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TECHSPEC® 12mm f/5.6, 400-2000mm Primary WD, HRi Series Fixed Focal Length Lens



12mm FL HPI Series Fixed Focal Length Lens



Stock **#36-764** **1 In Stock**

⊖ 1 ⊕ A\$1,000⁰⁰

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General

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

Physical & Mechanical Properties

Fixed **Iris Option:**

Length (mm):

39.20

Maximum Diameter (mm):

33

Outer Diameter (mm):

33

Weight (g):

57

Maximum Rear Protrusion (mm):

1.63

Optical Properties

Horizontal Field of View @ Max Sensor Format:
89.3mm - 41.7°

Field of View at Max Sensor Format:
Horizontal: 89.3mm - 41.7°
Vertical: 66.3mm - 31.6°
Diagonal: 113.1mm - 51.4°

Horizontal Field of View, 2/3" Sensor:
89.3mm - 41.7°

Horizontal Field of View, 1/1.8" Sensor:
72.5mm - 34.4°

Horizontal Field of View, 1/2" Sensor:
64.2mm - 30.7°

Horizontal Field of View, 1/2.5" Sensor:
58.0mm - 27.9°

Horizontal Field of View, 1/3" Sensor:
47.9mm - 23.1°

Horizontal Field of View, 1/4" Sensor:
35.8mm - 17.4°

Maximum Image Circle (mm):
11.00

Numerical Aperture NA, Object Side:
0.0088

Number of Elements (Groups):
10 (6)

Focal Length FL (mm):
12.00

Working Distance (mm):
100 - ∞

Aperture (f/#):
f/5.6

Coating:
425 - 675nm BBAR

Coating Specification:
425 - 675nm BBAR

Entrance Pupil Position (mm):
17.52

Object Space Principal Plane (mm):
26.27

Image Space Principal Plane (mm):
2.90

Maximum Distortion (%):
-3.26

Exit Pupil Position (mm):
-30.86

Optimized Working Distance (mm):
400 - 2000

Lens Wavelength Range:
VIS

Sensor

Maximum Sensor Format:
2/3"

Pixel Size (µm):
1.85

Threading & Mounting

Filter Thread:
M30.5 x 0.50 (Female)

Mount:
C-Mount

Environmental & Durability Factors

Storage Temperature (°C):

Regulatory Compliance

[View](#)

Certificate of Conformance:

Product Details

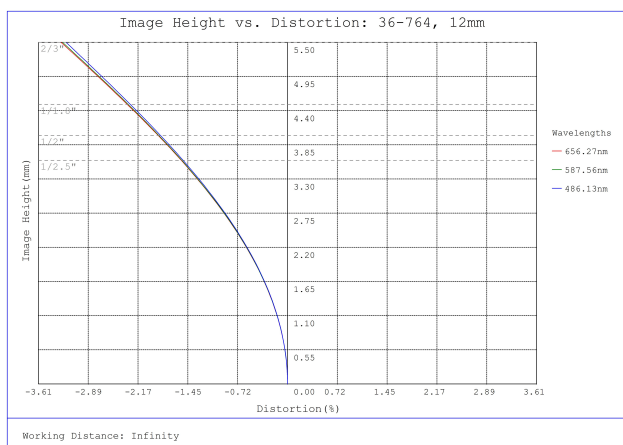
- 2/3", C-Mount Lens
- Up to 10 MegaPixels, 1.85µm Pixel Size Sensors
- Instrumentation (HRi) Versions of our HR Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 8.5mm to 12mm Focal Length
- **Ruggedized (HRr) Designs** Also Available

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, HRi 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.

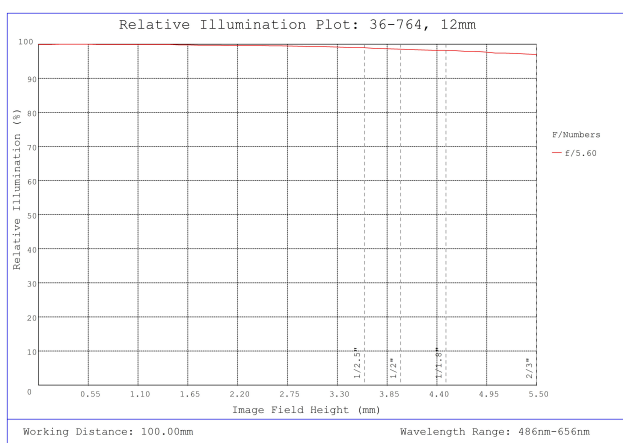
Edmund Optics has created a family of high performance optical designs (the HR Series family) and developed three customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the HR Series Lenses, providing the same optical performance in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

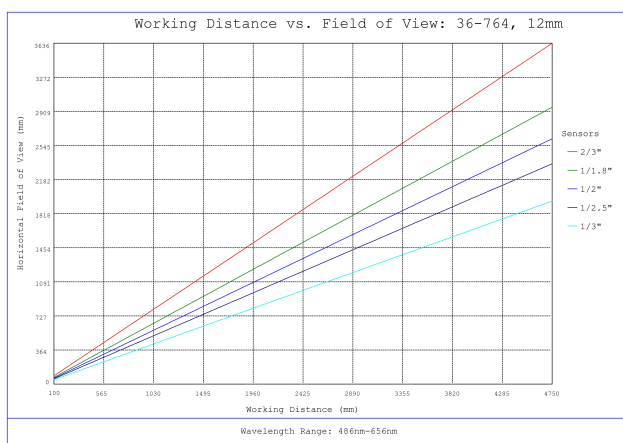
Technical Information



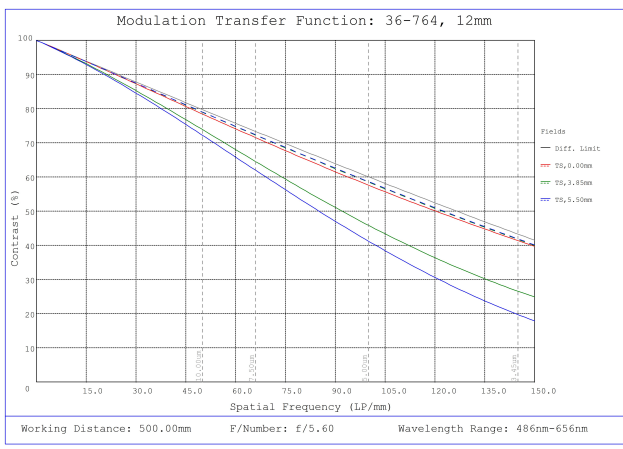
#36-764, 12mm f/5.6, 400-2000mm Primary WD, HRi Series Fixed Focal Length Lens, Distortion Plot



#36-764, 12mm f/5.6, 400-2000mm Primary WD, HRi Series Fixed Focal Length Lens, Relative Illumination Plot



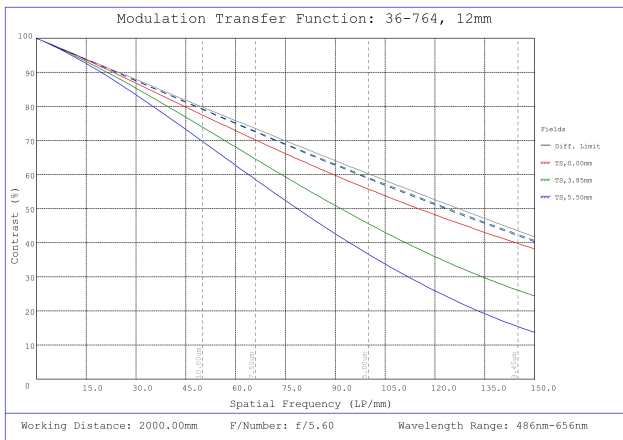
#36-764, 12mm f/5.6, 400-2000mm Primary WD, HRi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



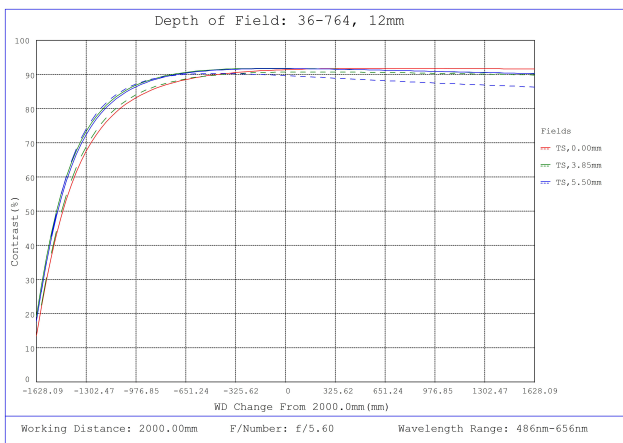
#36-764, 12mm f/5.6, 400-2000mm Primary WD, HRI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f5.6



#36-764, 12mm f/5.6, 400-2000mm Primary WD, HRI Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f5.6



#36-764, 12mm f/5.6, 400-2000mm Primary WD, HRI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 2000mm Working Distance, f5.6



#36-764, 12mm f/5.6, 400-2000mm Primary WD, HRI Series Fixed Focal Length Lens, Depth of Field Plot, 2000mm Working Distance, f5.6

Compatible Cameras