

TECHSPEC[®] 3.5mm, f/2 Ci Series Fixed Focal Length Lens



3.5mm Focal Length

Stock #87-545 4 In Stock

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1

+

S\$332⁰⁰

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Volume Pricing	
Qty 1-24	S\$332.00 each
Qty 25+	S\$299.00 each
Need More?	Request Quote

Product Downloads

General

Ci Series	Series:
Fixed Focal Length Lens	Type:

Compact Lens with Fixed Aperture	Imaging Lens Type:
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Physical & Mechanical Properties

Iris Option:

Fixed	
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):

Optical Properties	
Horizontal Field of View @ Max Sensor Format: 41.2mm - 102.8°	
Field of View at Max Sensor Format: Horizontal: 41.2mm - 102.4° Vertical: 26.8mm - 82.3° Diagonal: 63.5mm - 117.1°	
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°	
9.00	Maximum Image Circle (mm):
0.0572	Numerical Aperture NA, Object Side:
8 (7)	Number of Elements (Groups):
3.50	Focal Length FL (mm):
0 - ∞	Working Distance (mm):
f/2	Aperture (f/#):
425 - 675nm BBAR	Coating:
425 - 675nm BBAR	Coating Specification:
15.27	Entrance Pupil Position (mm):
18.31	Object Space Principal Plane (mm):
7.49	Image Space Principal Plane (mm):
-20.95	Maximum Distortion (%):
-15.28	Exit Pupil Position (mm):
VIS	Lens Wavelength Range:

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

Threading & Mounting	
M105 x 1.00 (Male)	Filter Thread:
#89-848 (Required)	Filter Thread Adapter:
M50.0 x 0.5 (Male)	Front Thread:
C-Mount	Mount:

Environmental & Durability Factors	
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-20 to +60

Industrial (Fixed Aperture with Simplified Mechanics)

Certificate of Conformance:

View

- 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

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.

Image Height vs. Distortion: 87-545, 3.5

Wavelengths

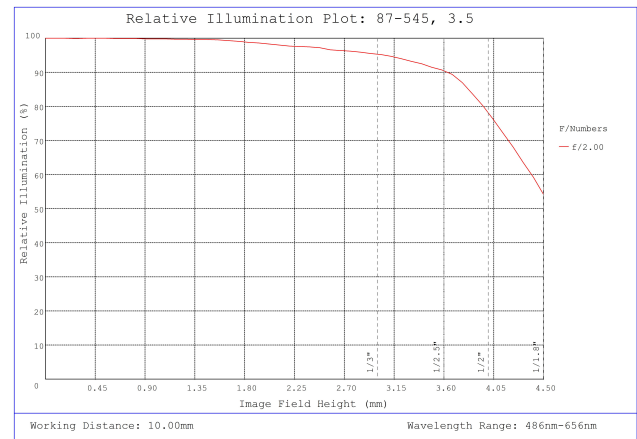
- 656.27nm
- 587.56nm
- 486.13nm

Image Height (mm)

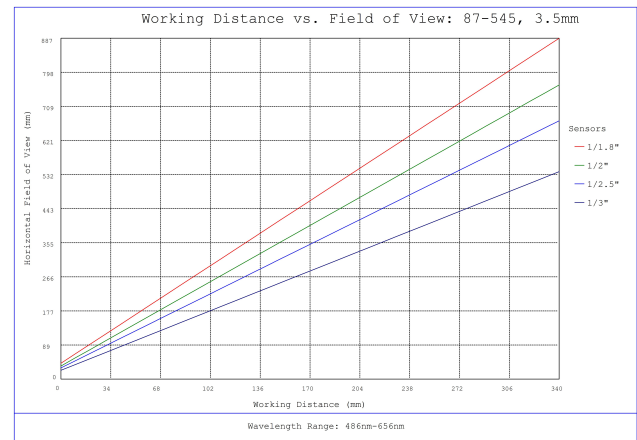
Distortion (%)

Working Distance: Infinity

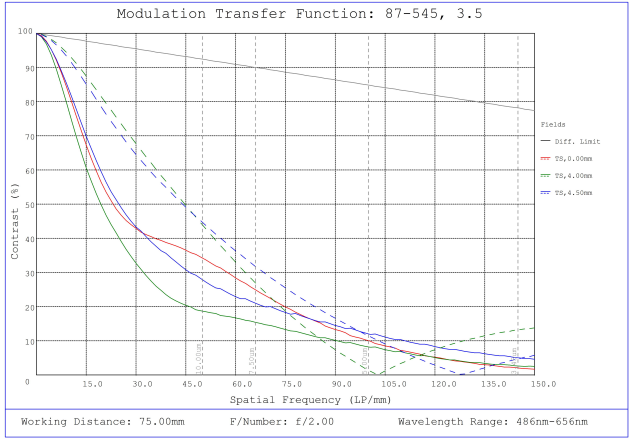
#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Distortion Plot



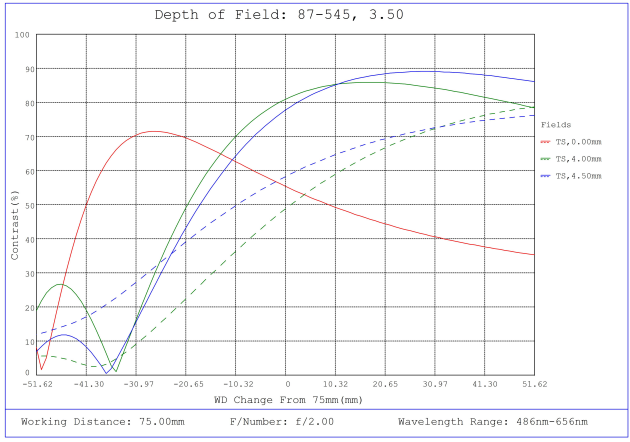
#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



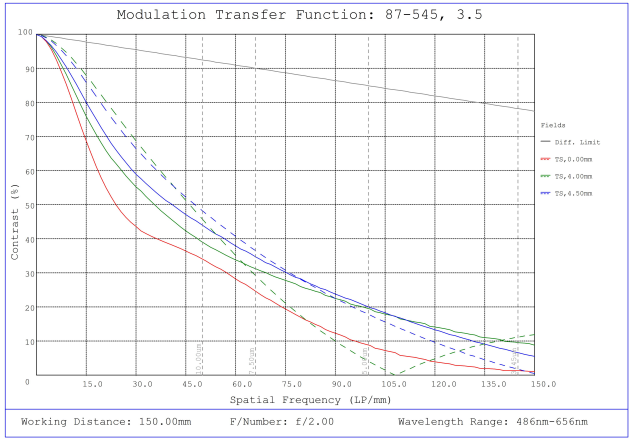
#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



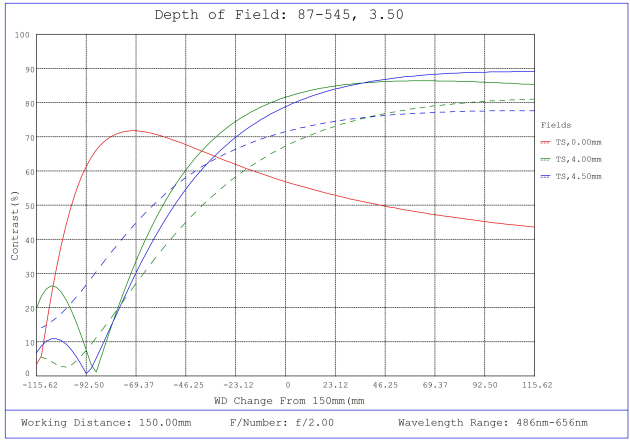
#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 75mm Working Distance, f2



#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 75mm Working Distance, f2



#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f2



#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 150mm Working Distance, f2

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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