

LW05014 | DATASHEET

Long wave lens, 50 mm, F1.4



SPECIFICATIONS

Optical specifications

Focal length	(mm)	50
Image circle	(mm)	21.0
Viewing Angle	(°)	23.7
WD range ¹	(mm)	500 - inf
<i>f</i> / <i>N</i>		1.4
Wavelength range	(nm)	8000 - 14000
Distortion ²	(%)	0.20
Back focal length	(mm)	18.0

Mechanical specifications

Focusing		Manual
Mount		M46x1 FD 21.9
Length ³	(mm)	47.6
Outer Diameter	(mm)	71.0
Mass ⁴	(g)	300

¹ Working distance: distance between the front end of the mechanics and the object

² Percent deviation of the real image compared to an ideal, undistorted image

³ Measured from the front end of the mechanics to the camera flange at infinite focusing

⁴ Given with no mount attached. See layout drawings

KEY ADVANTAGES

High resolution

Designed for high resolution detectors up to 15 µm pixel pitch and 21 mm diameter.

Custom mount interface

Can be provided upon request.

Large field of view and low distortion

Superior optical performances.

HCAR coating

For applications exposing optical elements to harsh environments.

LWIR series is a range of long-wave infrared lenses specifically designed to operate in the 8-14 µm wavelength region with un-cooled detectors (a-Si, VOx, ...).

COMPATIBLE PRODUCTS

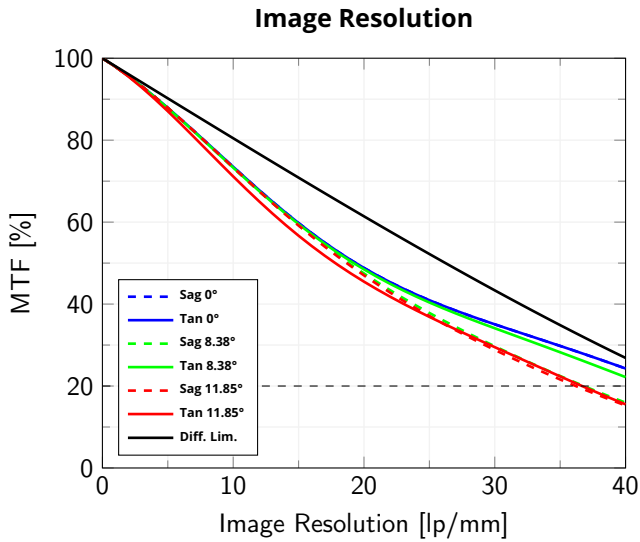
Full list of compatible products available [here](#).



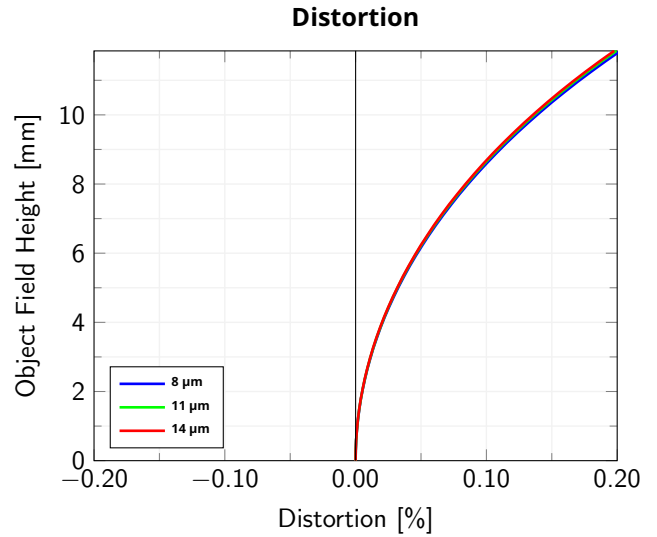
A wide selection of innovative machine vision components.

All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.

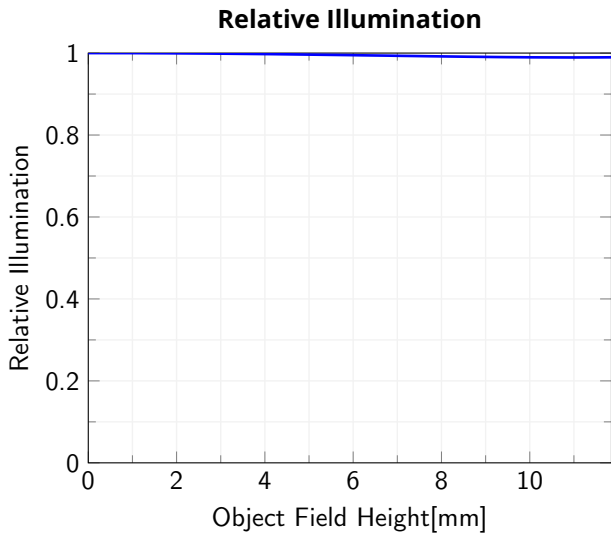
DATA AT INFINITY



Modulation Transfer Function (MTF) vs. Image Resolution, wavelength range 8 μm - 14 μm, at infinity working distance and maximum aperture



Viewing angle vs. Distortion, from the optical axis to the maximum angle of view



Relative illumination vs. Image Field Height, from the optical axis to the maximum image height at maximum aperture

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