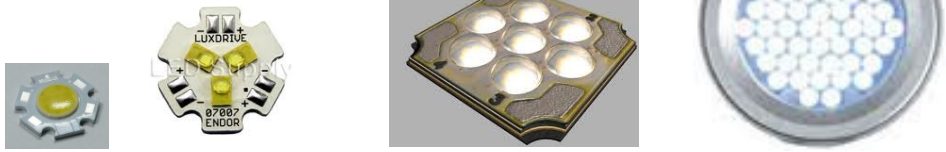
Industry-Leading LED Systems for Commercial & Municipal Lighting.

See what we can do for you...

Since the invention of the light bulb, electrical lighting has been done with gas-discharge bulbs. Now it's time for the next technology using digital components. Light Emitting Diodes offer the most versatile, maintenance-free, energy-efficient, cost-effective, high-quality and environmentally responsible method of electrical lighting. It is the future of lighting, and you can start saving energy and money today by switching to LED.

The Past – gas discharge bulbs

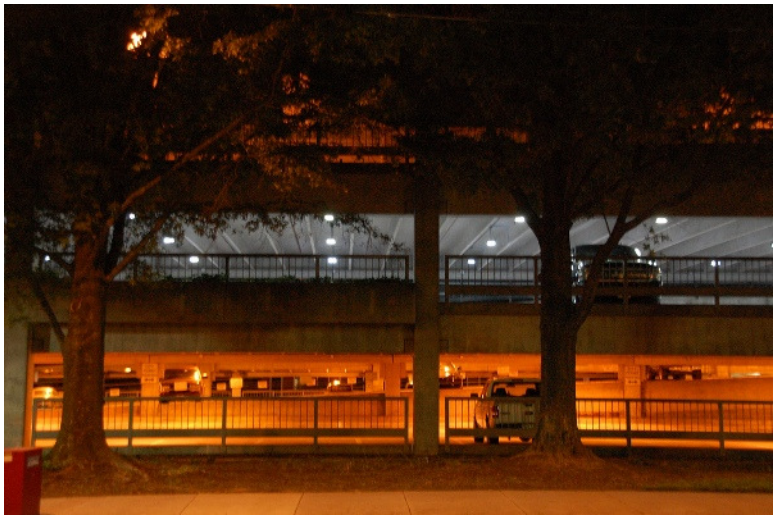


The Future – Light Emitting Diodes

Energy wasting incandescent, fluorescent, halide and sodium bulbs are obsolete and will soon be phased out worldwide.

High Pressure Sodium (HPS):
Poor quality of light, poor visibility, poor distribution of light, energy-wasting.

LED: Daylight quality light, high-visibility, uniform distribution of light, modern appearance, inviting, lower-maintenance and using 60% lower energy.

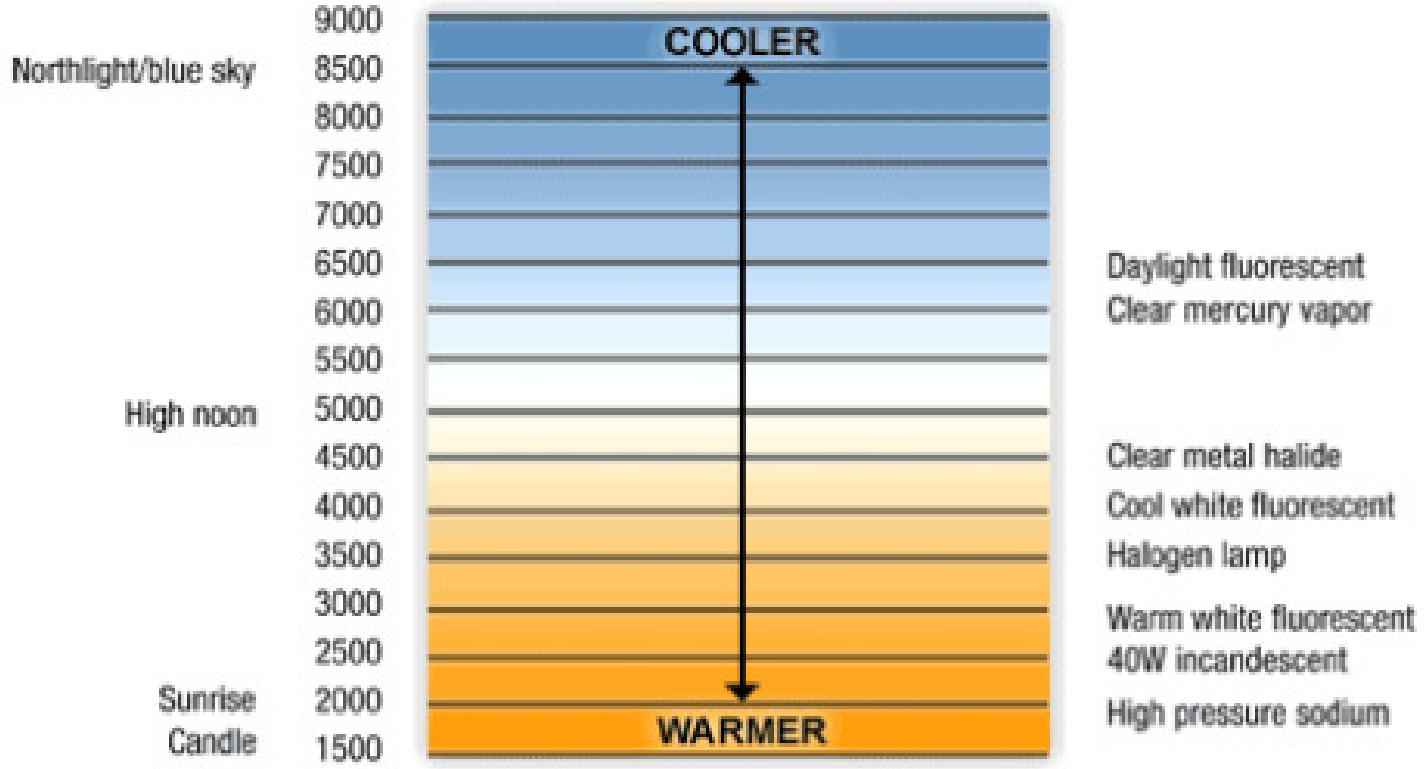


Parking ramp converting from HPS to LED. The upper level with LED has more modern, inviting appearance, improved visual acuity and sense of safety & security for visitors, while using 60% less energy. People are more comfortable in whiter light.

Benefits of LED Lighting

- **Highest quality of light: Daylight quality white light with superior color rendering for vibrancy of color**
- **Longest lifespan: 50,000+ hours to 70% brightness (12 years at 12 hr/day use)**
- **Superior performance in cold temperature: Instant on to full power with no flickering or warm-up time**
- **Safety: Contains no breakable glass, no filament & no toxic mercury so no threat of contamination, fire or glass shards**
- **Low maintenance: No need to stock & replace bulbs & ballasts**
- **Low heat gain: Doesn't radiate heat with light, just cool white light**
- **Durable: Dust-proof, water-proof and washable**
- **Low-energy: Uses 90% less energy than incandescent, 70% less than halide or HPS, 50% less than fluorescent - ROI of 30 to 100% annual**
- **LED is the highest quality, safest, most environmentally responsible and most economical method of electrical lighting**

Color Temperature Chart



Color of light is measured in kelvin. LED is capable of producing nearly any color specified in the visible spectrum. LED can mimic incandescent, but optimum visibility is achieved with white light in the range of 4000-6000k.

Choosing the right LED products

The longevity of LEDs are largely a function of thermal management: the ability to move heat away from the diodes through quality conduction & convection. Good luminaire design has significant heat sink and convectable surface area to move heat through the materials and into ambient air. We offer products with quality thermal management.

There are two ways to convert your lighting to LED:

1. Replacing bulbs by retrofitting LEDs into existing fixtures.

2. Installing new LED fixtures.

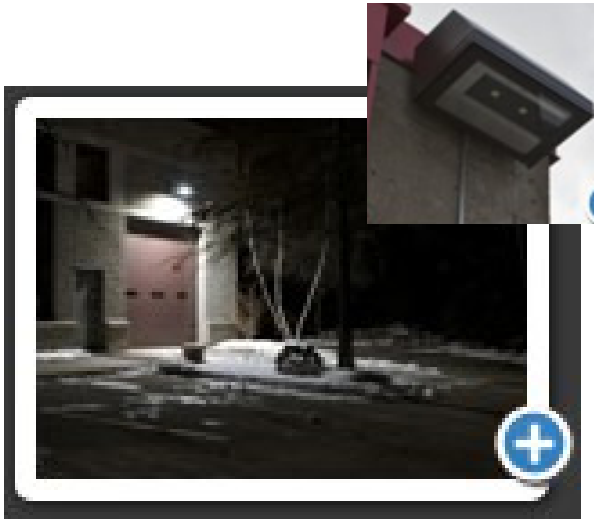
Retrofitting commercial fixtures with LED

LED can replace traditional bulbs in existing commercial lighting fixtures such as high-bay, low-bay, shoebox, canopy, wall-pack, cobra-head, soffit and other fixtures.

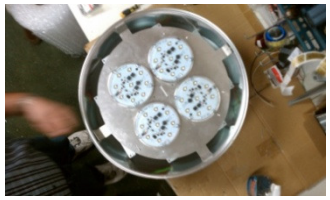
We can convert your fixtures to LED by replacing the bulbs with Chip-On-Board LEDs as the light source, using the metal fixture housing as heat sink, and instantly reducing your lighting energy load by 60-80%.

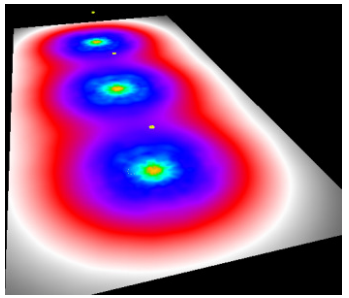
Before & After conversion from HPS to LED

The below photos show fixtures retrofitted with LED using 60-80% less energy than the bulbs they've replaced.



High-Bay &
High-Mast Retrofit





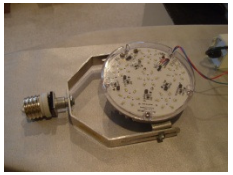
We can also offer a retrofit system capable of replacing up to 1500w bulbs in high-mast fixtures. For example, in a single fixture we can replace a 1000w bulb and reduce energy from total draw of about 1,100 watts per fixture to 320 watts, a reduction of 71% saving over $700 per year in energy & maintenance.

Project Example

US Government Warehouse Retrofit

A US Government warehouse requested an LED solution from that their internal security-cleared staff could install into existing high-bay fixtures. With open fixtures & clean environment, our 90w retrofit was an excellent solution.

Before: Using 250w HPS in high bay fixtures. Low quality of light and high heat gain made working conditions uncomfortable.



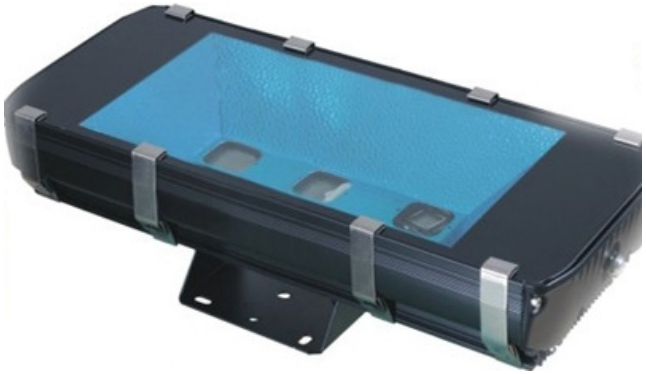
After: Converted to 90w LED in the existing fixtures, resulting in improved quality of light, reduced energy load by 75% (5.3kw), and reduced interior peak temperature by 10 degrees.

Commercial Bulb Replacements

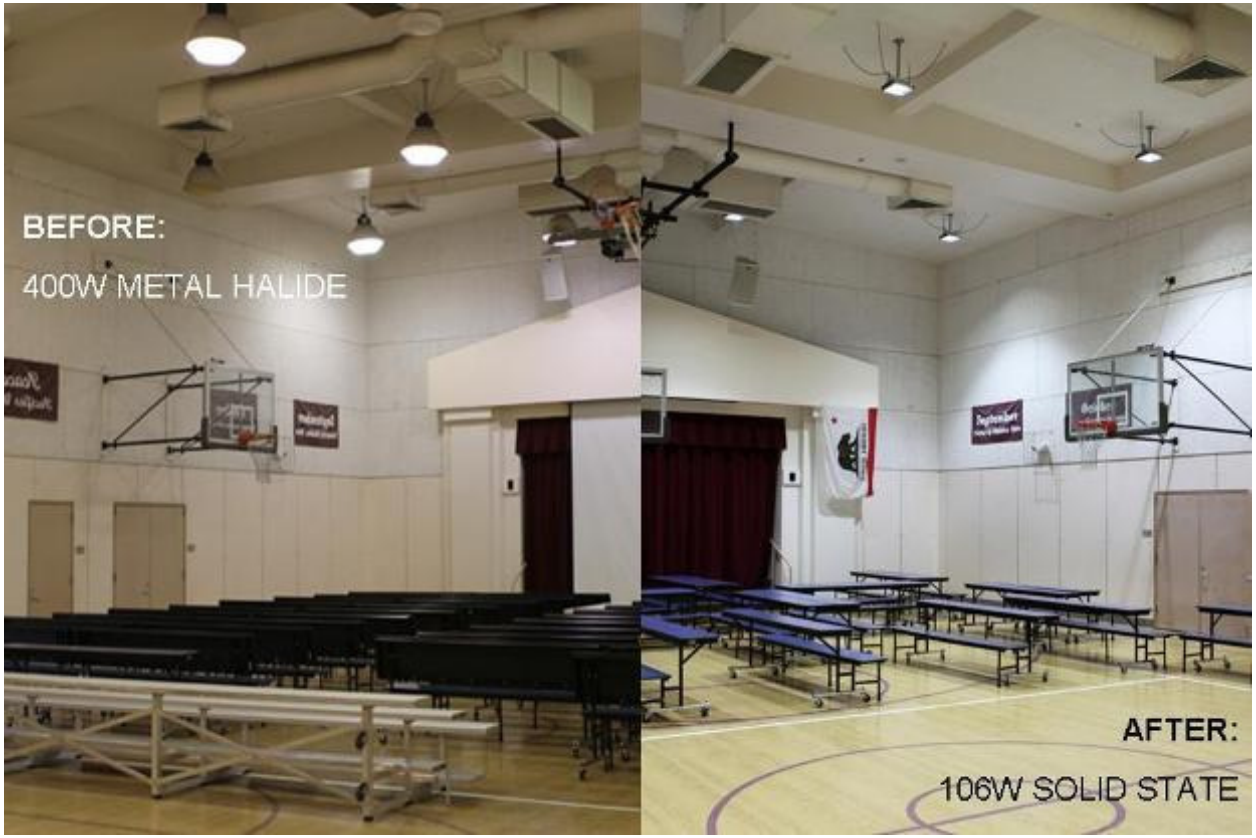
Up to 400 watt HPS/HID bulbs can be replaced in existing commercial fixtures by 120 watt LED bulbs that screw into the existing sockets for downlighting applications such as ‘yard lights’. This high power from small surface area is made possible by an internal heat pumping system.

New Fixtures

LED Flood Lights



These versatile LED floodlights are scalable from 10-300 watts to replace 50-1000 watt traditional fixtures in a wide variety of commercial & municipal applications. They can be surface or pole mounted, are dustproof & waterproof, and ideal for tunnel, canopy, garage, warehouse, factory, barn, billboard and many other lighting needs.



This gymnasium switched from 400w Metal Halide to 106w LED fixtures, improving lighting, reducing energy & saving money.

Drop-in Troffer for Panel Ceiling

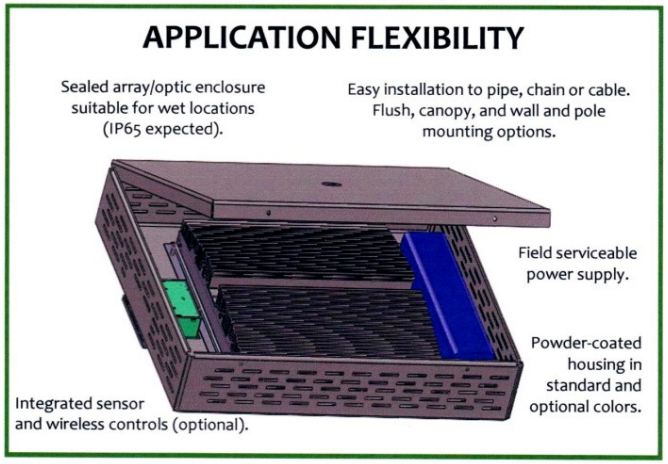
This fixture is a stylish designer ceiling light for indoor indoor environments. It offers a slightly recessed panel to reduce glare and improve spread of light, while enhancing aesthetics. It is available up to 80 watts, at 4100k or 5700k color temp.

Light up your office or retail space to 60fc using just 1w/SF.

Ceiling Mounted

We offer a slim-line ceiling mounted down light ideal for fueling station canopies, parking ramps, drive thru lanes, tunnels and any other ceiling mounted applications.

Available in 40 to 120 watts to replace 100-400w traditional canopy fixtures, it offers the same robust thermal management, weatherability and breathable housing as our other products, with a sleek new design for modernizing ceiling & canopy mounted lighting.



Full-featured, competitively priced, thermally robust and optically unmatched .

LED for Street Lighting

The directionality of LED allows **much greater efficacy to the street** than traditional streetlights, minimizing light loss & light pollution. Our streetlamps deliver 85% of light directly to the ground, vs. only 20% from traditional sodium lamps, improving "dark sky" compliance.

- The high color temp & high color rendition of LED light is the highest quality of street lighting available. **Better visibility and color perception** allows drivers to better see the road, enhancing safety while lowering cost of lighting.

Street Lamp Performance Characteristics (Sodium vs. LED)

	Sodium Lamp	LED Lamp
Color Temp -	Low (2,000 – 3,000 K) (Less visible, orange or yellowish light)	High (5,500-6,500K) (Bright White, high visibility)
CRI - (Color Rendering Index)	Low (15 – 30 CRI)	High (65 – 85 CRI)
Lifespan - (In approx hours)	20,000 Hrs (More frequent replacements)	50,000 Hrs (Less frequent replacements)
Toxicity -	Yes	No
Efficacy to Street -	Low (20%) (High light loss & light pollution)	High (85%) (Low loss or light pollution)

Post-top Lantern/Globe Retrofits

20w **30w** **40w**

These off-the-shelf 360 degree post-top retrofits offer easy replacement of traditional bulbs in lantern or globe fixtures.

FEATURES

- 360 degrees of light
- Screws into standard E26 or E39 sockets
- Available in 20 to 120w LED to replace 75 to 400w bulbs
- 50,000+ hour lifespan

Project Example

Roadway Globe Retrofit

Converting from 70w HPS bulbs to 36w LED post-top retrofits in globe fixtures in a downtown city street.

LED Bulbs & Tube Lights

We offer a variety of LED bulbs to replace traditional bulbs in standard sockets.

Spotlights: 3-7w with e27, MR16 or GU10 base, replaces 30-50w halogen spotlights

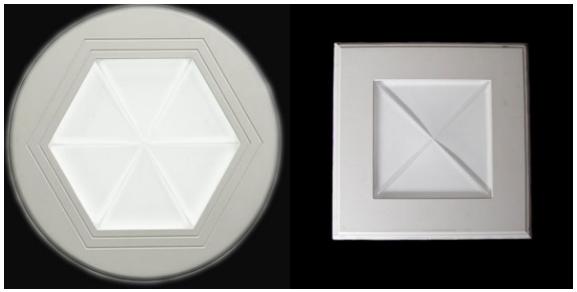
A19 traditional bulb style. 3w-11w to replace 20w-60w incandescent bulbs in standard sockets

PAR30 or PAR38 spotlights or floodlights. 12w to 60w to replace 50-300w incandescent or halogen

4-8ft LED linear tube lights can replace traditional T8-T12 fluorescent tubes in regular fixtures. This is helpful when replacement of tube fixtures is not wanted. LED tubes are very well suited for wall wash & cooler applications.

We can offer a variety of shapes, sizes and color temps of LED bulbs to replace traditional bulbs in chandelier, marquee, pendent, desklamp and any other socket fixtures. LED bulbs can mimic incandescent bulbs. We can commission custom bulbs to suit specific applications. Tell us your LED bulb needs!

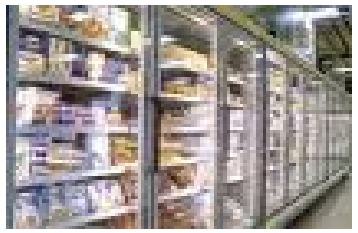
Designer LED Ceiling Lights



We offer a variety of LED ceiling lights with different shapes, sizes and styles to choose from. These can replace recessed bulb soffits or “cans” in the existing apertures and with flush lenses provide better diffusion of light, a more modern look of ceiling integration, lower maintenance, lower heat gain and lower energy consumption. We can work with you to choose ceiling lights to suit your design scheme.

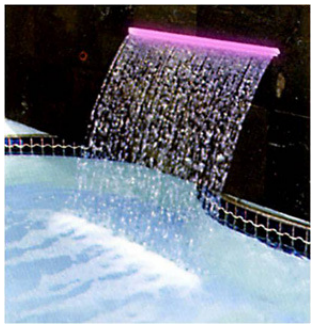
LED for Cooler Lighting

LED technology is particularly well suited for low temperature applications such as fridge and freezer because LED operates optimally in low temperature environments, which maximizes lifespan and performance. Advantages of LED over fluorescents in coolers and freezers include:



* Fluorescents don't work well in cold temperatures, they require "warm-up time", with flickering. LEDs do not need warm-up time, offering "instant-on".
- Fluorescents contain toxic mercury that might threaten contamination of nearby food if broken. LEDs contain no breakable glass or hazardous materials.
- Fluorescents generate a lot of heat that must be counteracted by refrigeration to keep the required temperature, resulting in energy waste. LEDs do not.
- Fluorescents have short lifespan in freezers. LEDs will last beyond 50,000 hours maintenance free.
- Additionally, LED offers better CRI, showing better vividness of color.

LED for Decorative Lighting

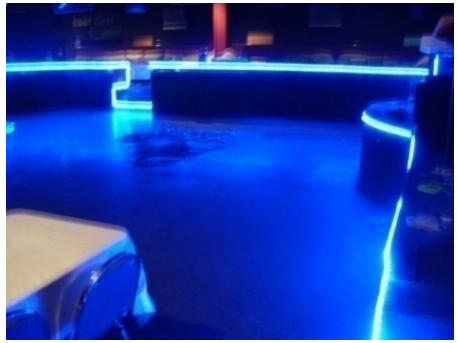


Red, Green, Blue or RGB color changing LED wall washers, spotlights, and rope lights are available to add color, decoration and attention-getting vividness for interior or exterior applications.

Project Example

Night Club Dance Floor

Neon colored & color changing LED flexible rope light add vivid ambience to the stage & dance floor.



Why Choose Us as Your LED Supplier?

- We represent top manufacturers of LED products. IES photometric files and test reports are available for most all our products.
- We believe in working cooperatively with our customers, to identify the right LED solutions for their needs.
- We offer a wide variety of LED products and the ability to custom engineer lighting solutions for individual applications.
- We are experienced importers & exporters and can supply products to any project site in the world.
- We are a small business with low overheads and excellent pricing, but with experience supplying multi-national companies and governments.
- We are forming international partnerships to offer our premium LED products into markets around the world.
- We are highly responsive and put customers first. We welcome your enquiries. Tell us where you would like to improve light and efficiency.