

TECHSPEC® 16mm, f/11 Ci Series Fixed Focal Length Lens



16mm Focal Length

Stock #85-354 20+ In Stock

-

1

+

C\$491<sup>40</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-24       | C\$491.40 each                |
| Qty 25+        | C\$442.40 each                |
| Need More?     | <a href="#">Request Quote</a> |

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

|                                                                                  |                                               |
|----------------------------------------------------------------------------------|-----------------------------------------------|
| 61.4mm - 30.9°                                                                   | Horizontal Field of View @ Max Sensor Format: |
| Horizontal: 59.7mm - 30.9°<br>Vertical: 44.6mm - 23.4°<br>Diagonal: 75mm - 38.2° | Field of View at Max Sensor Format:           |
| 61.4mm - 30.9°                                                                   | Horizontal Field of View, 2/3" Sensor:        |
| 50.1mm - 25.2°                                                                   | Horizontal Field of View, 1/1.8" Sensor:      |
| 44.5mm - 22.7°                                                                   | Horizontal Field of View, 1/2" Sensor:        |
| 39.6mm - 20.2°                                                                   | Horizontal Field of View, 1/2.5" Sensor:      |
| 33.3mm - 17.1°                                                                   | Horizontal Field of View, 1/3" Sensor:        |
| 25mm - 12.8°                                                                     | Horizontal Field of View, 1/4" Sensor:        |
| 11.00                                                                            | Maximum Image Circle (mm):                    |
| 0.006                                                                            | Numerical Aperture NA, Object Side:           |
| 7 (6)                                                                            | Number of Elements (Groups):                  |
| 16.00                                                                            | Focal Length FL (mm):                         |
| 100 - ∞                                                                          | Working Distance (mm):                        |
| f/11                                                                             | 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

|                                                                                                              |                                      |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <div><div>-20 to +60</div></div>                                                                             | <div>Storage Temperature (°C):</div> |
| <div><div>Type of Ruggedization:</div><div>Industrial (Fixed Aperture with Simplified Mechanics)</div></div> |                                      |

Regulatory Compliance

|                                 |                                        |
|---------------------------------|----------------------------------------|
| <div><div>Compliant</div></div> | <div>RoHS 2015:</div>                  |
| <div><div>View</div></div>      | <div>Certificate of Conformance:</div> |
| <div><div>Compliant</div></div> | <div>Reach 235:</div>                  |

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, 2.8µm 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.

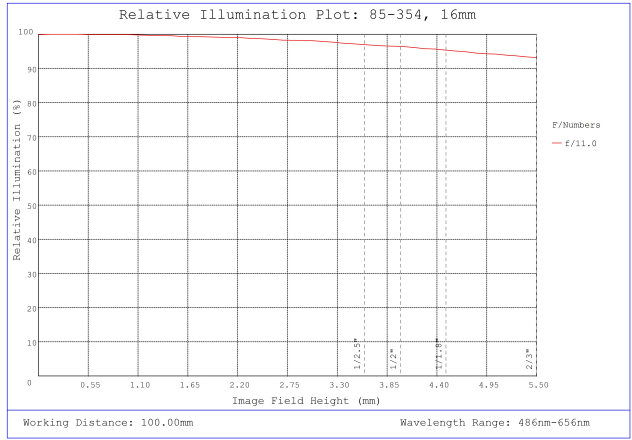
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

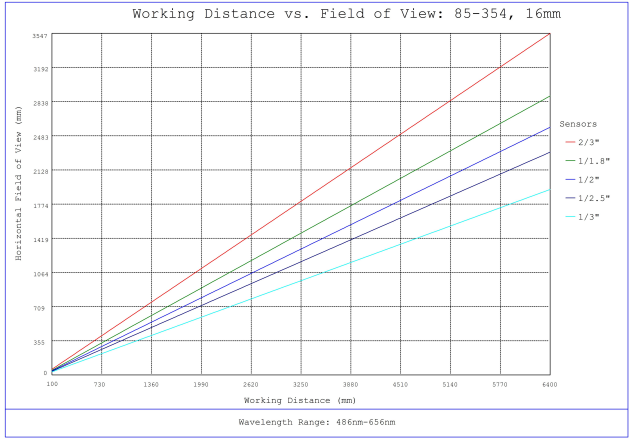
Technical Information



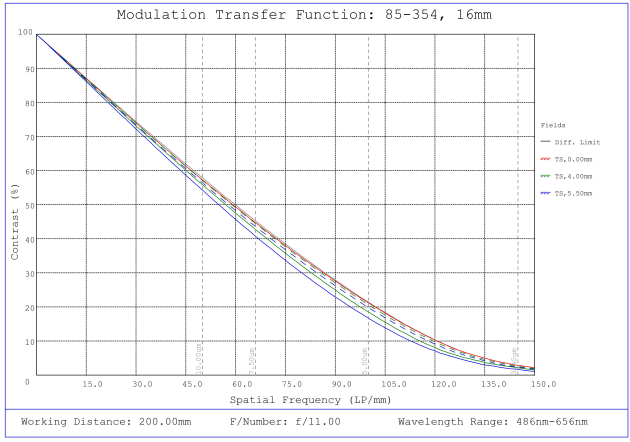
#85-354, 16mm, f/11 Ci Series Fixed Focal Length Lens, Distortion Plot



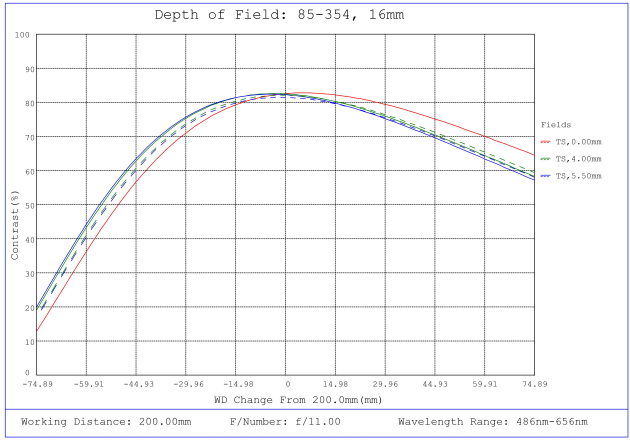
#85-354, 16mm, f/11 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



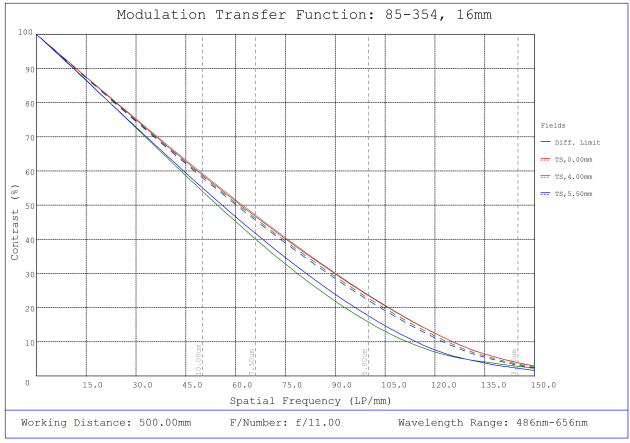
#85-354, 16mm, f/11 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



#85-354, 16mm, f/11 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f11



#85-354, 16mm, f/11 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f11



#85-354, 16mm, f/11 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f11



#85-354, 16mm, f/11 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f11

| Focal Length | A           | B      | C      | D      |
|--------------|-------------|--------|--------|--------|
| 6mm          | M34.0 x0.5  | 47.8mm | 34mm   | 1.17mm |
| 12mm         | M22.0 x0.75 | 29.0mm | 22mm   | 0.96mm |
| 16mm         | M22.0 x0.75 | 40.8mm | 22mm   | 1.09mm |
| 25mm         | M22.0 x0.75 | 29.9mm | 22mm   | 1.33mm |
| 35mm         | M25.5 x0.5  | 41mm   | 22.5mm | 3.82mm |
| 50mm         | M30.5 x0.5  | 49.5mm | 30.5mm | 2.06mm |



## Compatible Cameras