

TECHSPEC® 3.5mm f/11 Sealed Cw Series Fixed Focal Length Lens
#15-612



3.5mm Focal Length

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 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.

General

Note:	C-Mount compatible with O-ring 25mm ID x 2mm
Type:	Fixed Focal Length Lens

Physical & Mechanical Properties

Iris Option:	Fixed
Length (mm):	41.96
Maximum Diameter (mm):	65.00
Maximum Rear Protrusion (mm):	2.7

Optical Properties

Horizontal Field of View, 1/2" Sensor:	94.13°
Horizontal Field of View, 1/3" Sensor:	74.44°
Maximum Image Circle (mm):	9.00
Numerical Aperture NA, Object Side:	0.013
Number of Elements (Groups):	10 (9)
Horizontal Field of View, 1/1.8" Sensor:	102.34°
Horizontal Field of View, 1/2.5" Sensor:	86.75°
Focal Length FL (mm):	3.50
Primary Magnification PMAG:	0.303
Working Distance (mm):	75 - ∞
Aperture (f/#):	f/11
Coating Specification:	425 - 675nm BBAR
Entrance Pupil Position (mm):	34.70
Object Space Principal Plane (mm):	-22.37
Image Space Principal Plane (mm):	32.70
Field of View at Max Sensor Format:	Horizontal: 102.34° Vertical: 82.28° Diagonal: 116.98°
Maximum Distortion (%):	21.12
Exit Pupil Position (mm):	-15.89
Lens Wavelength Range:	VIS

Sensor

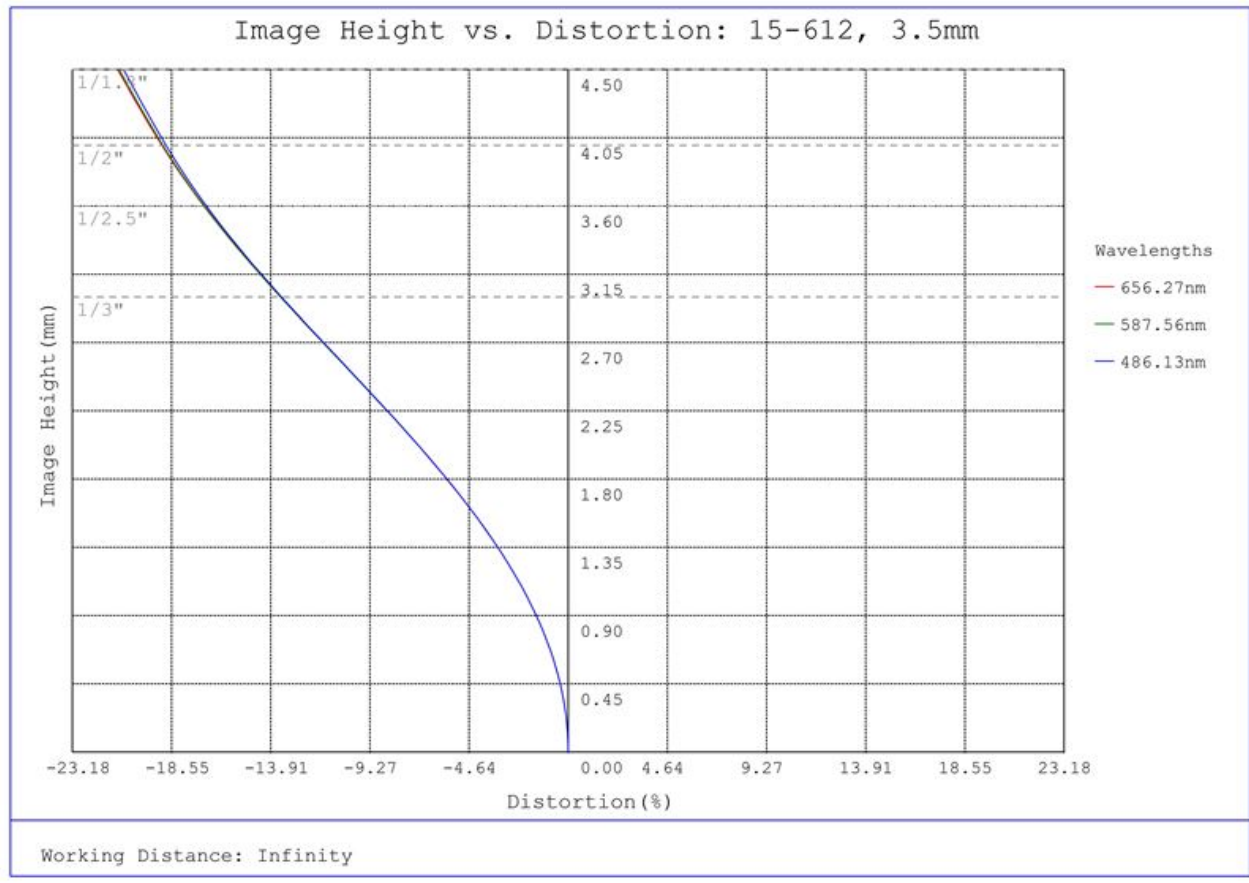
Maximum Sensor Format:	1/1.8"
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Threading & Mounting

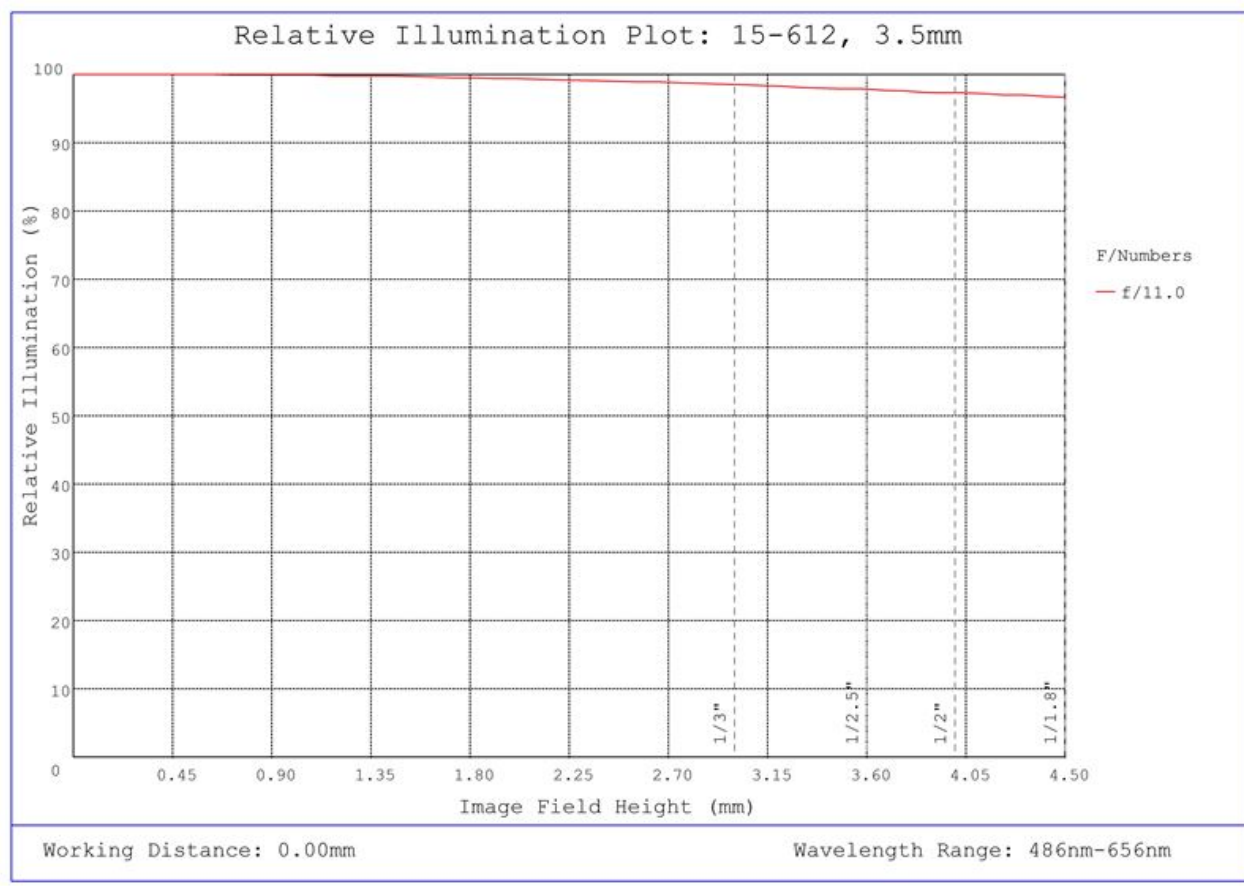
Filter Thread:	M62 x 0.75 (Female)
Mount:	C-Mount

Environmental & Durability Factors

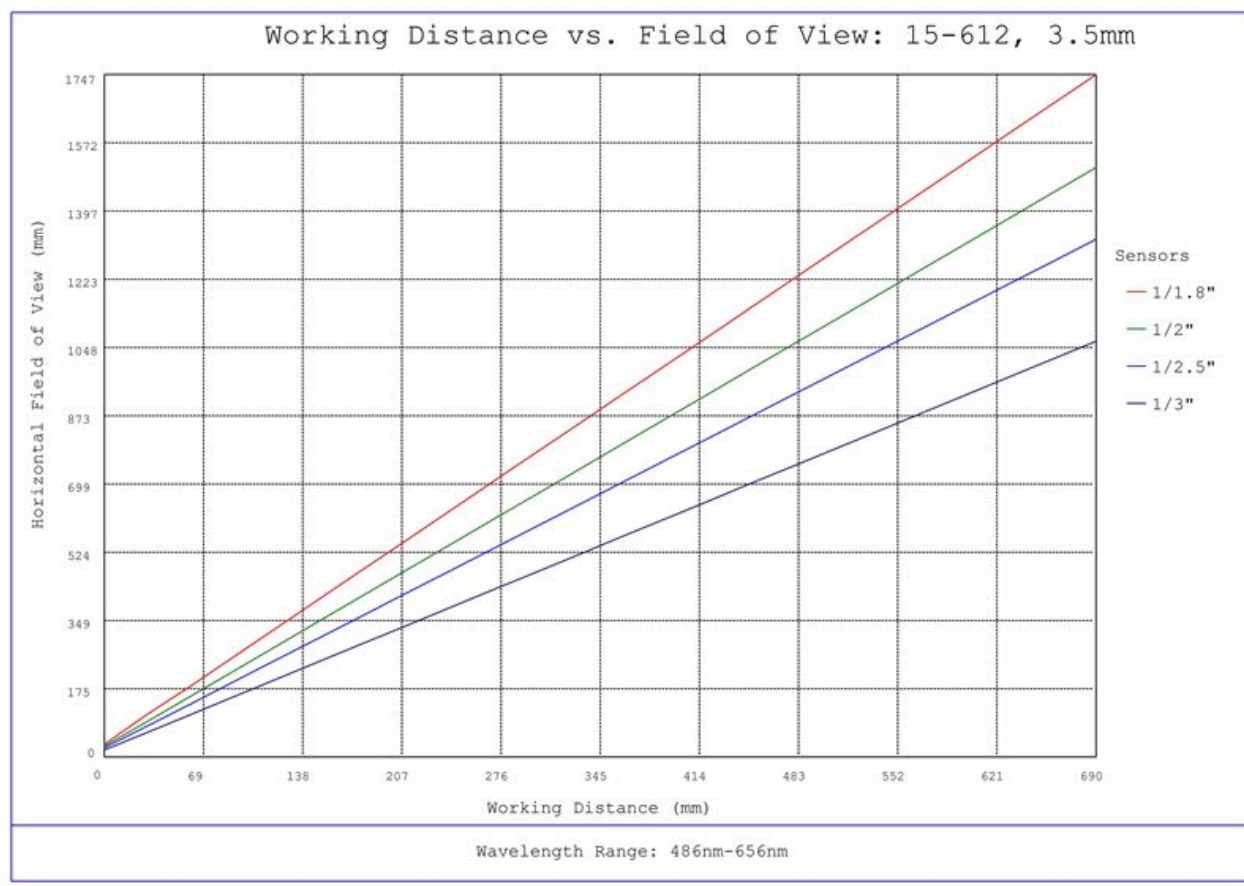
Environmental Rating:	IPX7
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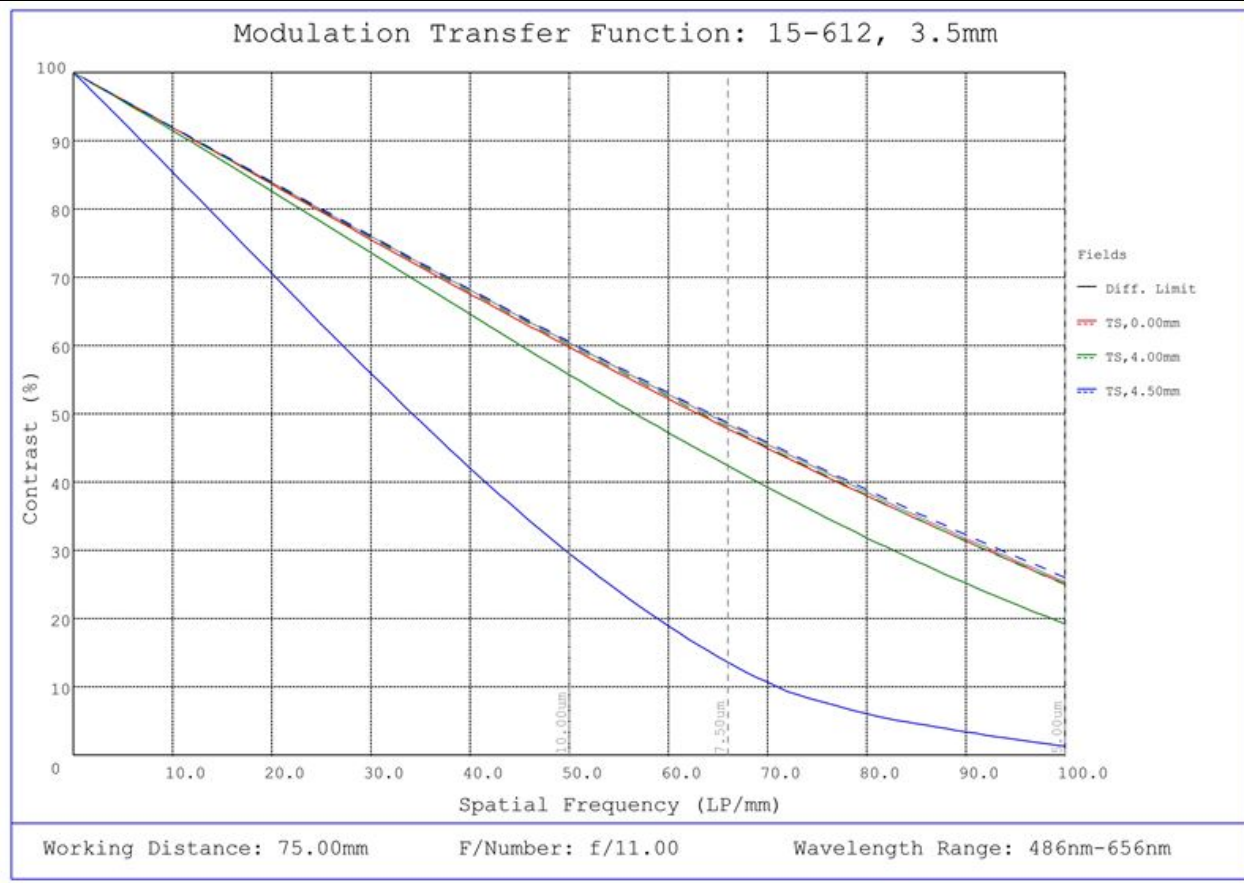
#15-612, 3.5mm f/11 Sealed Cw Series Fixed Focal Length Lens, Distortion Plot



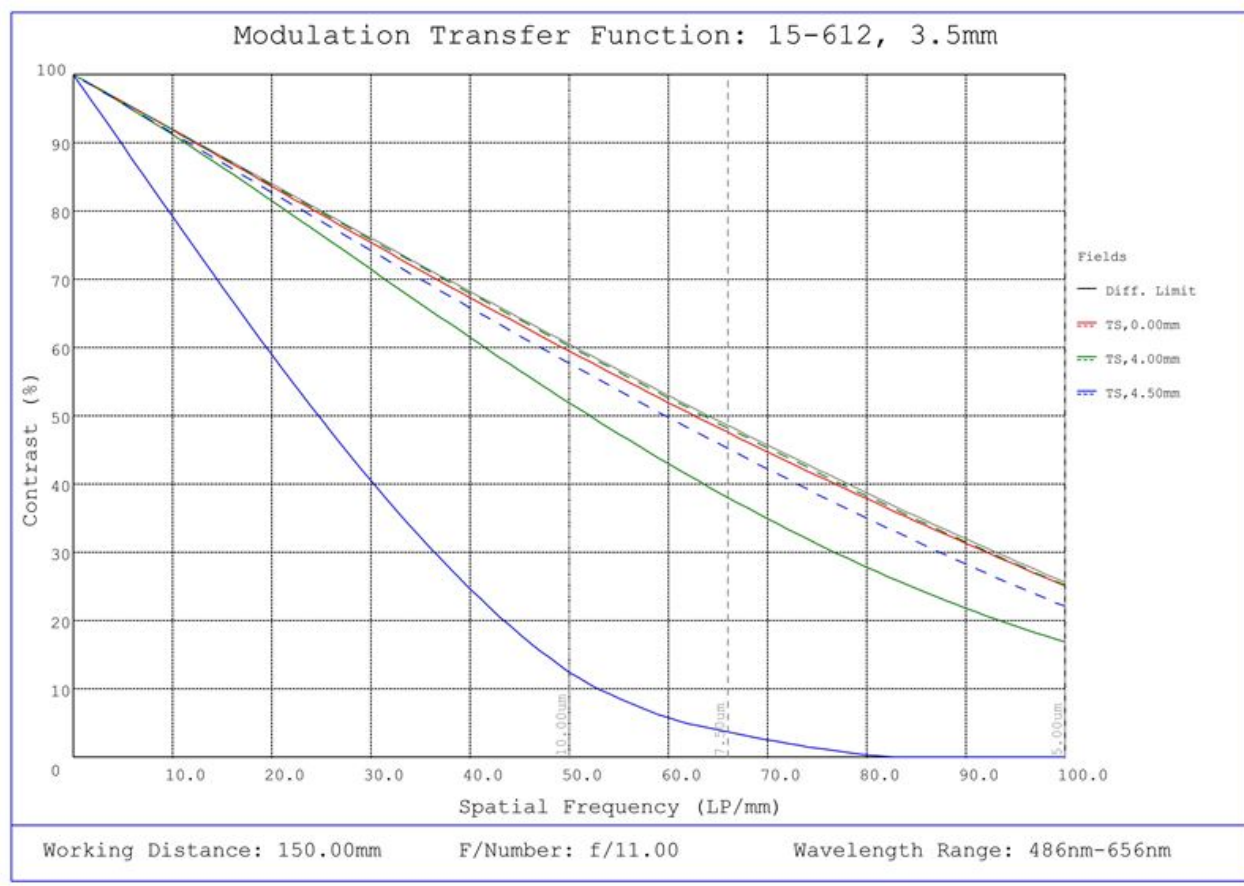
#15-612, 3.5mm f/11 Sealed Cw Series Fixed Focal Length Lens, Relative Illumination Plot



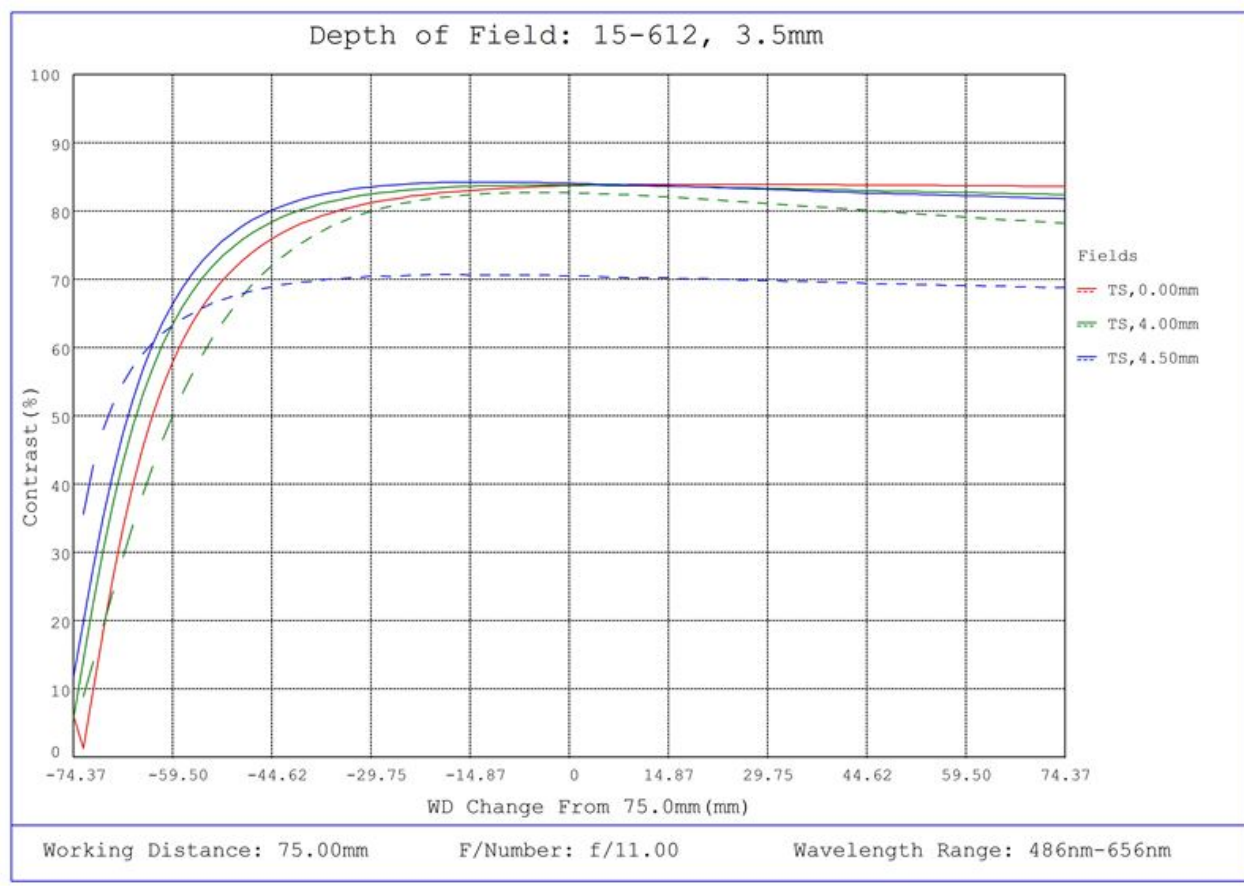
#15-612, 3.5mm f/11 Sealed Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



#15-612, 3.5mm f/11 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 75mm Working Distance, f11



#15-612, 3.5mm f/11 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f11



#15-612, 3.5mm f/11 Sealed Cw Series Fixed Focal Length Lens, Depth of Field Plot, 75mm Working Distance, f11



April 12, 2025

To Whom It May Concern,

This document certifies that the product stated below has been reviewed as requested by Edmund Optics:

Stock No.	Description
15-612	3.5mm f/11 Sealed Cw Series Fixed Focal Length Lens

This item is EU RoHS (2011/65/EU) compliant without the use of exemptions.

This certification means that:

- EO's suppliers have confirmed the material composition of this product.
- EO has implemented rigorous procedures to document this compliance.
- The information provided may, or may not, be based upon actual test data, or on information from our Vendors, Raw Material Suppliers or Subcontractors.



Jay Budd, Director of Corporate Compliance
April 12, 2025

Edmund Optics Inc. - 101 E Gloucester Pike, Barrington, NJ 08007 | 1-800-363-1992 | Compliance@edmundoptics.com



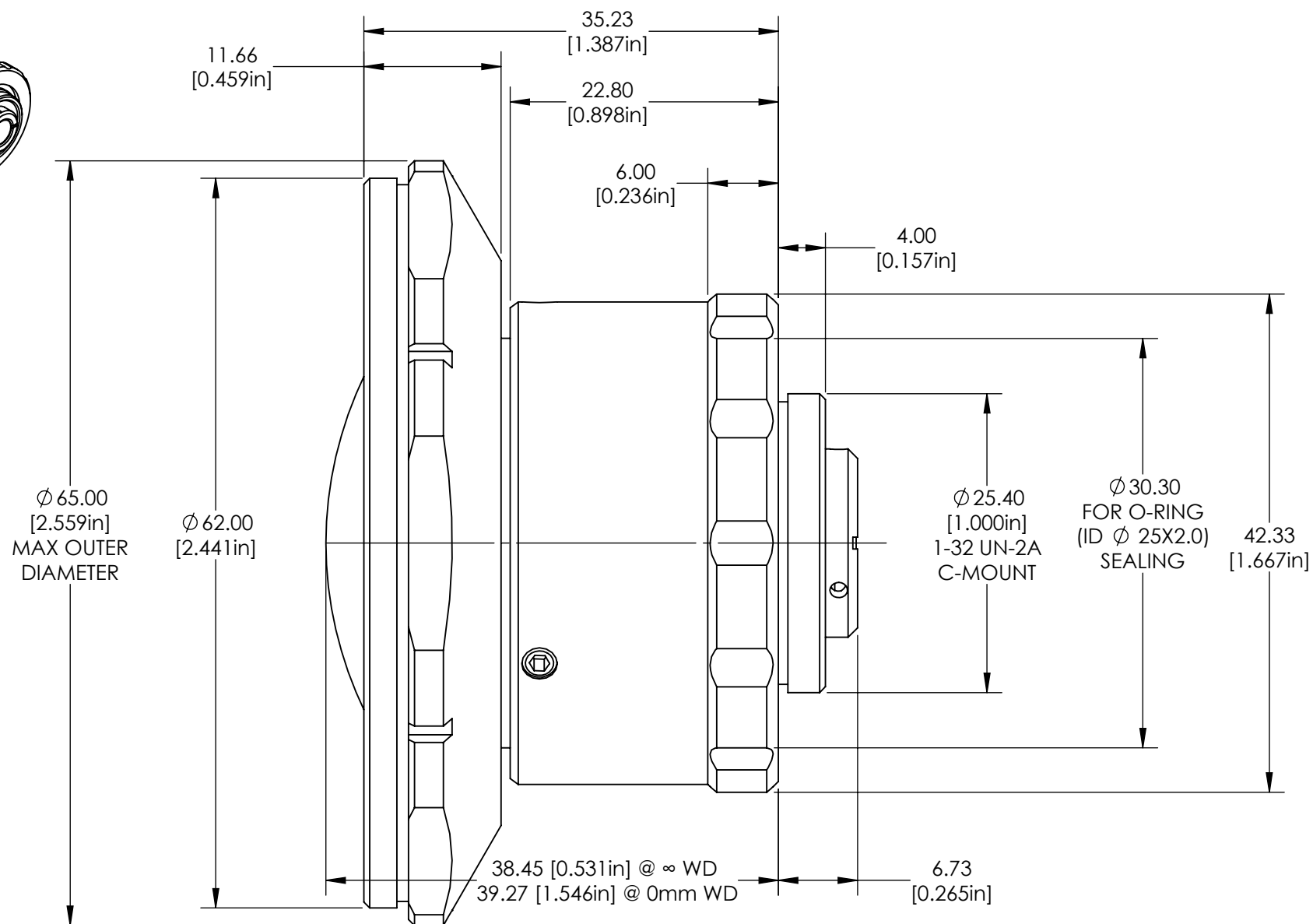
April 12, 2025

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15-612	3.5mm f/11 Sealed Cw Series Fixed Focal Length Lens

Edmund Optics certifies that all articles included in this shipment are in compliance with the terms and conditions of this order. The company also certifies that the articles included in this shipment are in accordance to all agreed upon specifications and quality assurance provisions. Please call 1-800-363-1992 should any questions arise from this shipment.



Jeff Harvey- EVP of Operations



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DIMENSIONS ARE FOR REFERENCE ONLY



THIRD ANGLE PROJECTION				TITLE	3.5mm f/11.0 Sealed Cw Series Fixed Focal Length Lens	
ALL DIMS IN	mm	DWG NO	15612		SHEET 1 OF 1	