TECHSPEC® COMPACT TELECENTRIC LENS
#63-729 • 110mm WD • 0.5X

Our TECHSPEC® Compact Telecentric Lenses were designed with customer requirements in mind. Featuring large maximum sensor formats and a number of different working distance/magnification options, the TECHSPEC® Compact Telecentric Lenses are perfect for many applications. From single unit inspection stations, to high volume implementation, these Compact Telecentric Lenses are engineered to provide the specifications you need at a competitive price point.

Primary Magnification:	0.5X
Working Distance[1]:	110mm ±1mm
Depth of Field[2]:	±1.9mm (20% @ 20 lp/mm)
Length:	166.6mm
Filter Thread:	M37 x 0.75
Max. Sensor Format:	⅔"
Camera Mount:	C-Mount

Telecentricity:	<0.2°
Distortion:	<0.2%
Aperture (f/#):	f/9.3, fixed
Object Space NA:	0.027
Number of Elements (Groups):	4 (4)
AR Coating:	425 - 675nm BBAR
Weight:	182g

Sensor Size	¼"	⅓"	½.5"	½"	⅓.8"	⅔"	1"	4/3"
Field of View[3]	7.2mm	9.6mm	11.5mm	12.8mm	14.3mm	17.6mm	N/A	N/A

1. From front of housing 2. Image space MTF contrast 3. Horizontal FOV on standard 4:3 sensor format

Specifications subject to change

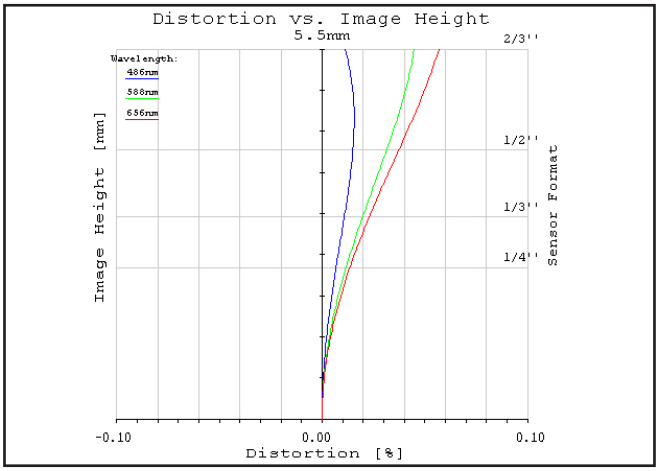

Figure 1: Distortion at the maximum sensor format. Positive values correspond to pincushion distortion, negative values correspond to barrel distortion.

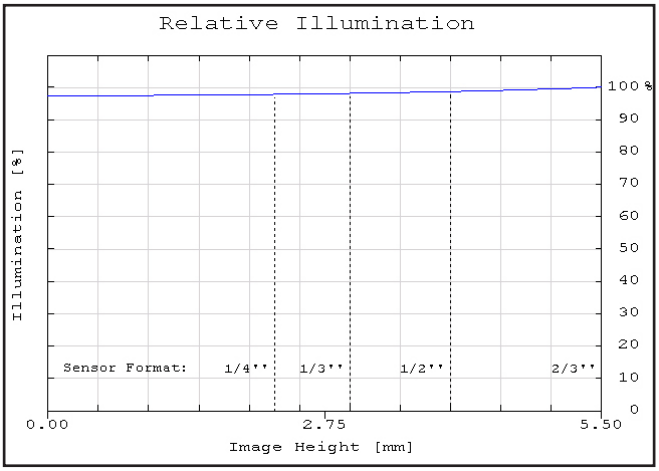

Figure 2: Relative illumination (center to corner)

In both plots, field points corresponding to the image circle of common sensor formats are included. Plots represent theoretical values from lens design software. Actual lens performance varies due to manufacturing tolerances.

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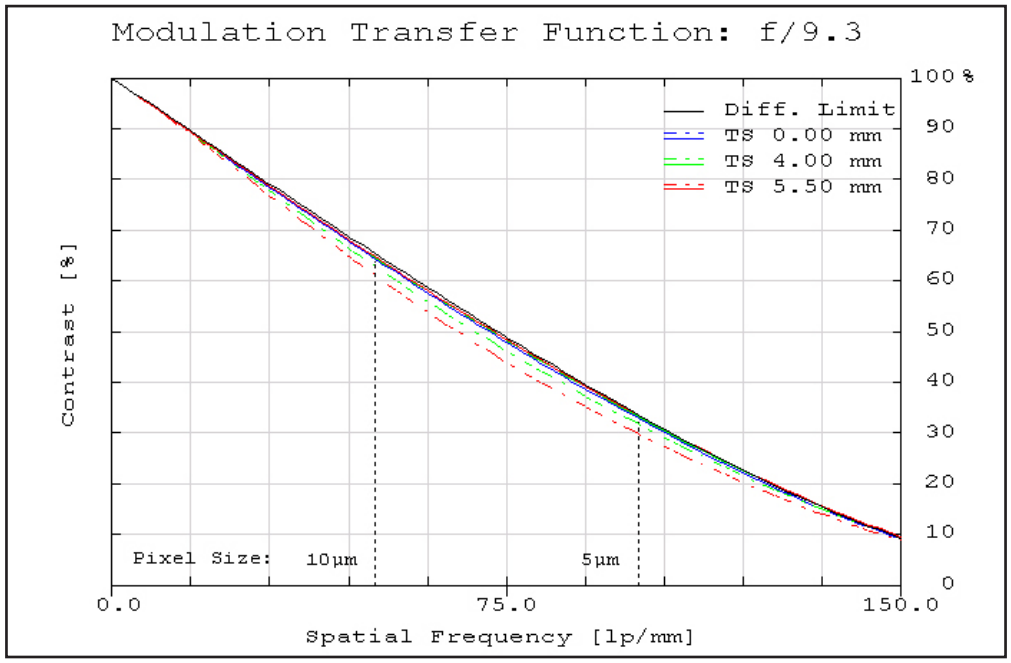

Figure 3: Image space polychromatic diffraction FFT Modulation Transfer Function (MTF) for λ = 486nm to 656nm. Included are Tangential and Sagittal values for field points on center, at 70% of full field and at the maximum sensor format. Solid black line indicates diffraction limit determined by f/#-defined aperture. Frequencies corresponding to the Nyquist resolution limit of pixel sizes are indicated.

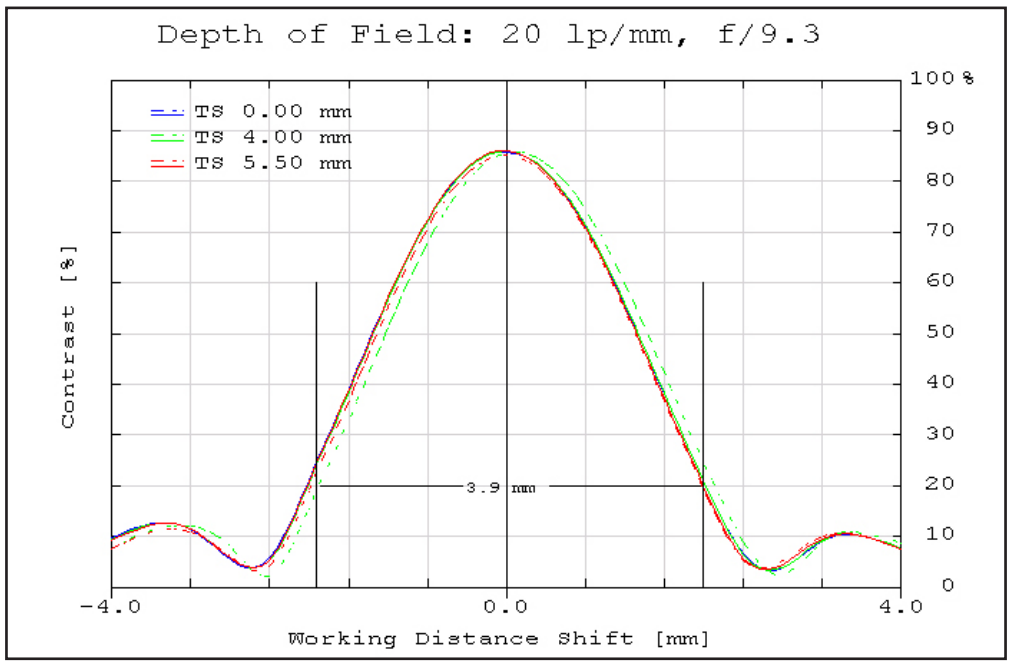

Figure 4: Polychromatic diffraction through-focus MTF at 20 linepairs/mm (image space). The depth of field at the maximum sensor format for the plotted frequency and f/# at 20% contrast is indicated by the measurement bars.

Plots represent theoretical values from lens design software. Actual lens performance varies due to manufacturing tolerances.