OTFI-0290

XLM High Output LED Fiber Optic Light Module

OTFI-0290

Key Features

- Bright - 20% more light output than our standard OTFI-0250

- Safe - emits virtually no ultraviolet or infrared radiation

- Easy coupling – flange-mounted optical alignment features for fiber input port

- Low electrical noise – EMI-shielded

- Energy-efficient - consumes less energy than Xenon

- On board temperature sensor for thermal monitoring

- Variable speed fan

- Compatible with 1 mm – 6 mm diameter fibers

- RoHS-compliant

Overview

Excelitas' XLM LED Fiber Optic Illuminator series combines the latest technology in solid state lighting with precision optics and advanced thermal management to deliver a revolution in high-brightness fiber optic illumination. The XLM LED Light Module is designed for integration into endoscope light sources, surgical microscopes, headlights and other applications that require bright, uniform illumination.

The high-performance LED Fiber Optic Light Module provides many advantages for the medical environment such as remarkable uniformity, virtually no ultraviolet or infrared emissions, maintenance-free, long-life operation, and a variable speed fan. Users of xenon, metal-halide and halogen lamps now have an alternative light source with all of these features.

In order to minimize an OEM's design time and reduce time-to-market, the fiber optic module includes both metric and imperial mechanical mounting fasteners. A flange-mount shaft with pilot holes located on a 27 mm diameter circle enables device manufacturers to integrate their own fiber coupling.

The XLM LED Fiber Optic Illuminator Series incorporates patent-pending LED technology, precision optics, an integrated state-of-the art thermal management system, electro-magnetic interference shielding, and easy access screw terminals for electrical connections.

Excelitas offers OEMs a variety of component-level light modules to choose from and has a fiber optic illumination solution to meet every need.

Applications

- Endoscopy Light Sources
- Surgical Microscopy
- Medical Headlights

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Product Specifications

Parameter	Symbol	Min.	Typ.	Max	Unit	Remarks / Conditions
Optical Characteristics						
Luminous Flux			2400		Lumens	
Color Temperature	CCT	5500	6300	7800	Kelvin	
Angle of light exit	FWHM		76		degrees	At 50% intensity points
Fiber Compatibility	Φ	1	5	6	mm	
Electrical Characteristics						
Input Voltage	VDC			5.4	Volts	Voltage for reference
Input Current	A			18		
Environmental Characteristics						
Cooling method	DC fan	7		12	Volts	Fan is rated for 70K hours
Operating Temperature	T_o	0°… +40° Humidity: 85% or less			°C	
Storage Temperature	T_s	-20°… +65° Humidity: 85% or less			°C	
Dimensions						
Physical dimensions	99 mm x 110 mm x 177 mm (H x W x D) 3.9" x 4.3" x 6.9" (H x W x D)					
Weight	916 grams; 32 ounces					
Safety						
Safety standards	Compliant with IEC/EN 60601-1 2nd and 3rd editions (CE Mark); RoHS per Eur. Directive 2011/65/EU					

Excelitas' XLM Fiber Optic Light Module, OTFI-0290, is a component-level module supplied to OEM medical device manufacturers for integration into the device manufacturer's endoscope, surgical microscope or medical headlight system. The XLM includes: LEDs, optics, heat sink with fan, temperature sensor, and electrical terminal block. It is enclosed in a sheet metal enclosure with fan guards.

The user shall provide the driver control electronics, power supply, system enclosure, switches and mechanical interface for the fiber light guide.
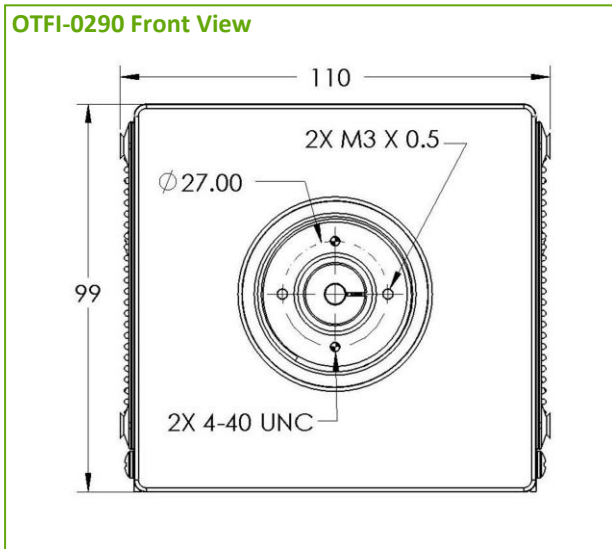
Custom solutions are available. Please inquire with Excelitas Technologies.

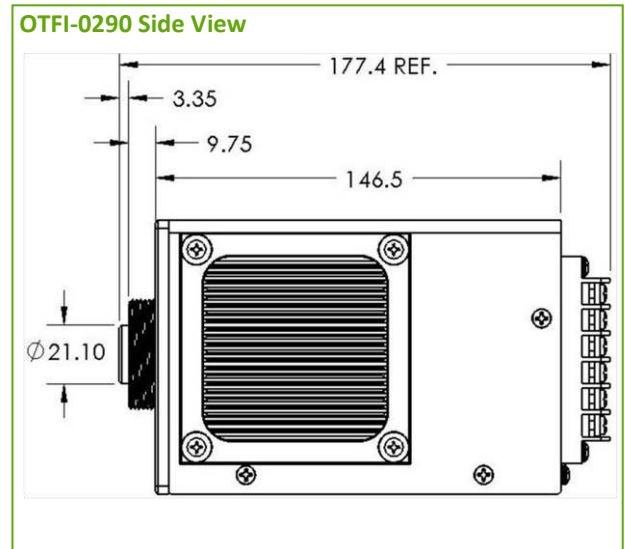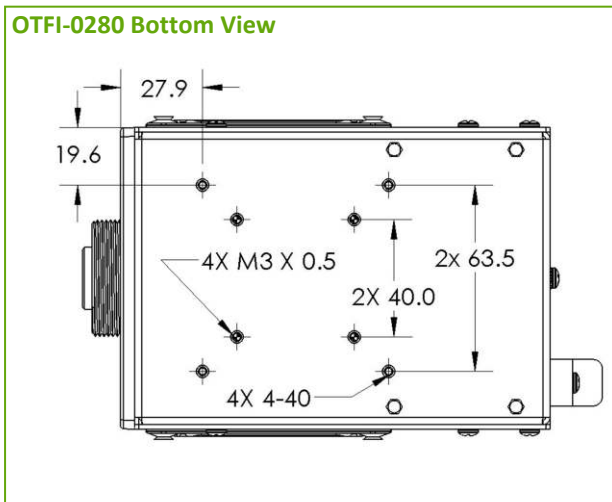# XLM High Output LED Fiber Optic Light Module
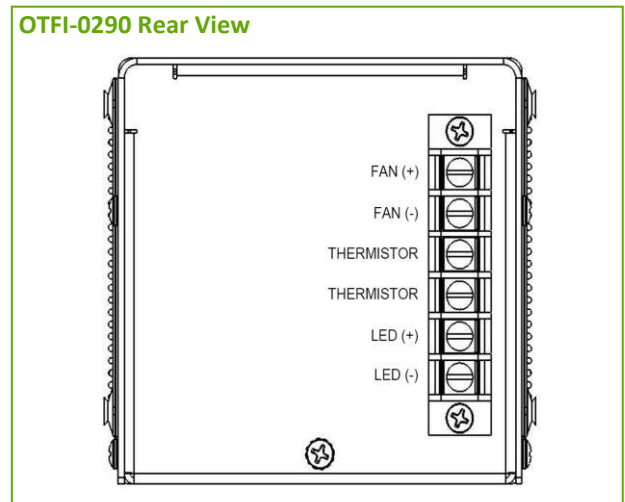
Physical Configuration

OTFI-0290 Front View

OTFI-0290 Side View

OTFI-0280 Bottom View
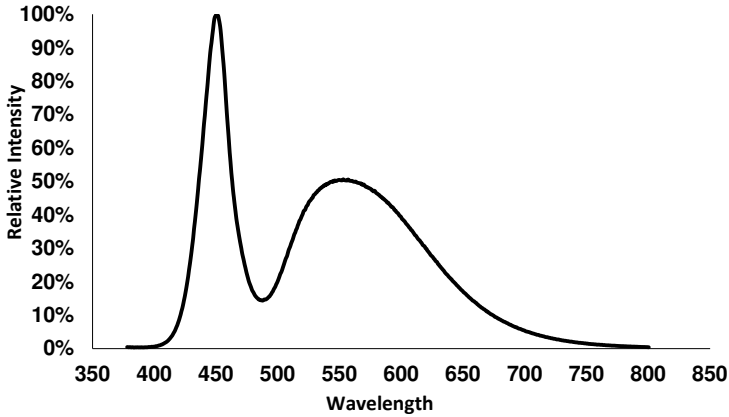

OTFI-0290 Rear View

*All dimensions shown in mm

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Spectral Profile
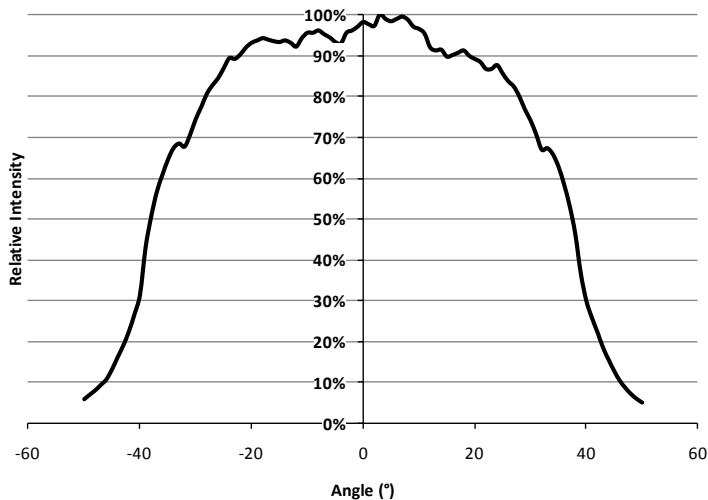

Spatial Profile

About Excelitas Technologies

Excelitas Technologies is a global technology leader focused on delivering innovative, customized solutions to meet the lighting, detection and other high-performance technology needs of OEM customers.

From medical lighting to analytical instrumentation, clinical diagnostics, industrial, safety and security, and aerospace and defense applications, Excelitas Technologies is committed to enabling our customers' success in their specialty end-markets. Excelitas Technologies has approximately 5,000 employees in North America, Europe and Asia, serving customers across the world.

Limited warranty for 24 months from date of purchase.
US and International patents pending.
Product improvements may result in specification or feature changes without notice.

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