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TECHSPEC® 4mm, f/1.8 UCi Series Fixed Focal Length Lens



4mm UCi Series Fixed Focal Length Lens



Stock #33-855 **20+ In Stock**

− 1 + €235⁰⁰

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Volume Pricing	
Qty 1+	€235,00 each
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! Prices shown are exclusive of VAT/local taxes

Product Downloads

General

UCi Series **Product Family:**

Fixed Focal Length Lens **Type:**

No **IR Cut Filter:**

Imaging Lens Type:
High Performance Lens with Compact Form Factor
and Fixed Aperture

Physical & Mechanical Properties

Iris Option:
Fixed

Length (mm):
48.30

Maximum Diameter (mm):
40

Outer Diameter (mm):
40

Weight (g):
44

Maximum Rear Protrusion (mm):
0

Optical Properties

Horizontal Field of View @ Max Sensor Format:
23.0mm - 84.8°

Field of View at Max Sensor Format:
Horizontal: 22.8mm - 84.8°
Vertical: 15.6mm - 65.4°
Diagonal: 33.2mm - 101.7°

Horizontal Field of View, 1/2" Sensor:
23.0mm - 84.8°

Horizontal Field of View, 1/2.5" Sensor:
20.0mm - 77.8°

Horizontal Field of View, 1/3" Sensor:
15.6mm - 65.4°

Horizontal Field of View, 1/4" Sensor:
11.2mm - 49.7°

Maximum Image Circle (mm):
8.00

Numerical Aperture NA, Object Side:
0.0894

Number of Elements (Groups):
8 (7)

Focal Length FL (mm):
4.00

Working Distance (mm):
0 - ∞

Aperture (f/#):
f/1.8

Coating:
M4 MgF₂

Coating Specification:
M4 MgF₂

Entrance Pupil Position (mm):
12.69

Object Space Principal Plane (mm):
16.04

Image Space Principal Plane (mm):
5.84

Maximum Distortion (%):
-20.44

Exit Pupil Position (mm):
-12.68

Lens Wavelength Range:
VIS

Sensor

Optimized Sensor Format:
1/2.5"

Maximum Sensor Format:
1/2"

Pixel Size (µm):
1.85

Threading & Mounting

Filter Thread:
M62 x 0.75 (Male)

Filter Thread Adapter:
[#33-308 \(Required\)](#)

S-Mount (M12 x0.5)

Mount:

Environmental & Durability Factors

-20 to +60

Storage Temperature (°C):

Type of Ruggedization:
Industrial (Fixed Aperture with Simplified Mechanics)

Regulatory Compliance

[View](#)

Certificate of Conformance:

Product Details

- Up to 1/1.8", C-Mount, S-Mount Lens
- Up to 12 MegaPixels, 1.85µm Pixel Size Sensors
- Instrumentation (UCi) versions of our UC Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 4mm to 35mm Focal Length

TECHSPEC® UCi Series Fixed Focal Length Lenses utilize the same optics as the TECHSPEC UC Series Lenses and feature 4K resolution. These lenses are designed for small pixels $\leq 2.2\mu\text{m}$ and offer a wide range of fixed apertures for a variety of applications. While optimized for 1/2.5" sensors, many focal length options can be used on sensors up to 1/1.8". TECHSPEC® UCi Series Fixed Focal Length Lenses are ideal for OEM applications that require small, robust, and lightweight imaging solutions.

Note: For adjustable aperture options, see our [TECHSPEC® UC Series Fixed Focal Length Lenses](#).

Edmund Optics has created a family of high-performance ultra-compact optical designs (the UC Series family) and developed 3 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the UC Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

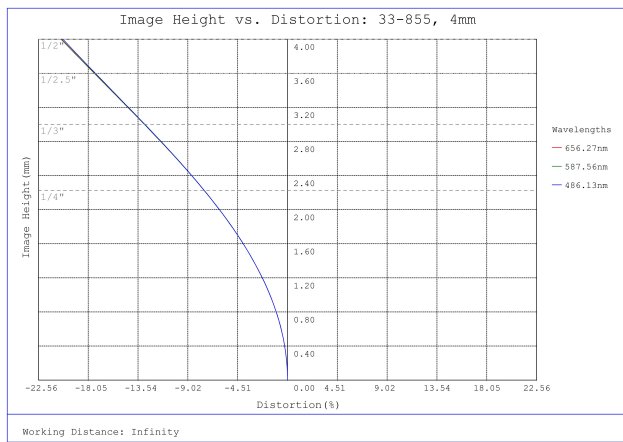
UC Series: Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

UCi Series: Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.

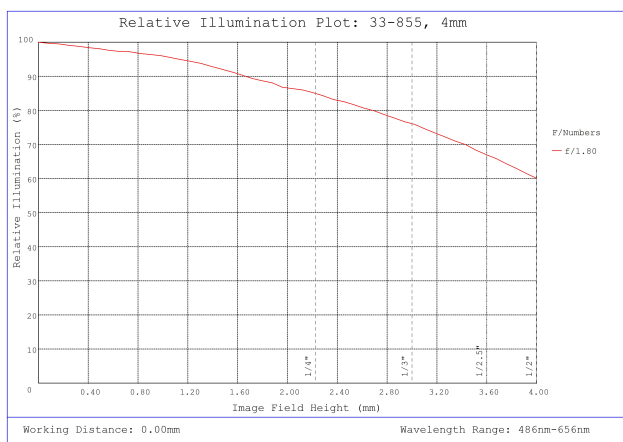
UCr Series: All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

UCw Series: Waterproof, designed to meet IEC [Ingress Protection](#) Code IPX7 to withstand exposure to water up to 1 meter depth for 30 minutes.

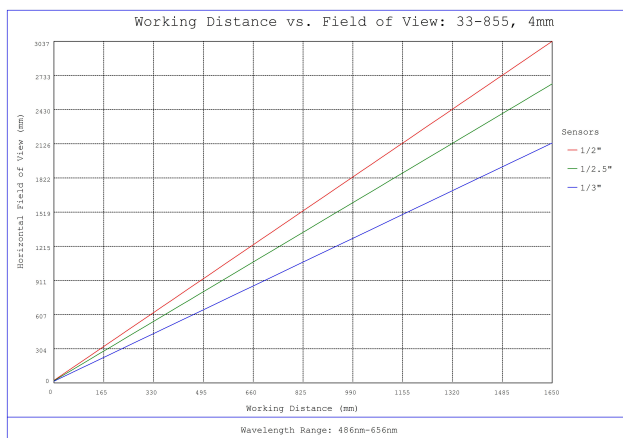
Technical Information



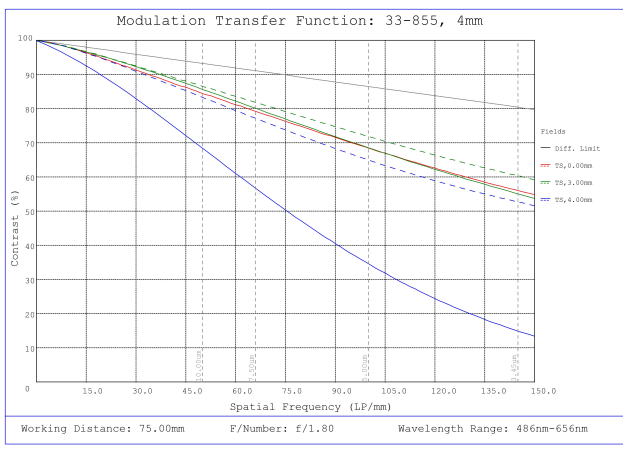
#33-855, 4mm, f/1.8 UCi Series Fixed Focal Length Lens, Distortion Plot



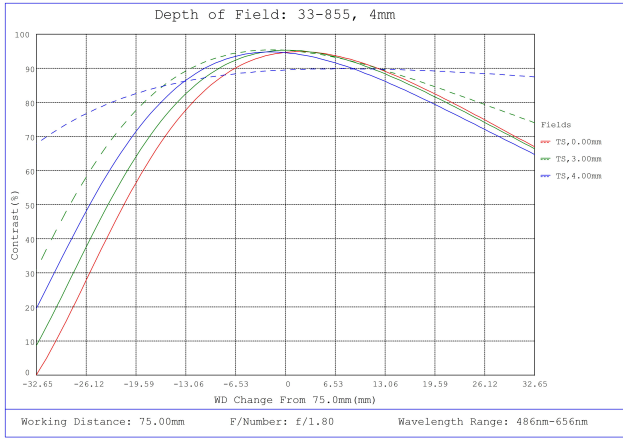
#33-855, 4mm, f/1.8 UCi Series Fixed Focal Length Lens, Relative Illumination Plot



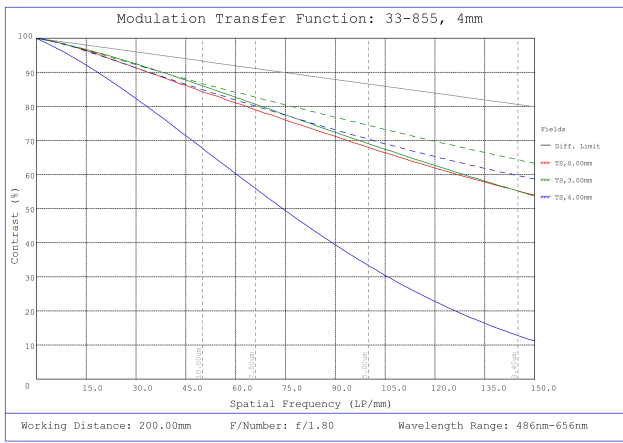
#33-855, 4mm, f/1.8 UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



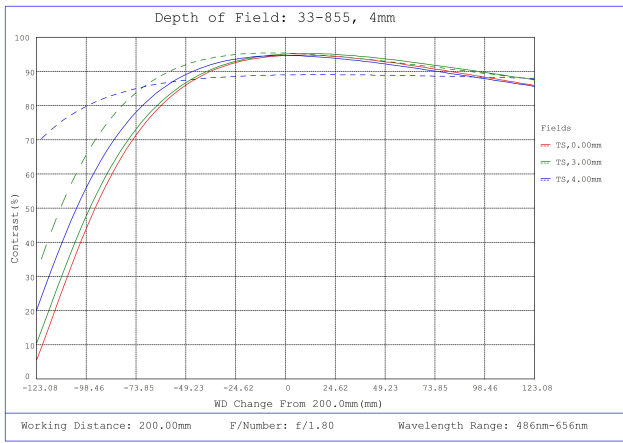
#33-855, 4mm, f/1.8 UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 75mm Working Distance, f1.8



#33-855, 4mm, f/1.8 UCi Series Fixed Focal Length Lens, Depth of Field Plot, 75mm Working Distance, f1.8



#33-855, 4mm, f/1.8 UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f1.8



#33-855, 4mm, f/1.8 UCi Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f1.8

Compatible Cameras