

TECHSPEC® 50mm, f/8.0 Sealed Cw Series Fixed Focal Length Lens



50mm Focal Length



Stock #15-666 20+ In Stock

-

1

+

£336<sup>.00</sup>

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| Volume Pricing |                               |
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| Qty 1+         | £336.00 each                  |
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Prices shown are exclusive of VAT/local taxes

Product Downloads

| General                                     |         |
|---------------------------------------------|---------|
| Cw Series                                   | Series: |
| C-Mount compatible with O-ring 25mm ID x2mm | Note:   |
| Fixed Focal Length Lens                     | Type:   |

| Physical & Mechanical Properties                        |                                          |
|---------------------------------------------------------|------------------------------------------|
| Fixed                                                   | Iris Option:                             |
|                                                         |                                          |
| 51.80                                                   | Length (mm):                             |
|                                                         |                                          |
| 41.00                                                   | Maximum Diameter (mm):                   |
|                                                         |                                          |
| 41                                                      | Outer Diameter (mm):                     |
|                                                         |                                          |
| 2.1                                                     | Maximum Rear Protrusion (mm):            |
|                                                         |                                          |
| Optical Properties                                      |                                          |
| Horizontal: 10.0°<br>Vertical: 7.54°<br>Diagonal: 12.5° | Field of View at Max Sensor Format:      |
|                                                         |                                          |
|                                                         |                                          |
|                                                         |                                          |
| 10.0°                                                   | Horizontal Field of View, 2/3" Sensor:   |
|                                                         |                                          |
| 8.22°                                                   | Horizontal Field of View, 1/1.8" Sensor: |
|                                                         |                                          |
| 7.31°                                                   | Horizontal Field of View, 1/2" Sensor:   |
|                                                         |                                          |
| 6.58°                                                   | Horizontal Field of View, 1/2.5" Sensor: |
|                                                         |                                          |
| 5.49°                                                   | Horizontal Field of View, 1/3" Sensor:   |
|                                                         |                                          |
| 11.00                                                   | Maximum Image Circle (mm):               |
|                                                         |                                          |
| 0.011                                                   | Numerical Aperture NA, Object Side:      |
|                                                         |                                          |
| 6 (5)                                                   | Number of Elements (Groups):             |
|                                                         |                                          |
| 50.00                                                   | Focal Length FL (mm):                    |
|                                                         |                                          |
| 100 - ∞                                                 | Working Distance (mm):                   |
|                                                         |                                          |
| f/8.0                                                   | Aperture (f/#):                          |
|                                                         |                                          |
| 425 - 675nm BBAR                                        | Coating Specification:                   |
|                                                         |                                          |
| 41.82                                                   | Entrance Pupil Position (mm):            |
|                                                         |                                          |
| -11.85                                                  | Object Space Principal Plane (mm):       |
|                                                         |                                          |
| -38.15                                                  | Image Space Principal Plane (mm):        |
|                                                         |                                          |
| 0.257                                                   | Maximum Distortion (%):                  |
|                                                         |                                          |
| -40.88                                                  | Exit Pupil Position (mm):                |
|                                                         |                                          |
| VIS                                                     | Lens Wavelength Range:                   |
|                                                         |                                          |
| Sensor                                                  |                                          |
| 2/3"                                                    | Maximum Sensor Format:                   |
|                                                         |                                          |
| 2.74                                                    | Pixel Size (µm):                         |
|                                                         |                                          |
| Threading & Mounting                                    |                                          |
| M36 x0.50 (Female)                                      | Filter Thread:                           |
|                                                         |                                          |
| C-Mount                                                 | Mount:                                   |
|                                                         |                                          |
| Environmental & Durability Factors                      |                                          |
| IPX7 and IPX9K                                          | Environmental Rating:                    |
|                                                         |                                          |
| -20 to +60                                              | Storage Temperature (°C):                |
|                                                         |                                          |
| Waterproof (IPX7 and IPX9K)                             | Type of Ruggedization:                   |
|                                                         |                                          |

## Product Details

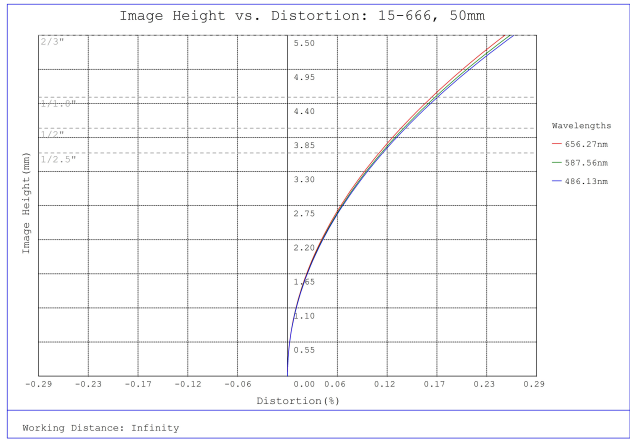
- Up to 2/3", C-Mount Lens
- Waterproof (Cw) Versions of C Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- Designed to Eliminate the Need for a Protective Lens Cover

TECHSPEC® Cw Series Fixed Focal Length Lenses are waterproof versions of our [TECHSPEC® C Series Fixed Focal Length Lenses](#). Designed to meet IEC Ingress Protection Codes IPX7 and IPX9K, these lenses withstand exposure to water up to 1 meter depth for 30 minutes and operate in close-range high pressure, high temperature water spray downs with the exception of all 3.5 and 4.5mm options which are IPX7. These lenses include a hydrophobic coated window to prevent water droplets from settling on the lens' surface. To prevent moisture from entering the housing, the lenses are sealed with multiple O-rings. TECHSPEC® Cw Series Fixed Focal Length Lenses are designed for up to 7.5 MegaPixel, 2/3" sensors and are ideal for applications including food, pharma, automotive, and security. These lenses won the Bronze-Level 2021 Vision Systems Design Innovators Award.

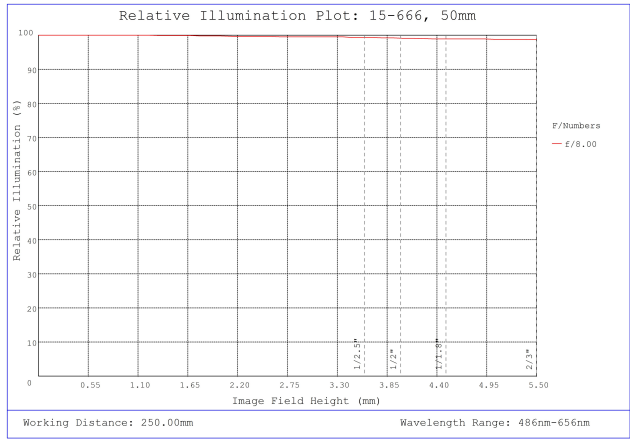
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

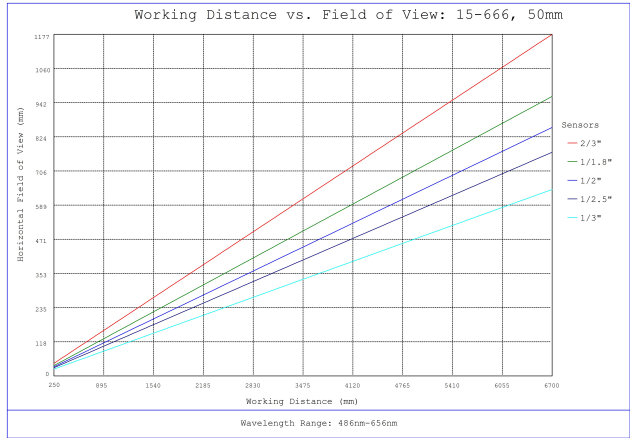
## Technical Information



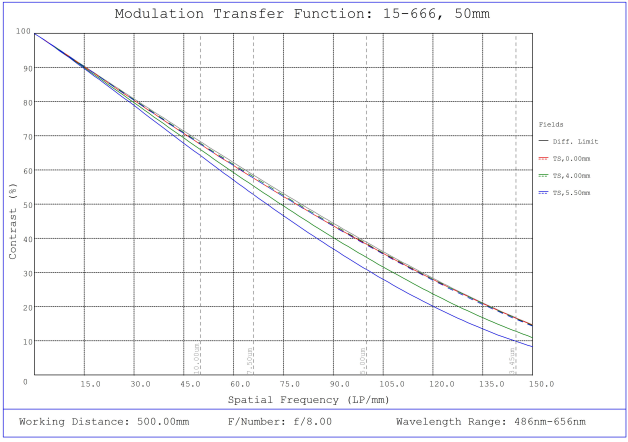
#15-666, 50mm, f/8.0 Sealed Cw Series Fixed Focal Length Lens, Distortion Plot



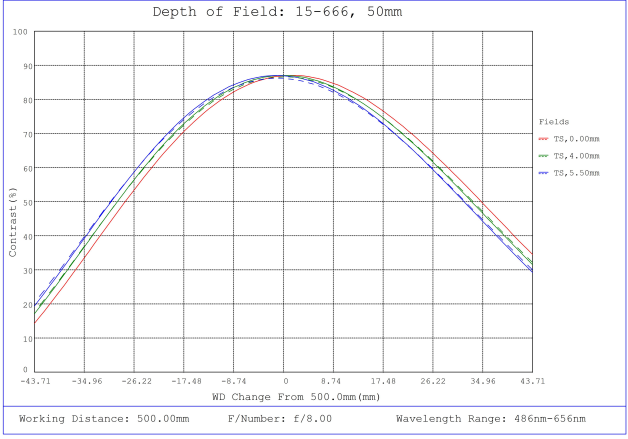
#15-666, 50mm, f/8.0 Sealed Cw Series Fixed Focal Length Lens, Relative Illumination Plot



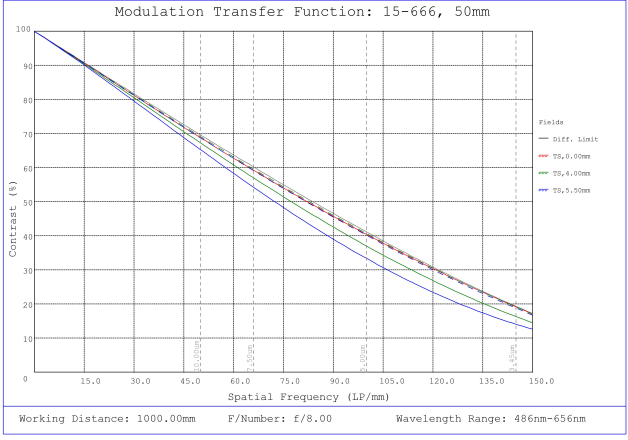
#15-666, 50mm, f/8.0 Sealed Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



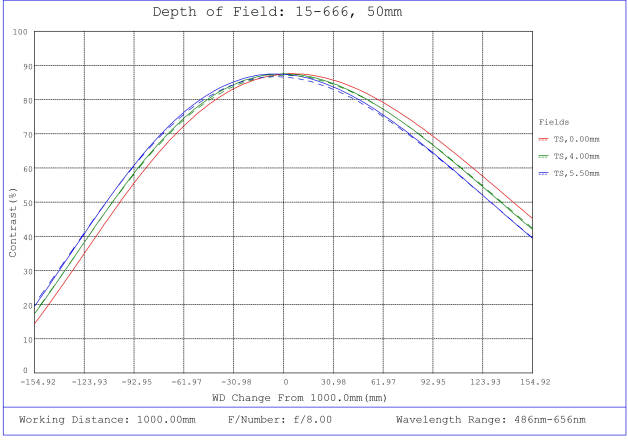
#15-666, 50mm, f/8.0 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f8



#15-666, 50mm, f/8.0 Sealed Cw Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f8



#15-666, 50mm, f/8.0 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 1000mm Working Distance, f8



#15-666, 50mm, f/8.0 Sealed Cw Series Fixed Focal Length Lens, Depth of Field Plot, 1000mm Working Distance, f8