

PROS & CONS OF LED LIGHTING

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LED Lighting has become highly popular for various reasons. They are useful, versatile and create white light, colored light, and so much more. But before opting to use these for lighting your facility, you must do a complete analysis of them in order to know why they are so different compared to other types of lighting. Once you know the pros and cons of LED lighting, you will be able to make the proper decision regarding the the kind of lighting that will best suit your facility.

PROS

Excellent color rendering-LEDs do not wash out colors like other light sources, such as fluorescents, making them perfect for displays and retail applications.

LEDs have a lot of power, which will provide white light illumination for wide areas.

LED lighting translates to significant savings in terms of lower energy bills. In addition to saving money, this also means you're doing your part for the environment and contributing towards reducing greenhouse gas emission.

LEDs are more durable than any other kind of lamp. This means they last longer, resulting in less maintenance costs and a decrease in the amount of bulbs what would need replacing.

Making use of LEDs in your light fixtures means creating more direct, efficient illumination. This is due to the specific way in which LEDs produce light. They are able to emit light in specific directions and can easily be used as spot lights for very specific areas.

The diodes in LEDs are able to create efficient light without producing any heat.

LEDs do not contain mercury, unlike compact fluorescent lamps.

LEDs are ideal for use in applications that are subject to frequent on-off cycling, unlike fluorescent lamps that burn out more quickly when cycled frequently, or HID lamps that require a long time before restarting.

When used in applications where dimming is required, LEDs do not change their color tint when the current passing through them is lowered, unlike incandescent lamps, which turn yellow.

LED lights will fit in virtually any kind of light fixture.

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CONS

Over time, some LEDs that have a poor design can begin to flicker, change color, become dim and might even provide uneven light. In order to avoid all these issues, you must always choose LEDs from a trusted supplier. High quality LED's will be bright, provide proper light output for a long period of time and good color quality, as well as efficiency. They would provide instantaneous lighting and no flickering.

The biggest drawback of LED lighting is a higher purchase price, but their energy efficiency compensates for this cost in a short period of time. LEDs must be supplied with the correct voltage and current at a constant flow. This requires some electronics expertise to design the electronic drivers.

LEDs can shift color due to age and temperature. Also, two different white LEDs will have two different color characteristics, which affect how the light is perceived.

LED performance largely depends on correctly engineering the fixture to manage the heat generated by the LED, which causes deterioration of the LED chip itself. Over-driving the LED, or not engineering the product to manage heat in high ambient temperatures, may result in overheating of the LED package eventually leading to device failure.

LED retrofit technology is becoming more and more popular as a relatively straightforward and simple solution for energy savings. LED fixtures cost more to purchase than traditional light sources, but there are many factors that contribute to the effective and economic performance of LEDs, so a range of payback scenarios exists. But a lower wattage luminaire significantly reduces the payback period. Before making any decisions to make the change, make sure you ask all of the pertinent questions that are relative to your facility's needs. You owe it to yourself and your company to talk with a lighting professional to ensure that you are making all the right decisions.

NOTE:

Most companies look at changing over to LED Lighting and decide not to do it because of the initial cost BUT REMEMBER ONE THING..... You will still be paying the higher energy costs to the Utility company so why not put the energy savings back into your pocket.

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