

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

3.5mm Focal Length

Stock #87-545 **4 In Stock** **A\$366^{.00}****ADD TO CART**

Volume Pricing	
Qty 1-24	A\$366.00 each
Qty 25+	A\$330.00 each
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SPECIFICATIONS**General**

Series:

Ci Series

Type:

Fixed Focal Length Lens

Imaging Lens Type:
Compact Lens with Fixed Aperture

Physical & Mechanical Properties

Iris Option:
Fixed

Length (mm):
39.38

Maximum Diameter (mm):
50

Outer Diameter (mm):
50

Weight (g):
97

Maximum Rear Protrusion (mm):
2.64

Diameter (mm):
26.50

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°

Maximum Image Circle (mm):
9.00

Numerical Aperture NA, Object Side:
0.0572

Number of Elements (Groups):
8 (7)

Focal Length FL (mm):
3.50

Working Distance (mm):
0 - ∞

Aperture (f#):
f/2

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 (%):
-20.95

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:

Mount:
C-Mount

Environmental & Durability Factors

Storage Temperature (°C):
-20 to +60

Type of Ruggedization:
Industrial (Fixed Aperture with Simplified Mechanics)

Regulatory Compliance

Certificate of Conformance:
[View](#)

PRODUCT DETAILS

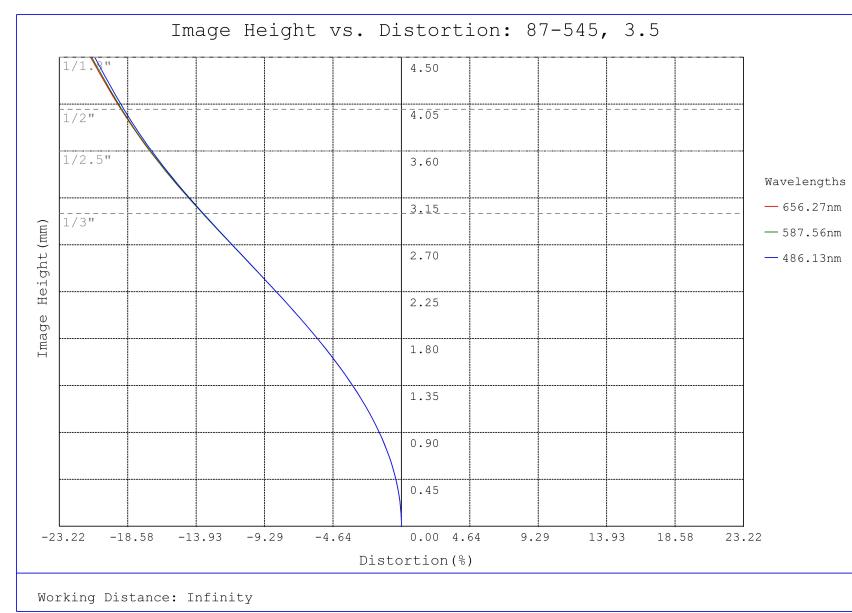
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- Ruggedized (Cr) Designs** Also Available

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.

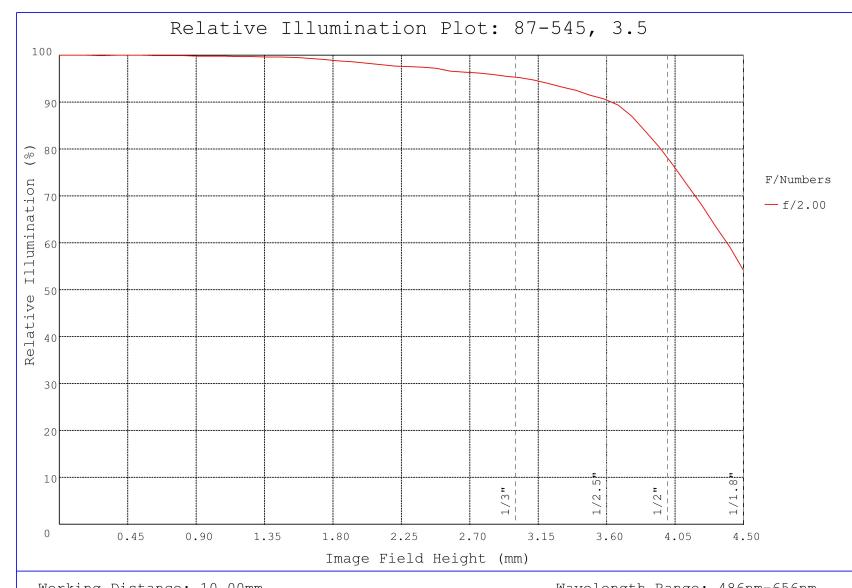
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

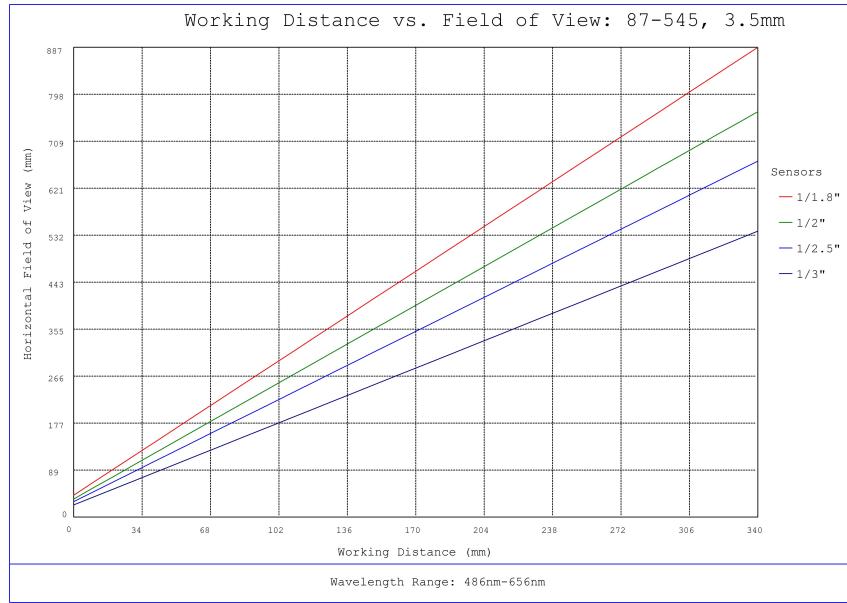
TECHNICAL INFORMATION



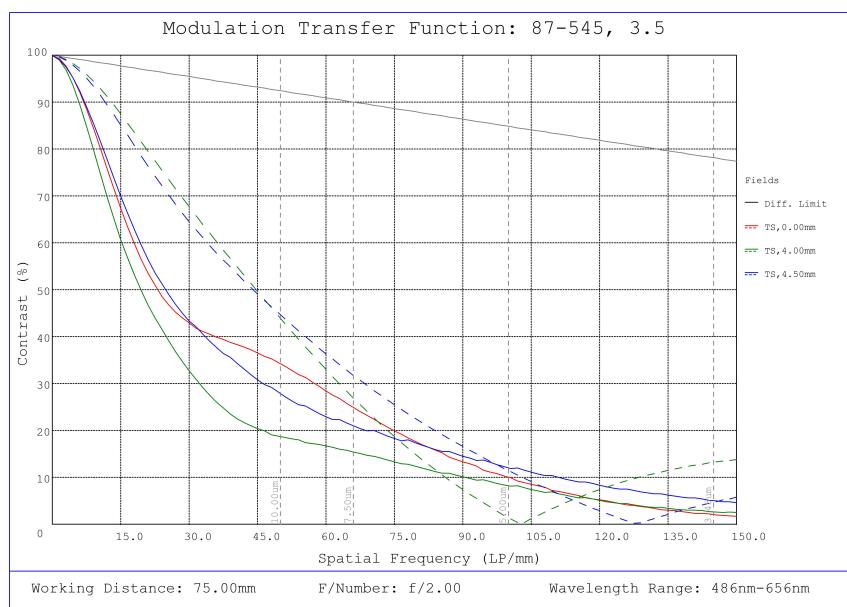
#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Distortion Plot



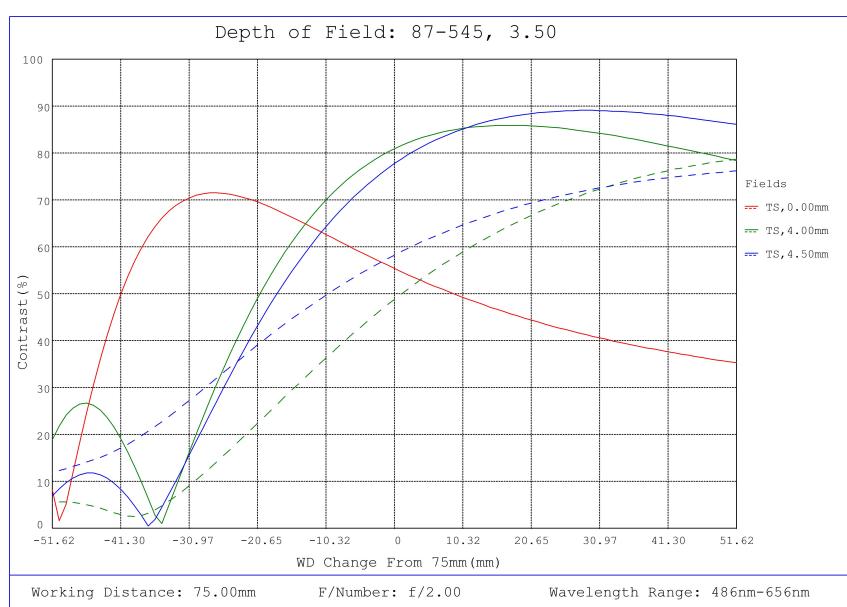
#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



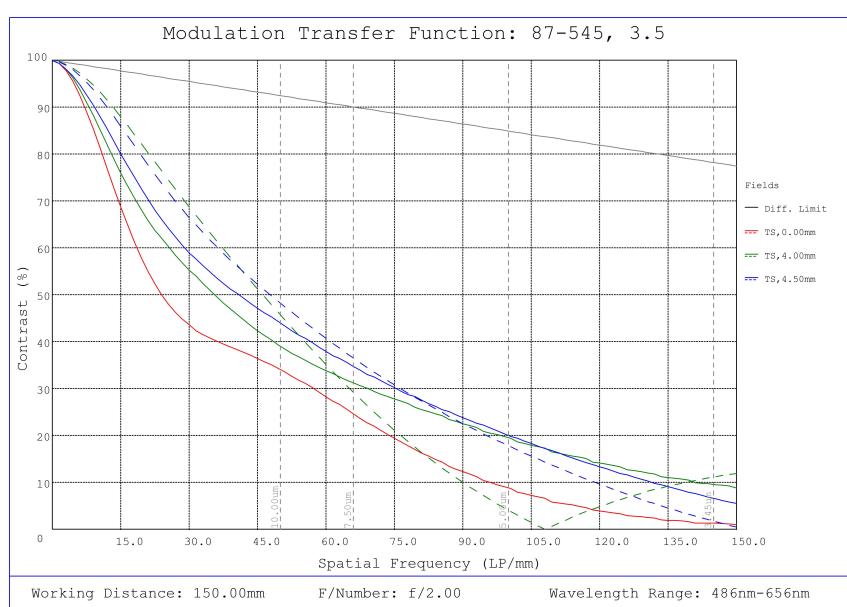
#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



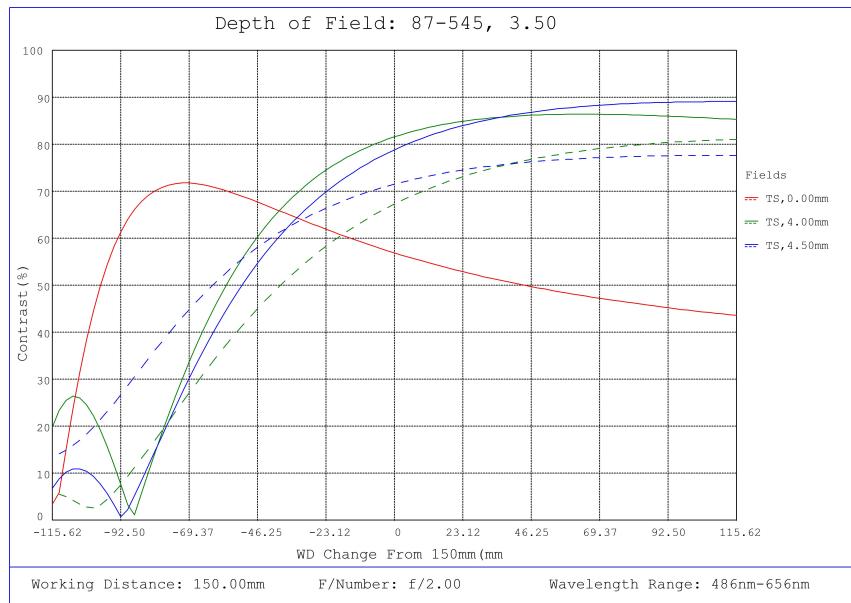
#87-545, 3.5mm, f/2 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 75mm Working Distance, f2



#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

Focus Locking Screw

Max. Overall Length (B)

4.5mm

Max. Front Diameter (Q)

Front Threading (A)

26mm

C-Mount M22.0 x 0.75

Max. Rear Protrusion (D)

COMPATIBLE CAMERAS