

THE PROS & CONS OF **LED RETROFITS** OVER LED NEW FIXTURES





Lighting efficiency, including the use of Light Emitting Diode (LED) lighting, has moved past being merely a good idea; it is now fundamental to driving money to a company's bottom line. The question is no longer if you should replace your traditional lighting with LED, but how. Do you keep your current fixtures and retrofit them with LED bulbs, or do you remove the existing lighting and start anew with new LED fixtures? The answer depends on a number of factors that are unique to each customer's facility. We will explore those factors in depth in this paper.

LED 101

LED lighting is the current leader in the energy-efficient lighting market. Converting your lighting to LED provides many benefits that can help your company's bottom line.



EFFICIENCY. The energy efficiency of LED lighting is unparalleled. Current energy code is easily met by using LED lighting, and converting from outdated technology can reduce your lighting load by up to 75 percent.



LESS HEAT. Non-LED lighting generates heat, in the fixture and within the light stream. In large facilities, a conversion to LED lighting can have a noticeable difference in the amount of summertime cooling that has to be done to keep spaces comfortable for employees, and to keep equipment working optimally.



REDUCED MAINTENANCE. LED lights can last up to 25 times longer than traditional light sources. When there are fewer outages, staff is freed up to attend to other, more critical, tasks.



MORE GREEN. In addition to using less energy, LEDs do not contain mercury so they require less special care during storage, installation, and disposal.

RETROFIT OR NEW INSTALLATION?

When new buildings are constructed, LEDs are, by far, the most popular choice to illuminate the spaces. However, selecting lighting for existing facilities can be a bit more difficult.

- **How old and in what condition are your existing fixtures?** If you've got solid, fully functional fixtures that are in good shape, does it really make sense to think about pulling them out and replacing them? Likely not. Retrofitting could be your best option. However, if your fixtures are old and in need of repair or replacement, it makes sense to replace them with LED fixtures.
- **Will you need to re-wire in order to use LED fixtures?** Re-working the electrical wiring to feed new fixtures can add cost to a project due to increased materials and labor to do the work. In facilities where re-wiring is problematic, retrofit kits or lamps are often good choices.
- **How much of a consideration is cost?** The upfront cost of LED products varies by type. Full LED fixtures are often the most expensive option, but are also typically the most efficient choice, making them the most cost-effective choice over the lifespan of all products. If the startup cost is a hurdle for your facility, a plug-and-play retrofit solution where you use the existing fixture, sockets, and wiring could be a good option.
- **What do you need the lighting to do?** From simple dimming installations all the way to sophisticated sensing that can provide real-time feedback on energy usage, occupancy rates, and even operational status, LED fixtures may be able to provide the solution you are looking for.
- **Are any rebates available?** Most electrical utilities provide rebates for installation of quality LED fixtures and retrofit products. You will typically receive the highest rebate for the purchase of LED fixtures.



PROS AND CONS OF RETROFITTING VS. NEW INSTALLATION

There are pros and cons to each approach, specifically when you're considering variety, ease of installation, maintenance, and cost.

PROS

CONS

RETROFIT LEDS

- **Cost.** Retrofitting is typically the least expensive way to transform and upgrade the lighting in your facility.
- **Ease of installation.** Retrofitting typically requires less installation time and can often be as simple as a twist of the wrist lamp change.
- **Maintenance.** LED lights have a long lifespan and will cost you less to maintain.

- **Compatibility.** Retrofit products are a "one size fits most" solution. There are occasionally conflicts with the compatibility of certain fixture components.
- **Options.** Not every retrofit product gives you the features you want in a new lighting system.

NEW LED FIXTURES

- **Maintenance.** New fixtures typically have the longest estimated lifespan of any LED product.
- **Variety.** Selecting new fixtures allows you to customize the specific light color, output, and features you want for your installation.

- **Installation.** Most new fixture installations will require a permit, electrician, and downtime in your space.
- **Cost.** The upfront costs of new LED fixtures are often higher than retrofit products.

RETROFIT OR NEW INSTALLATION? IT DEPENDS ON YOUR NEEDS

Making the decision to convert your lighting to LED is easy. Deciding on the method to convert your lighting is more difficult. Spend some time in your facility examining the existing conditions and consider what your needs are for your lighting today, as well as into the future.

STILL HAVE QUESTIONS?

The lighting professionals at **Werner Electric** can help. **Call us today** and we can help you decide what will be the best option for your project.