STOUCH LIGHTING®
LED LIGHTING SOLUTIONS

Pathway and Bollard Lighting

E-Guide

www.stouchlighting.com

Definition

What is a Pathway and Bollard Light Fixture Application?

Bollard lights are a type of lighting fixture that is commonly used to illuminate pathways and landscapes for pedestrian use and safety. These pathway lights are typically round or square post style fixtures 2ft to 4ft high that project light horizontally and/or downward to provide necessary lighting for walkways

Below are a few image examples of outdoor Bollard Lights.

Most existing pathway lighting Bollards utilize High Intensity Discharge (HID) lamps such as Metal Halide, High Pressure Sodium, and if they are very old, Mercury Vapor Lamps. Compact Fluorescent Lamps (CFL) can also be found in non-LED bollard lights as well.

Download Our Lighting Comparison E-Book

Common Issues

What are some common issues with HID Bollard Lights?

Energy Costs

Common (HID) Lamp wattages used for outdoor Bollard fixtures range from 50 Watts to 150 Watts. The higher the wattage the higher the light output. The function of the area being illuminated, combined with the quantity, spacing, and height of the pathway light fixture plays a role in the existing wattages that are utilized. A 70w or 150w HID Bollard Light (very common wattages for outdoor pathway lighting) can cost up to $45 and $95 to operate per lamp, per year, in electricity alone.

Maintenance Costs

Maintenance costs are often a big concern for outdoor walkway applications such as HID Bollard Lights. In additional to the potential lamp **lifetime concerns**, Bollard Light Fixtures, being commonly mounted into concrete walkways on pedestrian or parking lot pathways, can easily cause interference with the day to day activities of customers or employees when changing out a lamp or a Ballast (can't forget out those ballast!). It can easily cost up to $400 in labor and material to maintain a single exterior Bollard fixture over the course of 3 years.

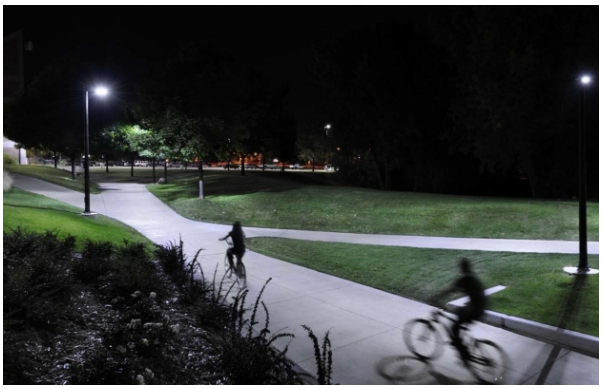
Lighting Performance

Depending on the type of HID Lamp your facility utilizes, the performance characteristics of your Pathway Lighting can vary significantly. For example, if you are using Metal Halide lamps you may see light that is **"Whiter"** , but these types of lamps tend to have accelerated lumen degradation, meaning the light output of the lamps decrease quickly after initial install, and as a result the overall lifetime of the lamp decreases (we have all seen those Bollard Light fixtures that have "pink" lamps that are barely providing any illumination on the ground). If you are using High Pressure Sodium you may see longer "useful" life as these lamps see less lumen degradation then Metal Halide, but their fuel structure produces a very "Orange" light with a very low **Color Rendering Index**. So basically you trade a longer life for a poorer quality light, in regards to visual perspective with HPS

Benefits of LED

What are the benefits of outdoor LED Bollard Lights?

Outdoor LED Lighting, such as LED Pathway and Bollard light fixtures, provide some excellent benefits for walkways or pathways requiring illumination because of how they **GENERATE** light and how they **DISTRIBUTE** light. **Light Emitting Diodes** generate light via a semi-conductor, as opposed to the consumption of a "fuel source" like in HID lamps. In regards to "distributing" light, LED fixtures commonly utilize "Multi-Point" sources, meaning the fixtures have Multiple Diodes with individual optics. When you compare this to the way most HID fixtures distribute light (with a single bulb and reflectors within the fixture), the result is light that is more **EVENLY** "distributed' across a given area.



Benefits of LED

The three most common benefits of LED Bollard Lights.

Energy Savings

Common wattages for LED Bollard light fixtures often range from 12 Watts to 40 Watts, often resulting in a 40%-85% reduction in energy consumption. The reason for this can be referenced to the **GENERATION** comments above, and can result in savings of up $100 per fixture per year in electricity costs.

Maintenance Cost Reduction

Again, due to the way LEDs generate light, the way they progress through their functional life is much different. Instead of ceasing to function properly once a fuel source is significantly reduced, LED generated light output degrades **VERY SLOWLY** over time. As a result the functional life (often in excess of 100,000 hours) of an LED fixture can be significantly longer than that of an HID Lamp, which in turn drastically reduces the costs for maintaining exterior flood light fixtures over a longer period of time.

Lighting Performance

Moving on to the way LED fixtures **DISTRIBUTE** light. As a result of the Multi-Point design, LED Bollard Light fixtures for pathway and walkway applications often provide a very **EVENLY** distributed light pattern. What this means is that light levels across a given surface will vary less as the distance from the pole or fixture changes. Compared to HID fixtures, which often product a “bright spot” directly underneath the fixture with light levels decreasing drastically as the distance from the fixture increases. The result, in regards to LED vs HID, is a more even foot candle distribution from the LED conversion. In addition to the even distribution of light, LEDs are available in a range of **color temperatures**, and as a result provide a range of options to increase the visual perception of “brightness."

Next Steps

How do I determine what the next step is to improve my outdoor Bollard Light application?

The first step is to speak with a LED lighting solutions provider that is **manufacturer neutral**. Why this approach as opposed to the company you may have used for the past several years? Unless that company has a focus on providing **LED solutions**, it is unlikely that will have the performance focused mentality that is required to obtain the desired results of an Exterior LED Lighting project for your municipal, campus, industrial and commercial Flood Light applications.

A crucial step in any LED project is understanding that **LED Lighting is NOT a commodity**.

Prior decades consisted of building facility managers and building owners evaluating product options purely on cost, assuming that all of the options in consideration were equal in quality. This is not case with exterior LED Lighting.

A solution focused supplier should ask you about your project objectives.

Do you have...

- **Budget constraints?**
- **Return On Investment Criteria?**
- **Energy reduction targets?**
- **Lighting performance requirements?**

The appropriate partner will want to get an understanding of your desired outcome, not just what specific products they can sell you. **Not all LED products are created equal**. There are different levels of value from different manufacturers for different applications, and by working with a company that has the product expertise to recommend a solution that meets your project priorities, you will ultimately achieve the best results. We'd love to know more about your **upcoming lighting project**, or **contact us** and we'll get in touch with you.