

TECHSPEC[®] 8.5mm f/1.4, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens



8.5mm f/1.4, 2/3" HPi Series Fixed Focal Length Lens, #37-746



Stock **#36-746** 15 In Stock

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1

+

A\$1,000^{.00}

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Volume Pricing	
Qty 1+	A\$1,000.00 each
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Product Downloads

General	
HRi Series	Series:
Fixed Focal Length Lens	Type:
Imaging Lens Type: High Performance Lens with Fixed Apertures and Compact Form Factor	

Physical & Mechanical Properties

Fixed	Iris Option:
44.57	Length (mm):
40	Maximum Diameter (mm):
40	Outer Diameter (mm):
84	Weight (g):
1.31	Maximum Rear Protrusion (mm):

Optical Properties

Horizontal Field of View @ Max Sensor Format: 101.4mm - 56.8°	
Field of View at Max Sensor Format: Horizontal: 101.4mm - 56.8° Vertical: 74.2mm - 43.5° Diagonal: 130.5mm - 68.9°	
Horizontal Field of View, 2/3" Sensor: 101.4mm - 56.8°	
Horizontal Field of View, 1/1.8" Sensor: 81.5mm - 47.2°	
Horizontal Field of View, 1/2" Sensor: 71.9mm - 42.2°	
Horizontal Field of View, 1/2.5" Sensor: 64.8mm - 38.4°	
Horizontal Field of View, 1/3" Sensor: 53.2mm - 32.0°	
Horizontal Field of View, 1/4" Sensor: 39.6mm - 24.1°	
Maximum Image Circle (mm): 11.00	
Numerical Aperture NA, Object Side: 0.032	
Number of Elements (Groups): 9 (8)	
Focal Length FL (mm): 8.50	
Working Distance (mm): 75 - ∞	
Aperture (f/#): f/1.4	
Coating: 425 - 675nm BBAR	
Coating Specification: 425 - 675nm BBAR	
Entrance Pupil Position (mm): 18.85	
Object Space Principal Plane (mm): 25.03	
Image Space Principal Plane (mm): 4.70	
Maximum Distortion (%): -5.6	
Exit Pupil Position (mm): -17.93	
Optimized Working Distance (mm): 75 - ∞	
Lens Wavelength Range: VIS	

Sensor

Maximum Sensor Format: 2/3"	
Pixel Size (µm): 1.85	

Threading & Mounting

Filter Thread: M58 x0.75 (Male)	
Filter Thread Adapter:	

Front Thread:

M40 x0.5 (Male)

Mount:

C-Mount

Environmental & Durability Factors

Storage Temperature (°C):

-20 to +60

Type of Ruggedization:

Industrial (Fixed Aperture with Simplified Mechanics)

Regulatory Compliance

Certificate of Conformance:

[View](#)

Product Details

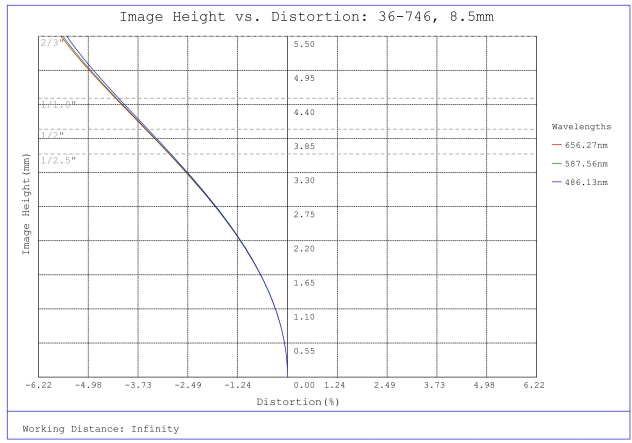
- 2/3", C-Mount Lens
- Up to 10 MegaPixels, 1.85µm Pixel Size Sensors
- Instrumentation (HRi) Versions of our HR Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 8.5mm to 12mm Focal Length
- [Ruggedized \(HRr\) Designs](#) Also Available

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.

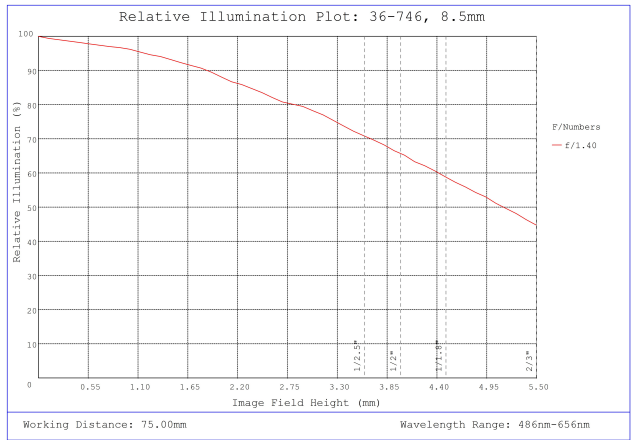
Edmund Optics has created a family of high performance optical designs (the HR Series family) and developed three customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the HR Series Lenses, providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

- **HR Series:** Features locking cam focus and iris adjustment. This is the most adjustable version of these optical designs and is the typical high quality machine vision lens.
- **HRi Series:** Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.
- **HRr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

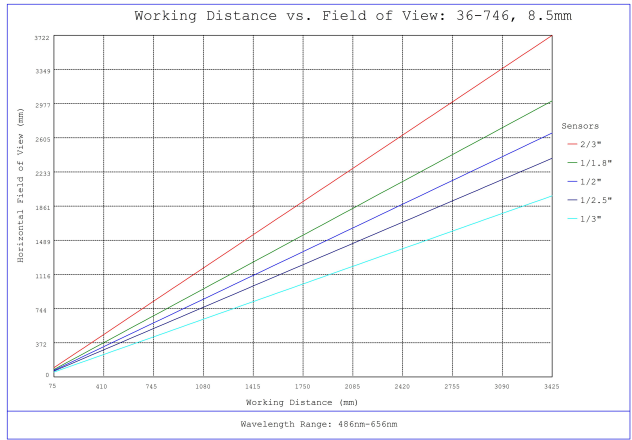
Technical Information



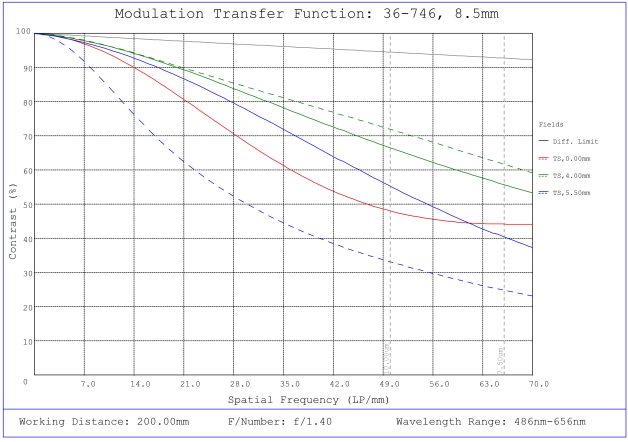
#36-746, 8.5mm f/1.4, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Distortion Plot



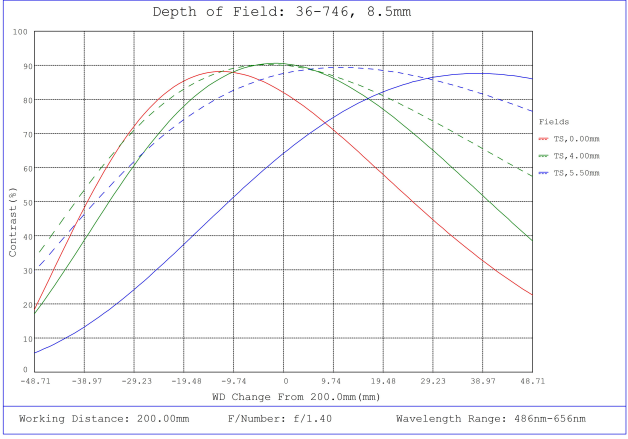
#36-746, 8.5mm f/1.4, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Relative Illumination Plot



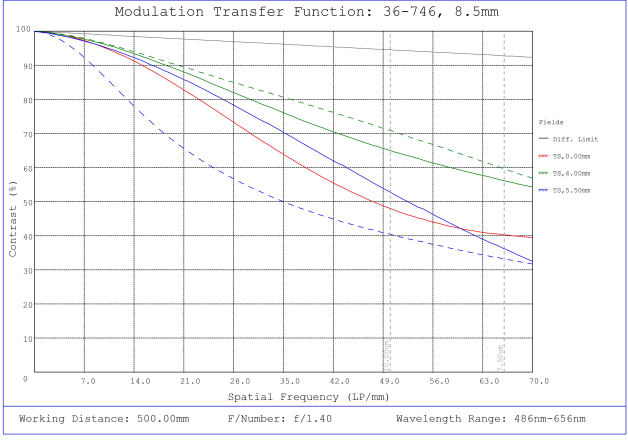
#36-746, 8.5mm f/1.4, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



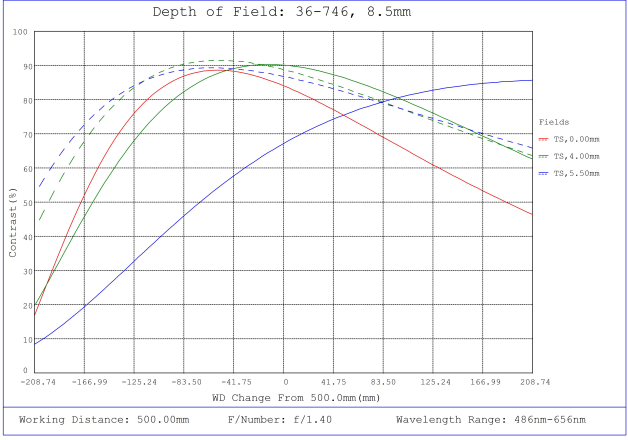
#36-746, 8.5mm f/1.4, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f1.4



#36-746, 8.5mm f/1.4, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f1.4



#36-746, 8.5mm f/1.4, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f1.4



#36-746, 8.5mm f/1.4, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f1.4

Compatible Cameras