

**TECHSPEC® 8.5mm f/16, 75mm-∞ Primary WD, HRi Series  
Fixed Focal Length Lens**

#36-754



8.5mm f/16, 2/3" HPi Series Fixed Focal Length Lens

TECHSPEC® HRi Series Fixed Focal Length Lenses are a streamlined version of our HR Series Lenses. There are multiple options available for each focal length to accommodate a variety of optimized working distance ranges. Designed for high volume imaging applications, HPi series lenses feature simplified focus mechanics and a fixed aperture. TECHSPEC HRi Series Fixed Focal Length Lenses are available in a variety of *f/#* options, making them ideal for applications that require reduced size, cost, and lockable focus imaging solutions. Call for OEM Quantity Pricing.

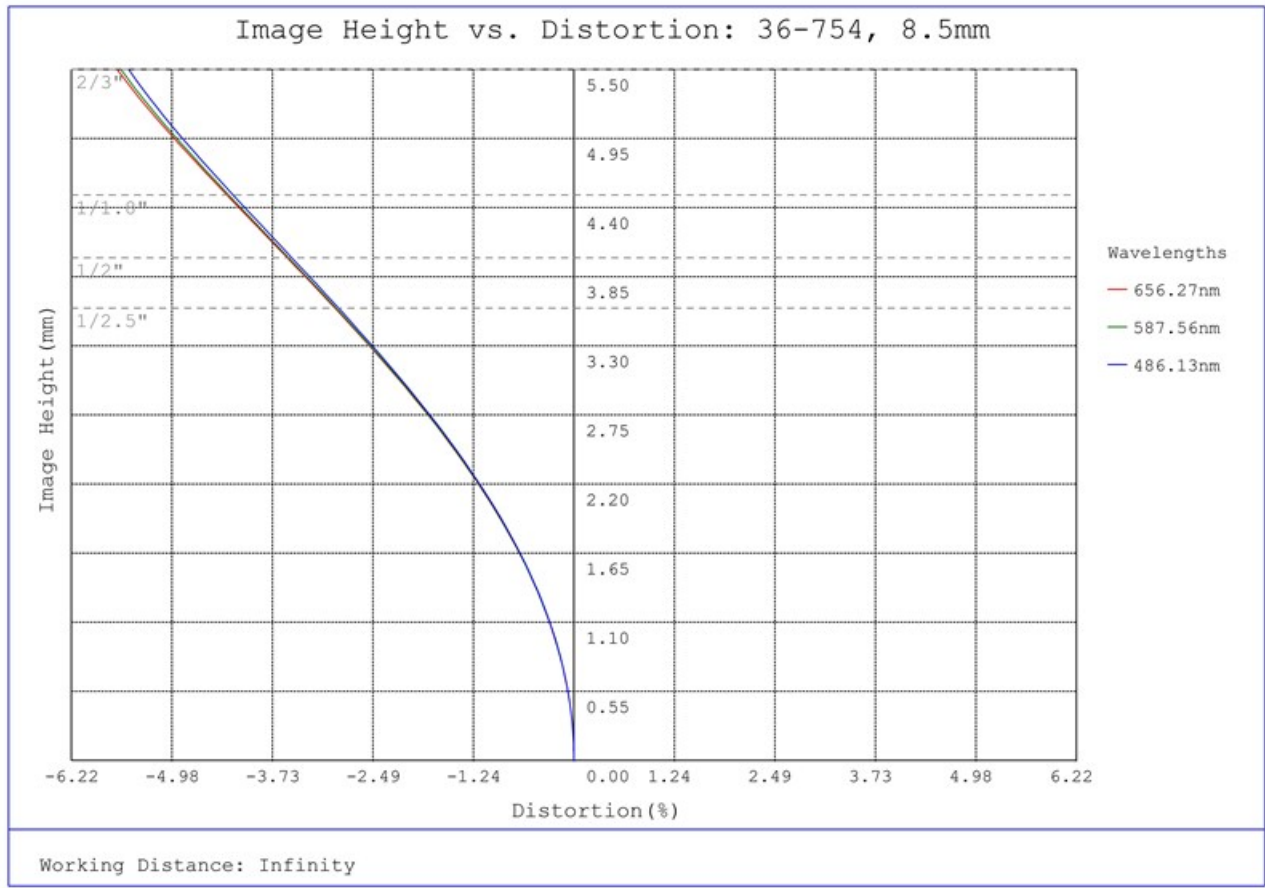
Front Thread:	M40 x 0.5 (Male)
Type:	Fixed Focal Length Lens
Style:	VIS
Coating:	425 - 675nm BBAR
Optimized Working Distance (mm):	75 - ∞

## Optical

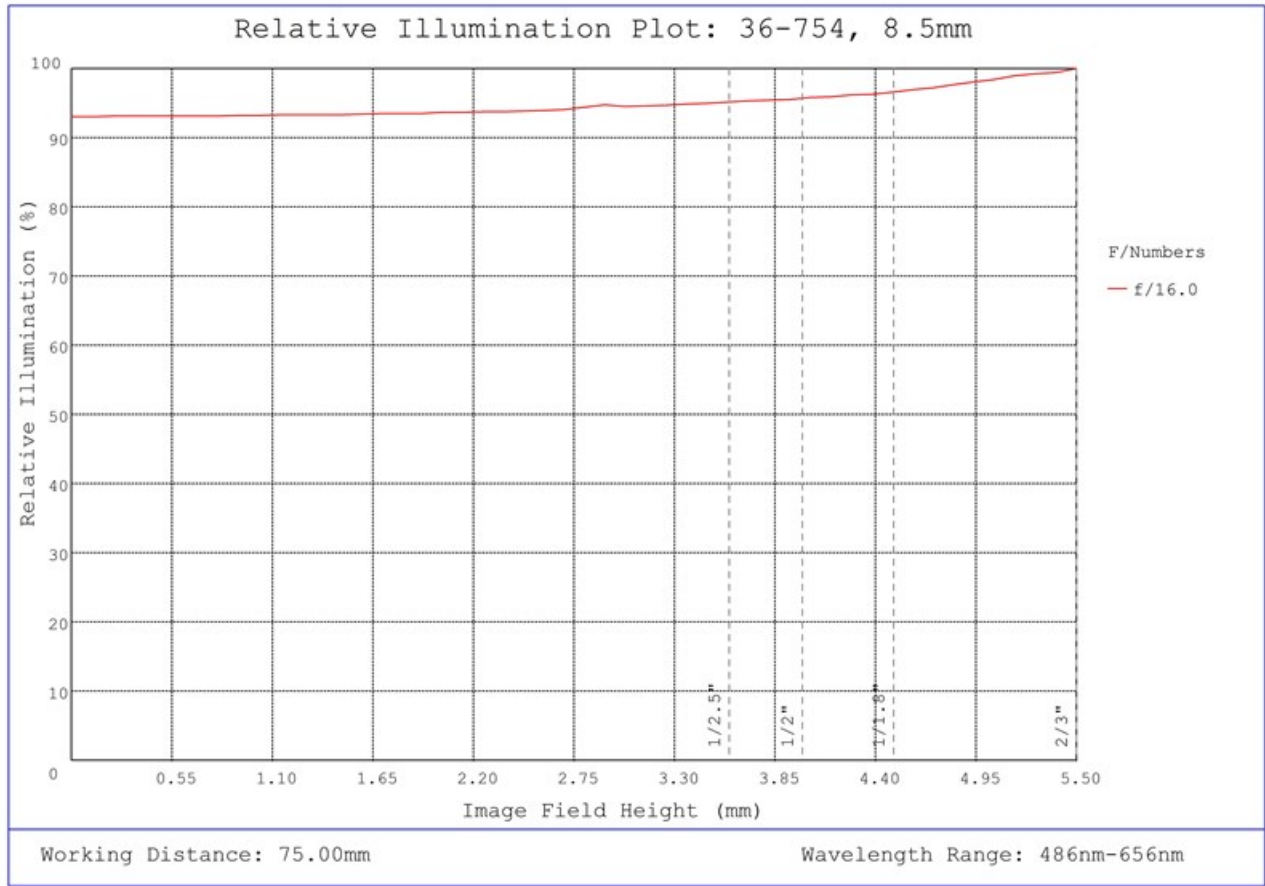
Horizontal Field of View, 1/2" Sensor:	71.9mm - 42.2°
Horizontal Field of View, 2/3" Sensor:	101.4mm - 56.8°
Horizontal Field of View, 1/3" Sensor:	53.2mm - 32.0°
Maximum Image Circle (mm):	11
Numerical Aperture NA, Object Side:	0.0028
Horizontal Field of View @ Max Sensor Format:	101.4mm - 56.8°
Horizontal Field of View, 1/1.8" Sensor:	81.5mm - 47.2°
Horizontal Field of View, 1/2.5" Sensor:	64.8mm - 38.4°
Focal Length FL (mm):	8.50
Primary Magnification PMAG:	0.092
Maximum Sensor Format:	2/3"
Working Distance (mm):	75 - ∞
Aperture (f/#):	f/16
Coating Specification:	425 - 675nm BBAR
Entrance Pupil Position (mm):	18.85
Horizontal Field of View, 1/4" Sensor:	39.6mm - 24.1°
Object Space Principal Plane (mm):	25.03
Image Space Principal Plane (mm):	4.70
Field of View at Max Sensor Format:	Horizontal: 101.4mm - 56.8° Vertical: 74.2mm - 43.5° Diagonal: 130.4mm - 68.9°
Maximum Distortion (%):	-5.6
Exit Pupil Position (mm):	-17.93

## Mechanical

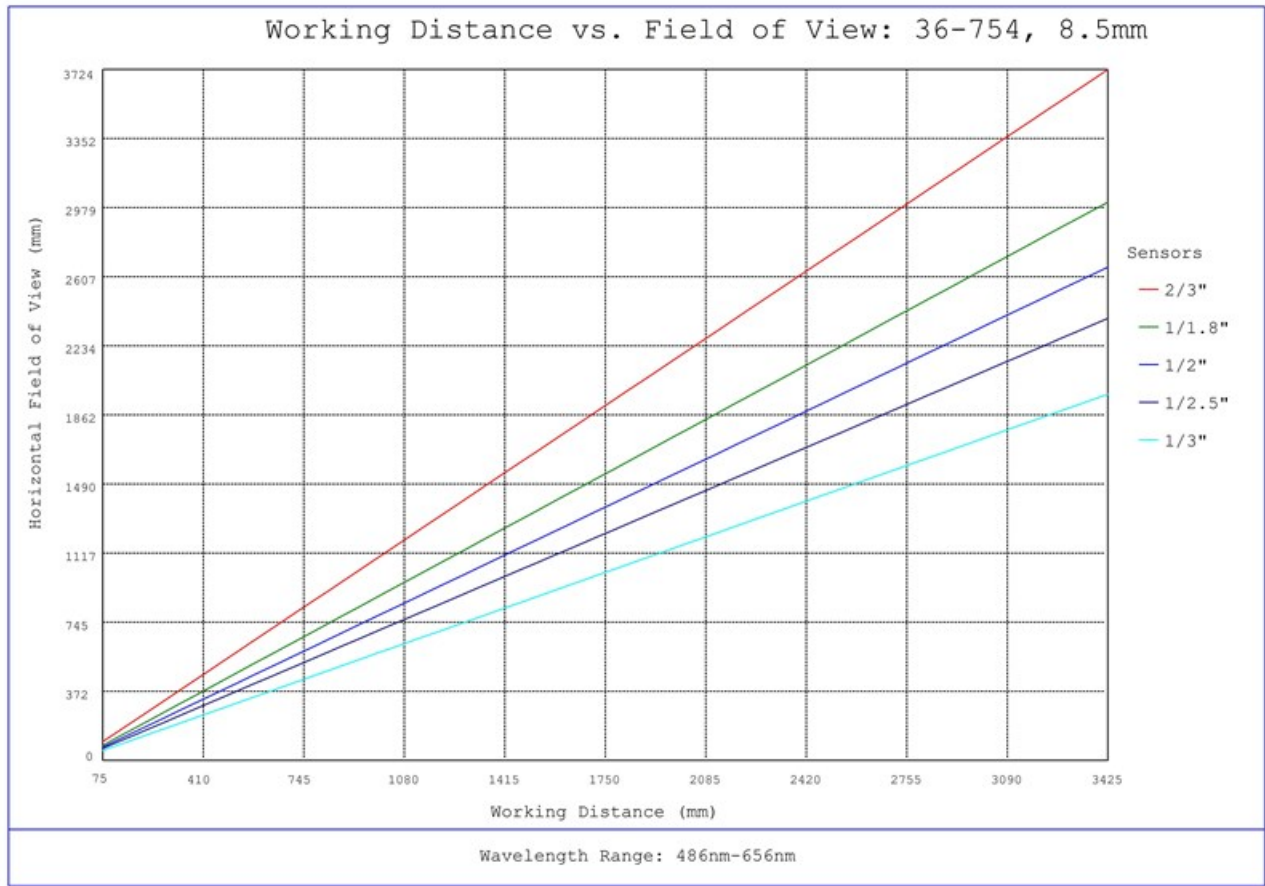
Iris Option:	Fixed
Length (mm):	44.57
Filter Thread:	M58 x 0.75 with adapter <a href="#">#87-425</a>
Maximum Diameter (mm):	40
Weight (g):	84
Maximum Rear Protrusion (mm):	1.31
Number of Elements (Groups):	9 (8)
Mount:	C-Mount



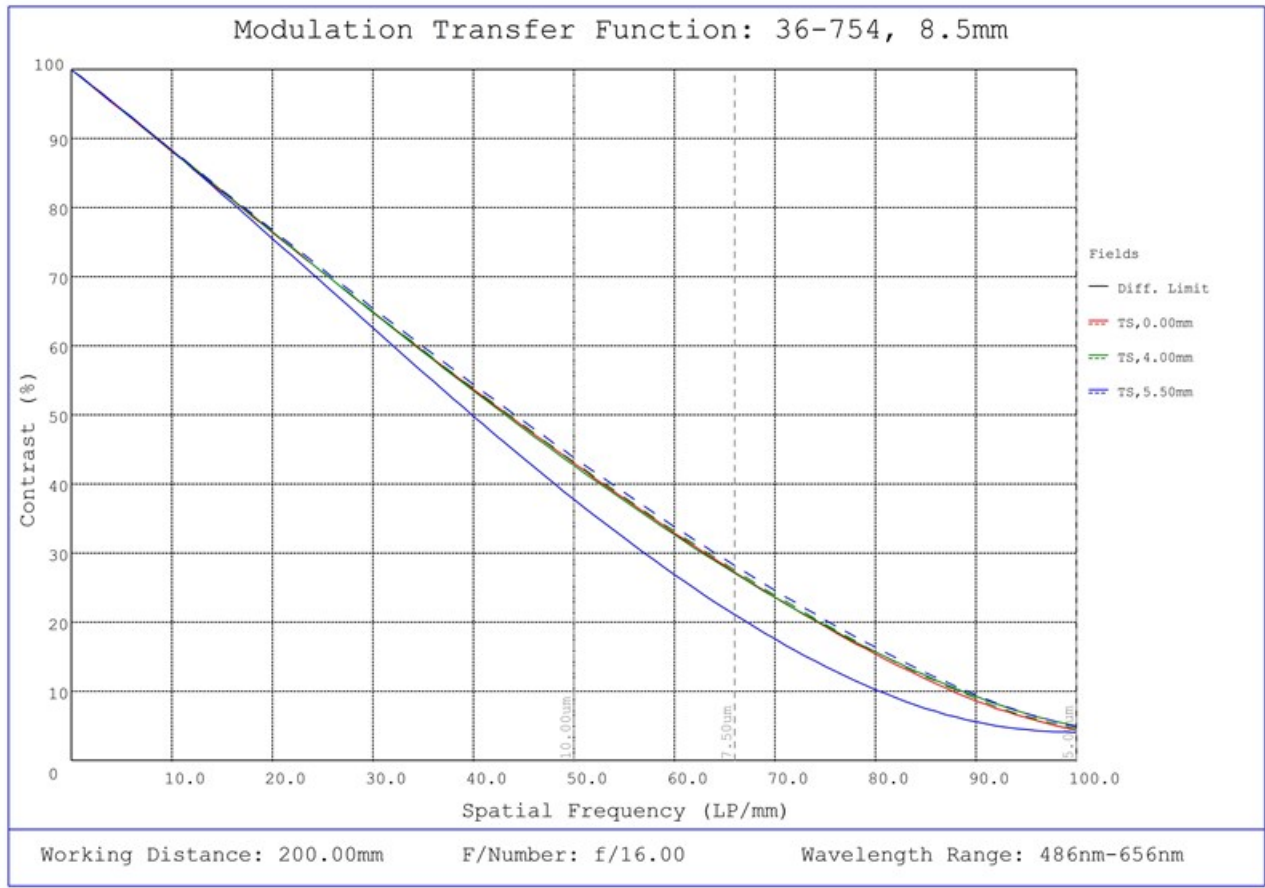
#36-754, 8.5mm f/16, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Distortion Plot



#36-754, 8.5mm f/16, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Relative Illumination Plot



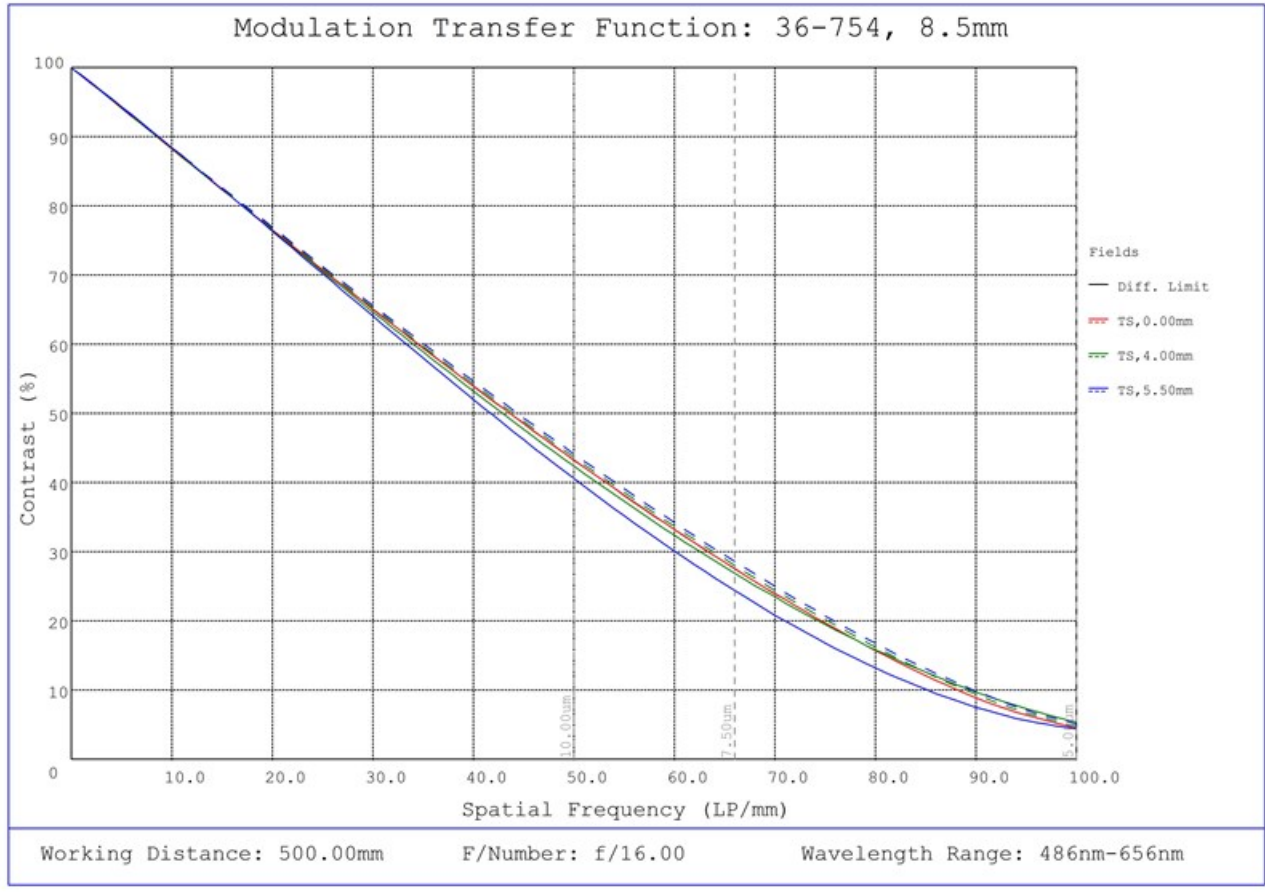
#36-754, 8.5mm f/16, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



#36-754, 8.5mm f/16, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f16

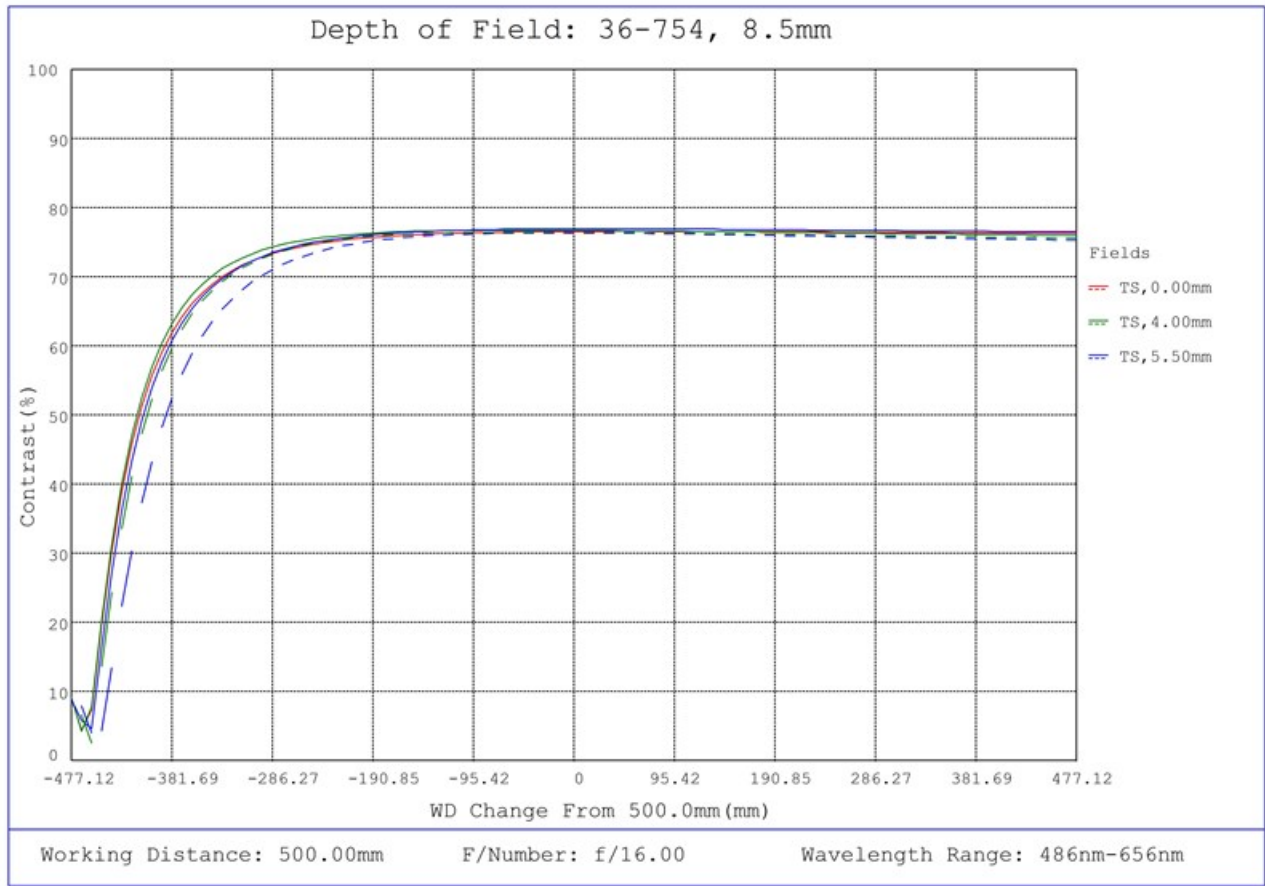


#36-754, 8.5mm f/16, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f16

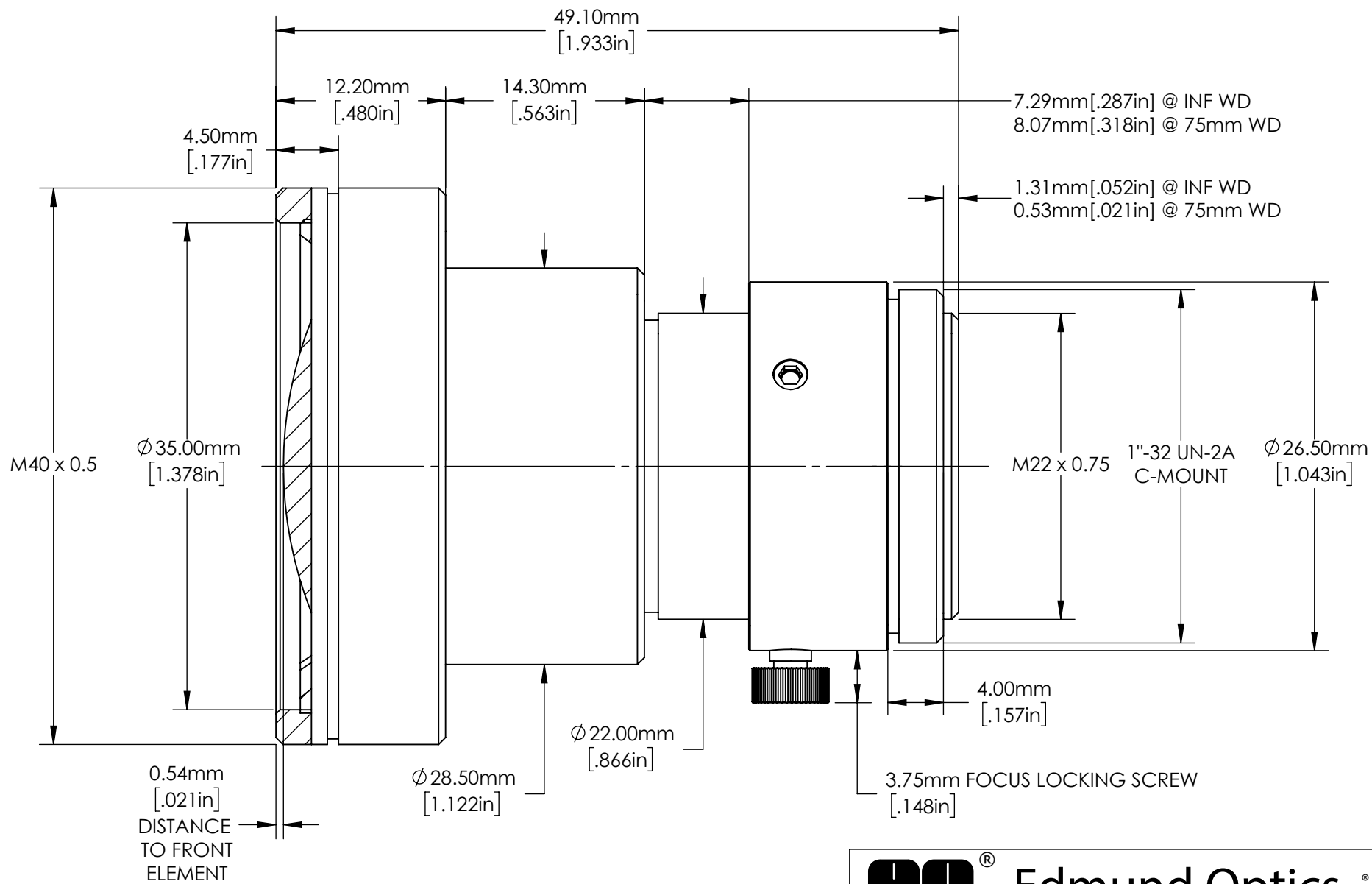


#36-754, 8.5mm f/16, 75mm-∞ Primary WD, HRI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f16





#36-754, 8.5mm f/16, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f16



**Edmund Optics**®

**FOR INFORMATION ONLY:  
DO NOT MANUFACTURE  
PARTS TO THIS DRAWING**

SPECIFICATIONS SUBJECT TO  
CHANGE WITHOUT NOTICE  
DIMENSIONS ARE FOR  
REFERENCE ONLY

THIRD ANGLE PROJECTION		TITLE	8.5mm f/16, 75mm-∞, Primary WD, HRI Series Fixed Focal Length Lens	
ALL DIMS IN	mm	DWG NO	36754	SHEET 1 OF 1



March 30, 2023

To Whom It May Concern,

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

<i>Stock No.</i>	<i>Description</i>
36-754	8.5mm f/16, 75mm-∞ Primary WD, HRi 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.

A handwritten signature in cursive script, appearing to read 'Jay Budd'.

Jay Budd, Director of Corporate Compliance

March 30, 2023

Edmund Optics Inc. - 101 E Gloucester Pike, Barrington, NJ 08007 | 1-800-363-1992 | [Compliance@edmundoptics.com](mailto:Compliance@edmundoptics.com)



March 30, 2023

<i>Stock No.</i>	<i>Description</i>
36-754	8.5mm $f/16$ , 75mm- $\infty$ Primary WD, HRi 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.

A handwritten signature in cursive script that reads 'Robert M. Henderson'.

Robert Henderson - Director of Quality