

TECHSPEC® 12mm, f/1.8 Ci Series Fixed Focal Length Lens



12mm Focal Length

Stock **#86-607** **5 In Stock**

⊖ 1 ⊕ £170⁰⁰

ADD TO CART

| Volume Pricing | |
|----------------|-------------------------------|
| Qty 1-24 | £170.00 each |
| Qty 25+ | £153.00 each |
| Need More? | Request Quote |

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Product Family:
Ci Series

Type:
Fixed Focal Length Lens

Imaging Lens Type:
Compact Lens with Fixed Aperture

Physical & Mechanical Properties

| | |
|-------|-------------------------------|
| Fixed | Iris Option: |
| 29.00 | Length (mm): |
| 26.5 | Maximum Diameter (mm): |
| 26.5 | Outer Diameter (mm): |
| 31 | Weight (g): |
| 0.31 | Maximum Rear Protrusion (mm): |
| 26.50 | Diameter (mm): |

Optical Properties

| | |
|---|---|
| 80.9mm - 41.2° | Horizontal Field of View @ Max Sensor Format: |
| Horizontal: 81.2mm - 41.2° Vertical: 60.4mm - 31.3° Diagonal: 102.1mm - 50.5° | Field of View at Max Sensor Format: |
| 80.9mm - 41.2° | Horizontal Field of View, 2/3" Sensor: |
| 65.8mm - 34.0° | Horizontal Field of View, 1/1.8" Sensor: |
| 58.3mm - 30.4° | Horizontal Field of View, 1/2" Sensor: |
| 52.8mm - 27.6° | Horizontal Field of View, 1/2.5" Sensor: |
| 43.5mm - 22.9° | Horizontal Field of View, 1/3" Sensor: |
| 32.6mm - 17.2° | Horizontal Field of View, 1/4" Sensor: |
| 11.00 | Maximum Image Circle (mm): |
| 0.0292 | Numerical Aperture NA, Object Side: |
| 7 (7) | Number of Elements (Groups): |
| 12.00 | Focal Length FL (mm): |
| 100 - ∞ | Working Distance (mm): |
| f/1.8 | Aperture (f/#): |
| 425 - 675nm BBAR | Coating: |
| 425 - 675nm BBAR | Coating Specification: |
| 11.01 | Entrance Pupil Position (mm): |
| 17.32 | Object Space Principal Plane (mm): |
| 1.98 | Image Space Principal Plane (mm): |
| -2.09 | Maximum Distortion (%): |
| -11.38 | Exit Pupil Position (mm): |
| VIS | Lens Wavelength Range: |

Sensor

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

Threading & Mounting

| | |
|------------------------------------|------------------------|
| M25.5 x 0.50 (Male) | Filter Thread: |
| #89-941 (Required) | Filter Thread Adapter: |

Front Thread:
M22.0 x 0.75 (Male)

Mount:
C-Mount

Environmental & Durability Factors

Storage Temperature (°C):
-20 to +60

Type of Ruggedization:
Industrial (Fixed Aperture with Simplified Mechanics)

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 235:
Compliant

Product Details

These compact lenses are designed specifically for volume integration into applications such as analytical medical devices, including benchtop-based blood analyzers. For customized $f\#$ versions to best suit your instrumentation application needs and to discuss volume requirements, please [contact us](#).

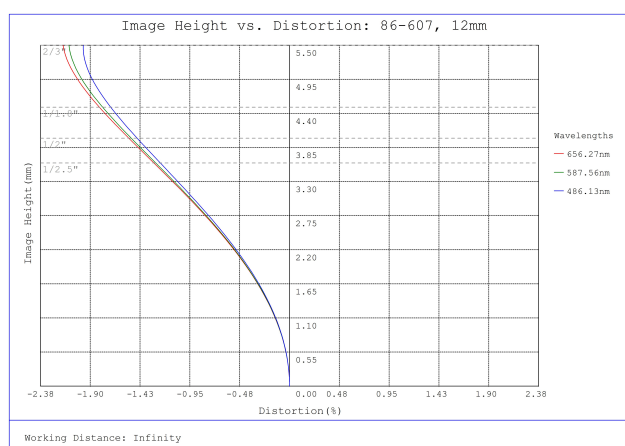
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8 μ m Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- **Ruggedized (Cr) Designs** Also Available

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.

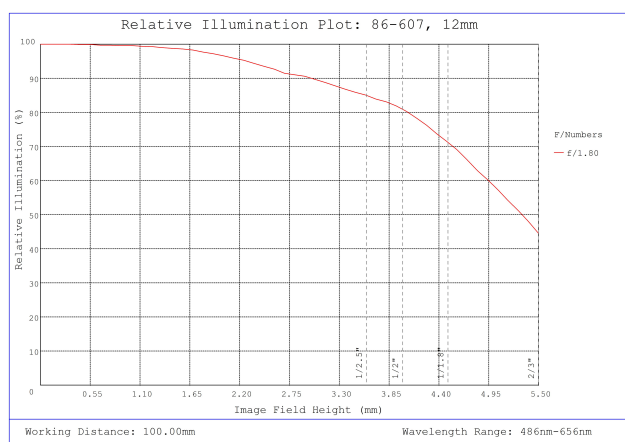
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

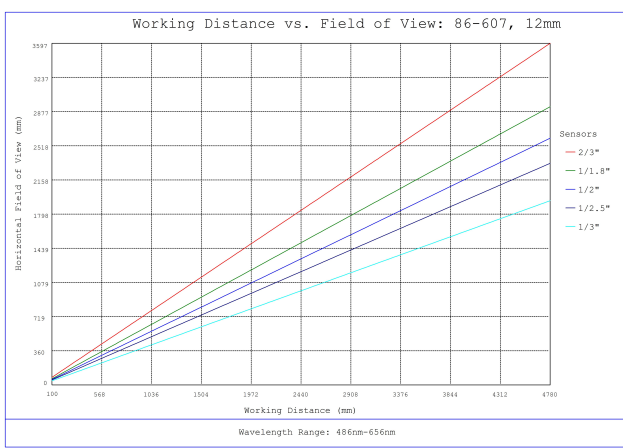
Technical Information



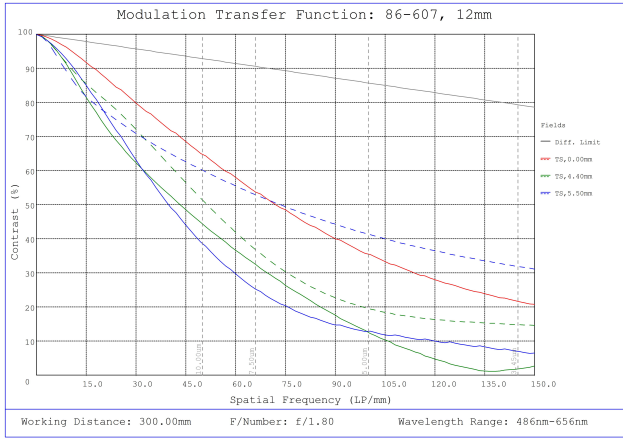
#86-607, 12mm, $f/1.8$ Ci Series Fixed Focal Length Lens, Distortion Plot



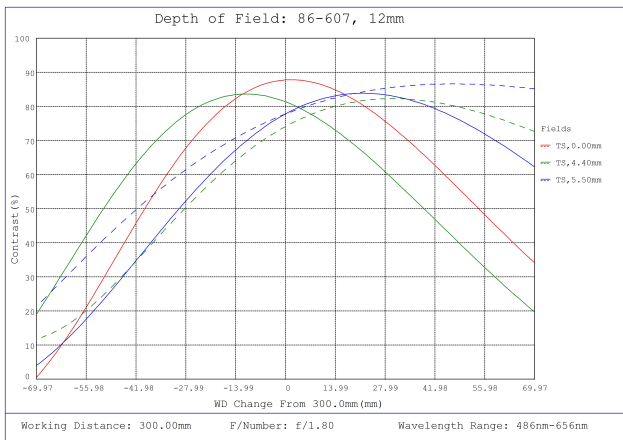
#86-607, 12mm, $f/1.8$ Ci Series Fixed Focal Length Lens, Relative Illumination Plot



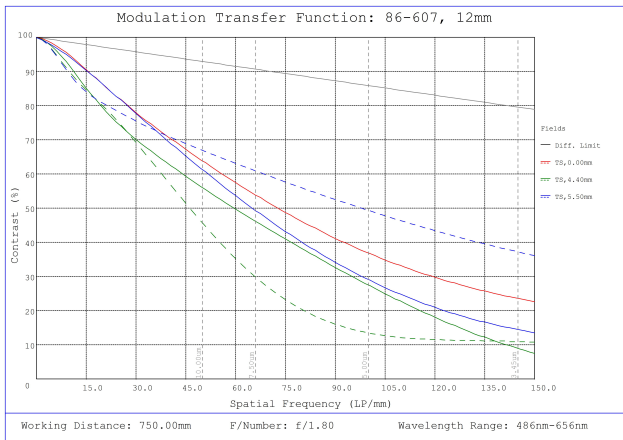
#86-607, 12mm, f/1.8 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



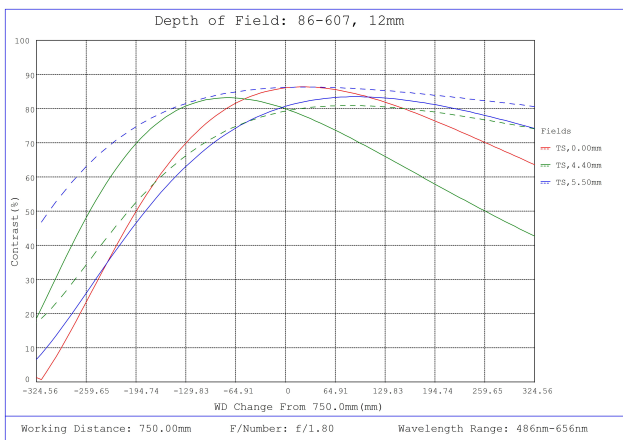
#86-607, 12mm, f/1.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 300mm Working Distance, f1.8



#86-607, 12mm, f/1.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 300mm Working Distance, f1.8



#86-607, 12mm, f/1.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 750mm Working Distance, f1.8



#86-607, 12mm, f/1.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 750mm Working Distance, f1.8

| 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