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**TECHSPEC® 4.5mm, f/2.8 Ci Series Fixed Focal Length Lens**



4.5mm Focal Length

Stock **#87-552** **2 In Stock**

⊖ 1 ⊕ **S\$332.00**

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| Volume Pricing |                               |
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| Qty 1-24       | <b>S\$332.00</b> each         |
| Qty 25+        | <b>S\$299.00</b> each         |
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**General**

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

**Physical & Mechanical Properties**

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

32.14

40 **Maximum Diameter (mm):**

40 **Outer Diameter (mm):**

66 **Weight (g):**

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

26.50 **Diameter (mm):**

## Optical Properties

**Horizontal Field of View @ Max Sensor Format:**

72.0mm - 84.7°

**Field of View at Max Sensor Format:**

Horizontal: 72mm - 84.7°

Vertical: 50.5mm - 66.1°

Diagonal: 98.2mm - 100.1°

**Horizontal Field of View, 1/1.8" Sensor:**

72.0mm - 84.7°

**Horizontal Field of View, 1/2" Sensor:**

53.9mm - 69.4°

**Horizontal Field of View, 1/3" Sensor:**

44.0mm - 59.2°

**Horizontal Field of View, 1/4" Sensor:**

32.0mm - 45.2°

**Maximum Image Circle (mm):**

9.00

**Numerical Aperture NA, Object Side:**

0.0204

**Number of Elements (Groups):**

7 (6)

**Focal Length FL (mm):**

4.50

**Working Distance (mm):**

25 - ∞

**Aperture (f/#):**

f/2.8

**Coating:**

425 - 675nm BBAR

**Coating Specification:**

425 - 675nm BBAR

**Entrance Pupil Position (mm):**

14.4

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

17.89

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

6.51

**Maximum Distortion (%):**

-15.83

**Exit Pupil Position (mm):**

-9

**Lens Wavelength Range:**

VIS

## Sensor

**Maximum Sensor Format:**

1/1.8"

**Pixel Size (µm):**

2.74

## Threading & Mounting

**Filter Thread:**

M58 x 0.75 (Male)

**Filter Thread Adapter:**

[#87-425 \(Required\)](#)

**Front Thread:**

M40.0 x 0.5 (Male)

**Mount:**

C-Mount

## Environmental & Durability Factors

**Storage Temperature (°C):**

[-20 to +60](#)

## Regulatory Compliance

Certificate of Conformance:

[View](#)

## 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.

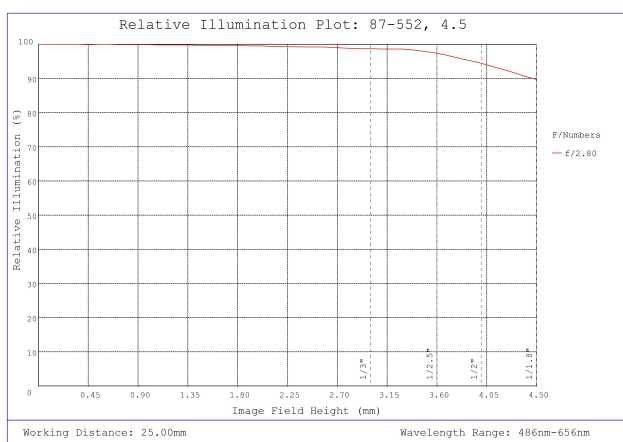
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

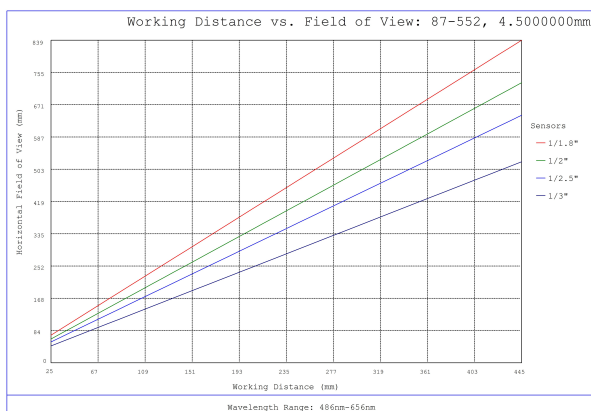
## Technical Information



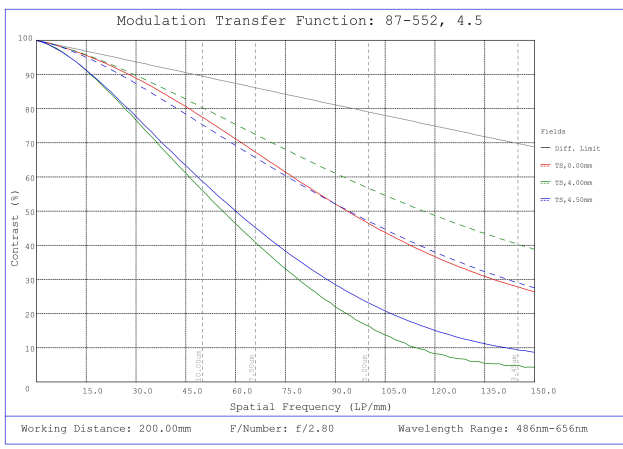
#87-552, 4.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Distortion Plot



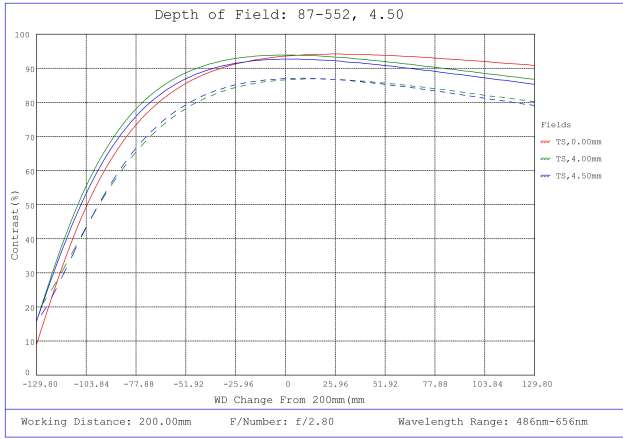
#87-552, 4.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



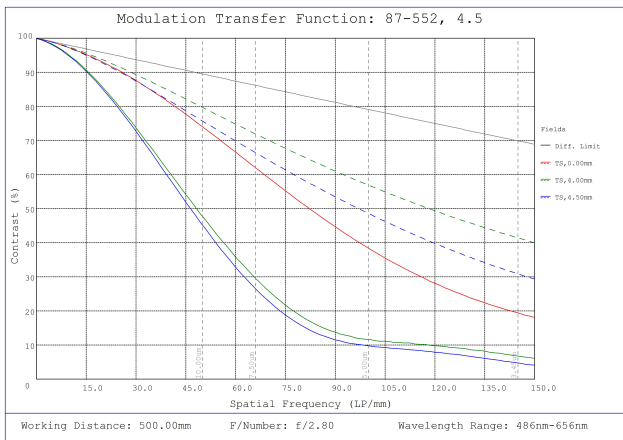
#87-552, 4.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



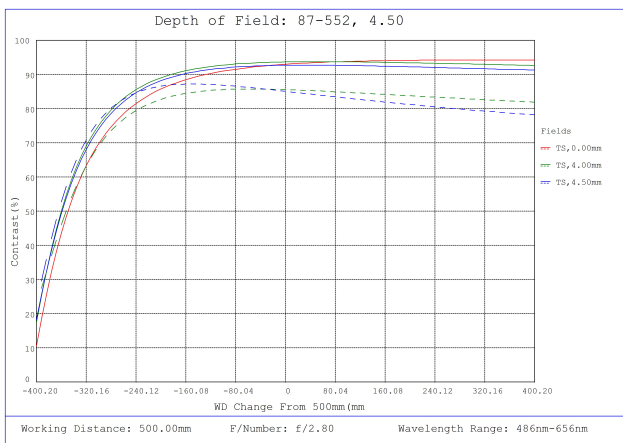
#87-552, 4.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f2.8



#87-552, 4.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f2.8



#87-552, 4.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f2.8



#87-552, 4.5mm, 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

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