

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



LS Series Line Scan Lenses



Stock #35-441 [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

Product Downloads

**General**

LS Series

**Product Family:**

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

**Note:**

**Type:**

Line Scan

Beamsplitter / Line Scan:

Yes

Special Type of Lens:

Line Scan

## Physical & Mechanical Properties

Iris Option:

Variable

Length (mm):

122.00

Maximum Diameter (mm):

95

Outer Diameter (mm):

95

Weight (g):

1122

Maximum Rear Protrusion (mm):

0

Lens Total Track Length (mm):

379.6

Total Track (mm):

379.60

## Optical Properties

Horizontal Field of View @ Max Sensor Format:

46.9mm

Field of View at Max Sensor Format:

Diagonal: 47mm - 16.7°

Field of View, 82mm Sensor:

46.9mm

Field of View, 62.5mm Sensor:

35.7mm

Field of View, 57.7mm Sensor:

33mm

Field of View, 28.7mm Sensor:

16.4mm

Numerical Aperture NA:

0.10

Maximum Image Circle (mm):

82.00

Numerical Aperture NA, Object Side:

0.0973

Number of Elements (Groups):

12 (7)

Focal Length FL (mm):

99.00

Primary Magnification PMAG:

1.65X - 1.85X

Working Distance (mm):

65.9

Aperture (f/#):

f/3.2 - f/22

Coating:

425 - 675 BBAR VIS

Coating Specification:

425 - 675nm BBAR

Entrance Pupil Position (mm):

90.62

Object Space Principal Plane (mm):

88.34

Image Space Principal Plane (mm):

-79.41

Maximum Distortion (%):

0.05

Relative Illumination:

>97%

Exit Pupil Position (mm):

-76.74

Lens Wavelength Range:

VIS

## Sensor

62.5mm **Optimized Sensor Format:**

82mm (Image Circle) **Maximum Sensor Format:**

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

## Threading & Mounting

M52 x 0.75 **Filter Thread:**

75 **Mounting Diameter (mm):**

V-70 Mbunt **Mount:**

## Regulatory Compliance

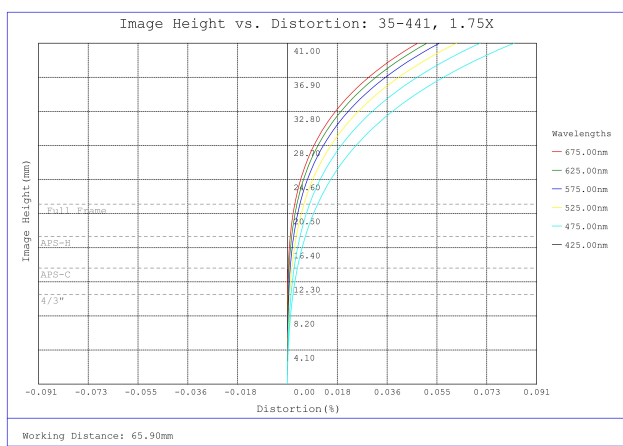
[View](#) **Certificate of Conformance:**

## Product Details

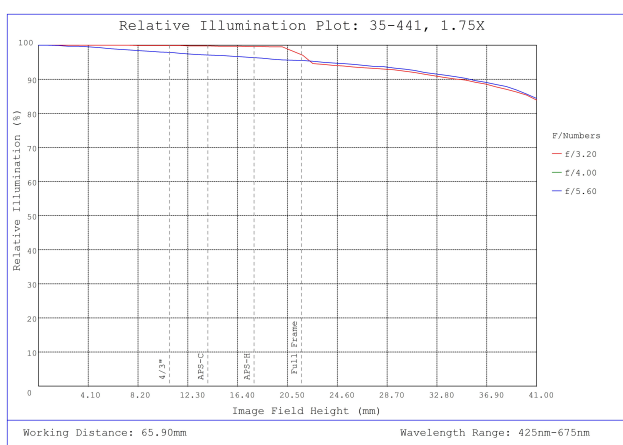
- 82mm Line Scan (LS), V-70 Mbunt
- Up to 16k, 5 $\mu\text{m}$  Pixel Size Line Scan Sensors
- High Resolution, Low Distortion, Uniform Field Performance
- 1.65X to 2.65X Primary Magnification

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.

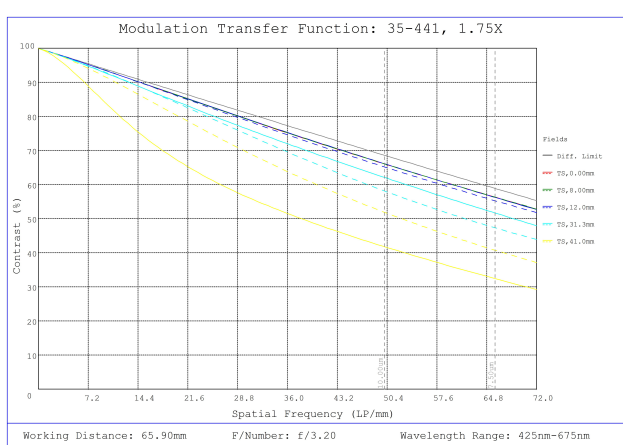
## Technical Information



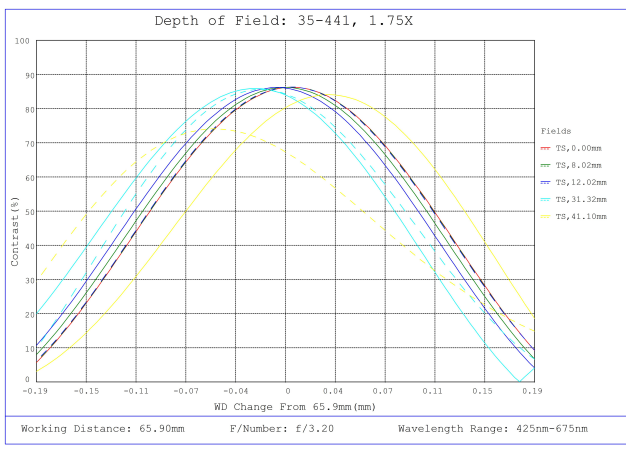
#35-441, 1.75X LS Series Line Scan Lens, Distortion Plot



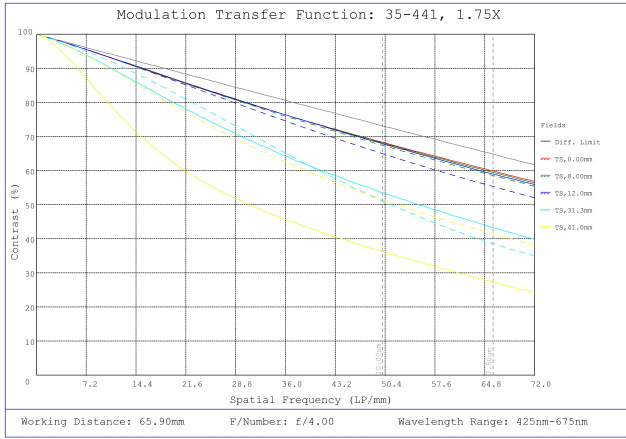
#35-441, 1.75X LS Series Line Scan Lens, Relative Illumination Plot



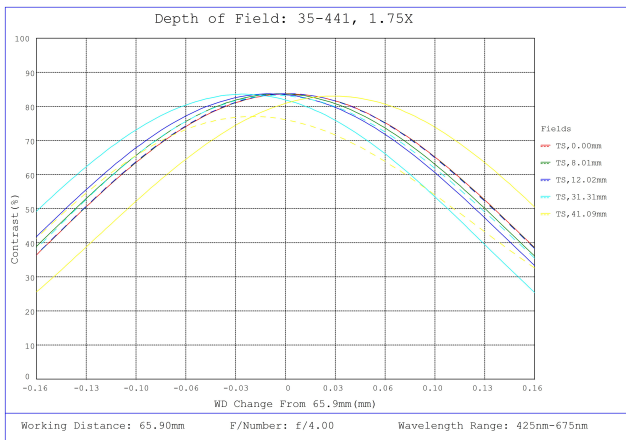
#35-441, 1.75X LS Series Line Scan Lens, Modulated Transfer Function (MTF) Plot, 65mm Working Distance, f3.2



#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