

TECHSPEC® 1.75X LS Series Area Scan Lens



1.75XLS Series Area Scan Lens

Stock **#35-451** [CONTACT US](#)

⊖ 1 ⊕ **A\$6,206⁰⁰**

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General

LS Series **Product Family:**

Window is included. Length includes window. Specifications are at primary magnification. **Note:**

Fixed Focal Length Lens **Type:**

No **Beamsplitter / Line Scan:**

Special Type of Lens:

Physical & Mechanical Properties

Variable Iris Option:

125.30 Length (mm):

75 Maximum Diameter (mm):

75 Outer Diameter (mm):

0 Maximum Rear Protrusion (mm):

379.60 Total Track (mm):

Optical Properties

Horizontal Field of View @ Max Sensor Format:
46.9mm

Field of View at Max Sensor Format:
Horizontal: 37.6mm - 13.2°
Vertical: 28.2mm - 10°
Diagonal: 47mm - 16.7°

46.9mm Field of View, 82mm Sensor:

35.7mm Field of View, 62.5mm Sensor:

33mm Field of View, 57.7mm Sensor:

20.6mm Horizontal Field of View, 35mm Sensor:

16.7mm Horizontal Field of View, APS-H Sensor:

16.4mm Field of View, 28.7mm Sensor:

0.10 Numerical Aperture NA:

82.00 Maximum Image Circle (mm):

0.0973 Numerical Aperture NA, Object Side:

12 (7) Number of Elements (Groups):

99.00 Focal Length FL (mm):

1.65X - 1.85X Primary Magnification PMAG:

62.6 Working Distance (mm):

f/3.2 - f/22 Aperture (f#):

425 - 675 BBAR MS Coating:

425 - 675nm BBAR Coating Specification:

90.62 Entrance Pupil Position (mm):

88.34 Object Space Principal Plane (mm):

-79.41 Image Space Principal Plane (mm):

0.05 Maximum Distortion (%):

>97% Relative Illumination:

-76.74 Exit Pupil Position (mm):

VIS Lens Wavelength Range:

Sensor

62.5mm Optimized Sensor Format:

82mm (Image Circle) Maximum Sensor Format:

Pixel Size (μm):
5.00

Threading & Mounting

Filter Thread:
N/A

Mounting Diameter (mm):
75

Mount:
V-70 MOUNT

Regulatory Compliance

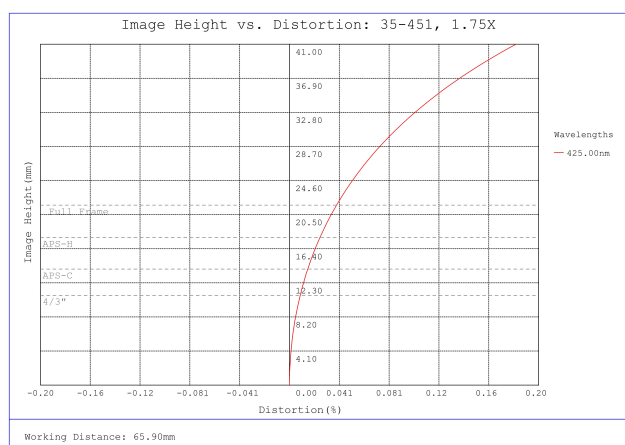
Certificate of Conformance:
[View](#)

Product Details

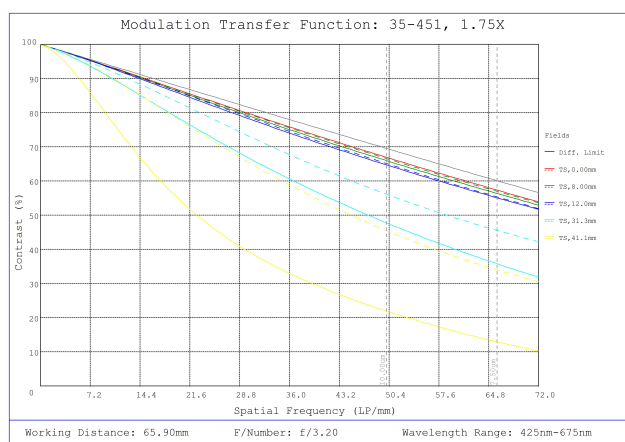
- 82mm Line Scan (LS), V-70 Mount
- Up to 16k, 5 μm Pixel Size Line Scan Sensors
- High Resolution, Low Distortion, Uniform Field Performance
- 1.65X to 2.65X Primary Magnification

TECHSPEC® LS Series Line Scan Fixed Focal Length Lenses are low distortion lenses designed for 82mm 16k line scan cameras with 5 μm pixels and 62.5mm 12k line scan cameras with 5 μm 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.

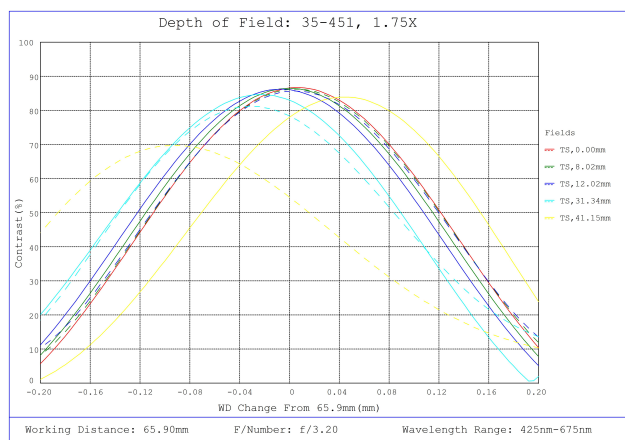
Technical Information



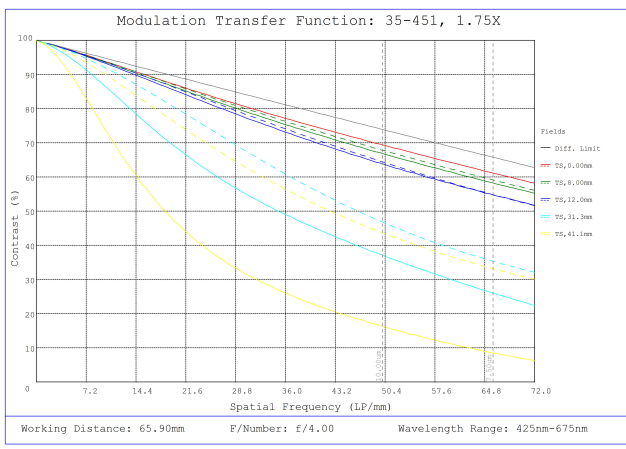
#35-451, 1.75X LS Series Area Scan Lens, Distortion Plot



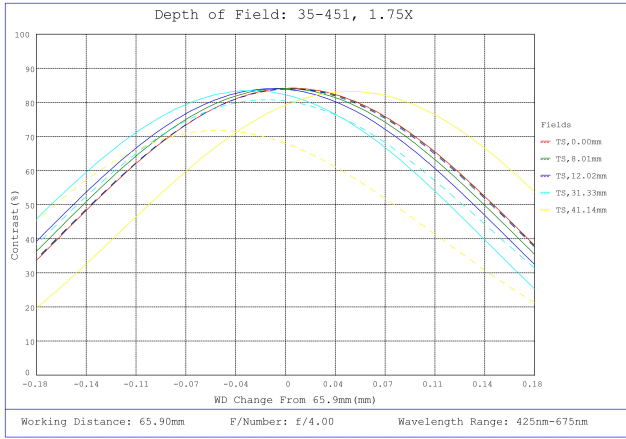
#35-451, 1.75X LS Series Area Scan Lens, Modulated Transfer Function (MTF) Plot, 65mm Working Distance, f3.2



#35-451, 1.75X LS Series Area Scan Lens, Depth of Field Plot, 66mm Working Distance, f3.2



#35-451, 1.75X LS Series Area Scan Lens, Modulated Transfer Function (MTF) Plot, 65mm Working Distance, f4



#35-451, 1.75X LS Series Area Scan Lens, Depth of Field Plot, 66mm Working Distance, f4