

HOWARDTM
LIGHTING PRODUCTS



LED
SOLUTIONS



Visit us online at HowardLightingProducts.com or call us at 800.956.3456.



LED Solutions

Howard delivers exceptional value in our decorative, outdoor, commercial grade luminaires and poles. Providing energy efficient light sources and excellent service has been a hallmark of the company since inception. Now we bring you the next generation in energy efficiency, value and service, with the introduction of our sustainable LED solutions.

Solid-state lighting systems deliver extremely long life, high quality light, energy savings and reduced maintenance costs as well as several other benefits compared to current HID systems.

These systems have been designed to deliver maximum performance in a large number of Howard luminaires for both new products as well as a retrofit in an existing fixture.

Quality of light

- High Brightness LED's provide excellent color rendering (70-85+ CRI) which make people and objects appear more natural.
- Choice of bright, natural, or warm white color temperatures help to create a more comfortable outdoor setting than typical HID systems.
- Solid-state systems achieve full brightness (no warm up time like HID) immediately after being powered on.
- Instant restart after a power outage, eliminates the long wait typical of HID lamps needing to cool down before restarting.



Green technology

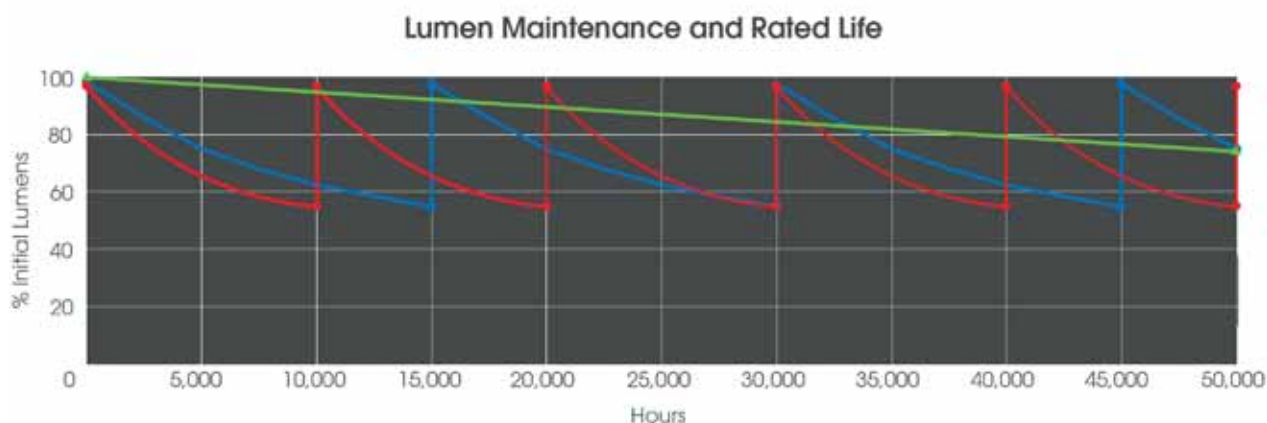
- No Mercury or other hazardous materials are used in the manufacturing of our LED system making it environmentally safe and recyclable.
- LED technology performs comparably to HID sources using less power therefore reducing CO² emissions.

Energy savings

- Higher sustained efficacy (lumens per watt)
- Lower driver (ballast) power consumption.
- Depending on the fixture and system, an LED light source can reduce energy consumption by 30% to 50% while delivering equal or greater lumens to the target area.

Reduced maintenance

- LED systems are designed to last for more than 50,000 hours at 70% initial lumens.
- No costly lamp replacements during the design life of the product.



Light Source	Lamp Change
LED	—
100wMH	—
175wMH	—

The chart illustrates how lumen depreciation and life affect the total cost of the lighting system. HID sources lose light output quickly during their rated life compared to LED. During the 50,000+ hour design life of the LED, there will be 3 or more lamp changes for the HID.

LED40 and LED80 Light Engine Specifications

Reliability and performance are the cornerstones of this solid state design. This unit will contribute to energy and maintenance savings wherever installed. The assembly consists of four modules with high brightness LED's mounted to individual heat sinks.

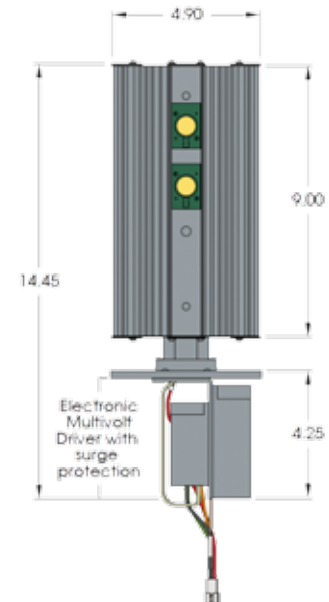
Product highlights

- 50,000+ hours of operational life
- Warm, neutral, or cool white color
- Fully gasketed and sealed lenses (IP 66 rated)
- 70+ CRI (Typical)
- Anodized aluminum heat sinks
- Simple to retrofit



Specifications	LED40	LED80
Number of LEDs	4	8
LED Beam angle	120	120
Input power	40W	80W
LED Operation current (mA)	700	700
Gross lumens @ 5300K	2970	5870

Note: Different CCT will yield a different lumen output



Textured or Frosted Lens Fixtures



AO21 Series AO25 Series AP24 Series AR20 Series CG Series D357 Series D720 Series D770 Series D770AP Series SRCG Series

Refractive Lens Fixtures



AO28 Series AR18GL Series APP19 Series ARP23 Series ASR26 Series D260 Series D540 Series D710 Series



D730 Series D730AO Series D730ARP Series D750 Series D760 Series D900 Series D950 Series SRGL Series

LANTERNS



D242 Series D281 Series D282 Series D790 Series D343 Series D480 Series

Put light where its needed

Available as 2, 3 or 4 sided configurations





Performance and directional control make this fixture highly versatile and able to accommodate for the needs of the strictest environments. Multiple size and shade configurations make this fixture suitable for a wide variety of decorative applications.

The decorative housing is vented at top and bottom to allow natural air convection cooling of sealed optical chamber, while protecting heat-sink fins from debris collection. The driver is accessible through the tool-less hinged shade. Greater than 88% optical efficiency, highly uniform with reduced hot-spot and greater fixture center spacing. This fixture uses less than 60% of the energy yet achieves greater fixture spacing, improved uniformity vs. Metal Halide with 67.5 Lumens/watt delivered on target.



DPS-3S



DPM-2M



DPL-1L



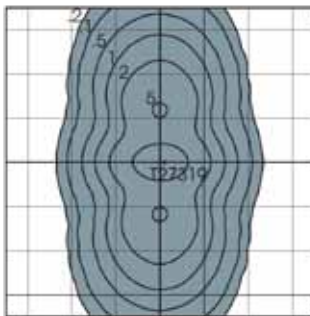
Product highlights

- Fully IP 66 Sealed optical chamber
- LED arrays and optics mounted using thermal blocks and generous heat-sink profiles to effectively manage thermal transfer.
- Convection cooling
- Tool-less driver access

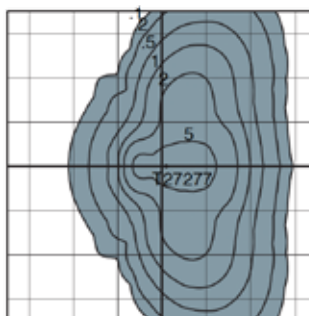
DPM-142-BX6

White interior and clear flat glass lens
 Six LEDs with spread lenses.
 Horizontal Footcandles
 Scale: 1sq = 12 Ft.
 Light Loss Factor = 0.80
 Mounting Height = 12.00 Ft
 Arrangement: Single

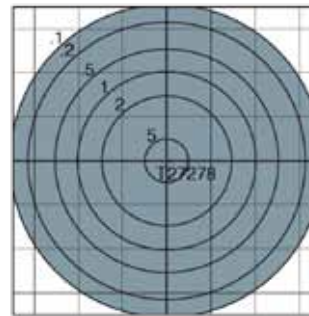
7808 Lms.
 Max. Calculated Value = 8.29 Fc
TYPE II



7522 Lms.
 Max. Calculated Value = 8.87 Fc
TYPE III



7681 Lms.
 Max. Calculated Value = 8.17 Fc
TYPE V



LED module

- High Performance individual optical refractive lens for each LED module.
- Natural or cool color temperatures
- IESNA Full Cutoff
- Available in Type 2, 3, 4, or 5 light patterns

Thoughtful design and attention to detail ensure the Passo LED Step Lights are truly one of a kind. Whether for new construction or retrofit applications, the Passo integrates solid-state technology and well proven construction techniques to deliver an extremely long lasting and virtually maintenance free light that enhances the safety and aesthetics of a project.



Retrofit

The Passo Retrofit has been engineered to easily and effectively replace the costly, high maintenance step lights already installed in existing locations. This completely sealed (IP66) LED unit can be retrofit into the housing of most compact fluorescent fixtures in about 15 minutes. The Passo doesn't rely on the integrity of the existing box or gaskets to be effective.



New construction

All Passo models possess the same great features and performance. When selecting a model for new construction you will find the attention to the housing design is just another characteristic that places the Passo a step above competitive products. An injection molded PVC housing with integral machined brass anchor blocks compliment the sealed properties of the LED module and driver. This assures protection against the potentially corrosive environment.

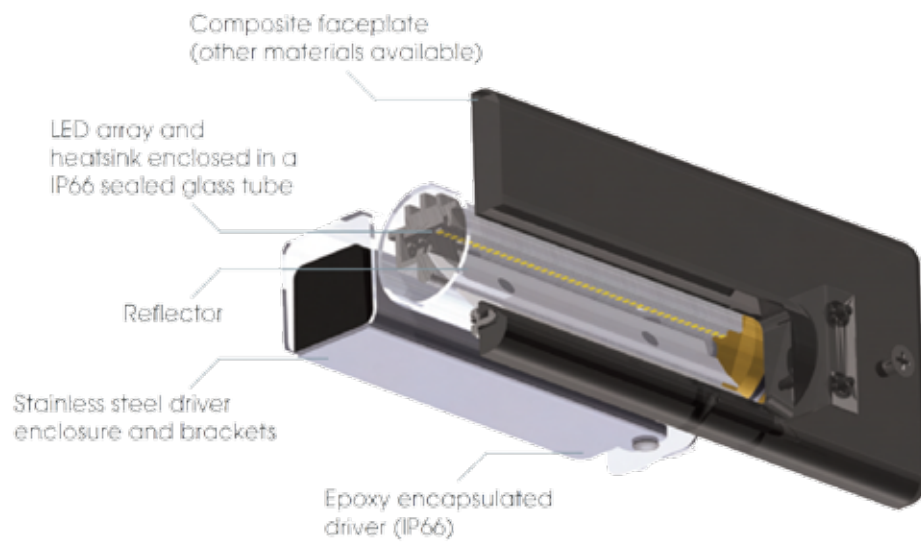




Faceplate materials

A choice of solid color composite, brushed stainless steel or painted cast aluminum faceplates provide a selection of product suited for a wide range of environments. See specification sheets for ordering logic.

Inside the Passo



Beyond aesthetics

Quality materials and exceptional performance are the foundation of our new line of architecturally styled bollards. Brushed, polished, or patinated, the natural beauty of copper and stainless are enhanced by a clean silhouette and unobtrusive design. Precision engineering delivers a full range of optical performance while maintaining 18W energy efficiency and 3000K, 5000K color temperatures. Workmanship and solid construction fulfill the promise of enduring performance.



The LED Optical Assembly is an indirect lighting system featuring an acrylic light transmission pipe and a secondary reflector. This system is designed for consistent performance over a long maintenance-free life.



It's all in the details...

A pressure sealed optical chamber with shielded gaskets and a column-compression body structure for strength are just the start. The absence of any external hardware and highly strengthened glass add to the mix to create an extremely tough barrier against nature's elements. All of this will ensure long lasting peak light performance in even the most demanding of environments.

IP66 RATED

SPECS	DMB2.5	DMB4
Ø	2.5"	4"
Height	12"-36" 24" (Std.)	12" - 48" 48" (Std.)





As LED changes and improves, so do we.

Howard utilizes a wide array of LED components to configure a solution for almost any luminaire. By successfully managing the thermal challenges presented by solid state lighting, we ensure that you get a luminaire that will perform to your expectations for many years to come.

Although our vertical lamp replacement and other systems shown here work well in many applications, we realize that each project is unique and has it's own needs.

With solid-state systems we can customize a solution to put the right light in the right place.

With options for intensity, distribution and color, there is a perfect solution for your project.

Call us or your sales rep today for more information.





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