

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



LS Series Line Scan Lenses



Stock #35-441 **12 In Stock**

- 1 + C\$6,888<sup>00</sup>

**ADD TO CART**

Volume Pricing	
Qty 1+	C\$6,888.00 each
Need More?	<a href="#">Request Quote</a>

Product Downloads

**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>
-----------	------------------------------

## Physical & Mechanical Properties

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>
--------	--------------------------

## Optical Properties

46.9mm	<b>Horizontal Field of View @ Max Sensor Format:</b>
--------	--

Diagonal: 47mm - 16.7°	<b>Field of View at Max Sensor Format:</b>
------------------------	--

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>
-----	-------------------------------

## Sensor

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

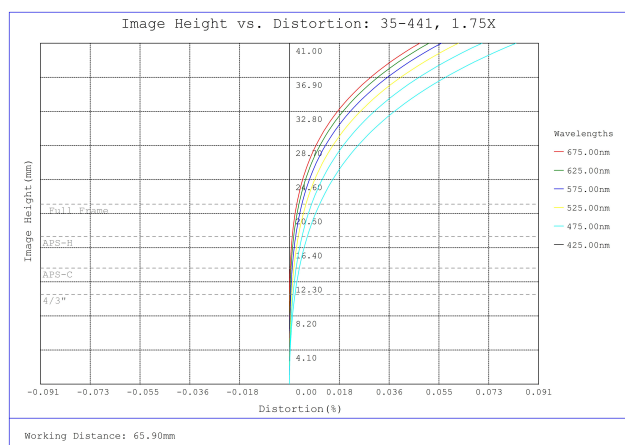
Certificate of Conformance:  
[View](#)

## Product Details

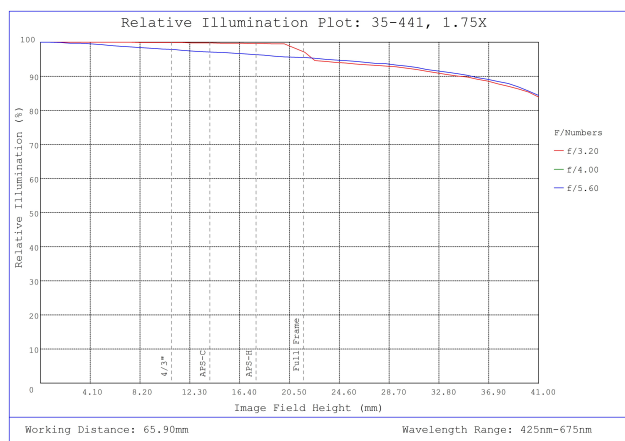
- 82mm Line Scan (LS), V-70 Mount
- Up to 16k, 5 $\mu\text{m}$  Pixel Size Line Scan Sensors
- High Resolution, Low Distortion, Uniform Field Performance
- 1.65X to 2.65X Primary Magnification

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.

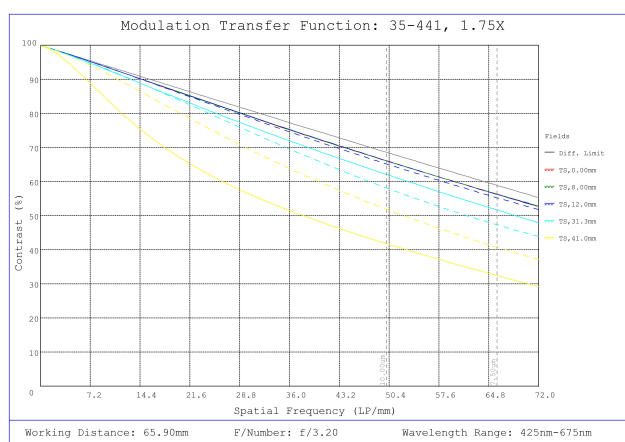
## Technical Information



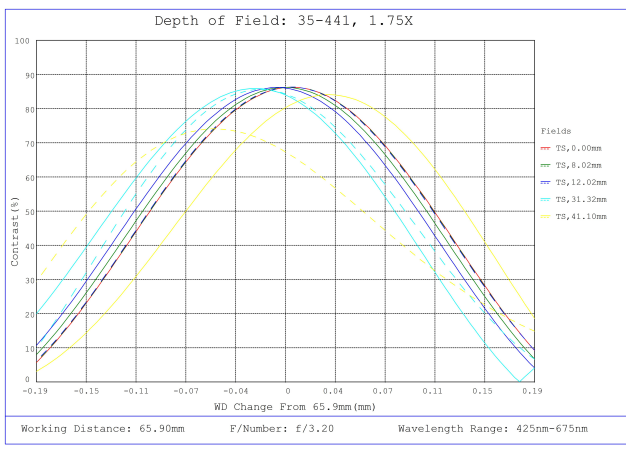
#35-441, 1.75X LS Series Line Scan Lens, Distortion Plot



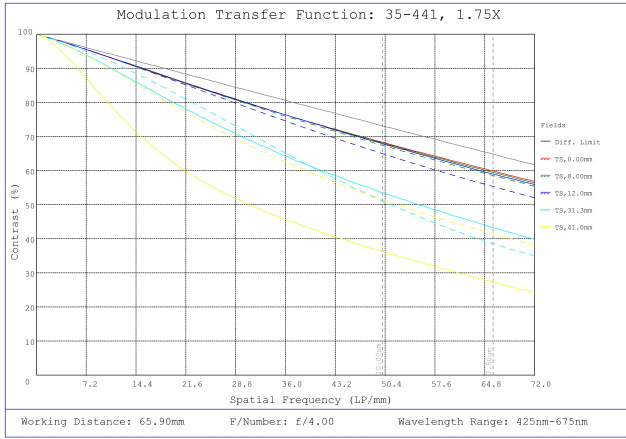
#35-441, 1.75X LS Series Line Scan Lens, Relative Illumination Plot



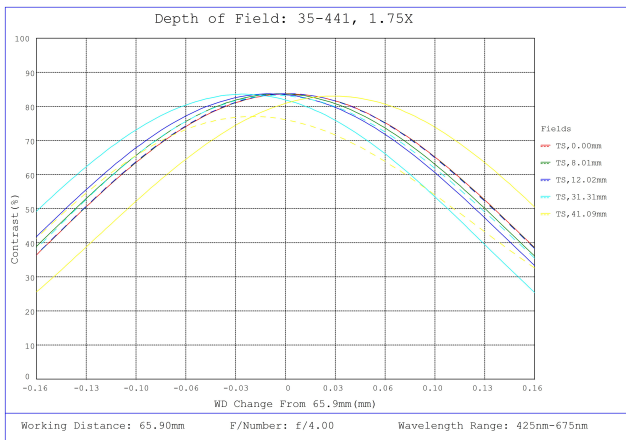
#35-441, 1.75X LS Series Line Scan Lens, Modulated Transfer Function (MTF) Plot, 65mm Working Distance,  $f/3.2$



#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