

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



1.75XLS Series Area Scan Lens

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

⊖ 1 ⊕ £3,424<sup>00</sup>

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Qty 1+	£3,424.00 each
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**!** Prices shown are exclusive of VAT/local taxes

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**General**

LS Series **Product Family:**

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

Fixed Focal Length Lens **Type:**

No **Beamsplitter / Line Scan:**

Area 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 VS      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:

Maximum Sensor Format:

82mm (Image Circle)

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

## Threading & Mounting

Filter Thread:  
N/A

Mounting Diameter (mm):  
75

Mount:  
V-70 Mbunt

## Regulatory Compliance

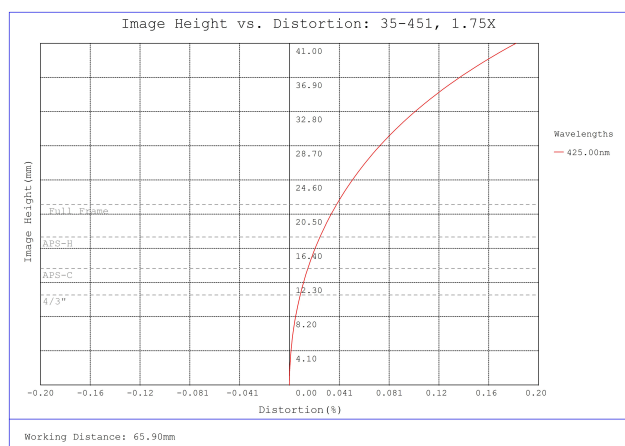
Certificate of Conformance:  
[View](#)

## Product Details

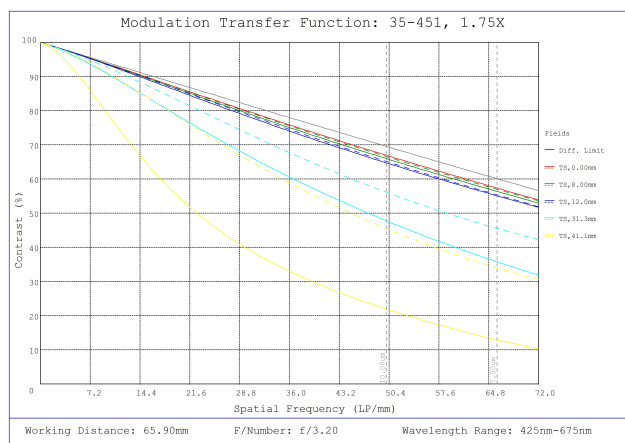
- 82mm Line Scan (LS), V-70 Mount
- Up to 16k, 5 $\mu\text{m}$  Pixel Size Line Scan Sensors
- High Resolution, Low Distortion, Uniform Field Performance
- 1.65X to 2.65X Primary Magnification

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.

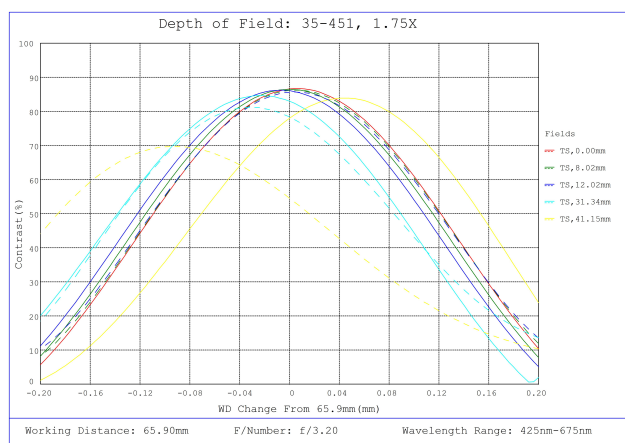
## Technical Information



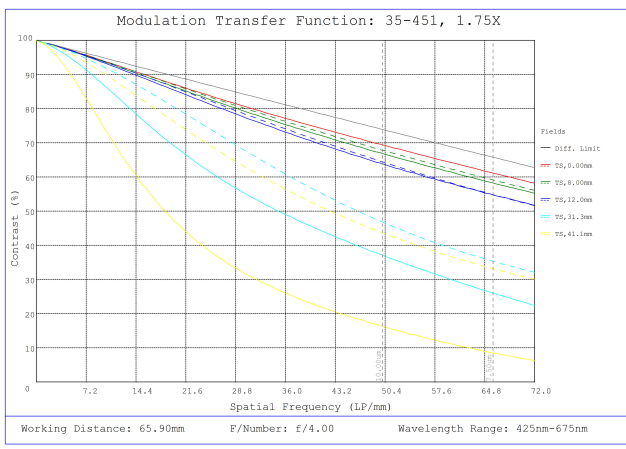
#35-451, 1.75X LS Series Area Scan Lens, Distortion Plot



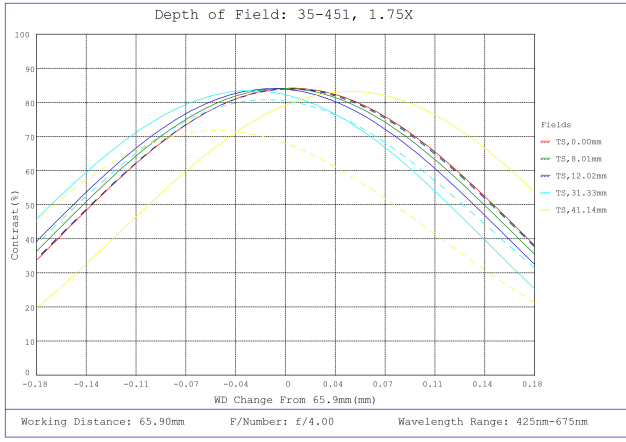
#35-451, 1.75X LS Series Area Scan Lens, Modulated Transfer Function (MTF) Plot, 65mm Working Distance, f3.2



#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