

LED Lights: A Bright New Way to Conserve Energy



Installing new energy-efficient LED lights could save your business 50 to 90% over legacy lighting systems.¹

Depending on your industry and how your business operates, lighting can comprise 20 to 50% of your energy demand.² As a result, energy efficiency is now a top priority at facilities around the world and a key criterion for capital investment decisions. It is this focus on efficiency that is at the heart of the rapidly growing adoption of LED-based lighting solutions.

Replacing older incandescent and compact fluorescent (CFL) bulbs with LED lights can cut this demand, while also helping us protect or reduce strain on the electrical grid.

We have compiled this handy guide to help you save energy by understanding the many benefits LED lighting can offer your business.

What Is LED Technology?

LED stands for light emitting diode. Unlike traditional incandescent bulbs, which utilize a fragile metal filament, and CFLs, which illuminate small amounts of argon and mercury vapor, LEDs are built using solid state circuitry and are often referred to as solid state lighting.

LEDs are the most energy-efficient, cost-effective and safe illumination choice on the market today, with documented savings in the 50 to 90% range over legacy lighting alternatives.³ However, this can vary widely by manufacturer, application and facility.

Energy-Saving LED Lights Are Ideal

- Office and task lighting
- Building entrance and exit lighting
- Restaurant menu boards
- Lodging guest rooms, entry ways, ballrooms and bathrooms
- Halogen spotlight replacements at retail stores
- Walkways, landscaping and other exterior area lighting
- Refrigerated case lighting
- Pools and spas
- Industrial high bay and area spot lighting
- Parking lots

Illuminating Facts:

In 2012, about **49 million LEDs** were installed in homes and business across the U.S. — saving about **\$ 675 million** in annual energy costs.⁴

Energy Star[®]—Qualified LED lights use at least **75% less energy** and last **25 times longer** than incandescent lighting.⁵

¹ *Choosing the Right LED Product for Industrial Lighting Applications*. Digital Lumens, Inc., 2012

² U.S. Small Business Administration (SBA).

³ *Choosing the Right LED Product for Industrial Lighting Applications*. Digital Lumens, Inc., 2012

⁴ *Top 8 Things You Didn't Know About LEDs*; U.S. Department of Energy

⁵ Energy.gov. U.S. Department of Energy.

Important Steps You Can Take

Start installing LED lights in your place of business.

You'll find a wide variety available from your favorite retailer or facilities supply house.

Apply for incentives

Talk to your Account Manager about our incentives and lighting applications for your industry. Or check with your local contractor who may have access to other incentive programs.

How LED Lighting Can Benefit Your Business

✓ Decreased energy costs

LEDs consume up to 75% less power than incandescent light bulbs.⁶ Replacing older incandescent and compact fluorescent bulbs with LEDs is one of the easiest things you can do to save energy.

✓ Lower temperatures

Incandescent bulbs and CFLs run hot and waste most of their energy through heat. But LEDs operate cooler, reducing the demand on your air conditioning system, which can save lots of energy.

✓ Reduced maintenance

Because they are built on solid-state technology, LEDs are less prone to breakage. In fact, they can last up to tens of thousands of hours, vastly reducing or eliminating routine bulb replacement.

✓ More productivity

Unlike many fluorescent lights, LEDs warm up fast and don't hum or flicker. They also offer more focused lighting—all of which can contribute to greater productivity.

✓ Greater safety

LED lights give off very little heat and are not hot to the touch. They are also less fragile, thus less prone to breakage, and contain no harmful mercury like their CFL counterparts.

✓ Color availability

LED lights are available in a wide range of colors without the inefficient use of filters, making them ideal for a wide variety of applications in your business—entry and exit signs, displays, grocery store refrigerators and more.

Installing LED lights is good for you, your business, and our community. Because working together to conserve energy means we all win.

Good News for Hotels

Typical incandescent pool lighting wattages of up to 500W present great potential for saving energy. Tests show that using **LED pool lights saves between 80 and 94%** in energy usage.⁷



Additional Resources

Energy.gov

energystar.gov/index.cfm?c=ssl.pr_why_es_com

Savitz, Eric. *LEDs: Lighting the Way to Major Energy Savings*. *Forbes Magazine*, February 2015.

forbes.com/sites/ciocentral/2013/02/14/

leds-lighting-the-way-to-major-energy-savings-2/

Interested In Learning More?

Choose from the many topics in our Energy Conservation Series:

- Plug In To Greater Energy Savings—With Smart Plug Load Management
- Switch To a More Energy-Efficient Business—With Smart Lighting Controls
- Manufacturing Motors & Compressors: Start Your Energy-Efficient Engines
- On The Menu: Major Energy Savings With Restaurant Refrigeration
- Cold Hard Facts About Refrigeration and Energy Conservation for Grocery and Convenience Stores
- Energy Efficiency Is In the Air: Optimizing Your HVAC
- Agricultural Pumping: Pumped and Primed to Save Energy

⁶ U.S. Department of Energy.

⁷ *Commercial LED Pool Lamps*, ET10SCE1130 Report. Design & Engineering Services. Southern California Edison, December 2010.