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**TECHSPEC® 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens**



8.5mm f/1.8, 2/3" HPI Series Fixed Focal Length Lens, #36-747



Stock **#36-747** **3 In Stock**

⊖ 1 ⊕ **A\$1,000<sup>00</sup>**

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Volume Pricing	
Qty 1+	<b>A\$1,000.00</b> each
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**General**

HRi Series **Series:**  
Fixed Focal Length Lens **Type:**

**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

101.4mm - 56.8°	Horizontal Field of View @ Max Sensor Format:
Horizontal: 101.4mm - 56.8° Vertical: 74.2mm - 43.5° Diagonal: 130.5mm - 68.9°	Field of View at Max Sensor Format:
101.4mm - 56.8°	Horizontal Field of View, 2/3" Sensor:
81.5mm - 47.2°	Horizontal Field of View, 1/1.8" Sensor:
71.9mm - 42.2°	Horizontal Field of View, 1/2" Sensor:
64.8mm - 38.4°	Horizontal Field of View, 1/2.5" Sensor:
53.2mm - 32.0°	Horizontal Field of View, 1/3" Sensor:
39.6mm - 24.1°	Horizontal Field of View, 1/4" Sensor:
11.00	Maximum Image Circle (mm):
0.0249	Numerical Aperture NA, Object Side:
9 (8)	Number of Elements (Groups):
8.50	Focal Length FL (mm):
75 - ∞	Working Distance (mm):
f/1.8	Aperture (f/#):
425 - 675nm BBAR	Coating:
425 - 675nm BBAR	Coating Specification:
18.85	Entrance Pupil Position (mm):
25.03	Object Space Principal Plane (mm):
4.70	Image Space Principal Plane (mm):
-5.6	Maximum Distortion (%):
-17.93	Exit Pupil Position (mm):
75 - ∞	Optimized Working Distance (mm):
VIS	Lens Wavelength Range:

## Sensor

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

## Threading & Mounting

M58 x 0.75 (Male)	Filter Thread:
<a href="#">#87-425 (Required)</a>	Filter Thread Adapter:
M40 x 0.5 (Male)	Front Thread:

C-Mount

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

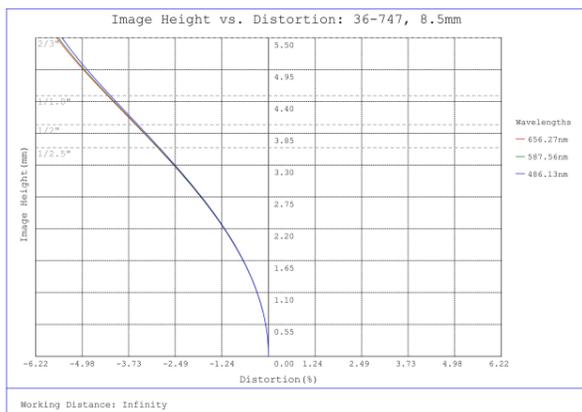
- 2/3", C-Mount Lens
- Up to 10 MegaPixels, 1.85µm Pixel Size Sensors
- Instrumentation (HRi) Versions of our HR Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 8.5mm to 12mm Focal Length
- [Ruggedized \(HRr\) Designs](#) Also Available

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.

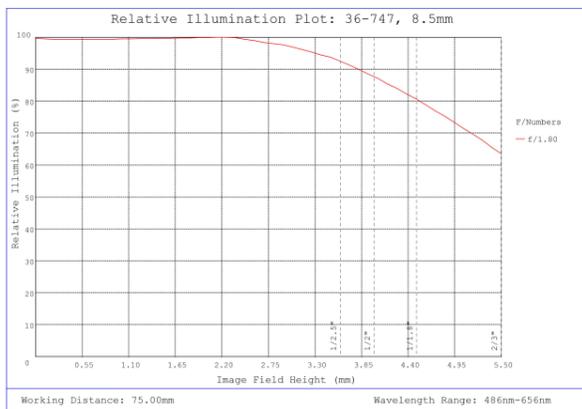
Edmund Optics has created a family of high performance optical designs (the HR Series family) and developed three customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the HR Series Lenses, providing the same optical performance in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



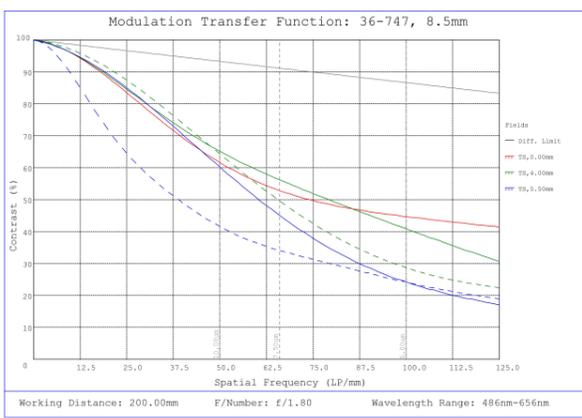
#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Distortion Plot



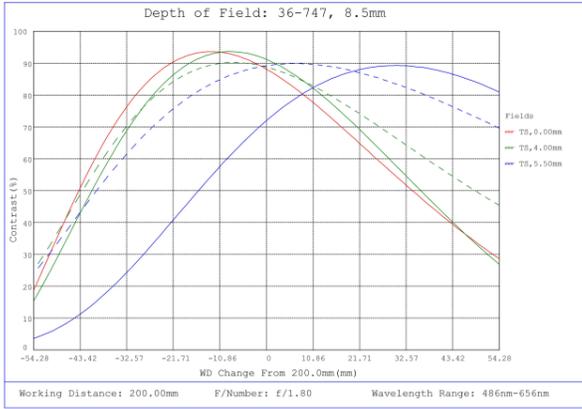
#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Relative Illumination Plot



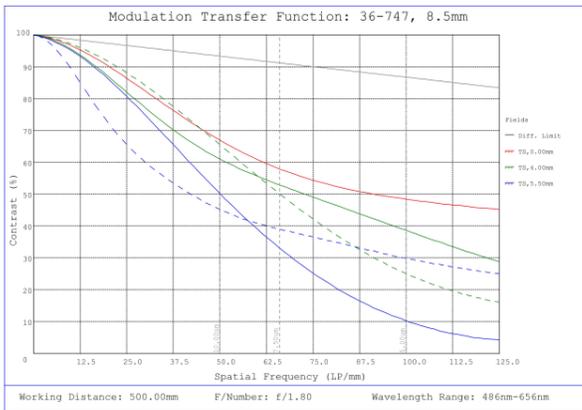
#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



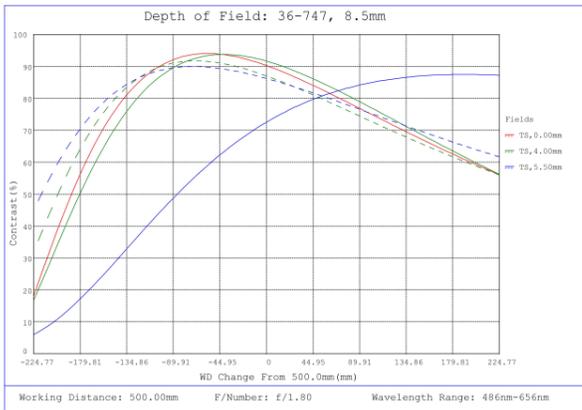
#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f1.8



#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f1.8



#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f1.8



#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f1.8

## Compatible Cameras