

TECHSPEC® 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens



3.5mm Focal Length

Stock **#87-546** **2 In Stock**

⊖ 1 ⊕ ₹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):**

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: 63.6mm - 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):**

0.0409 **Numerical Aperture NA, Object Side:**

8 (7) **Number of Elements (Groups):**

3.50 **Focal Length FL (mm):**

0 - ∞ **Working Distance (mm):**

f/2.8 **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):**

-20.94 **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

-20 to +60 **Storage Temperature (°C):**

Type of Ruggedization:

Regulatory Compliance

Certificate of Conformance:

[View](#)

Country of Origin:

China

Imported By:

Edmund Optics India Private Limited

Product Details

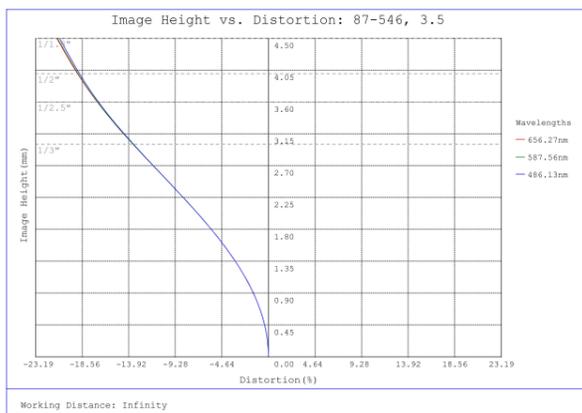
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- **Ruggedized (Cr) Designs** Also Available

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.

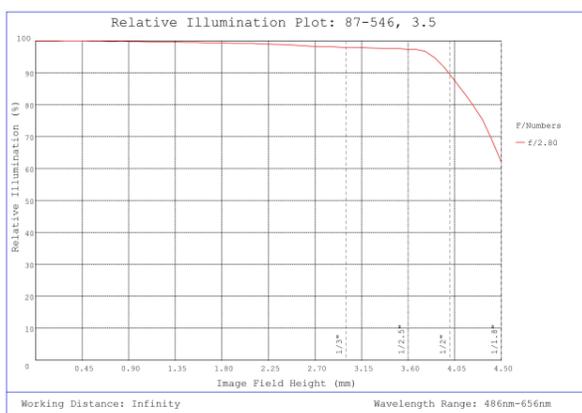
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

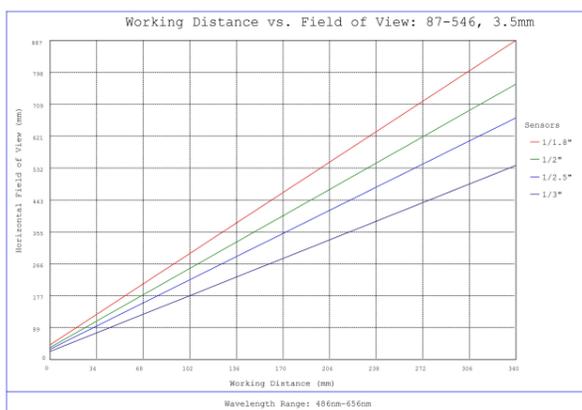
Technical Information



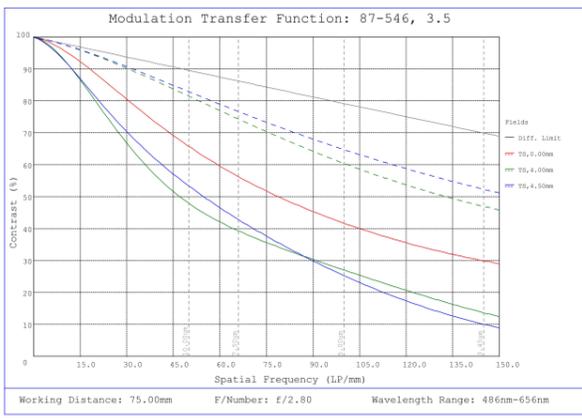
#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Distortion Plot



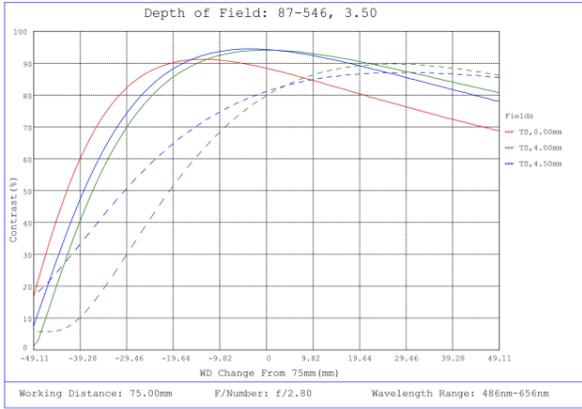
#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



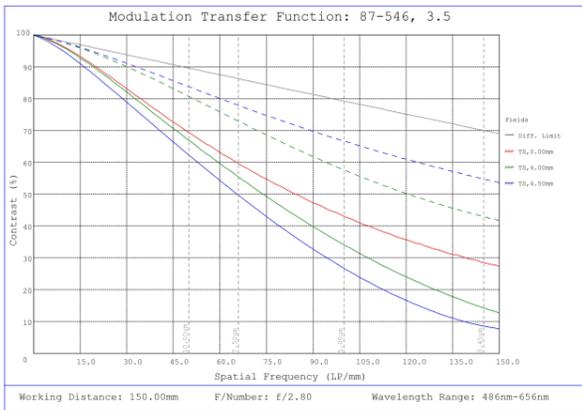
#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



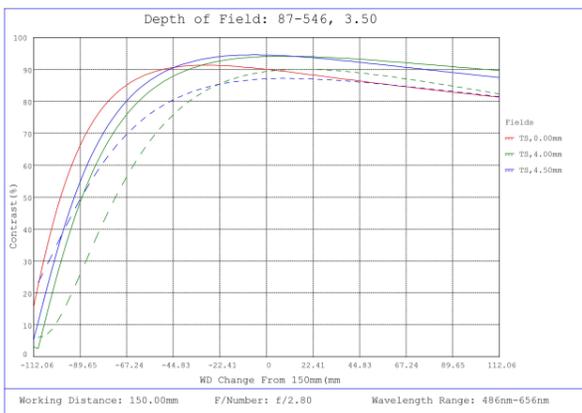
#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 75mm Working Distance, f2.8



#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 75mm Working Distance, f2.8

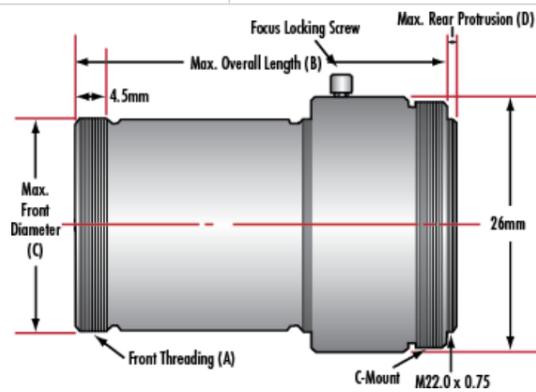


#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f2.8



#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 150mm Working Distance, f2.8

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
