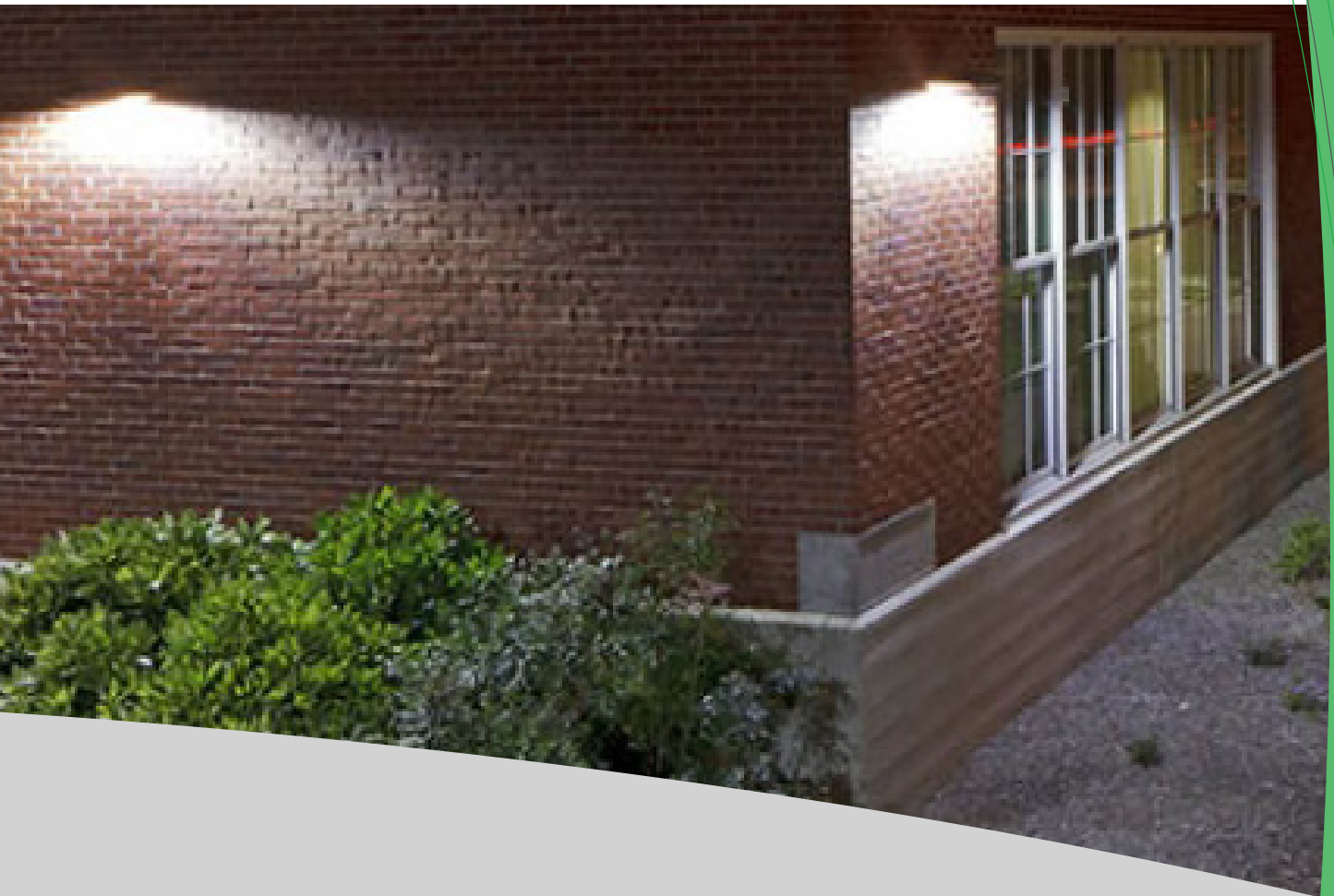




Wall Pack and Building Lights

Definition



What is a "Wall Pack Light" and "Building Light" application?

Wall Pack Lights and Building Lights are terms to describe the outdoor lighting that is commonly mounted on the exterior walls of buildings. This type of exterior lighting is generally used to provide illumination to areas for vehicles and pedestrians use, as well as for security purposes. It is not uncommon to see multiple fixtures mounted on a single building or wall, with the fixture spacing designed to provide lighting at the ground level around the exterior of a building.

Below are a few image examples of conventional building and wall pack lighting.



Most existing industrial light fixtures and commercial light fixtures such as Wall Pack Lights and building lights utilize High Intensity Discharge (HID) lamps such as Metal Halide, High Pressure Sodium, and if they are very old, Mercury Vapor Lamps. Below are some information on the types of HID Lamps

- [Lighting Comparison: LED versus HID](#)
- [LED versus Metal Halide Lights](#)
- [LED Versus High Pressure Sodium and Low Pressure Sodium](#)

Common Issues



What are some common issues with conventional Wall Pack Lights and Building Light Fixtures and lamps?

All HID lamps have some inherent characteristics that can lead to issues for those managing industrial lighting fixtures, commercial lighting fixtures, retail lighting fixtures, and school lighting fixtures.

Energy Costs

Common (HID) Lamp wattages used for wall pack lighting range from 70 Watts to 400 Watts. The higher the wattage the higher the light output. The function of the area being illuminated, combined with the quantity, spacing, and mounting height plays a role in the existing wattages that are utilized. A 175w or 250w HID Fixture (very common wattages for Wall Pack Light Fixtures) can cost up to \$91 and \$131 to operate per lamp, per year, in electricity alone.

Maintenance Costs

Maintenance costs are often a big concern for those managing outdoor lighting fixtures such as wall pack lights. In addition to the potential lamp lifetime [concerns](#), exterior building lights, being commonly mounted on building walls in excess of 15ft, may require the use of a lift to change out a lamp or a Ballast (can't forget out those ballast!). Many buildings and facilities do not own a lift and thus have to hire an outside contractor to maintain these of types fixtures. These are expenses that can really add up over the course of a few years. It can easily cost up to \$4,459 in labor and material to maintain a single Wall Pack Light fixture over the course of 3 years.

Lighting Performance

Depending on the type of HID Lamp your facility utilizes, the performance characteristics of your wallpack 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 building Light fixtures that have "pink" lamps that are barely providing any lighting on the ground). If you are using High Pressure Sodium you may see longer "useful" life as these lamps see less lumen degradation than Metal Halide, but their fuel structure produces a very "Orange" light with a very low CRI (Color Rendering Index). So basically you trade a longer life for a poorer quality light, in regards to visual perspective.

Benefits of LED



What are the benefits of LED Wall Pack Lights and LED Building Lights?

Industrial LED Lighting, Commercial LED Lighting, LED Retail Lighting, or any other applications using LED Wallpack Lighting can realize significant benefits 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 light 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 surface.

The three most common benefits of LED Garage Lighting and LED Canopy Lighting

Energy Savings

Common wattages for LED wall pack fixtures can range from 24 Watts to 82 Watts, often resulting in a 40%-60% reduction in energy consumption. The reason for this can be referenced to the "GENERATION" comments above, and can result in savings of up \$300 per fixture per year in electricity costs.

Maintenance Cost Reduction

Again, due to the way LED's 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 product can be significantly longer than that of an HID Lamp. For example, by converting conventional 250w HID Wall Pack to a LED wall pack, a typical facility with exterior building lights can save up to \$5,341 over the course of 3 years maintenance costs alone.

Benefits of LED



Lighting Performance

Moving on to the way LED fixtures “DISTRIBUTE” light. As a result of the Multi-Point design, LED Wall Pack Lighting applications often provide very EVENLY distributed light. What this means is that foot candles across a given surface will vary less between fixture mounting locations. Compared to HID fixtures, which often product a “bright spot” directly underneath the fixture with light levels decreasing drastically as the distance between fixtures 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 CCT’s (Correlated 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 Wall Pack Lighting and Building Lighting?

The first step is to speak with a LED lighting solutions provider or LED Lighting Company 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 Light Fixtures and Lamps, it is unlikely that it will have the performance focused mentality that is required to obtain the desired results of a LED retrofit project for your Wall Pack Lighting applications. A crucial Step in any LED project is understanding that LED is NOT a commodity. Prior decades consisted of building facility managers and owners evaluating HID fixture options purely on cost, assuming that all of the exterior light fixtures, industrial lighting fixtures, and commercial light fixture options in consideration were equal in quality. This is not case with LED Light Fixture options.

A solution focused supplier should ask you about your project objectives. Are there budget constraints, energy reduction targets, lighting performance requirements, etc? 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 Wall Pack fixtures 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.

