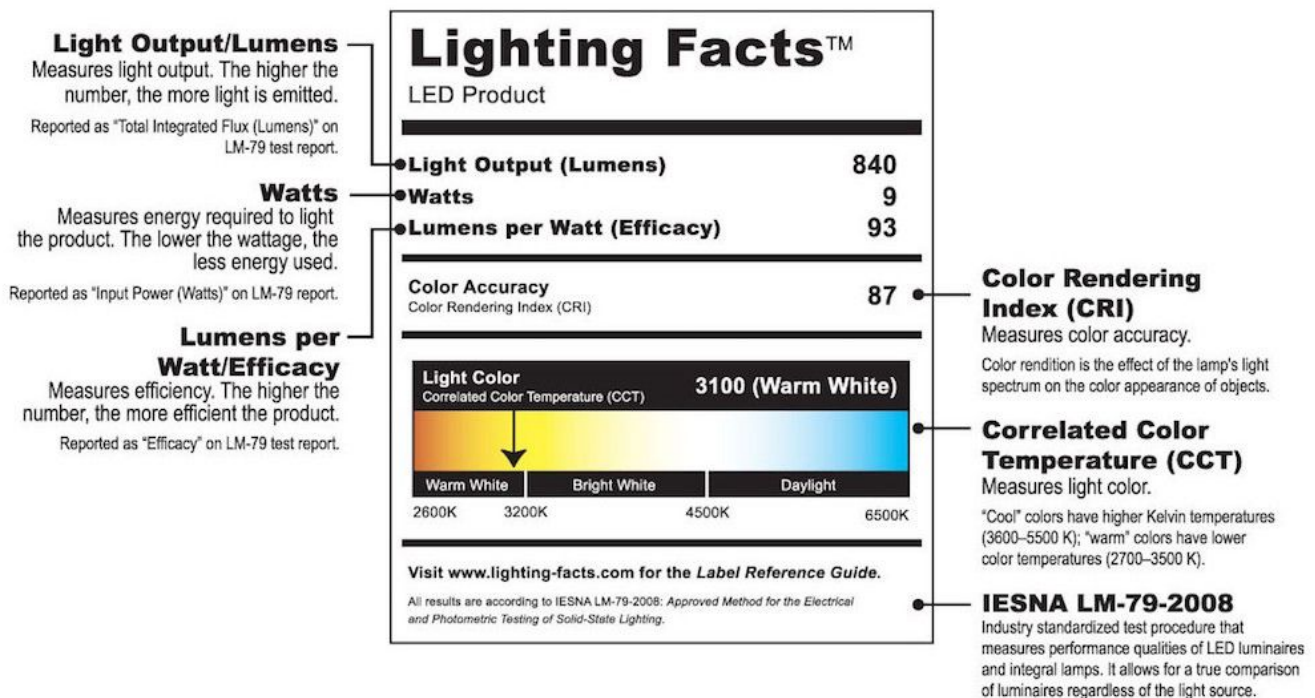


LED Retrofitting

Do you want to save money on your electric bills? Reduce the cost of maintenance and service work for faulty lighting and fixtures? **Consider LED Retrofitting.**

LED retrofitting, in short terms, is basically *efficiency upgrading* – an investment into long-term savings in power and cost. It’s also a good way to go green. Retrofitting with LED bulbs not only benefits the environment but puts money back into your pocket or your business.

The reduction in energy usage, energy bills, carbon emissions and the BIG increased lifespan (50,000 hours or more) means more savings to you in the long run. It also means a reduction of maintenance and A/C levels used to cool heat generated by light bulbs, fluorescent tubes and ballasts.



When you pick up LED bulbs, look for the image above (it looks a bit like a “Nutrition Facts” label, as seen above) – it will tell you its color range, energy output, and life expectancy.

What Are the Benefits of Upgrading to LEDs?

- **LED bulbs have a 68-85% energy savings over fluorescent lights, and use less wattage than incandescent, fluorescent, and even CFL.** They also produce less heat than a

fluorescent bulb and ballast, which will generate less work for your cooling systems (refrigeration in particular). However they provide the same amount of light emitted, sometimes more.

- **Longer lifespan.** LEDs last up to 5 times longer than standard fluorescent bulbs, meaning less need for replacements. (Tip: if your LED bulbs are burning out quicker than expected, there may be an issue in the fixture causing a short, or there is voltage incompatibility between the bulb and the fixture.)
 - **Lots of customization options.** LEDs can give a beckoning glow to show off your products or art, and it offers more uniform illumination than fluorescent bulbs. You can choose between lights that give off a neutral color, slight red color or a blue hue, or lights that change colors – the possibilities are numerous!
 - **Lower maintenance costs in the long-run.** Most LED bulb upgrades can be as simple as changing the bulb. However, some LED retrofits are not always just the bulb – fluorescent bulbs use ballasts for their voltage control, while LEDs use *drivers*, which are electronic transformers that are more efficient at controlling voltage. LED bulbs and drivers on the other hand, last 10-15 years. Initial costs can be a little more than fluorescent, but they have become much more affordable over the last decade. In the end your dollar is stretched much further with the use of LEDs.
 - **That also means savings for your business!** A commercial parking lot can have anywhere from 20-50 light poles; these poles usually have HID fluorescent bulbs, which last on average 2-3 years. The ballasts that control them last around 4-5 years. If these lights start failing, they are generally all replaced at the same time. This usually ends up turning into some form of replacement every few years, whether it's just bulbs, or bulbs AND ballasts. Think of the dramatically reduced frequency of maintenance and replacements! It's less stressful on your wallet to only have replacements every decade or so. And there are plenty of new fixtures on the market that are Dark Sky compliant as well!
-