

TECHSPEC® 16mm, f/1.8 Ci Series Fixed Focal Length Lens



16mm Focal Length

Stock #85-349 **20+ In Stock**

⊖ 1 ⊕ €215⁰⁰

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| Volume Pricing | |
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| Qty 1-24 | €215,00 each |
| Qty 25+ | €194,00 each |
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

Ci Series

Series:

Type:

Physical & Mechanical PropertiesFixed **Iris Option:**40.80 **Length (mm):**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 - 38.3°**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):**0.0366 **Numerical Aperture NA, Object Side:**7 (6) **Number of Elements (Groups):**16.00 **Focal Length FL (mm):**100 - ∞ **Working Distance (mm):**f/1.8 **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):**VS **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

-20 to +60

Storage Temperature (°C):

Industrial (Fixed Aperture with Simplified Mechanics)

Type of Ruggedization:

Regulatory Compliance

Compliant

RoHS 2015:

Compliant

REACH 201:

[View](#)

Certificate of Conformance:

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](#).

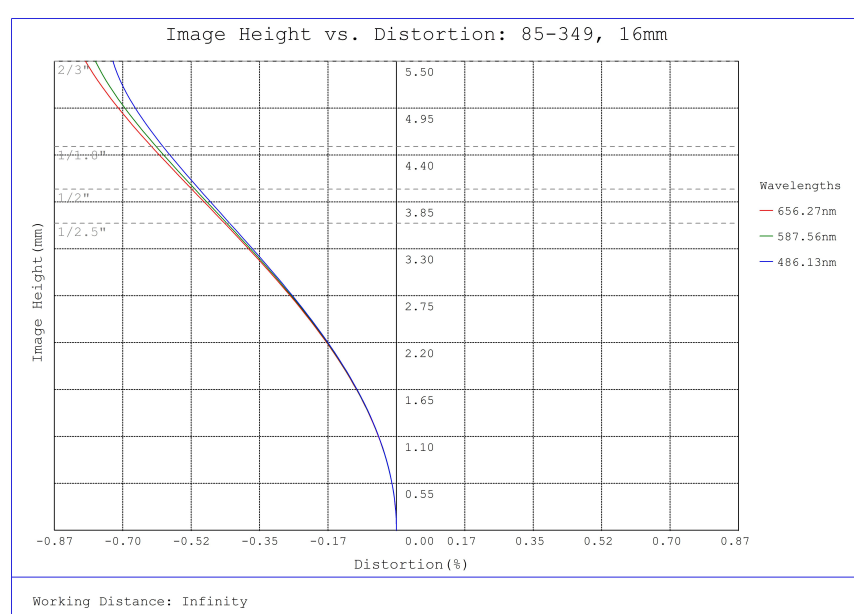
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- [Ruggedized \(Cr\) Designs](#) Also Available

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.

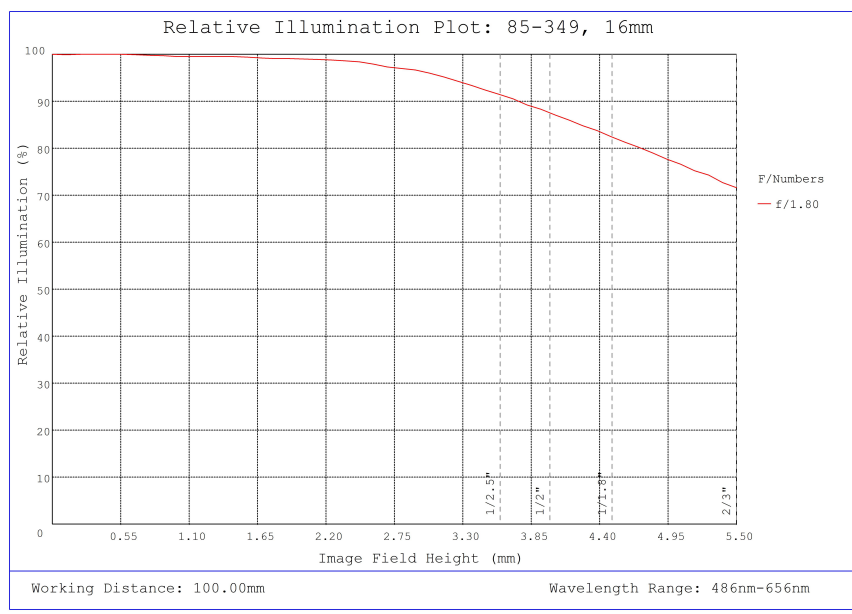
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

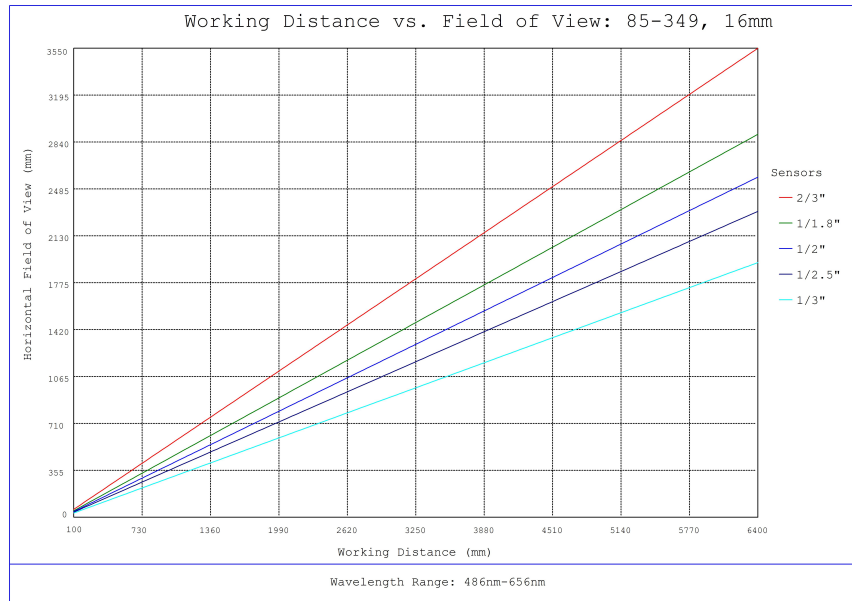
TECHNICAL INFORMATION



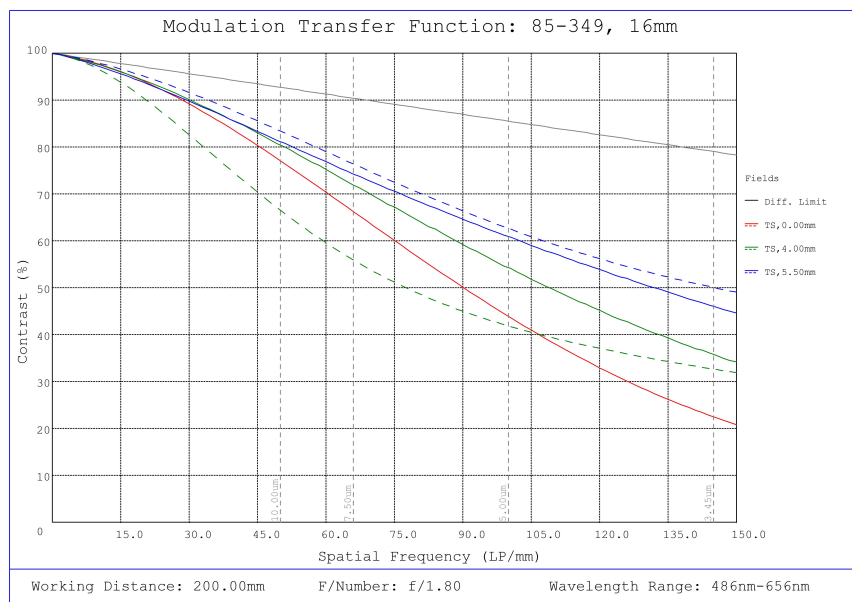
#85-349, 16mm, f/1.8 Ci Series Fixed Focal Length Lens, Distortion Plot



#85-349, 16mm, f/1.8 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



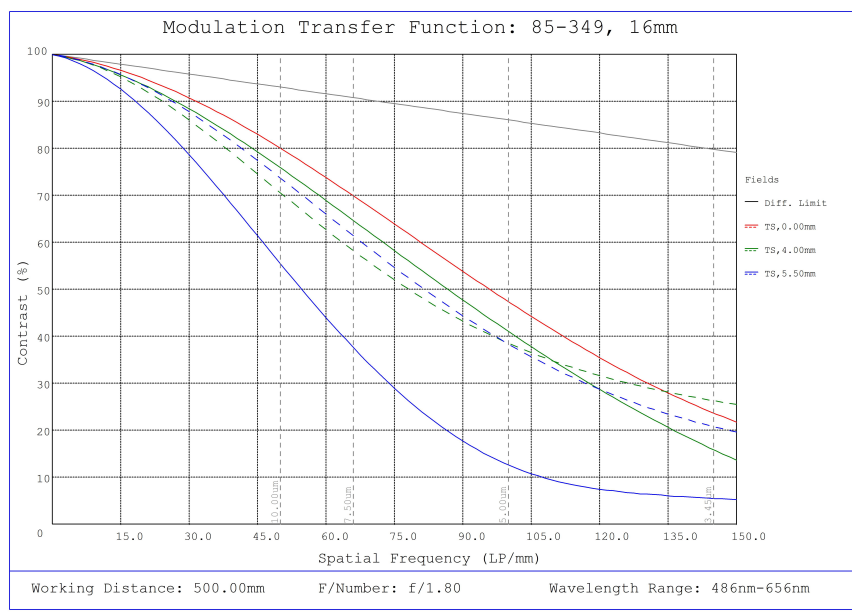
#85-349, 16mm, f/1.8 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



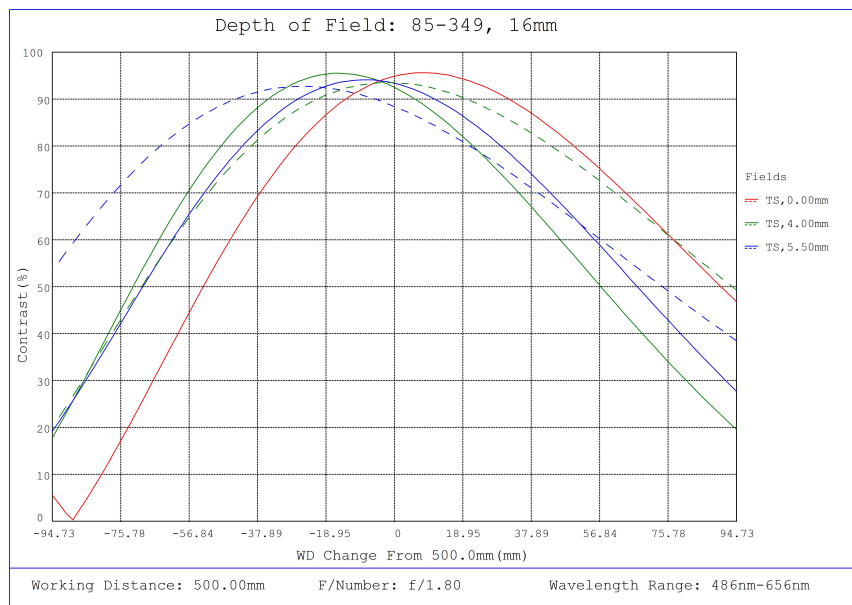
#85-349, 16mm, f/1.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f1.8



#85-349, 16mm, f/1.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f1.8

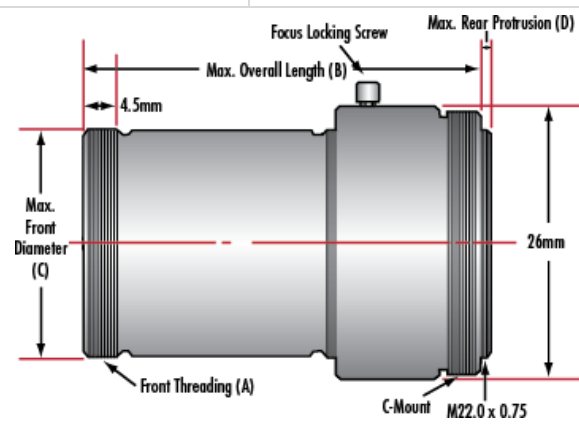


#85-349, 16mm, f/1.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f1.8



#85-349, 16mm, f/1.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f1.8

| Focal Length | A | B | C | D |
|--------------|--------------|--------|--------|--------|
| 6mm | M4.0 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