

A Merger of Exotic Electro-Optics & LightWorks Optics





(Athermal) LWIR Objectives



F-number: F/1

Wavelength: 8-14 µm

Athermalized (-40 to +60C)

Narrow to Wide Field-Of-View

Optimized for 1024 x 768, 21mm FPA

Manual fine focus adjustment

Exterior High Durable/HDL AR Coating

Standard & customized camera mounts

LightWorks Optical Systems (LWOS) offers a series of F/1 athermal long wave infra-red (LWIR) fixed focus objectives in the 8 to 14 µm spectral region. These LWIR objectives are manufactured to provide extremely high optical MTF performance and are image plane telecentric providing radiometric grade imaging. A wide range of standard field-of-views are available for various applications. LWOS also provides custom LWIR objectives, engineered and built to customer requirements. Optional camera integrations are available upon request. For pricing or additional information, please contact us at (951) 926-7666 or email us at sales@exotic-eo.com.

OBJECTIVE SPECIFICATION

Focal Length	50 mm	100 mm	150 mm
Wavelength	8-14 μm	8-14 μm	8-14 μm
F Number	1.0	1.0	1.0
Full Field-of-View (FFOV)	24.9°	12.4°	8.3°
Image Diagonal	21.8 mm	21.8 mm	21.8 mm
MTF @ 30 lp/mm (On-Axis, Nominal)	>0.5	>0.5	>0.5
Back Focal Length	30.0 mm	30.0 mm	40.3 mm
Mount Type*	T	T	T
External Coating**	HDC/HCC	HDC/HCC	HDC/HCC
Transmission (Ave.)***	>85%	>85%	>85%



^{*} T = Threaded

^{**} HDC = High Durable Coating; HCC = Hard Carbon Coating; Coatings shall meet the quality requirements of MIL-C-675, MIL-STD-810, MIL-M-13508, MIL-F-48616, and MIL-C-48497 where applicable.

^{***} HDC average transmission over the 8-14 µm spectral region.