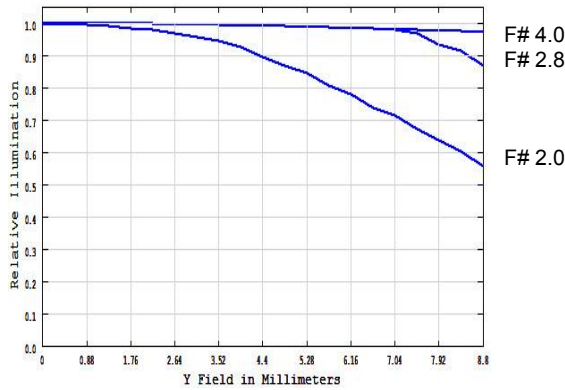
Xenon-TOPAZ 2,0/50 ( $\lambda = 555 \text{ nm}$ )

$f' = 49.7 \text{ mm}$   $\beta'_P = 1.12$

$\varnothing_{EP} = 24.2 \text{ mm}$   $s_{EP} = 31.57 \text{ mm}$

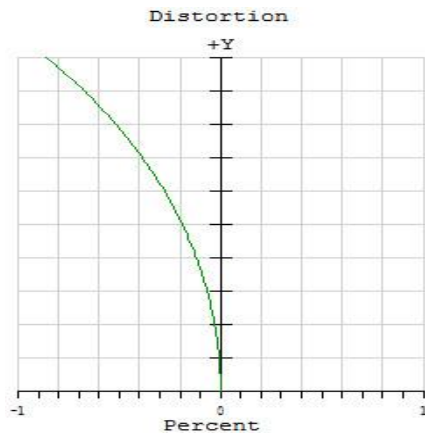
$s'_{F'} = 23.4 \text{ mm}$   $s'_{AP} = -32.45 \text{ mm}$

$HH' = -20.9 \text{ mm}$   $\square d = 42.45 \text{ mm}$



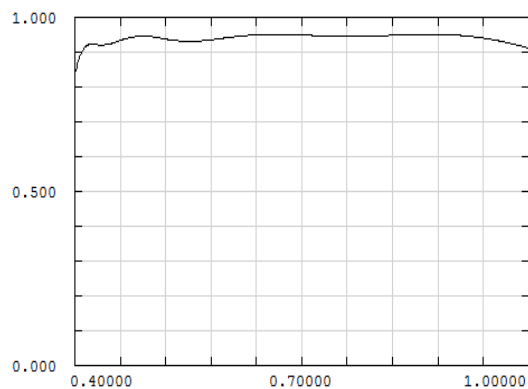
## Relative Illumination

The relative illumination is shown for the given F-Numbers over the field of the sensor and referenced to the center of the sensor.



## Distortion

Distortion is shown for the given magnification of  $\beta' = 0$ . Positive values indicate pincushion distortion and negative values barrel distortion.



## Transmittance

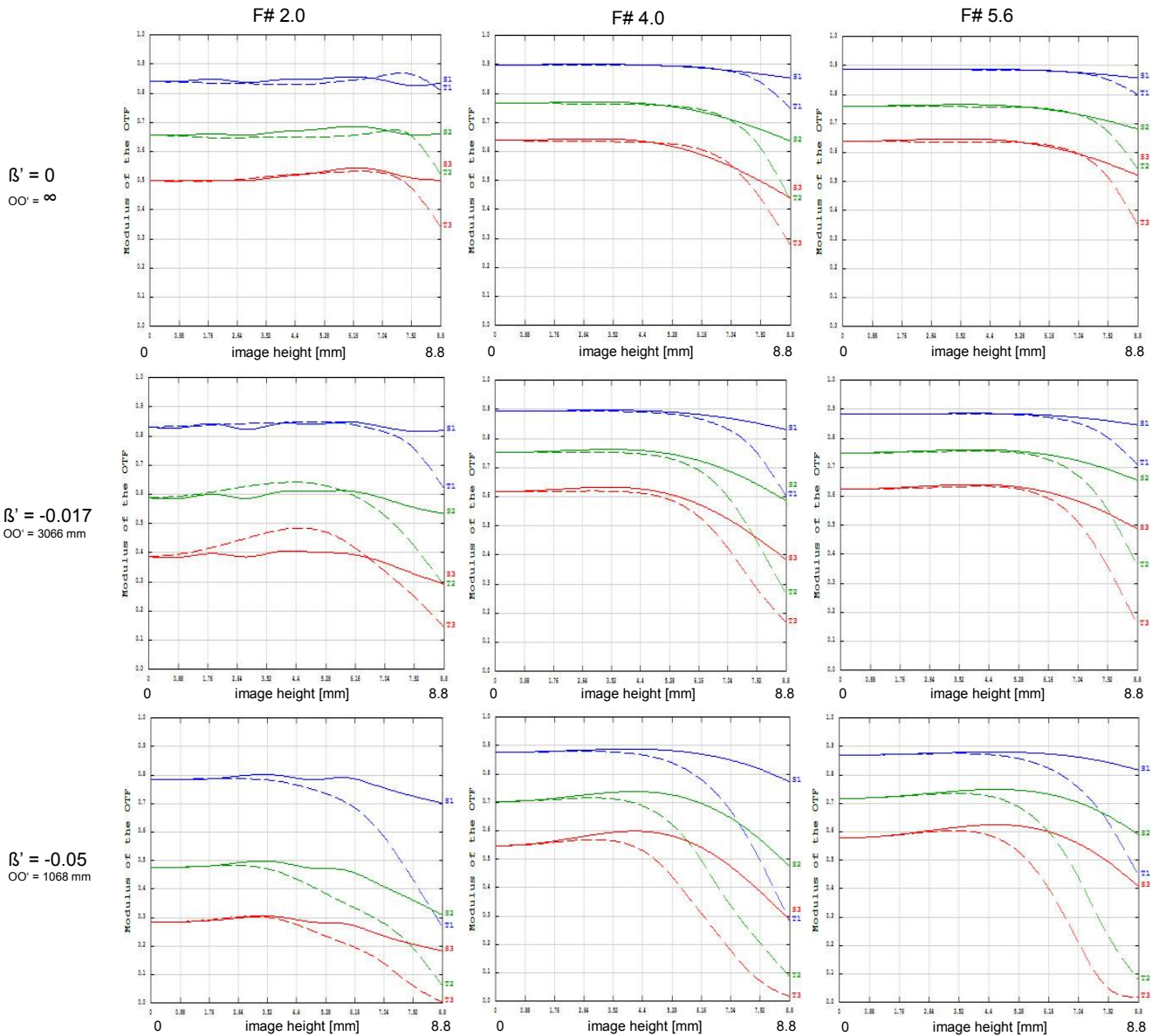
Relative spectral transmittance is shown with reference to wavelength.

# Xenon-TOPAZ 2,0/50-0901

MTF with reference to image height for visible spectrum

Wavelength $\lambda$ [nm]:	425	475	525	575	625	675
Spectral weighting [%]:	7.3	17.3	21.7	23.2	18.9	11.6
Spatial frequency R [1/mm]:	25	50	75			
Image circle [mm]:	17.6					

radial ———  
 tangential - - - - -



# Xenon-TOPAZ 2,0/50-0901

MTF with reference to image height for NIR spectrum

Wavelength $\lambda$ [nm]:	810	830	850	870	890
Spectral weighting [%]:	0.5	0.9	1.0	0.9	0.5
Spatial frequency R [1/mm]:	25	50	75		
Image circle [mm]:	17.6				

radial ———  
 tangential - - - - -

