

TECHSPEC® 3.5mm, f/11 Ci Series Fixed Focal Length Lens



3.5mm Focal Length

Stock #87-550 1 In Stock

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1

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₹21,968

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General	
Ci Series	Series:
Fixed Focal Length Lens	Type:
Physical & Mechanical Properties	
Fixed	Iris Option:
39.38	Length (mm):

50	Maximum Diameter (mm):
50	Outer Diameter (mm):
97	Weight (g):
2.64	Maximum Rear Protrusion (mm):

26.50	Diameter (mm):
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Optical Properties

Horizontal Field of View @ Max Sensor Format: 41.2mm - 102.8°
Field of View at Max Sensor Format: Horizontal: 41.2mm - 102.3° Vertical: 26.8mm - 82.3° Diagonal: 63.5mm - 116.9°

Horizontal Field of View, 1/1.8" Sensor: 41.2mm - 102.8°
Horizontal Field of View, 1/2" Sensor: 29.5mm - 87.2°

Horizontal Field of View, 1/3" Sensor: 23.0mm - 74.4°
Horizontal Field of View, 1/4" Sensor: 16.3mm - 57.4°

Maximum Image Circle (mm): 9.00
Numerical Aperture NA, Object Side: 0.0104

Number of Elements (Groups): 8 (7)
Focal Length FL (mm): 3.50

Working Distance (mm): 0 - ∞
Aperture (f/#): f/11

Coating: 425 - 675nm BBAR
Coating Specification: 425 - 675nm BBAR

Entrance Pupil Position (mm): 15.27
Object Space Principal Plane (mm): 18.31

Image Space Principal Plane (mm): 7.49
Maximum Distortion (%): -20.94

Exit Pupil Position (mm): -15.28
Lens Wavelength Range: VIS

Sensor

Maximum Sensor Format: 1/1.8"
Pixel Size (µm): 2.74

Threading & Mounting

Filter Thread: M105 x 1.00 (Male)
Filter Thread Adapter: #89-848 (Required)

Front Thread: M50.0 x 0.5 (Male)
Mount: C-Mount

Environmental & Durability Factors

Storage Temperature (°C): -20 to +60
Type of Ruggedization:

Regulatory Compliance

View		Certificate of Conformance:
China		Country of Origin:
Edmund Optics India Private Limited		Imported By:

Product Details

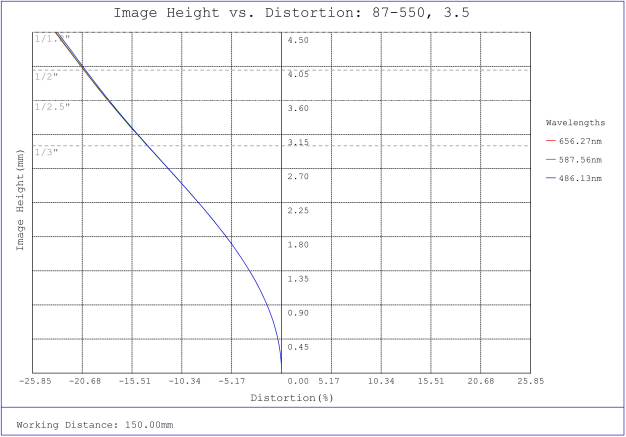
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- Ruggedized (Cr) Designs Also Available

TECHSPEC® Ci Series Fixed Focal Length Lenses are a streamlined version of our C Series Fixed Focal Length Lenses. They feature the same low lens-to-lens variation and broadband anti-reflection (BBAR) coating for maximum light transmission, while offering reduced weight and size. An adjustable, lockable focus allows for setting and locking the best focus position for instrumentation integration. TECHSPEC® Ci Series Fixed Focal Length Lenses are designed specifically for volume integration into applications such as factory inspection and automation to benchtop biomedical devices. The Ci Series offers a wide range of aperture options, ensuring maximum flexibility of resolution, throughput, and depth of field.

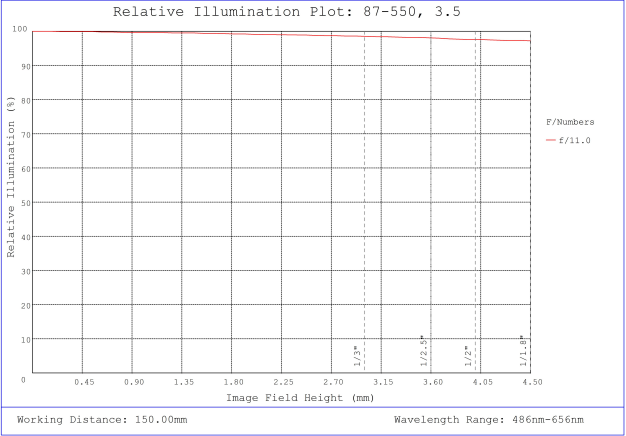
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

- C Series: Features locking cam focus and iris adjustment and is the most adjustable version of these optical designs; they are the typical high quality machine vision lenses. Also available with a VIS-NIR Broadband Anti-Reflection (BBAR) Coating.
- Ci Series: Simplified mechanics featuring fixed apertures with compact housing. Industrial Ruggedization for reduced size, cost, and locked focus.
- Cr Series: All optics glued in place and a locking C-clamp focus ring. Stabilized Ruggedization for reduced pixel shift and improved focus stability.
- Cx Series: Modular, flexible mechanics allows lenses to be taken apart for easy integration of accessories such as liquid lenses, apertures, and more.
- Liquid Lens Cx Series: Designed with an integrated liquid lens for quick autofocus.
- Cw Series: Waterproof, designed to meet IEC Ingress Protection Code IPX7 and IPX9K.

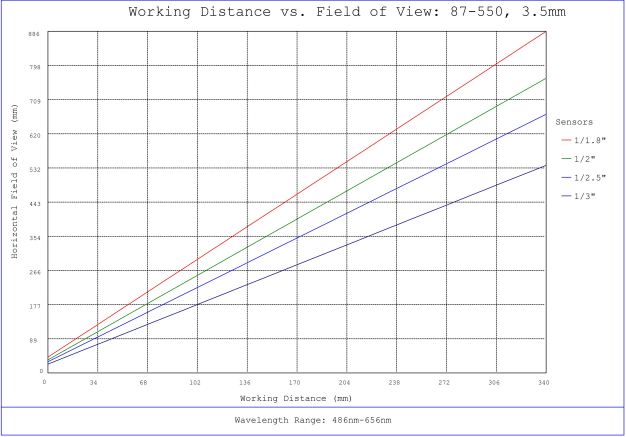
Technical Information



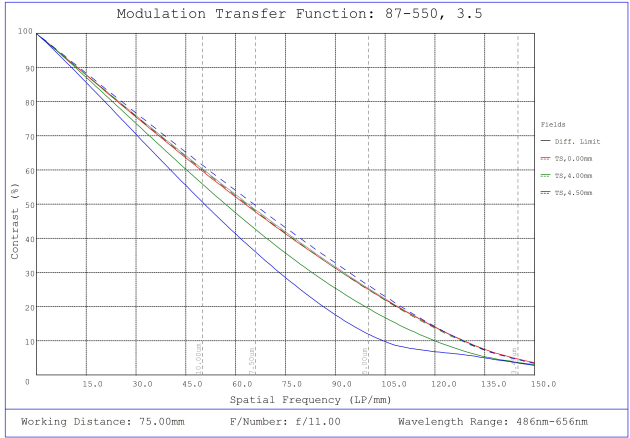
#87-550, 3.5mm, f/11 Ci Series Fixed Focal Length Lens, Distortion Plot



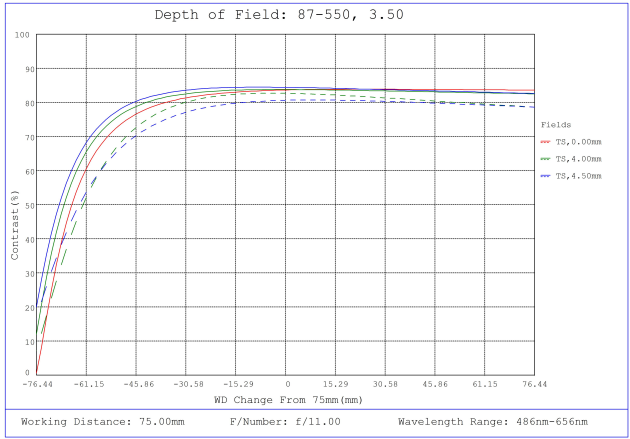
#87-550, 3.5mm, f/11 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



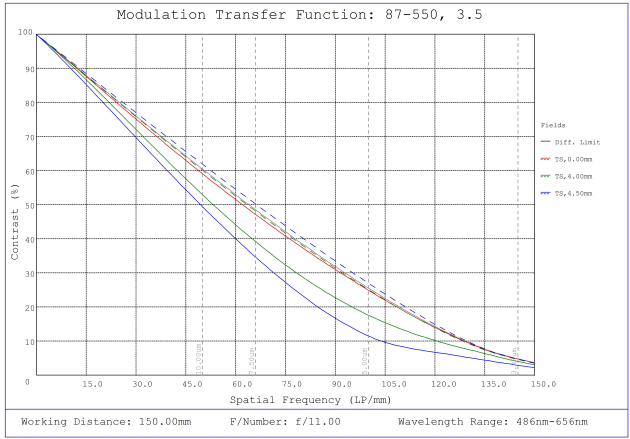
#87-550, 3.5mm, f/11 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



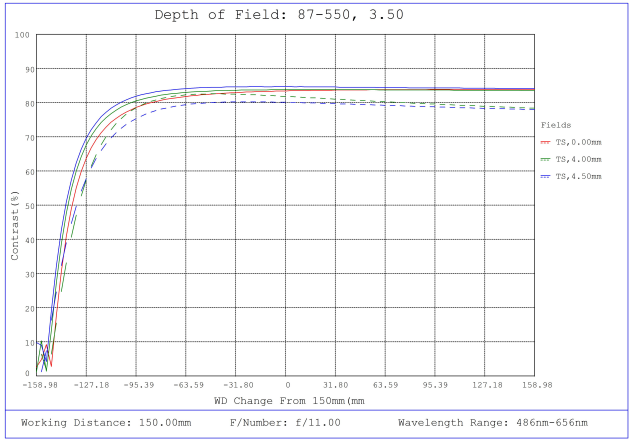
#87-550, 3.5mm, f/11 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 75mm Working Distance, f11



#87-550, 3.5mm, f/11 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 75mm Working Distance, f11



#87-550, 3.5mm, f/11 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f11



#87-550, 3.5mm, f/11 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 150mm Working Distance, f11

Focal Length	A	B	C	D
6mm	M34.0 x 0.5	47.8mm	34mm	1.17mm
12mm	M22.0 x 0.75	29.0mm	22mm	0.96mm
16mm	M22.0 x 0.75	40.8mm	22mm	1.09mm
25mm	M22.0 x 0.75	29.9mm	22mm	1.33mm
35mm	M25.5 x 0.5	41mm	22.5mm	3.82mm
50mm	M30.5 x 0.5	49.5mm	30.5mm	2.06mm

Compatible Cameras

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