OTFI-0100, OTFI-0110 and OTFI-0180
LED Fiber Optic Illuminator



Key Features and Benefits

- 150% brighter than 150-watt halogen EKE lamps
- Approximately 3 times more energy-efficient than halogen-lamp based technology
- Does not emit UV or IR light
- Low heat; is cool to the touch
- Compatible with most fiber light guides having glass bundle diameters from 3 mm to 20 mm
- Integrated handle permits stacking
- 15 step linear intensity control
- Small footprint frees up bench space
- RoHS compliant, UL and CE approved

Applications

- Microscopy
- Assembly and Inspection
- Industrial Borescopes
- Machine Vision
- Forensics

Overview

Excelitas' LED Fiber Optic Illuminator is an ideal light source for microscopy, assembly and inspection applications. Averaging light output that is 150% brighter than typical 150-watt halogen EKE lamps, the Excelitas LED Fiber Optic Illuminator provides bright, uniform illumination.

Using Excelitas' Fiber Illuminator keeps your production lines moving, eliminating downtime associated with maintenance. The LED Fiber Illuminator has no lamps, sockets or fuses to fail and its lifetime is more than 25,000 hours at 70% of its initial luminous flux.

Excelitas makes it easy to switch from halogen fiber illuminators to our LED Fiber illuminator because the LED illuminator utilizes a fiber adapter system that is compatible with most manufacturers' light guides, which have active illumination areas ranging from 3 mm to 20 mm in diameter.

Designed for microscopy, vision inspection systems, industrial borescopes and machine vision applications, the LED Illuminator, provides a consistent color temperature over time and when the light is dimmed, resulting in a more consistent visual appearance.

Excelitas' LED Fiber Optic Illuminator provides an energy-efficient, maintenance-free alternative to halogen and metal-halide fiber optic illuminators.

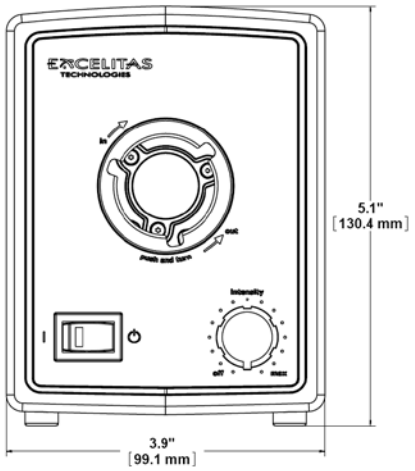
OEM configurations and custom solutions are also available. Please contact Excelitas for further details.

Product Specifications

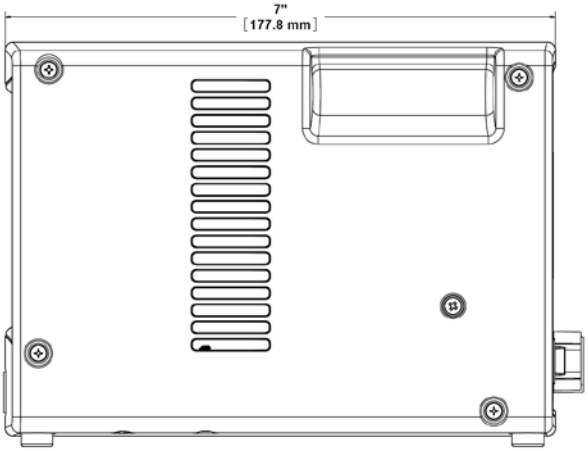
Parameter	Symbol	Min.	Typ.	Max	Units	Remarks / Conditions
Optical Characteristics OTFI-0100, OTFI-0110, OTFI-0180						
Color Temperature	CCT	5000	5300	6000	°Kelvin	Light output and color temperature may vary depending on fiber light guide characteristics.
Spectral output	λ	400		700	nm	
Fiber Compatibility	Φ	3 (0.118″)	5 (0.197″)	20 (0.787″)	mm inches	Accepts fiber light guides with glass bundle diameters from 3 mm – 20 mm diameter. Fiber adapters sold separately.
Optical Characteristics OTFI-0100, OTFI-0180						
Luminous Flux		680	905		Lumens	[1]Measured at the fiber insertion plane.
Luminous Flux			650		Lumens	Calculated out of an 8 mm .66 NA fiber light guide.
Luminous Flux		350	470		Lumens	[1]Measured out of a 5 mm .66 NA fiber light guide.
LED Life			25,000		Hours	Average hours of life at 25°C (L50/L70) at 70% of initial luminous flux.
Optical Characteristics OTFI-0110						
Luminous Flux		530	710		Lumens	[1]Measured at the fiber insertion plane
Luminous Flux			540		Lumens	Calculated out of an 8 mm .66 NA fiber light guide.
Luminous Flux		290	390		Lumens	[1]Measured out of a 5 mm .66 NA fiber light guide.
Electrical Characteristics						
Voltage Input	V AC	90/264 | 50/60			Volts/Hz	Universal external power supply with auto switching input voltage.
LED Drive Current	*I*	regulated DC			Current	Dimming is controlled by a 15 position rotary switch.
Power Consumption	W	56W typical			Watts	At maximum intensity setting
Environmental Characteristics						
Cooling method	Fan	Forced air cooling. Electronics driver board includes integrated thermal cut off to prevent overheating.				
Operating Temperature	T_o	0° to +40°			°C	
Storage Temperature	T_s	-20° to +65°			°C	
Safety						
Compliant with Safety standards	IEC/EN 61010-1:2001; UL 61010-1: 2005-07-22; CSA C22.2 NO 61010-1-2004-07; CE Mark; RoHS					
Measured using a calibrated Instrument Systems CAS 140CT spectroradiometer.						

Physical Dimensions

OTFI-0100 Front View



OTFI-0100 Side View

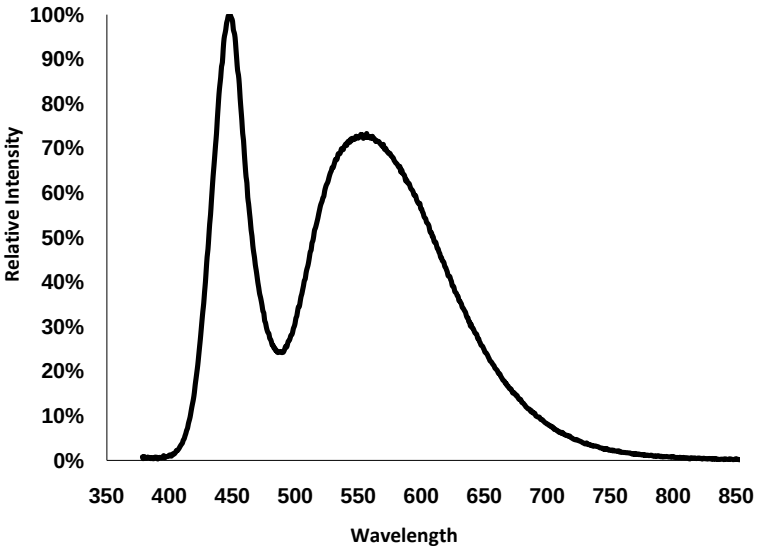


Air intake vents on rear; exhausts on sides. Do not block vents.

Physical Characteristics	
Physical dimensions	130.4 mm x 99.1 mm x 177.8 mm (H x W x D)|5.13” x 3.90” x 7.0” (H x W x D)
Weight including power supply OTFI-0100, OTFI-0110	2.7 kg | 5.9 lbs.
Weight including power supply OTFI-0180	1.9 kg | 4.2 lbs. Model OTFI-0180 is designed for use with ring lights. Due to the Illuminator’s reduced weight, it is not recommended for use with gooseneck light guides.

LED Fiber Optic Illuminator

Spectral Profile



Limited warranty is 12 months from date of purchase.
US Patent # D629,947. Other US and International patents pending.
Product improvements may result in changes to specifications or features without notice.
Euro, UK and North America line cords and fiber adapter accessories sold separately.

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 3,000 employees in North America, Europe and Asia, serving customers across the world.

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