

High Output MR16 LED Emergency Lighting

MR16 LED Illumination

With the remarkable technology development in the last decade, the light-emitting diode (LED) is becoming the preferred solution in lighting applications. The emergency lighting industry is no exception: today virtually every new product introduced to market includes "white light" light LEDs for emergency illumination. Extremely efficient and long-lasting, LED lamps become the natural alternative to incandescent lamps due to three main advantages:

- **Lamp efficacy:** 50 - 100 lumen per watt compared to 15 - 30 lumen per watt for the best halogen lamp. Allowing for smaller batteries and units and/or remote capacity
- **Operational life:** 30,000+ hours, equivalent to a lifetime warranty in emergency lighting.
- **Lower lamp temperature:** (80 - 120°C) is a huge benefit for lighting in hazardous locations.

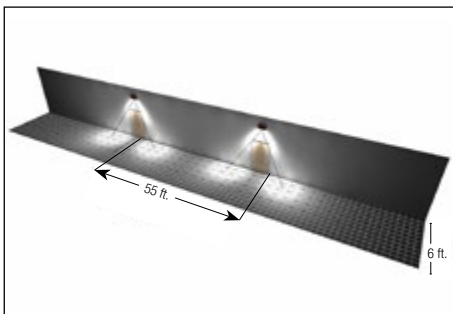


MR16 LED Lamp Benefits

- Reduces total cost of ownership, uses few fixture due to superior illumination, thus reducing installations cost and future maintenance of the entire system.
- UL-recognized components.
- Available for standard battery voltages 6V, 12V and 24V as well as 120V operation.
- Energy-efficient LED MR16 lamp provides equivalent lighting performance to a much higher watt halogen MR16 lamp.
- Reduces required battery capacity by 75%, for Battery Units and Remote heads.
- Small profile, compact white lighting is ideal for architectural applications.
- Typical 30,000 hours of Operational Life.
- Vibration-resistant LED stands up to industrial environments.
- Ideal for indoor and outdoor use.

200-220-Lumen 4W MR16 LED

Leading the technology trend, **Lightalarms®** offers a complete series of 4W MR16 LED lamps available for all the standard battery voltages: 6V, 12V, 24V and 120V. With up to 30,000 hours of operational life and a luminous flux of typically 200 to 220 lumens, they are available with most emergency heads designed to hold an MR16 lamp and meet the majority of illumination specifications. For example: one pair of LED emergency heads installed at a height of 7.5ft illuminates a 6ft by 55ft path of egress.

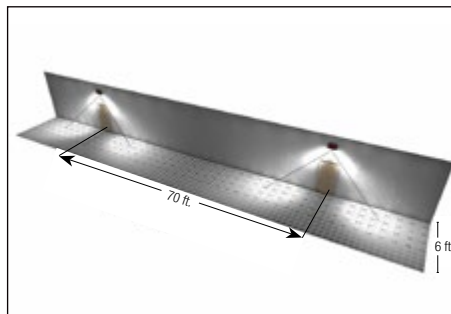


**55-ft. Path of egress
2 X 4W MR16 LED**

Based on an average of 1 foot candle

340-Lumen 5W MR16 LED

Keeping pace with technology, in 2012 we introduced a 12V-5W MR16 LED lamp. With a typical luminous flux of 340 lumens, this lamp has the same lighting performance as a 20W high-output halogen MR16. A twin emergency head installed at a height of 7.5ft illuminates 70ft path of egress.

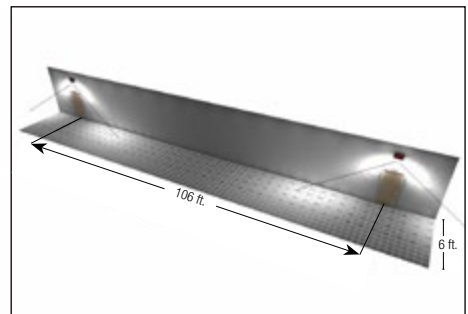


**70-ft. Path of egress
2 X 5W MR16 LED**

Based on an average of 1 foot candle

540-590 Lumen 6W MR16 LED

A 6W MR16 LED lamp delivers up to 590 lumens for an average spacing in emergency lighting of 106 feet with an efficacy of 98.3 Lm/w, it is over 6 times the efficacy of a MR16 35W halogen with similar light output. This lamp can deliver the highest linear foot of illumination per watt on a path of egress! (spacing in feet / watt) 8.83ft compare to 1.37ft for a MR16 35W.



**106-ft. Path of egress
2 X 6W MR16 LED**

Based on an average of 1 foot candle

Case Study: Fewer MR16 LED units required

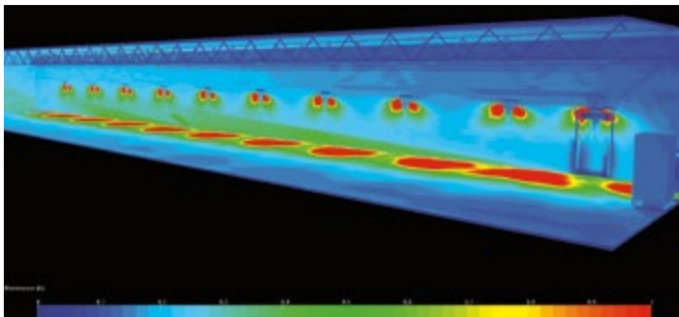
Emergency lighting units with MR16 LED lamps provide the same illumination at floor level using significantly less units.

- Reduced Installation Costs, less product needed and labor.
- Reduced Energy Costs, keeping batteries charged at full capacity to be ready to respond to an emergency situation at any time.

- Reduced Maintenance and Testing Cost, less units to maintain and test in the Emergency Lighting System.
- Reduced Lamp Replacement Cost, LED lamps have a 30,000+ hour lamp life compare to only a few hundred hour typical with incandescent lamps.
- Reduced Environmental impact, less product materials, less batteries, less transportation, less packaging, less labor, less waste.

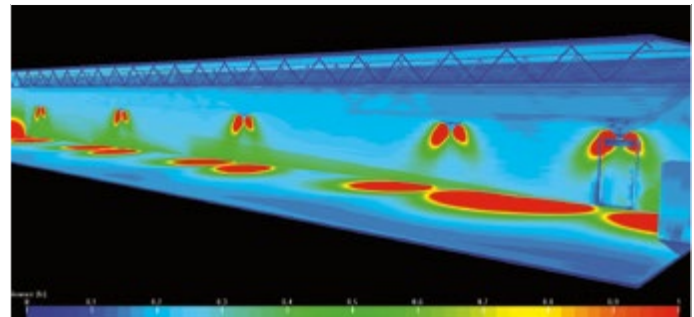
Compare

Where the building code requires an average of 1 foot-candle and a minimum of 0.1 foot-candle at floor level along the path of egress on a 150' x 9' x 9' corridor with an egress door at one end, a 150' x 6' path of egress, and a 7.5' unit mounting height.



Standard wedge-base 9W Incandescent Lamp

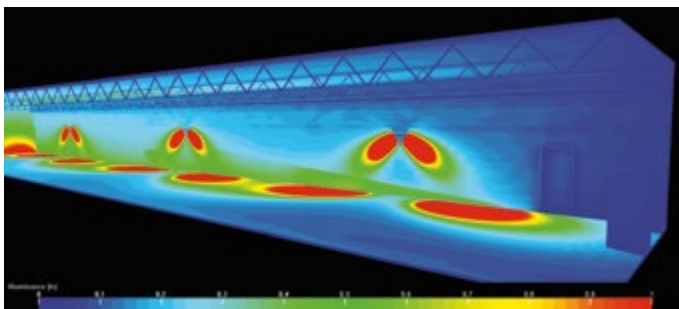
Standard Emergency Lighting Units with 9W wedge-base incandescent lamps requires a total of 10 double-head units or remotes



4W MR16 LED lamps

Same Standard Emergency Lighting Units with 4W MR16 LED lamps requires a total of 5 double-head units or remotes

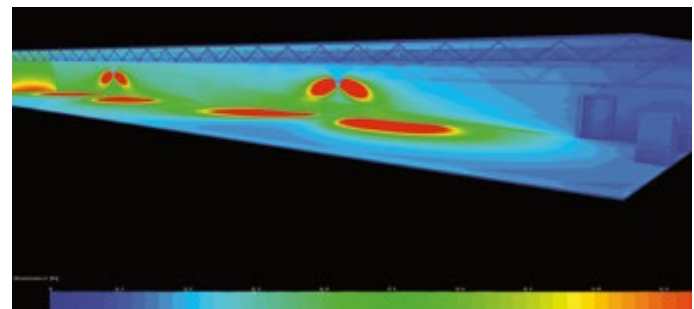
MR 16 LED LAMPS				
LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS	REPLACEMENT NUMBER
LD1	6	4	199	580.0097-L
LD7	12	4	220	580.0093-L
LD13	24	4	220	580.0098-L
LD14	24	6	590	580.0100-L
LD25	120	4	204	580.0095-L



5W MR16 LED lamps

Same Standard Emergency Lighting Units with 5W MR16 LED lamps requires a total of 3 double-head units or remotes

MR 16 LED LAMPS				
LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS	REPLACEMENT NUMBER
LD9	12	5	340	580.0104-L



New! 6W MR16 LED lamps

Same Standard Emergency Lighting Units with 6W MR16 LED lamps requires a total of 2 double-head units or remotes

MR 16 LED LAMPS				
LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS	REPLACEMENT NUMBER
LD10	12	6	540	580.0106-L
LD14	24	6	590	580.0100-L