

TECHSPEC® 8.5mm C Series Fixed Focal Length Lens



8.5mm Focal Length, #58-000



Stock **#58-000** 20+ In Stock

-

1

+

£235<sup>.00</sup>

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| Volume Pricing |                               |
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| Qty 1+         | £235.00 each                  |
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

C Series

Series:

|                                                                                                |                                               |
|------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Fixed Focal Length Lens                                                                        | Type:                                         |
| Compact Lens                                                                                   | Imaging Lens Type:                            |
| Physical & Mechanical Properties                                                               |                                               |
| Variable                                                                                       | Iris Option:                                  |
| 34.50                                                                                          | Length (mm):                                  |
| 32                                                                                             | Maximum Diameter (mm):                        |
| 32                                                                                             | Outer Diameter (mm):                          |
| 80                                                                                             | Weight (g):                                   |
| 0                                                                                              | Maximum Rear Protrusion (mm):                 |
| Optical Properties                                                                             |                                               |
| 60.6°                                                                                          | Horizontal Field of View @ Max Sensor Format: |
| Field of View at Max Sensor Format:<br>Horizontal: 60.4°<br>Vertical: 44.9°<br>Diagonal: 76.7° |                                               |
| 60.4°                                                                                          | Horizontal Field of View, 2/3" Sensor:        |
| 49.2°                                                                                          | Horizontal Field of View, 1/1.8" Sensor:      |
| 43.6°                                                                                          | Horizontal Field of View, 1/2" Sensor:        |
| 39.5°                                                                                          | Horizontal Field of View, 1/2.5" Sensor:      |
| 32.6°                                                                                          | Horizontal Field of View, 1/3" Sensor:        |
| 24.4°                                                                                          | Horizontal Field of View, 1/4" Sensor:        |
| 11.00                                                                                          | Maximum Image Circle (mm):                    |
| 0.0289                                                                                         | Numerical Aperture NA, Object Side:           |
| 7 (5)                                                                                          | Number of Elements (Groups):                  |
| 8.50                                                                                           | Focal Length FL (mm):                         |
| 100 - ∞                                                                                        | Working Distance (mm):                        |
| f/1.3 - f/16                                                                                   | 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):             |
| -18.4                                                                                          | Maximum Distortion (%):                       |
| -12.23                                                                                         | Exit Pupil Position (mm):                     |
| VS                                                                                             | Lens Wavelength Range:                        |
| Sensor                                                                                         |                                               |
| 2/3"                                                                                           | Maximum Sensor Format:                        |
| 2.74                                                                                           | Pixel Size (µm):                              |
| Threading & Mounting                                                                           |                                               |
| Filter Thread:                                                                                 |                                               |

|                                    |                             |
|------------------------------------|-----------------------------|
| M25.5 x 0.50 (Female)              |                             |
| C-Mount                            | Mount:                      |
| Environmental & Durability Factors |                             |
| -20 to +60                         | Storage Temperature (°C):   |
| Regulatory Compliance              |                             |
| Compliant                          | RoHS 2015:                  |
| View                               | Certificate of Conformance: |
| Compliant                          | Reach 247:                  |

## PRODUCT DETAILS

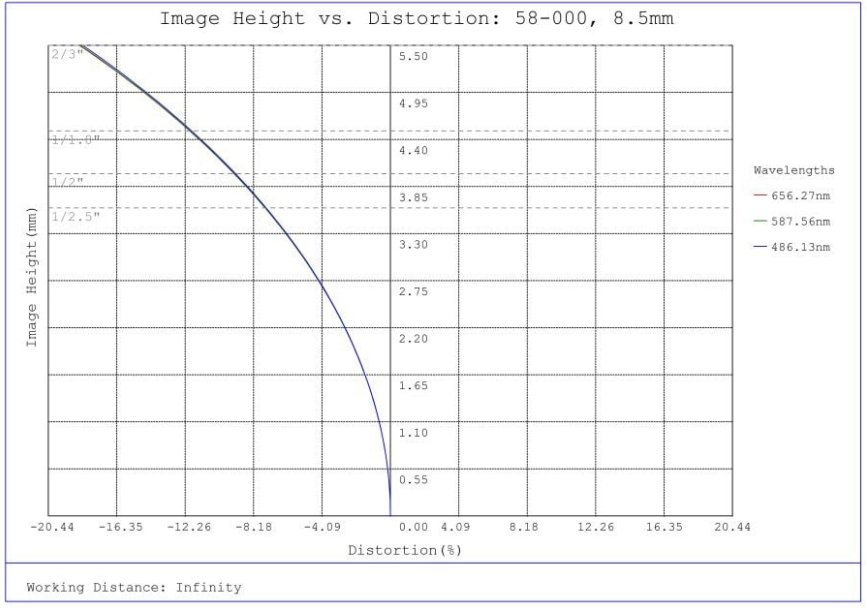
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Compact (C), FALens for Machine Vision
- 3.5mm to 100mm Focal Length

TECHSPEC® C Series Fixed Focal Length Lenses are designed for use in machine vision applications with the working distance and resolution requirements of factory automation and inspection in mind. TECHSPEC® C Series Fixed Focal Length Lenses feature large maximum apertures, allowing these high performance lenses to be used in even the most restrictive lighting conditions. Each lens has a broadband anti-reflection coating, locking iris and focus adjustment with recessed set screws, and a ruggedized, robust housing for space-restrictive applications. C Series lenses are manufactured to high tolerances, which result in high levels of imaging performance with low lens-to-lens variation. Through combining optical performance, industrial features, and compact package sizes, our TECHSPEC® C Series Fixed Focal Length Lenses are ideal for use in factory automation and inspection.

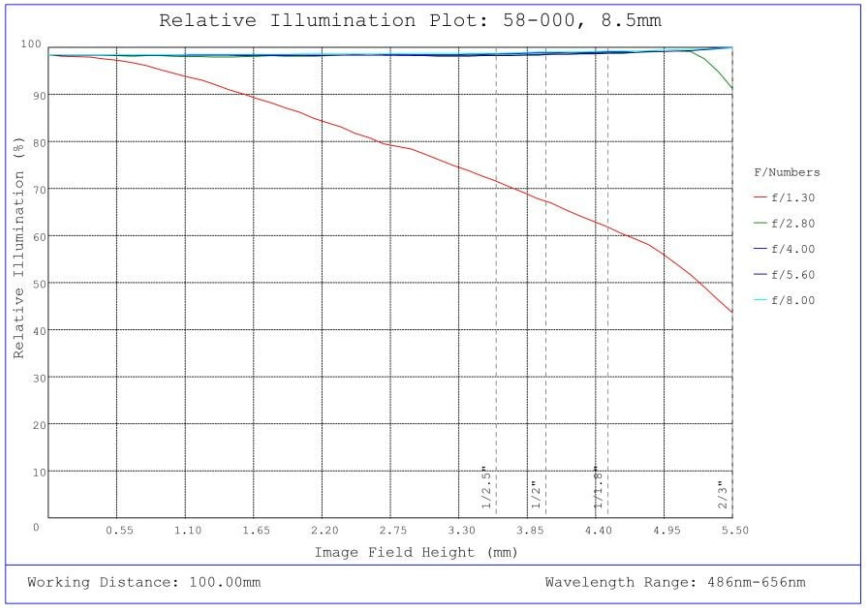
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

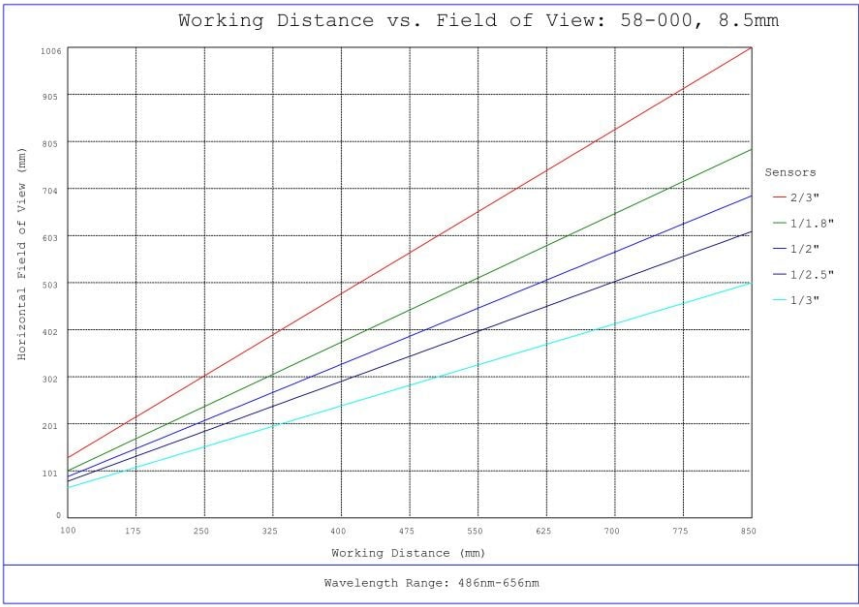
## TECHNICAL INFORMATION



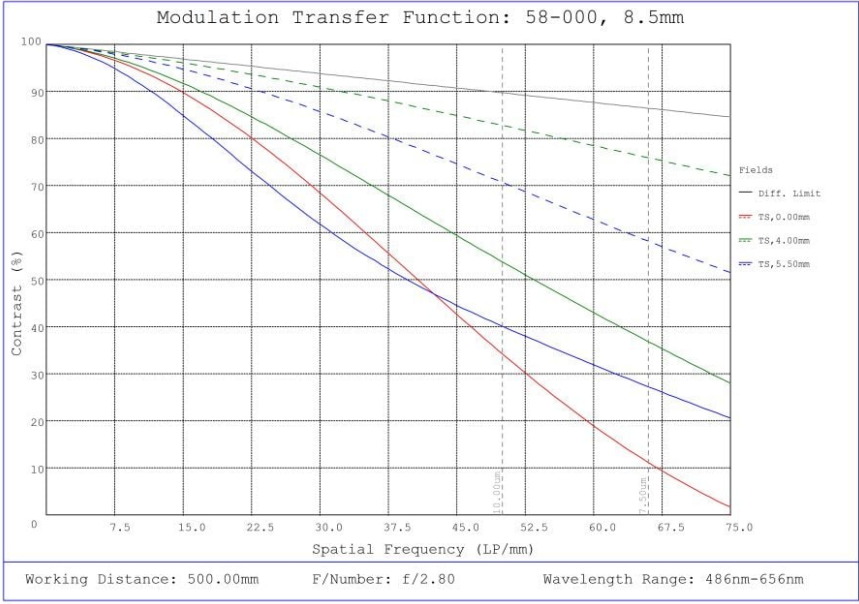
#58-000, 8.5mm C Series Fixed Focal Length Lens, Distortion Plot



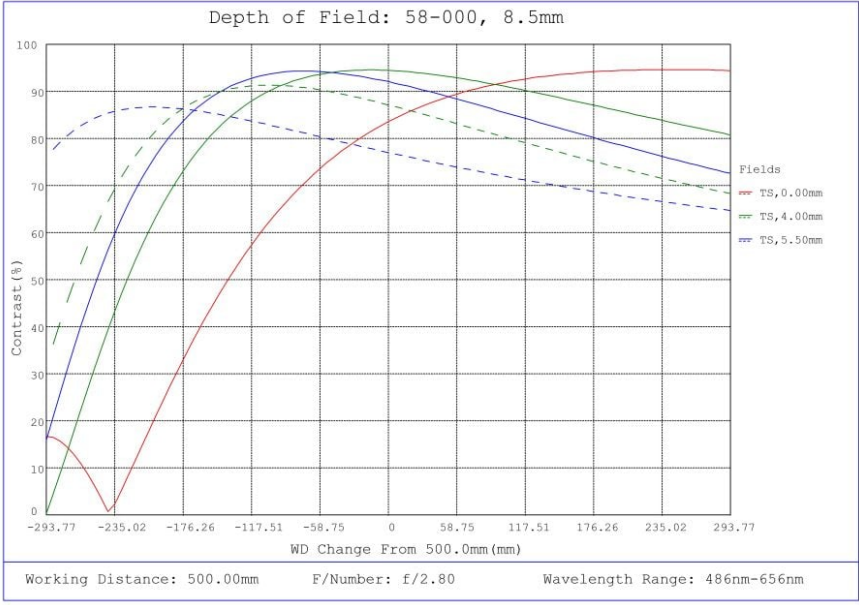
#58-000, 8.5mm C Series Fixed Focal Length Lens, Relative Illumination Plot



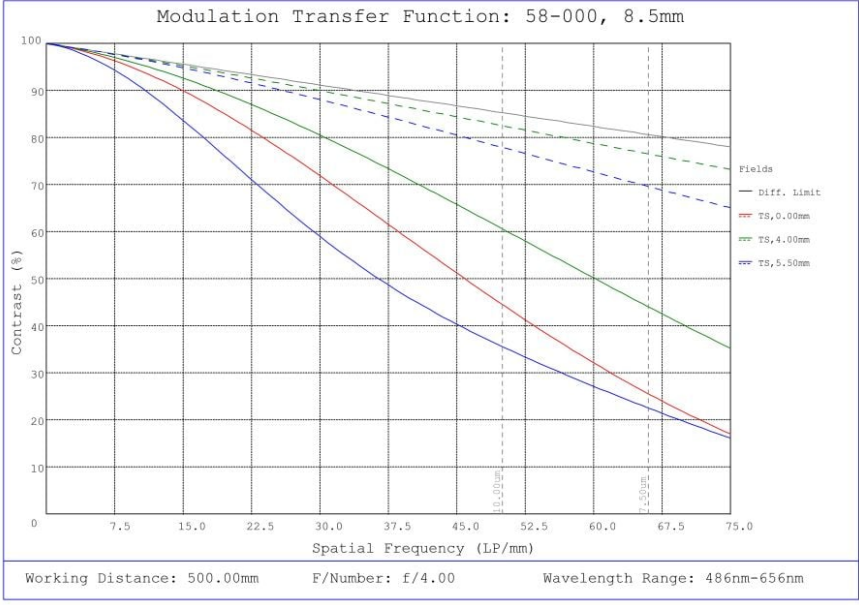
#58-000, 8.5mm C Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



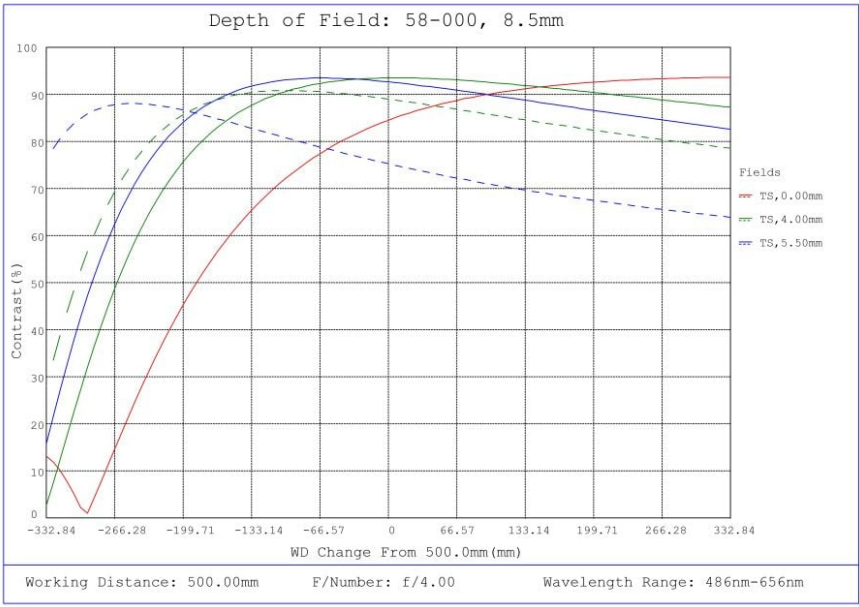
#58-000, 8.5mm C Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f2.8



#58-000, 8.5mm C Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f2.8



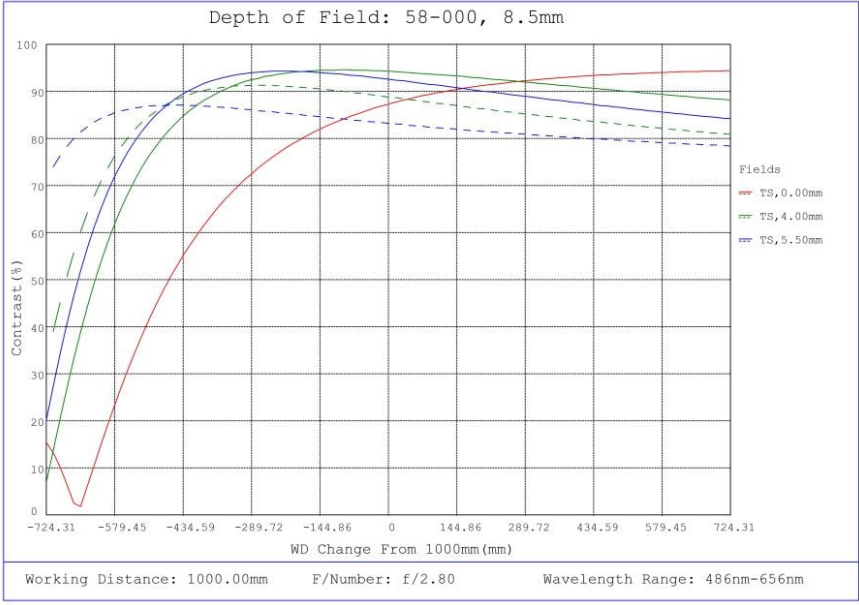
#58-000, 8.5mm C Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f4



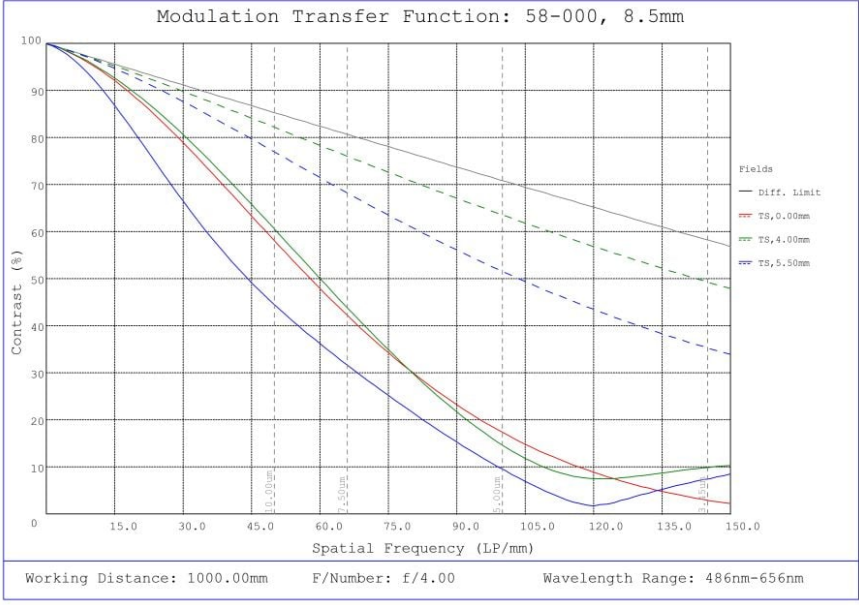
#58-000, 8.5mm C Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f4



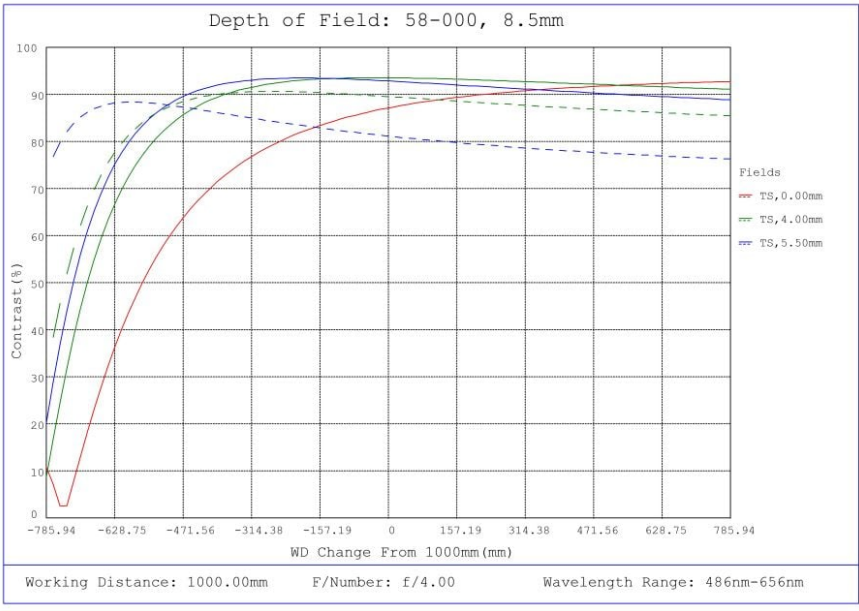
#58-000, 8.5mm C Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 1000mm Working Distance, f2.8



#58-000, 8.5mm C Series Fixed Focal Length Lens, Depth of Field Plot, 1000mm Working Distance, f2.8

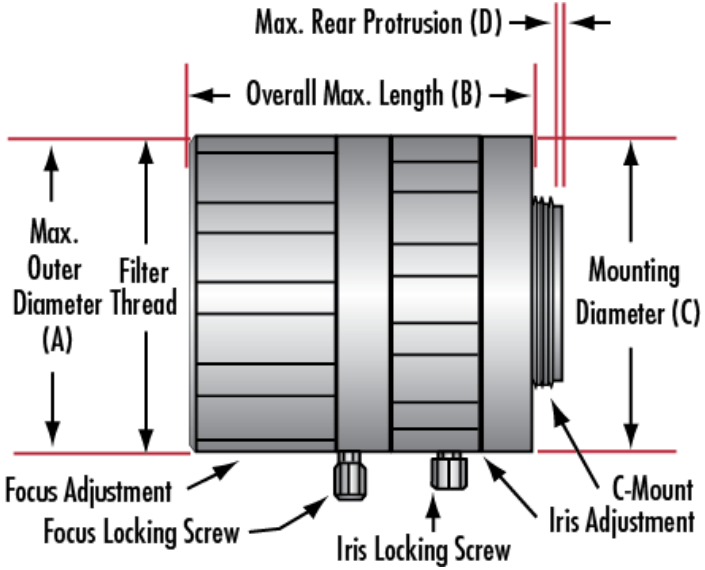


#58-000, 8.5mm C Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 1000mm Working Distance, f4



#58-000, 8.5mm C Series Fixed Focal Length Lens, Depth of Field Plot, 1000mm Working Distance, f4

| Focal Length | A      | B      | C      | D      |
|--------------|--------|--------|--------|--------|
| 3.5mm        | 50.0mm | 39.3mm | 32.0mm | 2.72mm |
| 4.5mm        | 40.0mm | 37.5mm | 32.0mm | 2.78mm |
| 6.0mm        | 36.0mm | 48.9mm | 35.8mm | 1.4mm  |
| 8.5mm        | 32.0mm | 34.5mm | 32.0mm | 0.0mm  |
| 12mm         | 32.0mm | 27.9mm | 32.0mm | 0.5mm  |
| 16mm         | 33.0mm | 40.5mm | 33.0mm | 1.0mm  |
| 25mm         | 31.0mm | 30.5mm | 31.0mm | 1.3mm  |
| 35mm         | 33.0mm | 41.0mm | 33.0mm | 0.0mm  |
| 50mm         | 35.8mm | 53.7mm | 35.8mm | 2.85mm |
| 100mm        | 52.0mm | 93.5mm | 41.0mm | 7.0mm  |



COMPATIBLE CAMERAS