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**TECHSPEC® 8.5mm, f/1.8 Ci Series Fixed Focal Length Lens**



8.5mm Focal Length

Stock **#86-600** **4 In Stock**

⊖ 1 ⊕ £170<sup>00</sup>

**ADD TO CART**

Volume Pricing

|            |                               |
|------------|-------------------------------|
| Qty 1-24   | £170.00 each                  |
| Qty 25+    | £153.00 each                  |
| Need More? | <a href="#">Request Quote</a> |

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

**General**

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

**Physical & Mechanical Properties**

Fixed **Iris Option:**

|       |                               |
|-------|-------------------------------|
| 33.98 | Length (mm):                  |
| 26.5  | Maximum Diameter (mm):        |
| 26.5  | Outer Diameter (mm):          |
| 34    | Weight (g):                   |
| 0.6   | Maximum Rear Protrusion (mm): |
| 26.50 | Diameter (mm):                |

## Optical Properties

|  |   |
|--|---|
| 128.6mm - 60.6°  | Horizontal Field of View @ Max Sensor Format: |
| Horizontal: 124.9mm - 60.7°<br>Vertical: 88.9mm - 45°<br>Diagonal: 169.4mm - 77° | Field of View at Max Sensor Format:           |
| 128.6mm - 60.6°  | Horizontal Field of View, 2/3" Sensor:        |
| 101.0mm - 49.2°  | Horizontal Field of View, 1/1.8" Sensor:      |
| 88.3mm - 43.6°   | Horizontal Field of View, 1/2" Sensor:        |
| 79.2mm - 39.5°   | Horizontal Field of View, 1/2.5" Sensor:      |
| 64.6mm - 32.6°   | Horizontal Field of View, 1/3" Sensor:        |
| 47.8mm - 24.4°   | Horizontal Field of View, 1/4" Sensor:        |
| 11.00  | Maximum Image Circle (mm):                    |
| 0.0215   | Numerical Aperture NA, Object Side:           |
| 7 (5)  | Number of Elements (Groups):                  |
| 8.50   | Focal Length FL (mm):                         |
| 100 - ∞  | Working Distance (mm):                        |
| f/1.8  | Aperture (f/#):                               |
| 425 - 675nm BBAR   | Coating:                                      |
| 425 - 675nm BBAR   | Coating Specification:                        |
| 8.22   | Entrance Pupil Position (mm):                 |
| 14.08  | Object Space Principal Plane (mm):            |
| 6.67   | Image Space Principal Plane (mm):             |
| -18.51   | Maximum Distortion (%):                       |
| -12.23   | Exit Pupil Position (mm):                     |
| VIS  | Lens Wavelength Range:                        |

## Sensor

|      |                        |
|------|------------------------|
| 2/3" | Maximum Sensor Format: |
| 2.74 | Pixel Size (µm):       |

## Threading & Mounting

|                                    |                        |
|------------------------------------|------------------------|
| M30.5 x 0.50 (Male)                | Filter Thread:         |
| <a href="#">#89-932 (Required)</a> | Filter Thread Adapter: |
| M22.0 x 0.5 (Male)                 | Front Thread:          |

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

REACH 201:

Compliant

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.

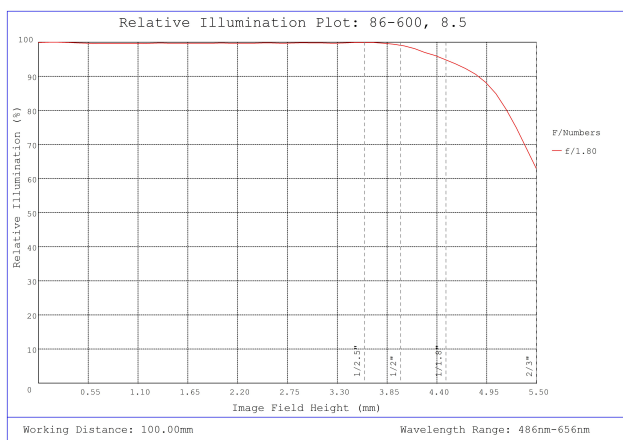
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

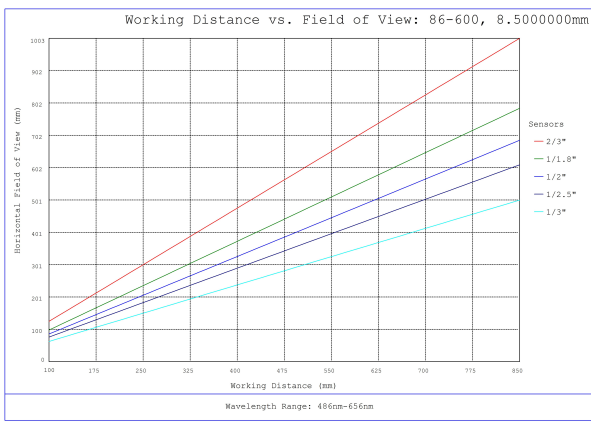
## Technical Information



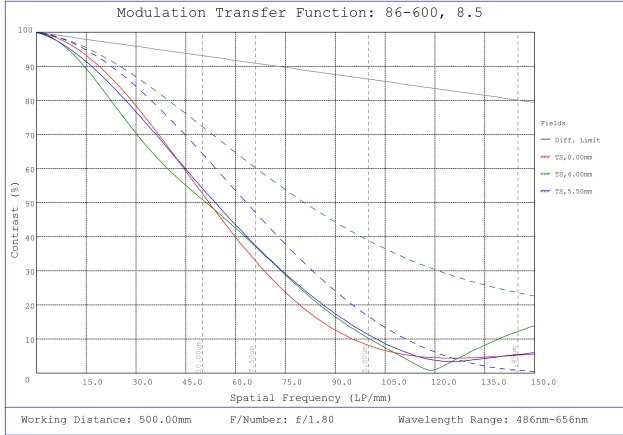
#86-600, 8.5mm, f/1.8 Ci Series Fixed Focal Length Lens, Distortion Plot



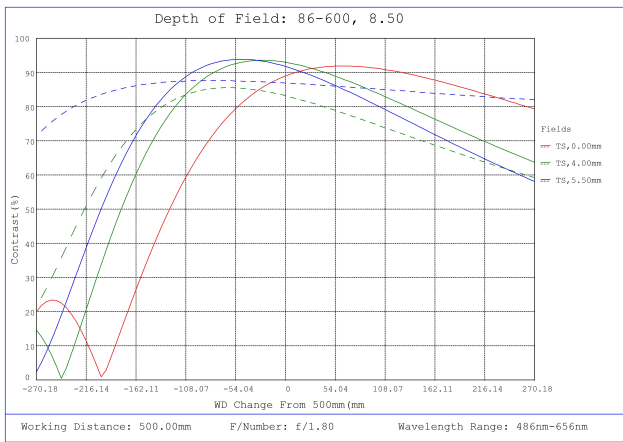
#86-600, 8.5mm, f/1.8 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



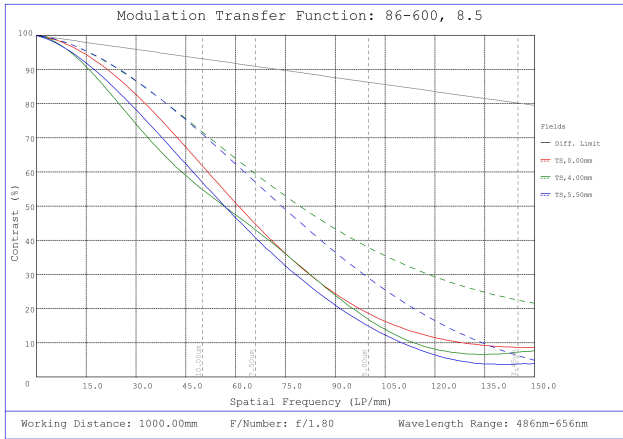
#86-600, 8.5mm, f/1.8 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



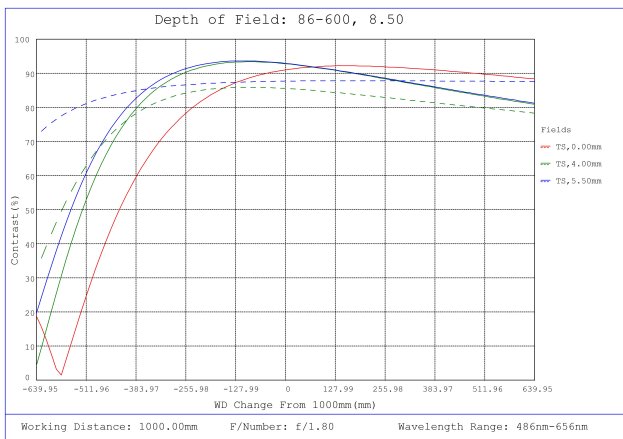
#86-600, 8.5mm, f/1.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f1.8



#86-600, 8.5mm, f/1.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f1.8



#86-600, 8.5mm, f/1.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 1000mm Working Distance, f1.8



#86-600, 8.5mm, f/1.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 1000mm Working Distance, f1.8

| 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