

TECHSPEC® 12mm, f/4 Cw Series Fixed Focal Length Lens



12mm Focal Length



Stock #15-633 1 In Stock

-

1

+

₹20,776

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1+         | ₹20,776 each                  |
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Product Downloads

General

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

Physical & Mechanical Properties

|       |                               |
|-------|-------------------------------|
| Fixed | Iris Option:                  |
|       |                               |
| 38.10 | Length (mm):                  |
|       |                               |
| 36    | Outer Diameter (mm):          |
|       |                               |
| 0.6   | Maximum Rear Protrusion (mm): |
|       |                               |

Optical Properties

|                                                         |                                          |
|---------------------------------------------------------|------------------------------------------|
| Horizontal: 41.0°<br>Vertical: 31.3°<br>Diagonal: 50.5° | Field of View at Max Sensor Format:      |
|                                                         |                                          |
|                                                         |                                          |
|                                                         |                                          |
| 41.0°                                                   | Horizontal Field of View, 2/3" Sensor:   |
|                                                         |                                          |
| 33.8°                                                   | Horizontal Field of View, 1/1.8" Sensor: |
|                                                         |                                          |
| 30.2°                                                   | Horizontal Field of View, 1/2" Sensor:   |
|                                                         |                                          |
| 27.4°                                                   | Horizontal Field of View, 1/2.5" Sensor: |
|                                                         |                                          |
| 22.8°                                                   | Horizontal Field of View, 1/3" Sensor:   |
|                                                         |                                          |
| 17.1°                                                   | Horizontal Field of View, 1/4" Sensor:   |
|                                                         |                                          |
| 11.00                                                   | Maximum Image Circle (mm):               |
|                                                         |                                          |
| 0.0118                                                  | Numerical Aperture NA, Object Side:      |
|                                                         |                                          |
| 7 (7)                                                   | Number of Elements (Groups):             |
|                                                         |                                          |
| 12.00                                                   | Focal Length FL (mm):                    |
|                                                         |                                          |
| 100 - ∞                                                 | Working Distance (mm):                   |
|                                                         |                                          |
| f/4                                                     | Aperture (f/#):                          |
|                                                         |                                          |
| 425 - 675nm BBAR                                        | Coating Specification:                   |
|                                                         |                                          |
| 17.6208                                                 | Entrance Pupil Position (mm):            |
|                                                         |                                          |
| 23.93                                                   | Object Space Principal Plane (mm):       |
|                                                         |                                          |
| 1.98                                                    | Image Space Principal Plane (mm):        |
|                                                         |                                          |
| 2.11                                                    | Maximum Distortion (%):                  |
|                                                         |                                          |
| -11.3801                                                | 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 (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:    |
|                             |                           |

Regulatory Compliance

|                                     |  |
|-------------------------------------|--|
| Certificate of Conformance:         |  |
| View                                |  |
| Country of Origin:                  |  |
| China                               |  |
| Imported By:                        |  |
| Edmund Optics India Private Limited |  |

## Product Details

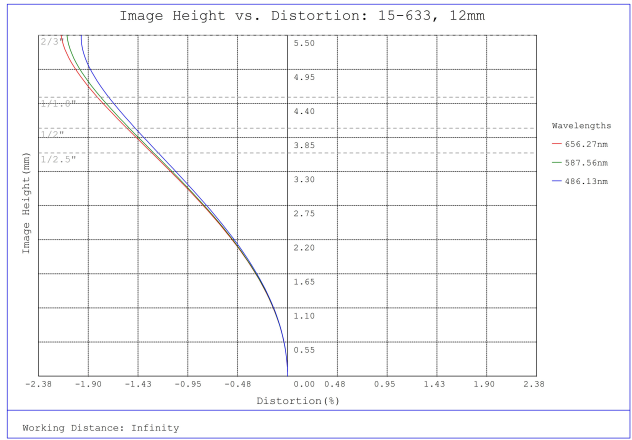
- Up to 2/3", C-Mount Lens
- Waterproof (Cw) Versions of C Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- Designed to Eliminate the Need for a Protective Lens Cover

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.

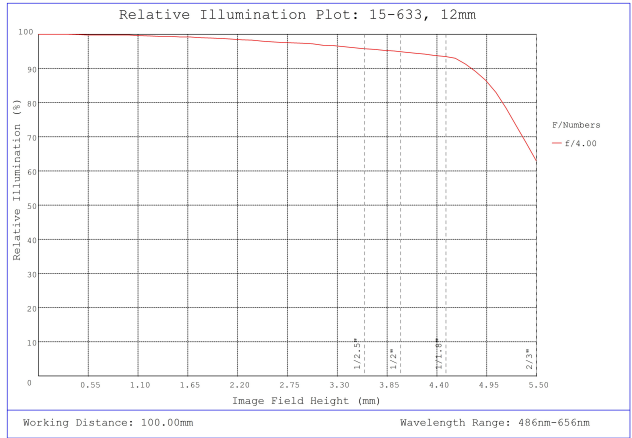
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

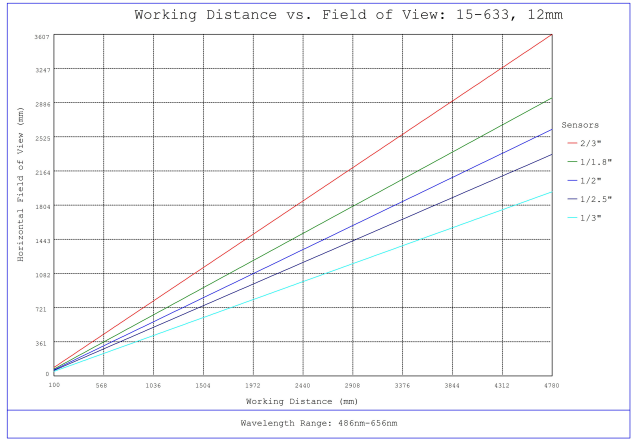
## Technical Information



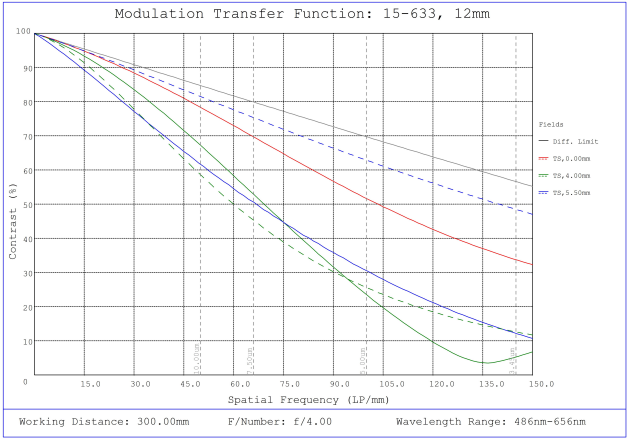
#15-633, 12mm, f/4 Cw Series Fixed Focal Length Lens, Distortion Plot



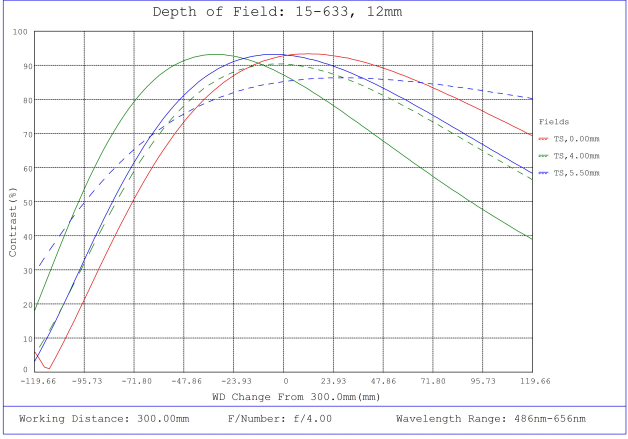
#15-633, 12mm, f/4 Cw Series Fixed Focal Length Lens, Relative Illumination Plot



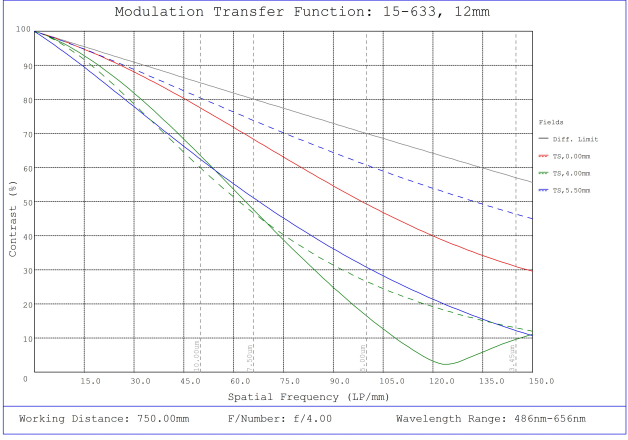
#15-633, 12mm, f/4 Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



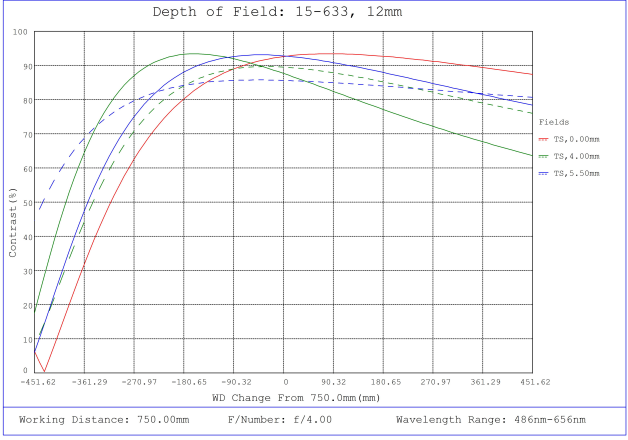
#15-633, 12mm, f/4 Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 300mm Working Distance, f4



#15-633, 12mm, f/4 Cw Series Fixed Focal Length Lens, Depth of Field Plot, 300mm Working Distance, f4



#15-633, 12mm, f/4 Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 750mm Working Distance, f4



#15-633, 12mm, f/4 Cw Series Fixed Focal Length Lens, Depth of Field Plot, 750mm Working Distance, f4