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

8.5mm HRr Series Lens

Stock **#35-146** **20+ In Stock**

- 1 + **C$1,057**.50

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Qty 1+	**C$1,057.50** each
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General

Product Family:
HRr Series

Type:
Fixed Focal Length Lens

Imaging Lens Type:
High Performance Lens, Ruggedized to Withstand 50g of Shock

Physical & Mechanical Properties

Iris Option:
Fixed

Length (mm):
44.00

Maximum Diameter (mm):
41.5

Outer Diameter (mm):
41.5

Weight (g):
106

Maximum Rear Protrusion (mm):
1.31

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 x 0.75 (Male)

Filter Thread Adapter:

#87-425 (Required)

Front Thread:
M40 x 0.5 (Male)

Mount:
C-Mount

Environmental & Durability Factors

Storage Temperature (°C):
-20 to +60

Type of Ruggedization:
Stabilized (Robust Mechanics for Shock and Vibration)

Regulatory Compliance

RoHS 2015:
Compliant

Reach 209:
Compliant

Certificate of Conformance:
View

Product Details

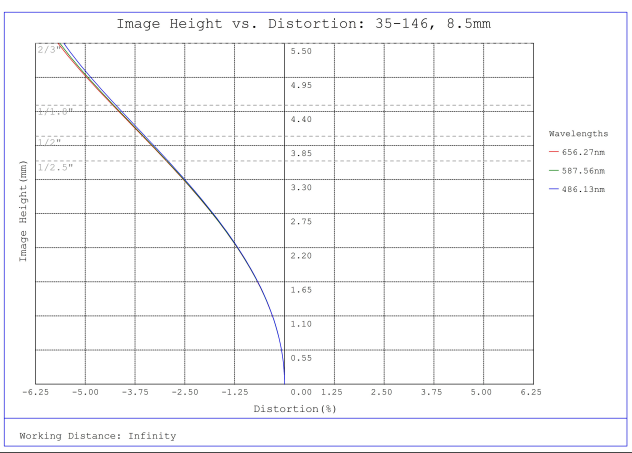
- 2/3", C-Mount Lens
- Up to 10 MegaPixels, 1.85µm Pixel Size Sensors
- Ruggedized (HRr) Designs (50g Shock) of our HR Series Lens with Individual Optics Glued in Place
- 8.5mm to 12mm Focal Length
- **Instrumentation (HRi) Versions** Also Available

TECHSPEC® HRr Series Fixed Focal Length Lenses are designed with a high level of machine vision performance in mind and provide stabilized ruggedization with all individual lens elements glued in place to reduce pixel shift. They are available in multiple options for each focal length to accommodate a variety of optimized working distance ranges. Additionally, the stainless steel locking C-Mount clamp and simplified focus provide added robustness. TECHSPEC HRr Series Fixed Focal Length Lenses are exemplary for calibrated imaging systems such as measurement and gauging, 3D stereo vision, robotics and sensing, autonomous vehicles, and object tracking. Call for OEM Quantity Pricing.

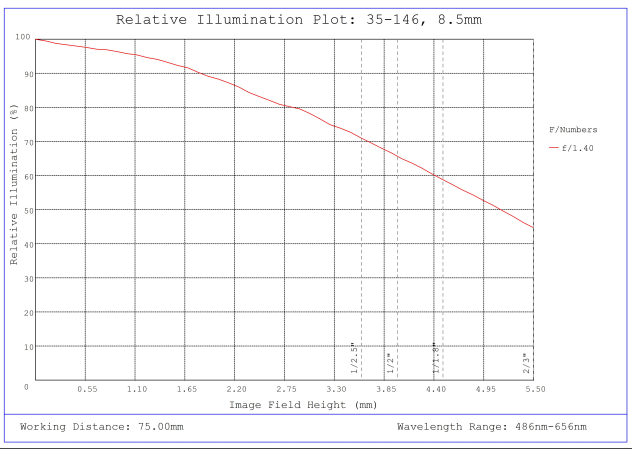
Edmund Optics has created a family of high performance optical designs (the HR Series family) and developed three customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the HR Series lenses providing the same optical performance in a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

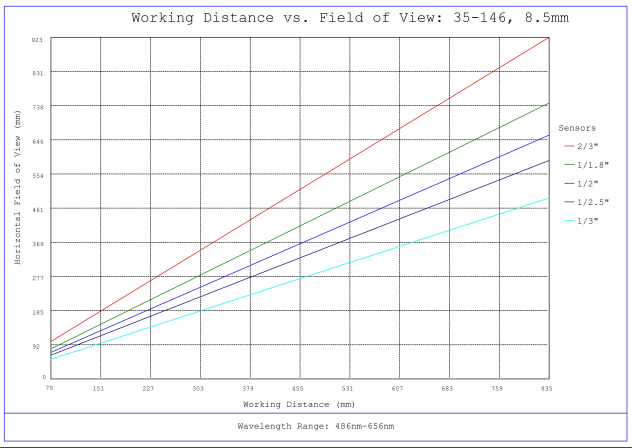
Technical Information



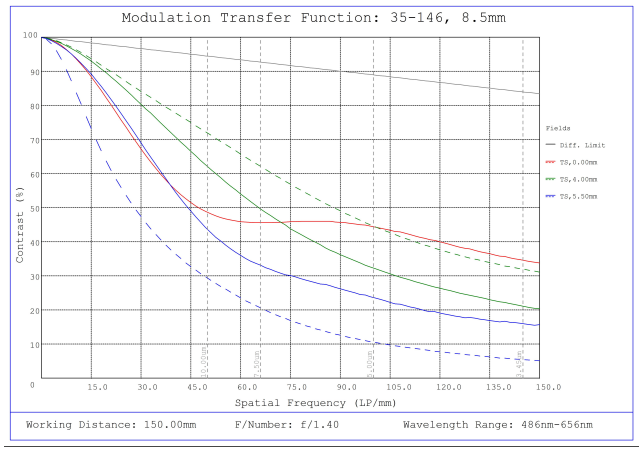
#35-146, 8.5mm, f/1.4, 75mm-∞ Primary WD, HRr Series Fixed Focal Length Lens, Distortion Plot



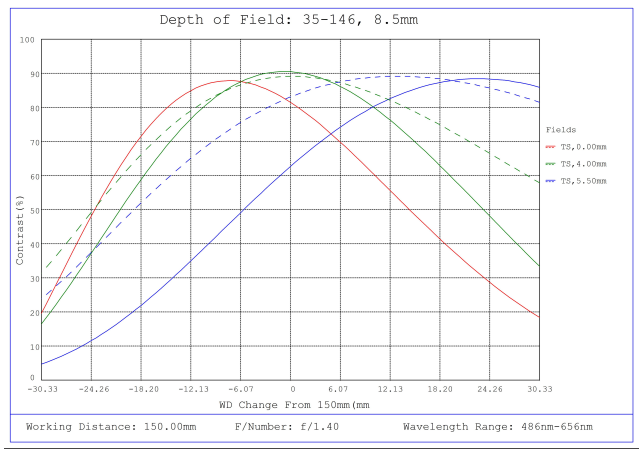
#35-146, 8.5mm, f/1.4, 75mm-∞ Primary WD, HRr Series Fixed Focal Length Lens, Relative Illumination Plot



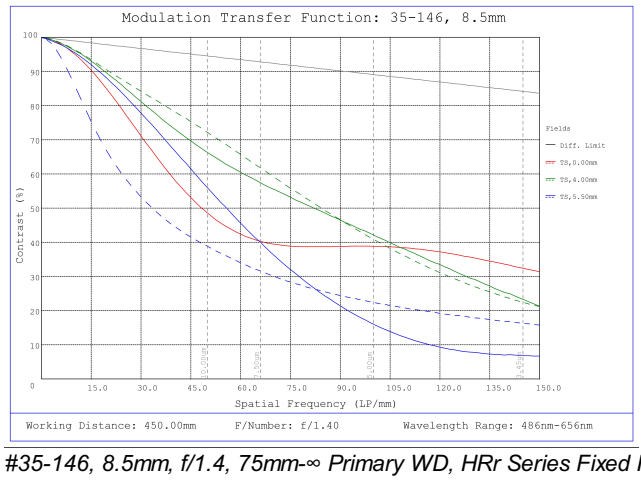
#35-146, 8.5mm, f/1.4, 75mm-∞ Primary WD, HRr Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



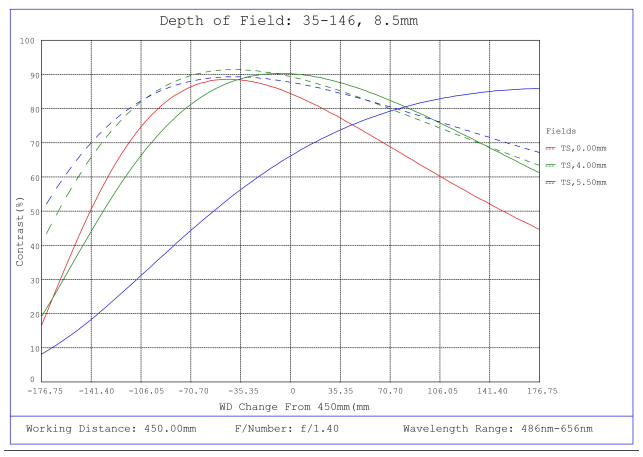
#35-146, 8.5mm, f/1.4, 75mm-∞ Primary WD, HRr Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f1.4



#35-146, 8.5mm, f/1.4, 75mm-∞ Primary WD, HRr Series Fixed Focal Length Lens, Depth of Field Plot, 150mm Working Distance, f1.4



#35-146, 8.5mm, f/1.4, 75mm-∞ Primary WD, HRr Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 450mm Working Distance, f1.4



#35-146, 8.5mm, f/1.4, 75mm-∞ Primary WD, HRr Series Fixed Focal Length Lens, Depth of Field Plot, 450mm Working Distance, f1.4

Compatible Cameras

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