

**TECHSPEC** 50mm, f/8.0 Ci Series Fixed Focal Length Lens



50mm Focal Length

Stock #86-618 **20+ In Stock**

⊖ 1 ⊕ MRP ₹20,481

● Price inclusive of all taxes

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Volume Pricing	
Qty 1-24	₹20,481 each
Qty 25+	₹18,442 each
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**General**

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

**Physical & Mechanical Properties**

Fixed **Iris Option:**

49.50	<b>Length (mm):</b>
30.5	<b>Maximum Diameter (mm):</b>
30.5	<b>Outer Diameter (mm):</b>
63	<b>Weight (g):</b>
2.06	<b>Maximum Rear Protrusion (mm):</b>
26.50	<b>Diameter (mm):</b>

## Optical Properties

42.8mm - 10.0°	<b>Horizontal Field of View @ Max Sensor Format:</b>
Horizontal: 42.7mm - 10° Vertical: 32mm - 7.5° Diagonal: 53.5mm - 12.5°	<b>Field of View at Max Sensor Format:</b>
42.8mm - 10.0°	<b>Horizontal Field of View, 2/3" Sensor:</b>
35.0mm - 8.2°	<b>Horizontal Field of View, 1/1.8" Sensor:</b>
31.1mm - 7.3°	<b>Horizontal Field of View, 1/2" Sensor:</b>
28.2mm - 6.6°	<b>Horizontal Field of View, 1/2.5" Sensor:</b>
23.3mm - 5.5°	<b>Horizontal Field of View, 1/3" Sensor:</b>
17.5mm - 4.1°	<b>Horizontal Field of View, 1/4" Sensor:</b>
11.00	<b>Maximum Image Circle (mm):</b>
0.0109	<b>Numerical Aperture NA, Object Side:</b>
6 (4)	<b>Number of Elements (Groups):</b>
50.00	<b>Focal Length FL (mm):</b>
250 - ∞	<b>Working Distance (mm):</b>
f/8	<b>Aperture (f/#):</b>
425 - 675nm BBAR	<b>Coating:</b>
425 - 675nm BBAR	<b>Coating Specification:</b>
35.62	<b>Entrance Pupil Position (mm):</b>
39.89	<b>Object Space Principal Plane (mm):</b>
-36.26	<b>Image Space Principal Plane (mm):</b>
0.26	<b>Maximum Distortion (%):</b>
-40.93	<b>Exit Pupil Position (mm):</b>
VS	<b>Lens Wavelength Range:</b>

## Sensor

2/3"	<b>Maximum Sensor Format:</b>
2.74	<b>Pixel Size (µm):</b>

## Threading & Mounting

M30.5 x 0.50 (Female)	<b>Filter Thread:</b>
<a href="#">#89-943 (Required)</a>	<b>Filter Thread Adapter:</b>
M30.5 x 0.5 (Male)	<b>Front Thread:</b>

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 241:

Compliant

Country of Origin:

China

Imported By:

Edmund Optics India Private Limited  
267, Greystone Building, Second Floor,  
6th Cross Rd, Binnamangala,  
Stage 1, Indiranagar, Bengaluru,  
Karnataka, India 560038  
Phone: +91- 80-6845 0000

## 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](#).

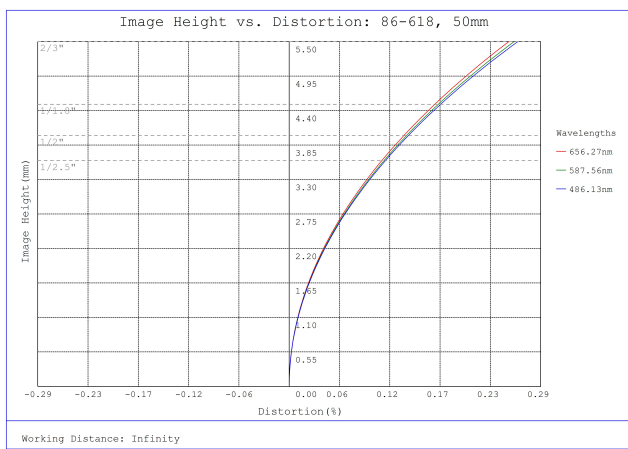
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- [Ruggedized \(Cr\) Designs](#) Also Available

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.

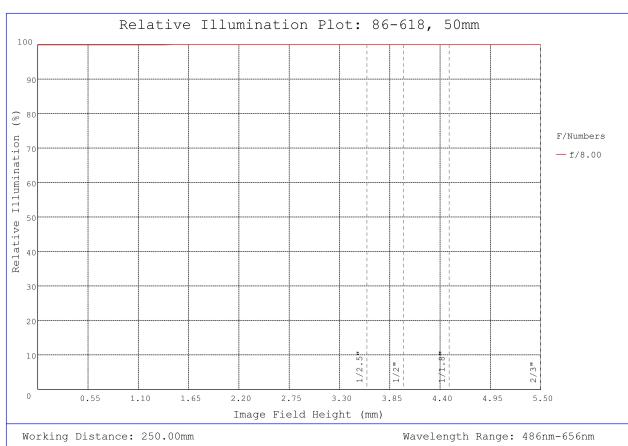
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

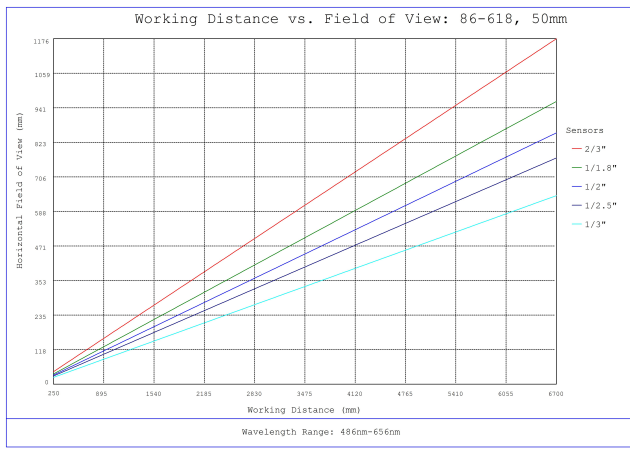
## Technical Information



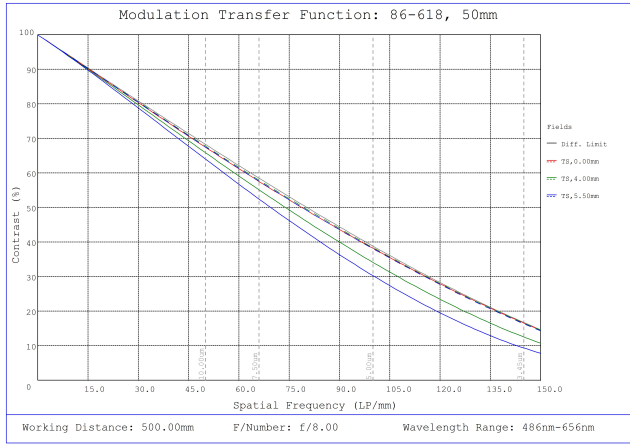
#86-618, 50mm, f/8.0 Ci Series Fixed Focal Length Lens, Distortion Plot



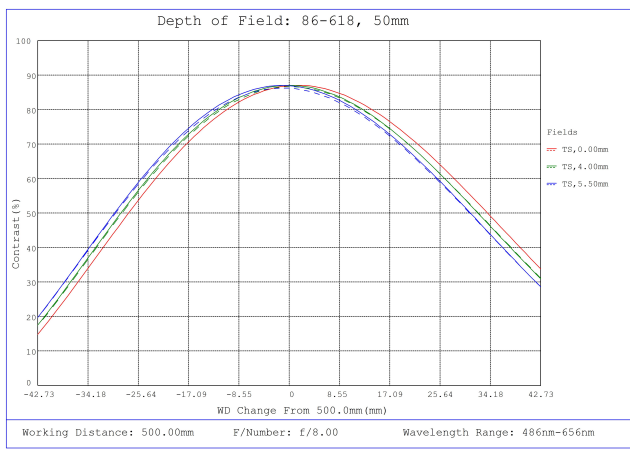
#86-618, 50mm, f/8.0 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



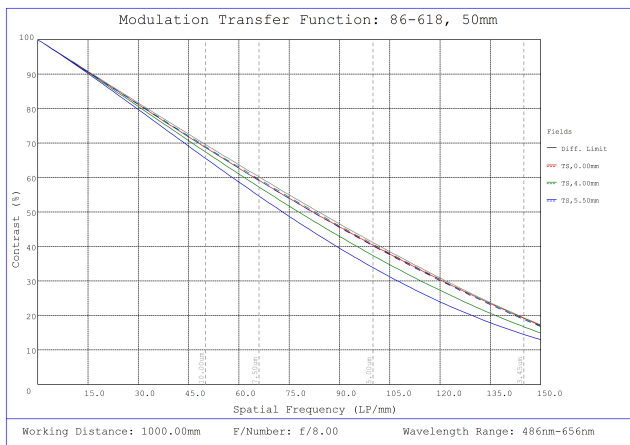
#86-618, 50mm, f/8.0 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



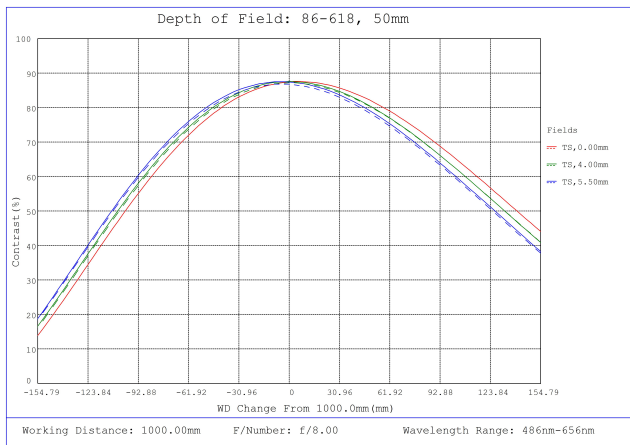
#86-618, 50mm, f/8.0 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f8



#86-618, 50mm, f/8.0 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f8



#86-618, 50mm, f/8.0 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 1000mm Working Distance, f8



#86-618, 50mm, f/8.0 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 1000mm Working Distance, f8

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

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