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**TECHSPEC® 1.75X LS Series Line Scan Lens**



LS Series Line Scan Lenses



Stock **#35-441** [CONTACT US](#)

- 1 + **\$\$5,621<sup>00</sup>**

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**General**

LS Series **Product Family:**

**Note:**  
Beamsplitter is included. Length includes beamsplitter. Specifications are at primary magnification.

Line Scan **Type:**

Yes	<b>Beamsplitter / Line Scan:</b>
Line Scan	<b>Special Type of Lens:</b>
<b>Physical &amp; Mechanical Properties</b>	
Variable	<b>Iris Option:</b>
122.00	<b>Length (mm):</b>
95	<b>Maximum Diameter (mm):</b>
95	<b>Outer Diameter (mm):</b>
1122	<b>Weight (g):</b>
0	<b>Maximum Rear Protrusion (mm):</b>
379.6	<b>Lens Total Track Length (mm):</b>
379.60	<b>Total Track (mm):</b>
<b>Optical Properties</b>	
46.9mm	<b>Horizontal Field of View @ Max Sensor Format:</b>
47mm - 16.7°	<b>Field of View at Max Sensor Format:</b> Diagonal: 47mm - 16.7°
46.9mm	<b>Field of View, 82mm Sensor:</b>
35.7mm	<b>Field of View, 62.5mm Sensor:</b>
33mm	<b>Field of View, 57.7mm Sensor:</b>
16.4mm	<b>Field of View, 28.7mm Sensor:</b>
0.10	<b>Numerical Aperture NA:</b>
82.00	<b>Maximum Image Circle (mm):</b>
0.0973	<b>Numerical Aperture NA, Object Side:</b>
12 (7)	<b>Number of Elements (Groups):</b>
99.00	<b>Focal Length FL (mm):</b>
1.65X - 1.85X	<b>Primary Magnification PMAG:</b>
65.9	<b>Working Distance (mm):</b>
f/3.2 - f/22	<b>Aperture (f/#):</b>
425 - 675 BBAR VIS	<b>Coating:</b>
425 - 675nm BBAR	<b>Coating Specification:</b>
90.62	<b>Entrance Pupil Position (mm):</b>
88.34	<b>Object Space Principal Plane (mm):</b>
-79.41	<b>Image Space Principal Plane (mm):</b>
0.05	<b>Maximum Distortion (%):</b>
>97%	<b>Relative Illumination:</b>
-76.74	<b>Exit Pupil Position (mm):</b>
VIS	<b>Lens Wavelength Range:</b>
<b>Sensor</b>	
62.5mm	<b>Optimized Sensor Format:</b>

Maximum Sensor Format:  
82mm (Image Circle)

Pixel Size ( $\mu\text{m}$ ):  
5.00

## Threading & Mounting

Filter Thread:  
M52 x0.75

Mounting Diameter (mm):  
75

Mount:  
V-70 MOUNT

## Regulatory Compliance

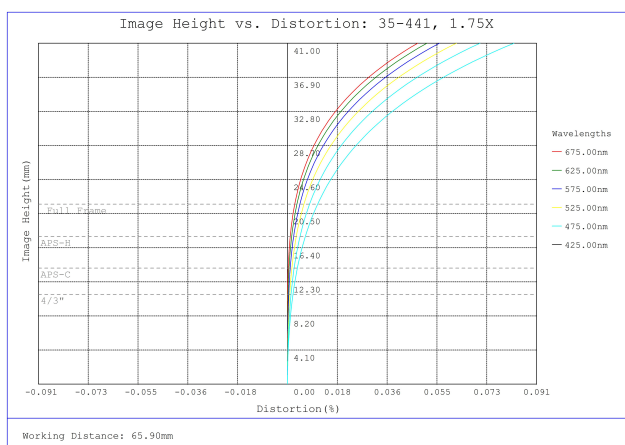
Certificate of Conformance:  
[View](#)

## Product Details

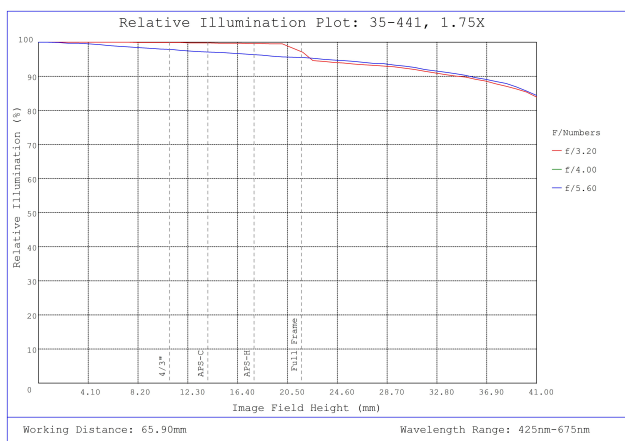
- 82mm Line Scan (LS), V-70 Mount
- Up to 16k, 5 $\mu\text{m}$  Pixel Size Line Scan Sensors
- High Resolution, Low Distortion, Uniform Field Performance
- 1.65X to 2.65X Primary Magnification

TECHSPEC® LS Series Line Scan Fixed Focal Length Lenses are low distortion lenses designed for 82mm 16k line scan cameras with 5 $\mu\text{m}$  pixels and 62.5mm 12k line scan cameras with 5 $\mu\text{m}$  pixels. For coaxial inline illumination, these lenses are available with a beamsplitter for line scan sensors or with a window for area scan sensors. The locking iris is adjustable from  $f/2.9$  to  $f/22$ , while the V-Mount provides ease of adjustment and alignment. The uniform and high resolution performance across the entire image makes the TECHSPEC® LS Series Line Scan Fixed Focal Length Lenses ideal for applications such as electronics, flat panel display and semiconductor wafer inspections.

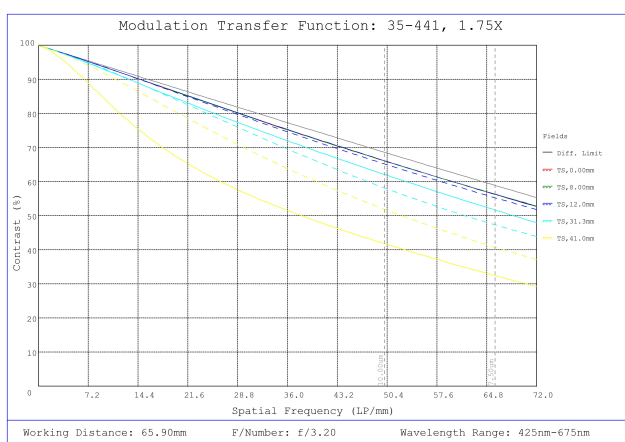
## Technical Information



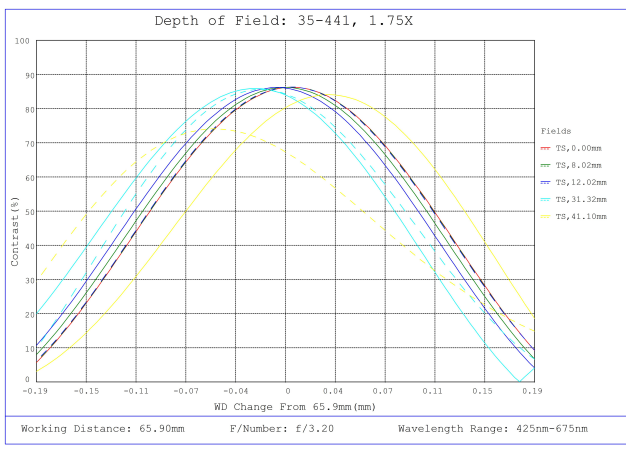
#35-441, 1.75X LS Series Line Scan Lens, Distortion Plot



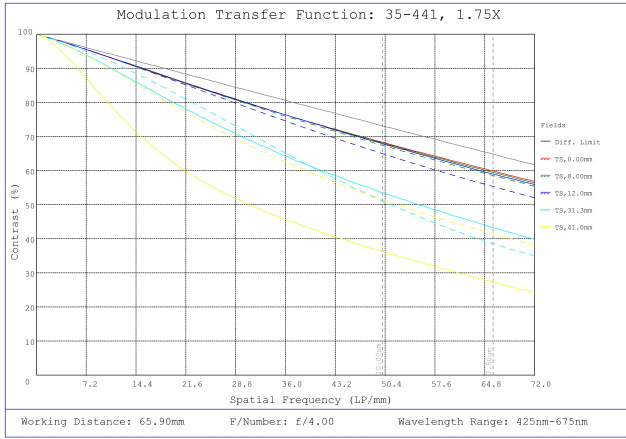
#35-441, 1.75X LS Series Line Scan Lens, Relative Illumination Plot



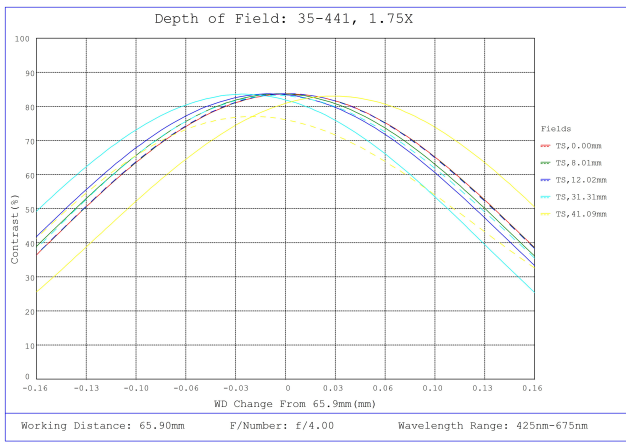
#35-441, 1.75X LS Series Line Scan Lens, Modulated Transfer Function (MTF) Plot, 65mm Working Distance,  $f/3.2$



#35-441, 1.75X LS Series Line Scan Lens, Depth of Field Plot, 66mm Working Distance, f3.2



#35-441, 1.75X LS Series Line Scan Lens, Modulated Transfer Function (MTF) Plot, 65mm Working Distance, f4



#35-441, 1.75X LS Series Line Scan Lens, Depth of Field Plot, 66mm Working Distance, f4