MKR-LTE2-0IR

L-810(L) LED Double Obstruction Light with Infrared (IR)

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The MKR-LTE2-0IR Double
Obstruction Light integrates
visible Red LED and Infrared
Emitters into a double L-810(L).
Infrared energy (IR) can
enhance compatibility for
Aviator's Night Vision Imaging
Systems (ANVIS) and Night
Vision Goggles (NVG).



Precision molded Fresnel Optics produce a low ground scatter tower lighting solution. Die cast **aluminum construction** provides a 3/4 inch conduit hub for bottom mounting. Multiple 9kA MOVs and 20kA gas plasma discharge tubes provide robust surge suppression.

Features

- Integrated Infrared Emitters can enhance compatibility with Aviator's Night vision Systems (ANVIS) and Night Vision Goggles (NVG).
- Rugged die cast aluminum construction.
- Stainless steel latches and hardware.
- 3/4 Inch conduit hub for bottom mounting.
- Modular replaceable power supplies.
- Power supplies operate from 100 to 240 Vac, 50/60Hz
- Power Factor Corrected (PFC), PF≥0.9 @ 120Vac

Specifications

Specifications: Complies with FAA AC150/5345-43,

Type L-810(L).

Intensity: 32.5 effective candelas (min.)

Height: 7.5 Inches (19.1 cm)
Width: 17.0 Inches (43.2 cm)

Weight: 5.0 lbs. (2.3 Kg)

Power: 100 to 240 Vac, 50 / 60 Hz, 14W

Temperature: -40°C to +55°C

Humidity: less than 95%, non-condensing

Night Vision Goggles (NVG) and Aviator's Night Vision Imaging Systems (ANVIS) translate infrared energy (IR) into brightness variations on a human visible display. These systems utilize various filters and technology that affect their sensitivity to infrared energy (IR) of different wavelengths. International Tower Lighting, LLC (ITL) makes no claim or representation that the infrared energy (IR) emitted by ITL obstruction lights is visible to any NVG, ANVIS or other night vision imaging system. In no event shall International Tower Lighting, LLC (ITL) or any of its representatives be liable for any damages, including, without limitation, direct, consequential, indirect, punitive, incidental or special damages, in connection with the infrared energy (IR) emitted by ITL obstruction lights and/or whether any NVG or ANVIS can detect such Infrared energy (IR) or whether the infrared energy (IR) emitted by ITL obstruction lights is visible to any NVG, ANVIS or other night vision imaging system, regardless of the form of action.





ITL Infrared Equipped Obstruction Lights

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ITL Infrared Equipped Obstruction Lights utilize infrared emitters which can enhance compatibility with night vision systems. Many Aviator's Night Vision Imaging Systems (ANVIS) and Night Vision Goggles (NVG) utilize filters called "Minus-Blue Filters" which block visible light. Various filters are in use today including Class A (625nm) and Class B (665nm) shown in the relative response graph below. While the Class A filter allows some red light to pass through, the Class B Minus-Blue Filter has a cutoff wavelength of 665nm effectively rendering standard 620nm red LED obstruction lights invisible. ITL Infrared Equipped Obstruction Lights (ITL part numbers ending in "-0IR") include both standard red **LEDs and Infrared Emitters.** In night mode the infrared emitters operate synchronously with visible LEDs. The infrared emitters produce infrared radiation at 850nm. While there is currently no certification process to verify obstruction light compatibility with any night vision system, the wavelength of the infrared emitters in ITL Infrared Equipped

Obstruction Lights has been selected to be in the pass-band of both Class A and Class B

1.00 ITL 0.90 Infrared Emitters **CIE Photopic Curve** (850nm) 0.80 "Human Eye Response" Class A (625nm) Minus-Blue Filter 0.70 Relative Response ✓ Passes Much of the Red LED ITL 0.60 ✓ Passes Most of the IR LED Red LEDS (620nm) 0.50 Class B (665nm) Minus-Blue Filter Blocks Most of the Red LED 0.40 ✓ Passes Most of the IR LED 0.30 0.20 0.10 0.00 560 380 410 530 800 830 860 890 ©Copyright 2014-2015, International Tower Lighting, LLC λ - Wavelength (nm)

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minus-blue filters.



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