

**TECHSPEC® 4.5mm, f/2 Ci Series Fixed Focal Length Lens**



4.5mm Focal Length

Stock **#87-551** **1 In Stock**

MRP ₹25,185

**Price inclusive of all taxes**

**ADD TO CART**

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-24       | ₹25,185 each                  |
| Qty 25+        | ₹22,796 each                  |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

**General**

Ci Series **Product Family:**

Fixed Focal Length Lens **Type:**

Compact Lens with Fixed Aperture **Imaging Lens Type:**

**Physical & Mechanical Properties**

|       |                                      |
|-------|--------------------------------------|
| Fixed | <b>Iris Option:</b>                  |
| 32.14 | <b>Length (mm):</b>                  |
| 40    | <b>Maximum Diameter (mm):</b>        |
| 40    | <b>Outer Diameter (mm):</b>          |
| 66    | <b>Weight (g):</b>                   |
| 3.4   | <b>Maximum Rear Protrusion (mm):</b> |
| 26.50 | <b>Diameter (mm):</b>                |

## Optical Properties

|   |  |
|---|--|
| 72.0mm - 84.7°  | <b>Horizontal Field of View @ Max Sensor Format:</b> |
| Horizontal: 72mm - 84.8°<br>Vertical: 50.5mm - 66.1°<br>Diagonal: 98.2mm - 100.1° | <b>Field of View at Max Sensor Format:</b>           |
| 72.0mm - 84.7°  | <b>Horizontal Field of View, 1/1.8" Sensor:</b>      |
| 53.9mm - 69.4°  | <b>Horizontal Field of View, 1/2" Sensor:</b>        |
| 44.0mm - 59.2°  | <b>Horizontal Field of View, 1/3" Sensor:</b>        |
| 32.0mm - 45.2°  | <b>Horizontal Field of View, 1/4" Sensor:</b>        |
| 9.00  | <b>Maximum Image Circle (mm):</b>                    |
| 0.0285  | <b>Numerical Aperture NA, Object Side:</b>           |
| 7 (6)   | <b>Number of Elements (Groups):</b>                  |
| 4.50  | <b>Focal Length FL (mm):</b>                         |
| 25 - ∞  | <b>Working Distance (mm):</b>                        |
| f/2   | <b>Aperture (f#):</b>                                |
| 425 - 675nm BBAR  | <b>Coating:</b>                                      |
| 425 - 675nm BBAR  | <b>Coating Specification:</b>                        |
| 14.4  | <b>Entrance Pupil Position (mm):</b>                 |
| 17.89   | <b>Object Space Principal Plane (mm):</b>            |
| 6.51  | <b>Image Space Principal Plane (mm):</b>             |
| -15.83  | <b>Maximum Distortion (%):</b>                       |
| -9  | <b>Exit Pupil Position (mm):</b>                     |
| VIS   | <b>Lens Wavelength Range:</b>                        |

## Sensor

|        |                               |
|--------|-------------------------------|
| 1/1.8" | <b>Maximum Sensor Format:</b> |
| 2.74   | <b>Pixel Size (µm):</b>       |

## Threading & Mounting

|                                    |                               |
|------------------------------------|-------------------------------|
| M58 x0.75 (Male)                   | <b>Filter Thread:</b>         |
| <a href="#">#87-425 (Required)</a> | <b>Filter Thread Adapter:</b> |
| M40.0 x0.5 (Male)                  | <b>Front Thread:</b>          |
| C-Mount                            | <b>Mount:</b>                 |

## Environmental & Durability Factors

Storage Temperature (°C):

-20 to +60

Type of Ruggedization:

Industrial (Fixed Aperture with Simplified Mechanics)

## Regulatory Compliance

Certificate of Conformance:

[View](#)

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

- 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.

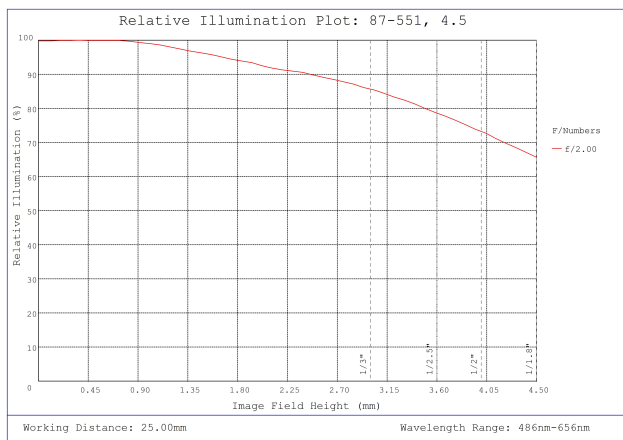
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

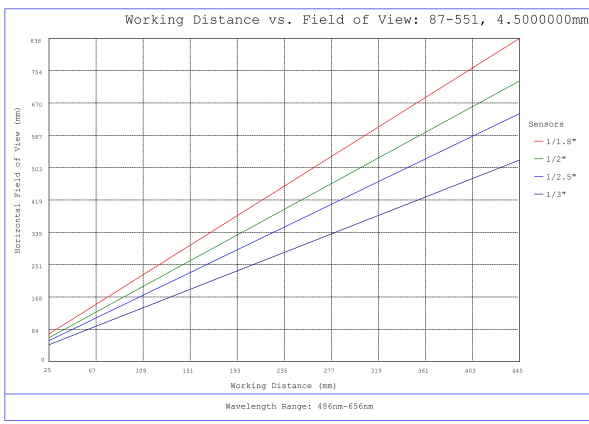
## Technical Information



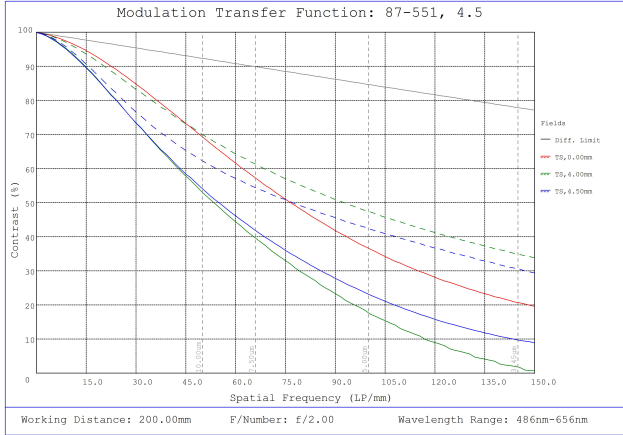
#87-551, 4.5mm, f/2 Ci Series Fixed Focal Length Lens, Distortion Plot



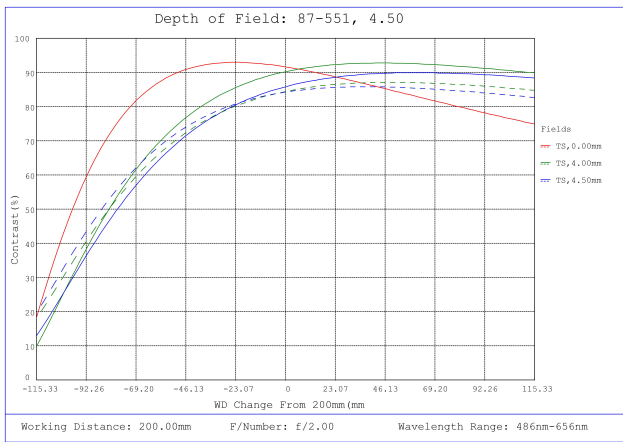
#87-551, 4.5mm, f/2 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



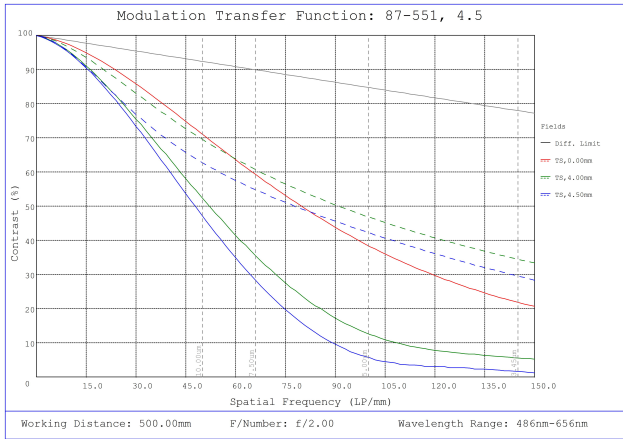
#87-551, 4.5mm, f/2 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



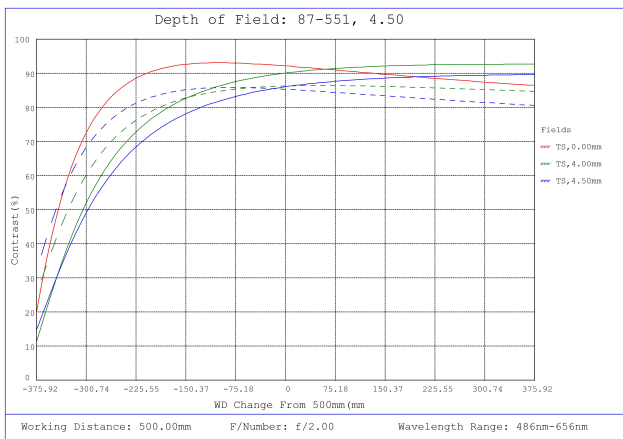
#87-551, 4.5mm, f/2 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f2



#87-551, 4.5mm, f/2 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f2



#87-551, 4.5mm, f/2 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f2



#87-551, 4.5mm, f/2 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f2

| 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