

TECHSPEC® 8.5mm, f/1.3 Ci Series Fixed Focal Length Lens



8.5mm Focal Length

Stock #86-599 16 In Stock

-

1

+

A\$221<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-24       | A\$221.00 each                |
| Qty 25+        | A\$200.00 each                |
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Product Downloads

| General                          |                    |
|----------------------------------|--------------------|
| Ci Series                        | Series:            |
| Fixed Focal Length Lens          | Type:              |
| Compact Lens with Fixed Aperture | Imaging Lens Type: |
| Physical & Mechanical Properties |                    |
|                                  | Iris Option:       |

|       |                               |
|-------|-------------------------------|
| Fixed |                               |
| 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                                                                                                      |                                     |
| Horizontal Field of View @ Max Sensor Format:<br>128.6mm - 60.6°                                                        |                                     |
| Field of View at Max Sensor Format:<br>Horizontal: 124.9mm - 60.7°<br>Vertical: 88.9mm - 45°<br>Diagonal: 169.4mm - 77° |                                     |
| Horizontal Field of View, 2/3" Sensor:<br>128.6mm - 60.6°                                                               |                                     |
| Horizontal Field of View, 1/1.8" Sensor:<br>101.0mm - 49.2°                                                             |                                     |
| Horizontal Field of View, 1/2" Sensor:<br>88.3mm - 43.6°                                                                |                                     |
| Horizontal Field of View, 1/2.5" Sensor:<br>79.2mm - 39.5°                                                              |                                     |
| Horizontal Field of View, 1/3" Sensor:<br>64.6mm - 32.6°                                                                |                                     |
| Horizontal Field of View, 1/4" Sensor:<br>47.8mm - 24.4°                                                                |                                     |
| 11.00                                                                                                                   | Maximum Image Circle (mm):          |
| 0.0295                                                                                                                  | Numerical Aperture NA, Object Side: |
| 7 (5)                                                                                                                   | Number of Elements (Groups):        |
| 8.50                                                                                                                    | Focal Length FL (mm):               |
| 100 - ∞                                                                                                                 | Working Distance (mm):              |
| f/1.3                                                                                                                   | 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 x0.50 (Male)   | Filter Thread:         |
| #89-932 (Required)   | Filter Thread Adapter: |
| M22.0 x0.5 (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

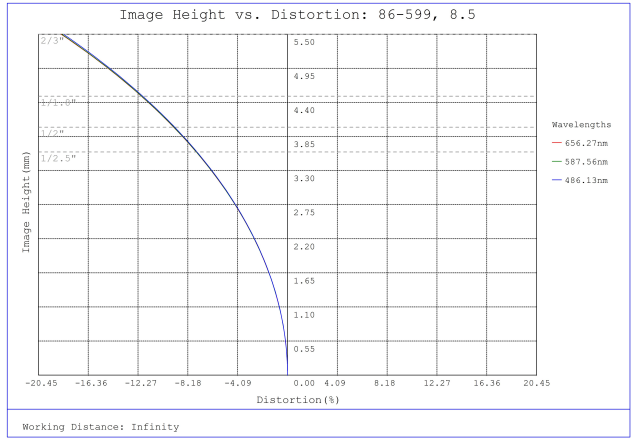
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- Ruggedized (Cr) Designs** Also Available

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.

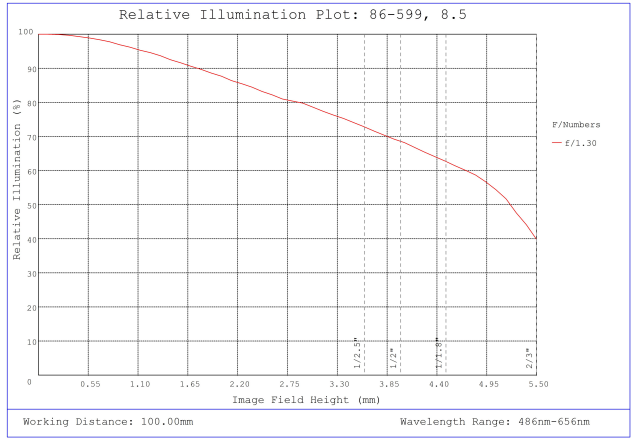
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

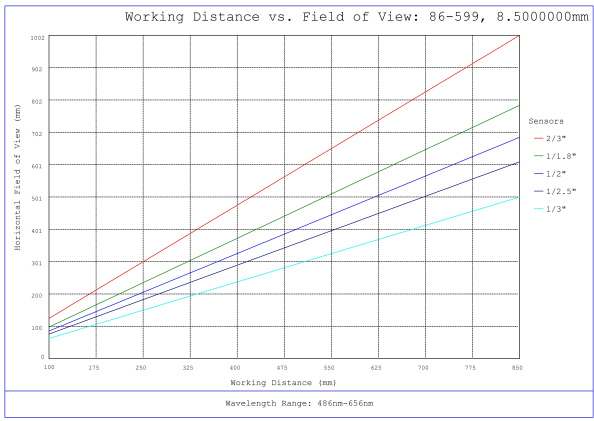
## Technical Information



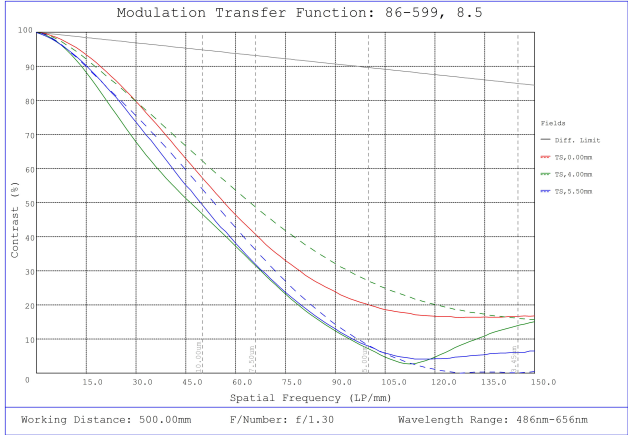
#86-599, 8.5mm, f/1.3 Ci Series Fixed Focal Length Lens, Distortion Plot



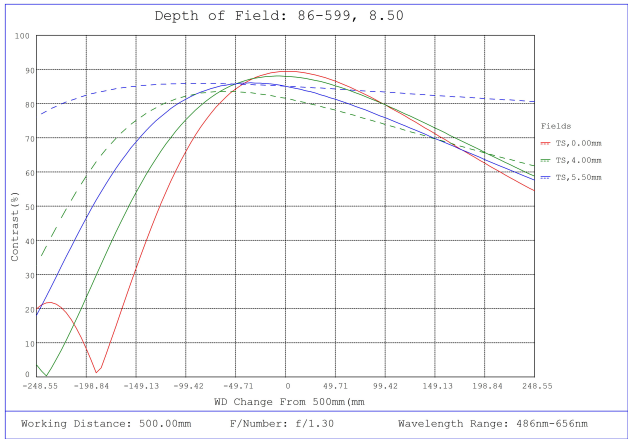
#86-599, 8.5mm, f/1.3 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



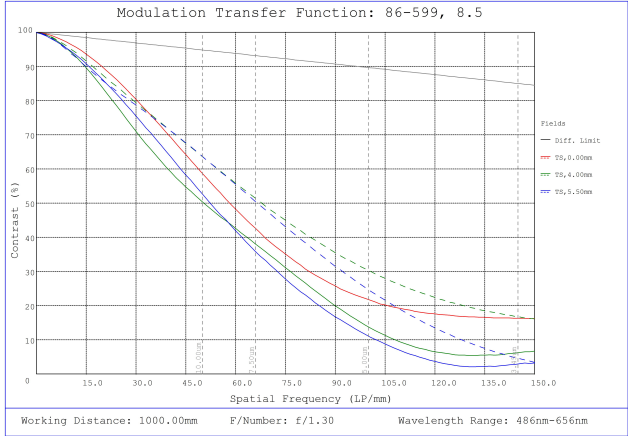
#86-599, 8.5mm, f/1.3 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



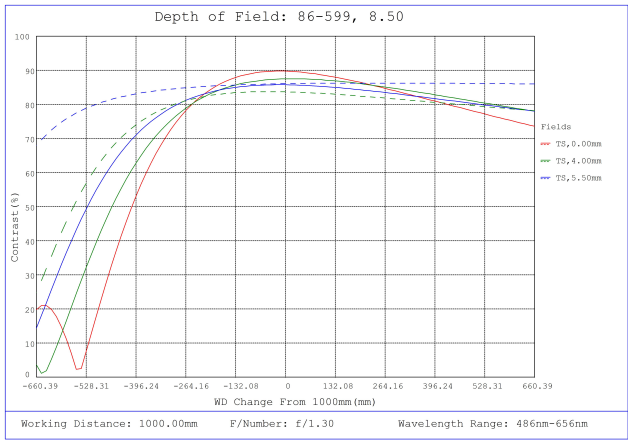
#86-599, 8.5mm, f/1.3 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f1.3



#86-599, 8.5mm, f/1.3 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f1.3



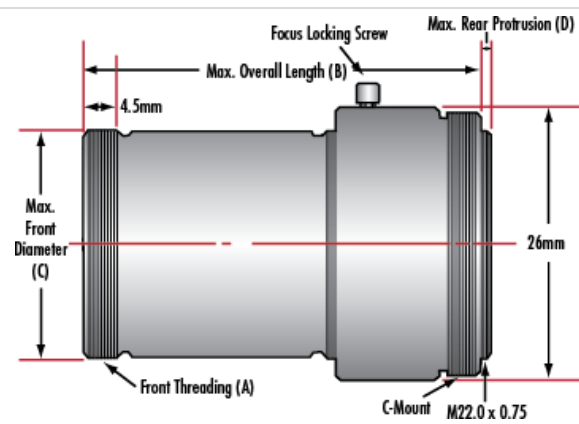
#86-599, 8.5mm, f/1.3 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 1000mm Working Distance, f1.3



#86-599, 8.5mm, f/1.3 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 1000mm Working Distance, f1.3

| 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