

**TECHSPEC® 16mm, f/2.8 Ci Series Fixed Focal Length Lens**



16mm Focal Length

Stock #85-350 **20+ In Stock**

⊖ 1 ⊕ A\$221<sup>00</sup>

**ADD TO CART**

| Volume Pricing |                               |
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| Qty 1-24       | A\$221.00 each                |
| Qty 25+        | A\$200.00 each                |
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Product Downloads

**General**

Ci Series **Product Family:**  
Fixed Focal Length Lens **Type:**

**Physical & Mechanical Properties**

Fixed **Iris Option:**  
Length (mm):

40.80

26.5 **Maximum Diameter (mm):**

26.5 **Outer Diameter (mm):**

37 **Weight (g):**

1.09 **Maximum Rear Protrusion (mm):**

26.50 **Diameter (mm):**

## Optical Properties

**Horizontal Field of View @ Max Sensor Format:**  
61.4mm - 30.9°

**Field of View at Max Sensor Format:**  
Horizontal: 59.7mm - 30.9°  
Vertical: 44.6mm - 23.4°  
Diagonal: 75mm - 38.2°

**Horizontal Field of View, 2/3" Sensor:**  
61.4mm - 30.9°

**Horizontal Field of View, 1/1.8" Sensor:**  
50.1mm - 25.2°

**Horizontal Field of View, 1/2" Sensor:**  
44.5mm - 22.7°

**Horizontal Field of View, 1/2.5" Sensor:**  
39.6mm - 20.2°

**Horizontal Field of View, 1/3" Sensor:**  
33.3mm - 17.1°

**Horizontal Field of View, 1/4" Sensor:**  
25mm - 12.8°

11.00 **Maximum Image Circle (mm):**

0.0235 **Numerical Aperture NA, Object Side:**

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

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

100 - ∞ **Working Distance (mm):**

f/2.8 **Aperture (f/#):**

425 - 675nm BBAR **Coating:**

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

19.19 **Entrance Pupil Position (mm):**

21.30 **Object Space Principal Plane (mm):**

-3.00 **Image Space Principal Plane (mm):**

-0.77 **Maximum Distortion (%):**

-5.43 **Exit Pupil Position (mm):**

VIS **Lens Wavelength Range:**

## Sensor

2/3" **Maximum Sensor Format:**

2.74 **Pixel Size (µm):**

## Threading & Mounting

M25.5 x 0.50 (Male) **Filter Thread:**

[#89-941 \(Required\)](#) **Filter Thread Adapter:**

M22.0 x 0.75 (Male) **Front Thread:**

C-Mount **Mount:**

## Environmental & Durability Factors

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

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

## Regulatory Compliance

**RoHS 2015:**  
Compliant

**Certificate of Conformance:**  
View

**Reach 235:**  
Compliant

## Product Details

These compact lenses are designed specifically for volume integration into applications such as analytical medical devices, including benchtop-based blood analyzers. For customized  $f\#$  versions to best suit your instrumentation application needs and to discuss volume requirements, please [contact us](#).

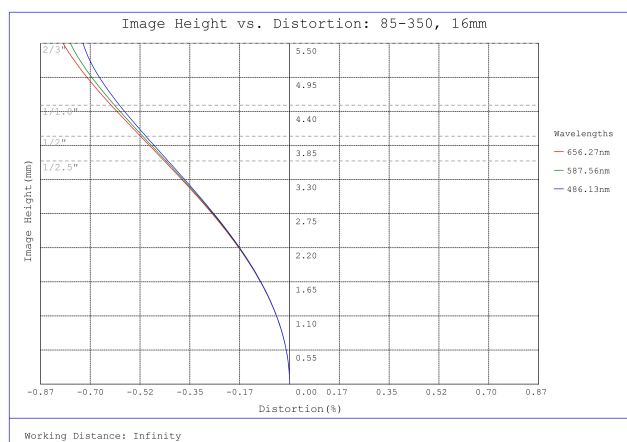
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8 $\mu$ m Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- **Ruggedized (Cr) Designs** Also Available

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.

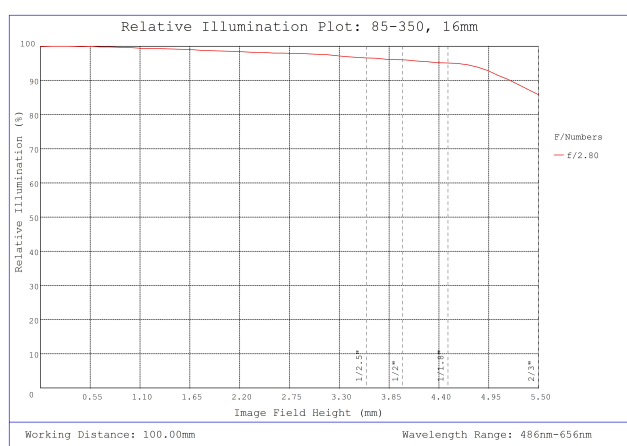
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

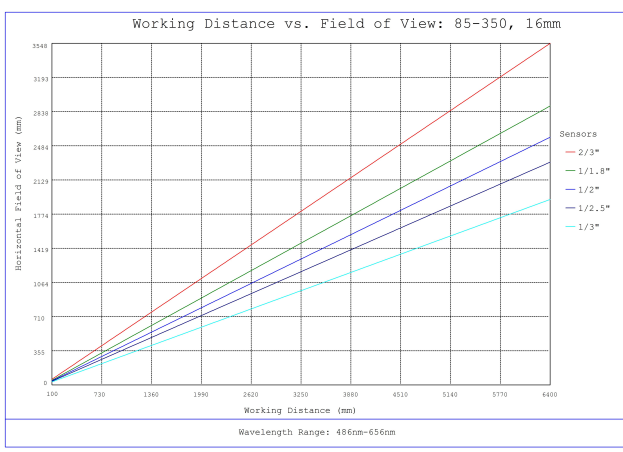
## Technical Information



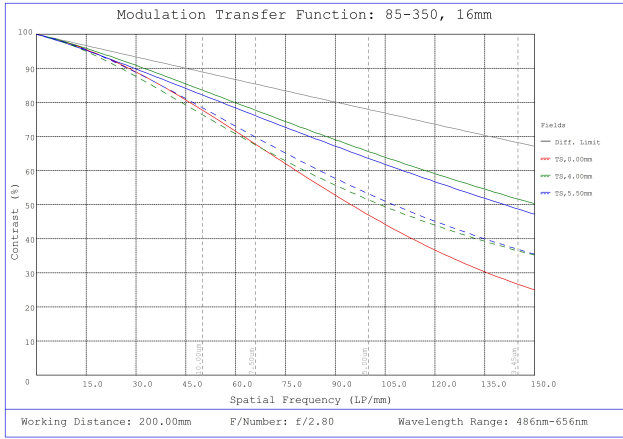
#85-350, 16mm,  $f/2.8$  Ci Series Fixed Focal Length Lens, Distortion Plot



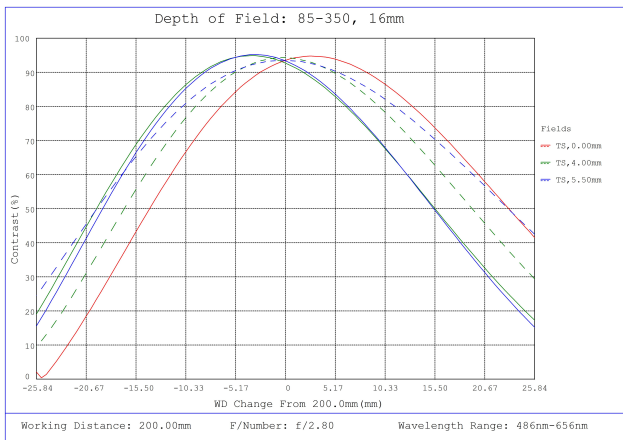
#85-350, 16mm,  $f/2.8$  Ci Series Fixed Focal Length Lens, Relative Illumination Plot



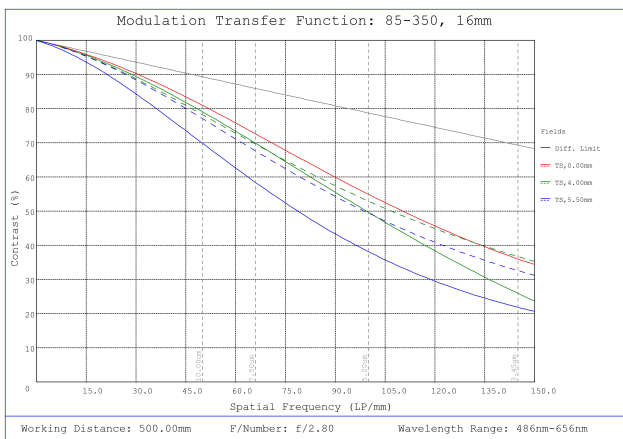
#85-350, 16mm, f/2.8 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



#85-350, 16mm, f/2.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f2.8



#85-350, 16mm, f/2.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f2.8



#85-350, 16mm, f/2.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f2.8



#85-350, 16mm, f/2.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 500mm 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