

## Innovate Your Warehouse with High-Bay Lighting from LEI

Lighting represents more than 60% of the average warehouse's electricity end use.<sup>1</sup> Much of that electricity goes to high-bay lighting, which is defined as indoor lighting in spaces with ceilings that are 25 feet tall or higher.<sup>2</sup> Unfortunately, much of the electricity used to light those fixtures is wasted, primarily due to outdated technology.

Wasted electricity in warehouses comes in many forms, but the reliance on older lighting technologies, such as high-intensity discharge (HID) and linear fluorescents, is the most notable example. That is why many warehouse owners and managers have recently turned to light emitting diodes (LEDs) for their high-bay fixtures. However, the Tube Lights from LEI for High-Bay lighting are 37% more efficient than LED's so **LEI can reduce the lighting bill for a warehouse by at least 37% more than LED's.**

### LED lighting makes inroads in warehouse lighting

In the first decade of the 21st century, LED adoption was relatively low in warehouses. Older versions of LEDs didn't provide the same level of illumination as HIDs, which made them impractical. However, that has changed in recent years as LED technology caught up to the lighting needs of modern businesses, including warehouses. **By using these High-Bay Tube Lights from LEI warehouse owners can take another more cost-efficient step.**

In fact, the installed base of LED high-bay lighting more than quintupled between 2010 and 2012.<sup>3</sup> As such, **innovative warehouse owners and managers have an enormous opportunity to outpace their competitors by getting in on the ground floor of the LEI market instead of the LED market.**

### Practical benefits of LEI high-bay fixtures for warehouse lighting

Recent LEI lighting developments have made their application ideal in warehouses and other storage and shipping facilities for many reasons. Not only do LEI's Tube Lights use less energy than LED lights, they offer many other benefits that make them perfect for warehouse owners and managers who are intent on using innovation to maximize profits, create a safer work environment and streamline their overall operations. The following are 5 benefits that demonstrate the value LEI high-bay lights and fixtures can bring to warehouses.

#### 1. **Reduced heat output**

LEI's lights have a much lower heat output than other lights, including LED's. This can be particularly helpful for refrigerated warehouses, where the heat given off by older bulbs makes it difficult to maintain optimum refrigeration temperatures and leads to higher energy costs.

#### 2. **Light quality and safety**

With LEI's lights, warehouse lighting can make for a safer and more productive work environment. Employees can see more clearly, making movement throughout the facility much easier. Additionally, with correct lamp placement and well-designed units using LEI's lights, forklift operators can move through loading areas better with improved visibility to see other employees and potential obstacles.

#### 3. **Reduced maintenance**

Due to their height and the large number of bulbs required, high-bay fixtures are some of the most difficult to maintain. Getting to bulbs that need to be replaced requires special equipment. Older bulbs with shorter life spans than LEI's need to be replaced frequently as do their ballasts. LEI's last 2 to 5 times longer than HIDs<sup>4</sup> and LED's, and are guaranteed for 5 years, which means less time and resources being devoted to basic maintenance.

#### 4. **Lighting controls and motion sensing bulbs**

LEI' lights also lend themselves easily to lighting controls. They turn on and off immediately, whereas HIDs take much longer to reach full brightness. They can be connected to occupancy and other lighting sensors so that intermittently used spaces are not lit when they aren't being used. **LEI has their own Intellisense™ Tube light that has a built-in microwave motion detector.** Instead of turning the light completely off, as with other motion detectors, the 20 W bulb automatically dims down to 5 W if not motion is detected within 30 seconds. As soon as motion is detected they immediately return to full brightness. This makes them particularly useful in energy-wasting applications such as stairwells and parking garages where lights are typically on at full brightness 24 hours per day.

5. **Title 24 compliance**

The latest update to California's Title 24, which went into effect in July 2014, better educates larger commercial facilities on the importance of lighting sensors used for added energy efficiency. LEI's make it easier for businesses to comply with these standards because of their reduced energy usage and compatibility with most lighting controls.

**Financial benefits of LEI's high-bay lights**

Since a commercial lighting retrofit for warehouse lighting can be more extensive than it is for other facilities, costs will always be a concern. However, when long-term savings are factored in, the financial benefits become readily apparent. Additionally, available programs such as PG&E's On-Bill Financing (OBF) in Northern California, offer businesses benefits (based on eligibility) which include interest-free loans and funding on numerous technologies, such as lighting, HVAC, refrigeration and energy efficient lighting such as that offered by LEI. Other programs, such as the SureBet program offered by NV Energy in Nevada, will give customers a one-time cash rebate when switching to more energy efficient lighting based on the number of kilowatt-hours saved.

A recent study conducted by RR Donnelley at its Stead (Reno) Nevada-based printing plant found that LEI tube lights installed in their existing fixtures after the ballasts had been removed, led to significant energy savings.<sup>5</sup> In that study, which was done in a 82,500-square-foot warehouse section of its 600,000+ square-foot plant, the return on investment (ROI) was calculated at 1.9 years. Just as important, there was a 62% expected decrease in annual energy consumption, and elimination of a \$300 per day maintenance costs for their existing fluorescent lights and ballasts, as a result of the retrofit. They also received a one-time rebate of \$4,800 from their local utility company (NV Energy's SureBet Program).

**Gain the most out of a warehouse lighting retrofit**

Pursuing a warehouse lighting retrofit is now easier and more affordable than ever. Thanks to rebates, incentives and third-party financing, the upfront costs have been greatly reduced. And with the latest LEI technology making its application in high-bay fixtures an obvious upgrade over the competition, the long-term advantages are many.

**Referenced in article:**

1. [E Source](#)
2. [E Source](#)
3. [U.S. Department of Energy](#)
4. [Pacific Gas and Electric Company](#)
5. RR Donnelley Company internal data. See "Return on Investment (ROI) Calculation for LEI Lighting in the *Articles and News* section of this website for actual data from RR Donnelley.