

Line Scan Lens

XENON-ZIRCONIA 3.3/92, beta' = -0.2x

This lens is optimized for the use with 12k pixel line scan sensors. It is broadband coated and can be used in the spectral range of 400 – 1000 nm. The V-mount makes it easy to install and rotate into the desired azimuth position for a wide range of line scan applications.

- F#5.6 shows optimum performance and a homogenous MTF @ 72 lp/mm as well. Performance is practically diffraction limited over the whole field. At f#5.6 the lens is free of artificial vignetting.
- F#3.3 allows maximum light throughput (3 times more than at F#5.6 on axis) and still shows good MTF over the field. The light fall-off at F#3.3 towards the edge still grants appr. 1.5 times more light compared to F#5.6.



XENON-Zirconia

Key Features

- for 12k line scan cameras (62.5mm length / pixel sizes appr. 5µm)
- Very high optical image quality in the large sensor range
- Vibration-insensitive for stable optical performance
- Lockable distance and aperture settings
- Industry-compatible V-mount interface
- Reliability and constant quality due to 100% quality control

Applications

- Web and surface inspections
- Quality control
- FPD inspection
- PCB inspection
- OLED inspection
- Line scan applications

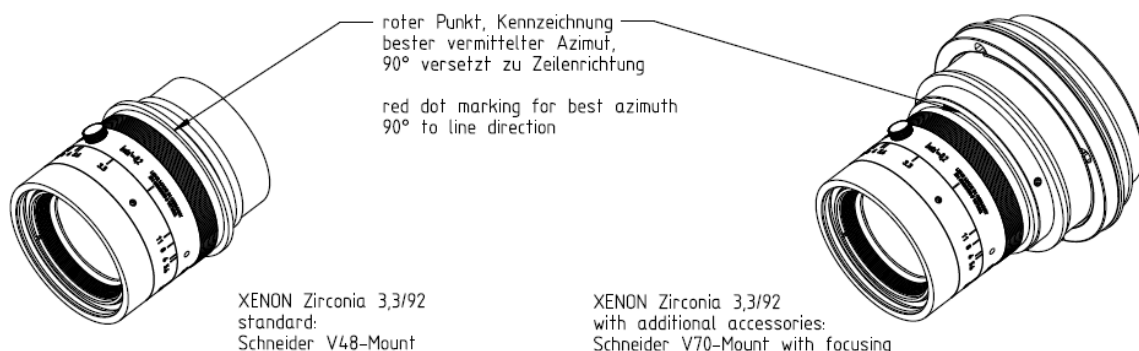
Technical Specifications

XENON-ZIRCONIA 3.3/92

F# range	optimum 5.6 (3.3 – 11)
Focal length	92 mm
Image circle	62.5 mm
Beta'	-0.2
Object to image distance	644 mm
Transmission	400 - 1000 nm
Interface	V48-Mount
Weight	246 gr.
Filter thread	M46 x 0.75
Code no.	1073622

Accessories

			Code no.
Adapter V48-Mount/V70-Mount incl. focusing ring			# 1075304
Adapter V70 / M72x0.75	10 mm		# 1072419
Extension tube M72x0.75	5 mm		# 1072420
Extension tube M72x0.75	10 mm		# 1072421
Extension tube M72x0.75	25 mm		# 26406
Extension tube M72x0.75	50 mm		# 1054733



Xenon-Zirconia 3.3/92

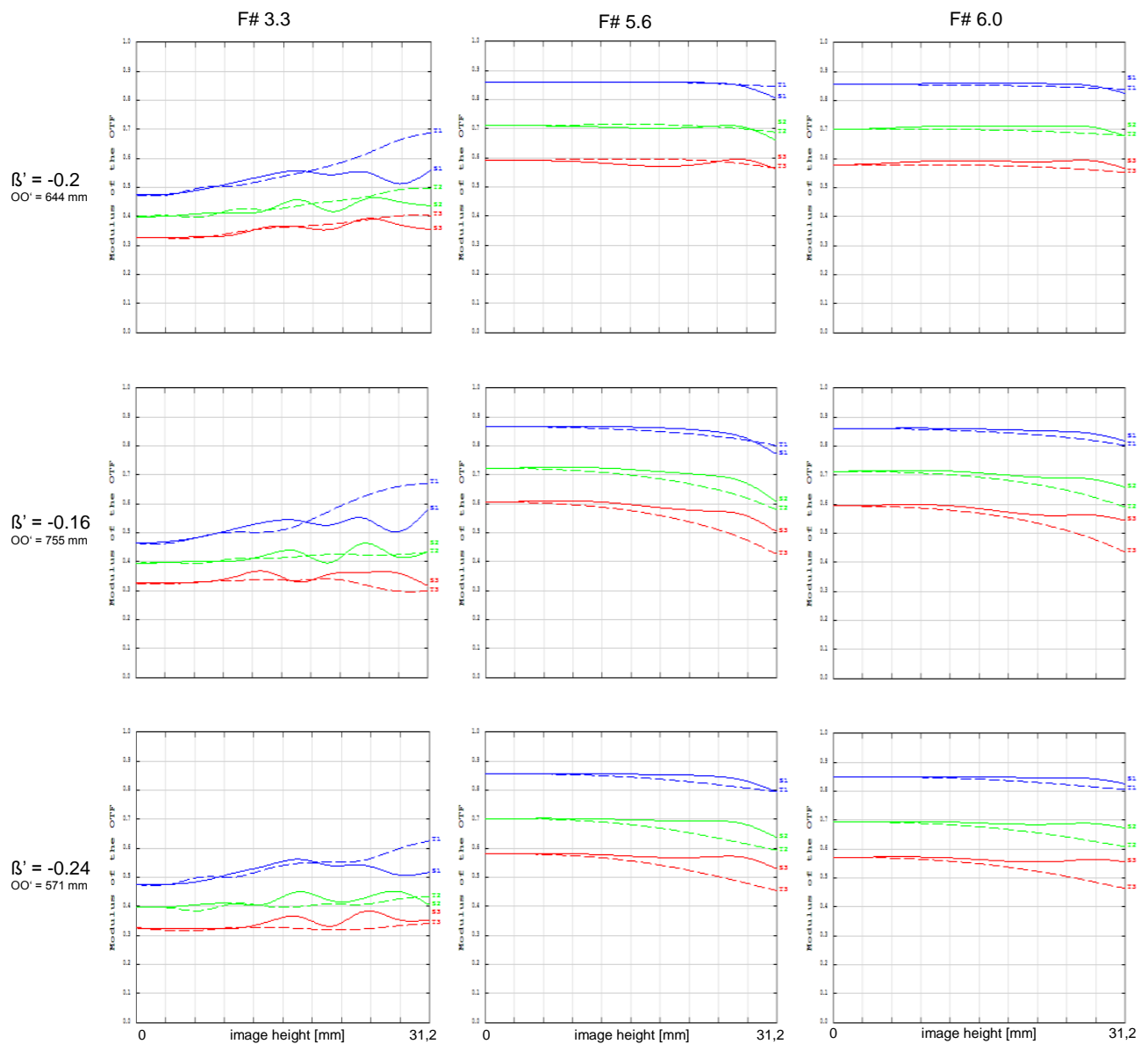
XENON ZIRCONIA 3.3/92

$f' = 91,9 \text{ mm}$ $\beta'_P = 1,08$
 $s_F = -51,7 \text{ mm}$ $s_{EP} = 33,6 \text{ mm}$
 $s'_F = 62,4 \text{ mm}$ $s'_{AP} = -36,8 \text{ mm}$
 $HH' = -17,3 \text{ mm}$ $\Sigma d = 52,54 \text{ mm}$

XENON Zirconia 3.3/92 MTF with reference to image height

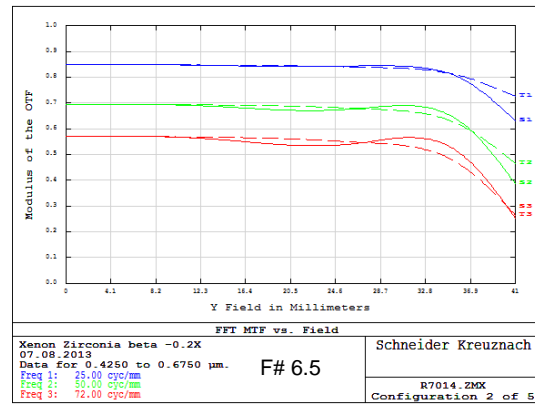
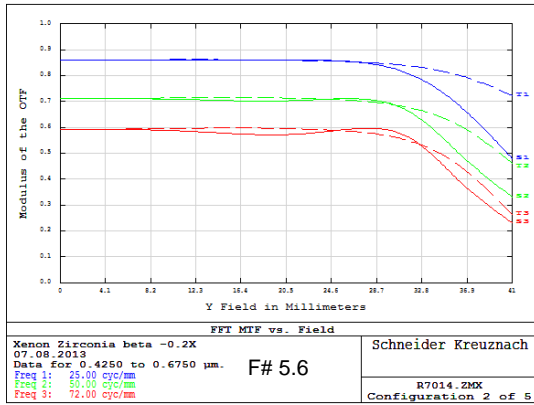
Wavelength λ	[nm]:	425	475	525	575	625	675
Spectral weighting	[%]:	1.5	13.6	26.5	27.8	24.2	6.4
Spatial frequency R	[1/mm]:	25	50	72 (= 12K sensor)			
Image- \emptyset	[mm]:	62.5					

radial ———
 tangential - - - -



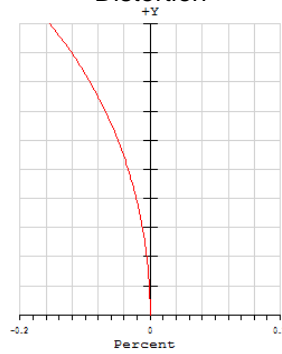
Xenon-Zirconia 3.3/92

Optical quality for 16 K sensor
with 82 mm length and 5 μm pixel size



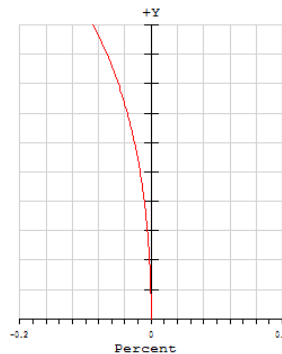
Distortion

$\beta' = -0.2$
 $OO' = 644 \text{ mm}$

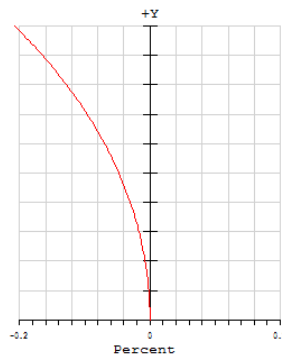


Distortion is shown for different magnifications. Positive values indicate pincushion distortion and negative values barrel distortion.

$\beta' = -0.16$
 $OO' = 755 \text{ mm}$

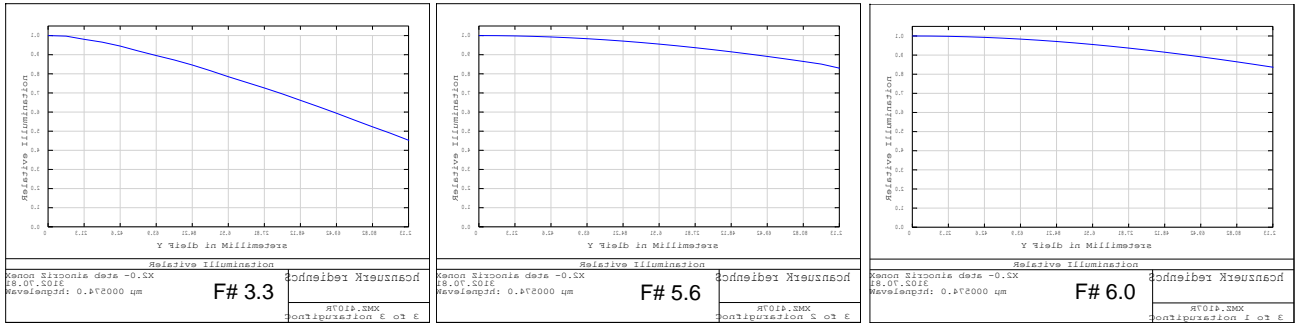


$\beta' = -0.24$
 $OO' = 571 \text{ mm}$

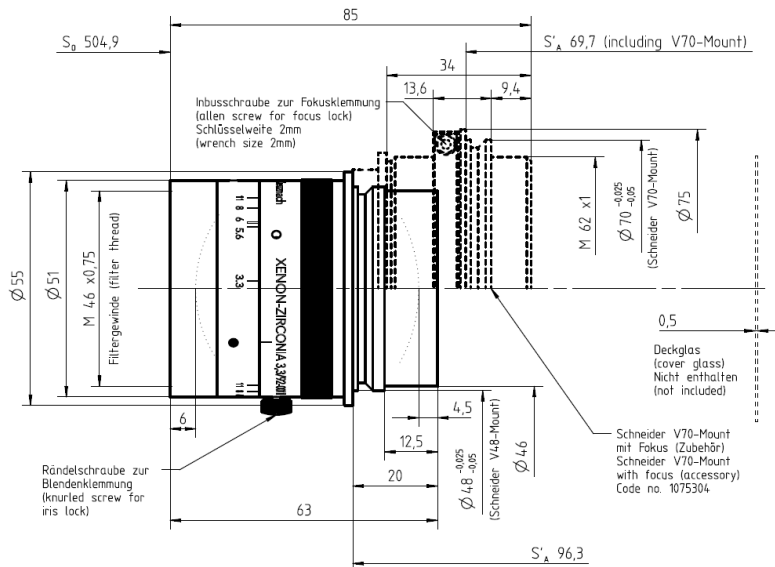
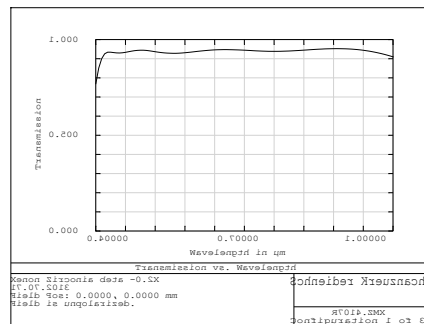


Xenon-Zirconia 3.3/92

Relative Illumination



Transmission



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
 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
 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
 industrial@schneideroptics.com