



Quick Payback, Quality Illumination: What Simple LED Lamp Refits Can Do for You

Adoption of LED lighting is undeniably on the rise—we are experiencing its benefits in our homes, workplaces, stores and cities. The reason for this shift is clear: LEDs bring new levels of energy efficiency and longevity, minimizing costs.

While most people see the value in LED lighting technology, some have been hesitant to commit to installing new LED fixtures, settling for less-efficient options instead. What they may not know, however, is that there is another option. While LED fixtures deliver a strong ROI over time, decision makers can also find quick payback and quality illumination with easy-to-install LED retrofit solutions.

Rethinking the Dominance of LFL

LED retrofit solutions allow easy installation of long-lasting, energy-efficient lighting without major fixture changes through simple one-to-one lamp exchanges. Think fluorescent lamps are the only practical option for ambient commercial lighting? Think again.

Billions of linear fluorescent lighting (LFL) tubes exist in warehouses, retail facilities, offices and other large commercial spaces worldwide. They surround us daily, and for decades we have considered fluorescent lighting a relatively efficient technology. Thanks to LEDs, that perception is now shifting.

LFL may be ubiquitous, but it has been optimized about as much as it can be. Trust us, we know—GE has produced LFLs since the 1930s and has helped advance the technology for decades. LFL is also seen by some as overly “harsh” due to the high color temperature and lower CRI often used and the frequency of over-lighting in many environments that use LFL.

Now there is a better option. LED tube lamps can serve as direct replacements for LFL, enabling greater efficiency, longevity and a better quality of light with little installation effort required.

Why Choose LED Tubes?

There are a variety of reasons to replace LFLs with LEDs, including:

66%
longer rated lifetimes
than LFLs, meaning
**less disruption
& relamping costs**

As much as
43–53%
less energy
required to operate
than LFL alternatives*

Better lighting quality
with instant full brightness,
warm and cool
color temperatures,
numerous lumen options
and higher CRI (80+)

Improved durability
& hassle-free disposal
with NSF-rated
shatter-resistant
tube options and
no hazardous materials



Which LED Tube Type Is Right for You?

If LED tubes sound compelling, the first thing to think about is which type best suits your needs. The right choice depends on whether you want the easiest installation or the highest efficiency.

- **UL Type A tubes with integrated drivers utilize existing LFL ballasts;** no wiring or tools are required. Perform a simple swap of the existing LFL with a UL Type A LED tube, and you are done. Lifespan and compatibility of UL Type A tubes depend on the existing LFL ballast, and dimming capabilities are limited on these models—but installation could not be easier.
- **UL Type C tubes require installation of a remote driver and removal of the existing LFL ballast,** meaning they take more effort to install than Type A, but far less than putting in a new fixture. UL Type C offers the highest system efficacy, compatibility and performance, however, and it allows robust dimming and control functionality.

How Much Could You Benefit?

Wondering whether LED tubes are right for your business? Consider the following factors to determine the opportunity for improvement for your building:

What sort of LFL tubes are you considering replacing?

Energy savings will vary based on existing technology: A T12 LFL lamp is less efficient than a T8 or T5, and ballasts affect energy consumption, too.

Where do you want LED tubes?

Lamp alternatives are available for 2-, 3-, 4- and 8-foot LFL tube applications, as well as U-tubes and high-lumen applications. T5 LED replacement options will be coming soon.

How much cost/disruption can be avoided with less frequent tube light replacement?

Especially in hard-to-access or high-traffic areas, decreased maintenance could make a big difference.

How would better quality of light be beneficial?

Employees or customers may prefer a different level of light output, warmer color temperature, better color rendering or instant brightness.

Savings from switching to LED tubes adds up fast.

Consider the case of one of the nation's largest apparel, cosmetics and home furnishings retailers. Seeking less maintenance, lower energy costs and the ability to sync LED tube fixtures with new lighting controls, this company relamped 50,000 fixtures across 44 stores in 2015, unlocking \$544,500 in savings. In 2016, the retailer plans to convert another 74,000 fixtures, bringing annual savings to more than \$1.3 million. All told, the company stands to reduce its lighting spend by as much as \$15 million over the rated life of GE's LED tube product purely from energy savings gained from switching from LFL to LED lamps.



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FIXTURES ACROSS

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