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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 ⊕ **\$821⁰⁰**

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Volume Pricing	
Qty 1+	\$821.00 each
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General

HRi Series **Product Family:**
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

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°

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:

#87-425 (Required) 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

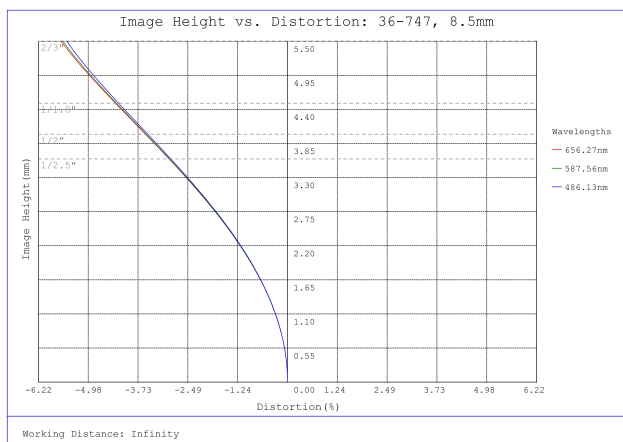
- 2/3", C-Mount Lens
- Up to 10 MegaPixels, 1.85µm Pixel Size Sensors
- Instrumentation (HRi) Versions of our HR Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 8.5mm to 12mm Focal Length
- [Ruggedized \(HRr\) Designs](#) Also Available

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.

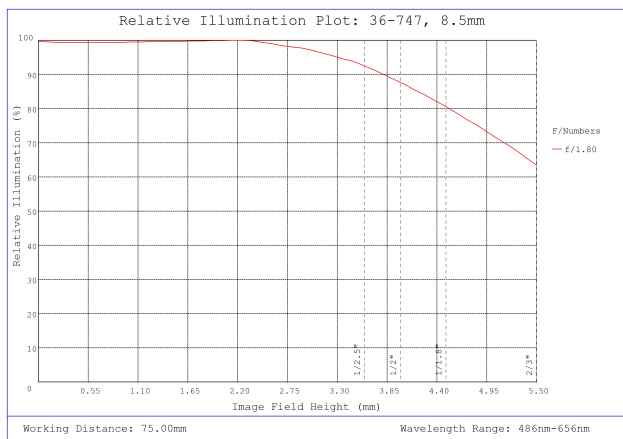
Edmund Optics has created a family of high performance optical designs (the HR Series family) and developed three customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the HR Series Lenses, providing the same optical performance in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

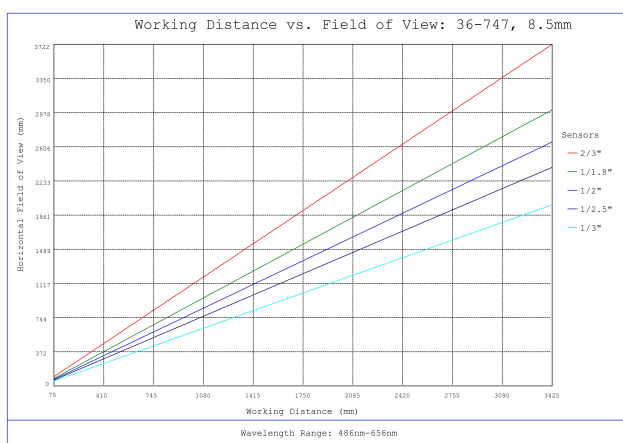
Technical Information



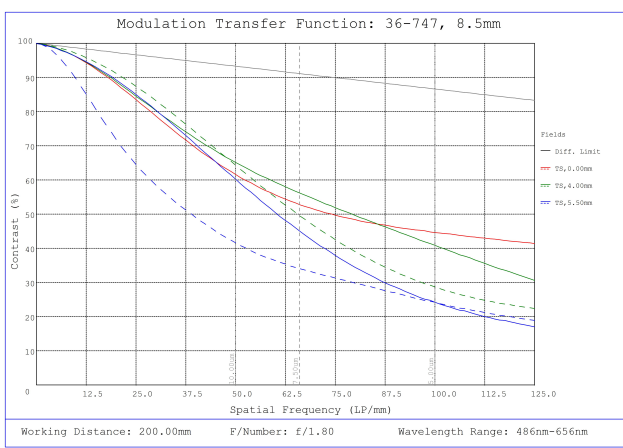
#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Distortion Plot



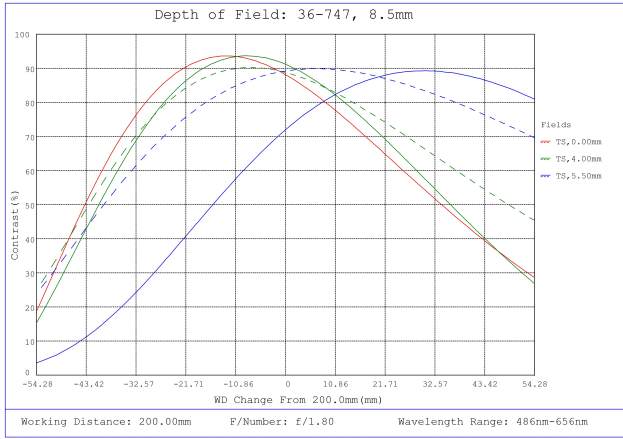
#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Relative Illumination Plot



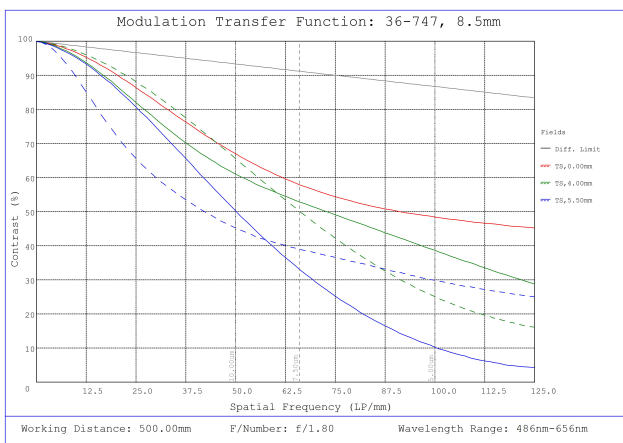
#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



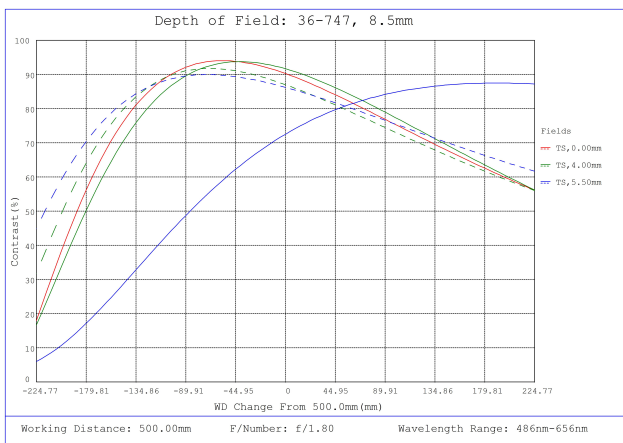
#36-747, 8.5mm f/1.8, 75mm-∞ Primary WD, HRi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f1.8



#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