



Smart Crosswalk™ DuraFlash™ IRWL

Series Part Number: LGS-M10

Description: Seamless in-roadway warning light (IRWL) in a clear polyurethane housing with high intensity LEDs

Application Notes:

DuraFlash™ is the next generation IRWL with a seamless, moisture-resistant design and ruggedized polyurethane exterior that is built-to-last. The IRWL flashes at the highly visible Enlighten1™ rate, and operates at 50% duty cycle.

The IRWL easily connects to the electrical cable system wires with snap-together water tight connectors. The interior of the light fixture contains custom-designed collimators for precise focused light output using high-intensity LEDs. A double redundancy design isolates the solid state electronics and sealed LED modules from environmental moisture and corrosive intrusion. DuraFlash™ fits tightly into the protective base plate, which contains a built-in Debris-Free Self-Clearing feature. The IRWL is fastened to the base plate with stainless steel button head 1/4"-20 screws with thread locks and factory applied anti-seize compound to the screws. Each individual IRWL faces away from the crosswalk and points in the direction of oncoming motorists' line of sight. The result is a slightly different, uniquely pointed angle for each individual IRWL.

IRWL is primarily used to alert motorists of: pedestrians inside, or about to enter a crosswalk using amber LEDs; a controlled STOP ahead using red LEDs; and as lane delineation markers using white LEDs. Typical environments for amber LEDs include: mid-block uncontrolled public crosswalks, school zones, trail crossings, and at facility entrances/exits, such as airports and hospitals. IRWL can be activated via push buttons, passive pedestrian detection bollards, and motion activated sensors. Once activated, the light fixtures flash, warning motorists up to 1,000 feet in advance.

Prior to crosswalk installation, the proposed site should be observed with particular attention to vehicle tire paths. Pursuant to Section 4N.05 & .06 of the MUTCD, IRWLs should be installed in the center of each traffic lane, at the center line of the roadway, at each edge of the roadway or parking lanes, or at other suitable locations away from the normal tire track paths. The location of the IRWLs within the lanes should be based on engineering judgement. For additional information, refer to our [published IRWL layouts](#).

Features/Benefits:

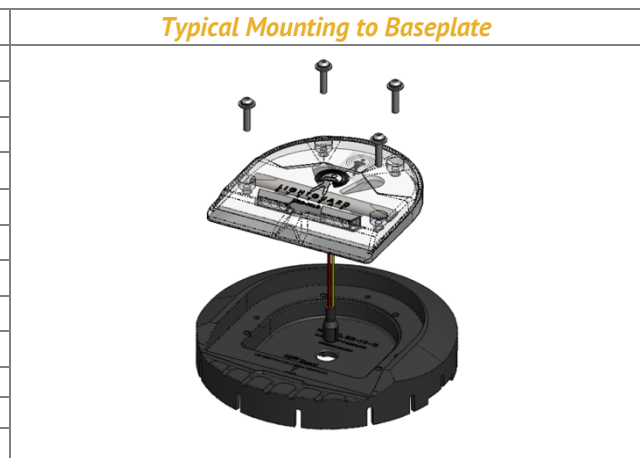
- Ruggedized polyurethane exterior requires minimal maintenance
- Seamless moisture-resistant design
- High-intensity LEDs
- Visible up to 1,000 feet
- Easily mounts to in-roadway base plate
- 12 VDC operation
- Snap-together watertight electrical connections
- Enlighten1™ photosensitive epilepsy safe flash rate
- MUTCD Chapter 4, Section N compliant



DuraFlash LGS-M10 with 10" LGS-SD10-C composite base plate and amber LEDs

General Performance Specifications

Parameter	Value	
Visibility	30° viewing angle ± 15°	
Viewing Distance	Up to 1 mile	
Operating Temp	-20° to 50°C	
Operating Voltage	12VDC to 14VDC	
DC Current @ 12 VDC	Less than 0.2 Amps nominal	
Avg Power Dissipation	2.5 Watts max	
Luminous Intensity	252,000 mcd	
Housing material / color	Polyurethane / clear	
Available LED colors	Amber	LGS-M10-A
	Red	LGS-M10-R
	White	LGS-M10-W
Compatible baseplates	LGS-SD10-C ; LGS-CHS-14	



Usage Notes and Limitations

Model LGS-M10 IRWL is designed to operate in a pulsed manner for compliance with MUTCD Chapter 4N. MUTCD states that steadily illuminated lights installed in the roadway surface are considered to be Internally Illuminated Raised Pavement Markers (IIRPM). When any LGS-M10 are used as IIRPM instead of IRWL, the manufacturer's warranty will not apply. Additionally, if customers choose to operate LGS-M10 as IIRPM, the drive voltage should be controlled/reduced so as to limit the current/power consumed (with commensurate reduced brightness) to mitigate the risk of higher thermally induced failure rates.

The following voltage levels should be used for the respective modules to improve longevity when operated as IIRMP:

<i>Model</i>	<i>Color</i>	<i>Minimum Voltage (VDC)</i>	<i>Maximum Voltage (VDC)</i>
LGS-M10-A	Amber	10	11
LGS-M10-R	Red	9	10
LGS-M10-W	White	11	11.5