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Ask the electrician: How modern LED lighting changes building maintenance and improves cleanliness - by Corey Page

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In our last installment of “Ask the Electrician,” we talked about how modern LED lighting has changed architecture and design with lower profile fixtures and a wider range of applications. Today, we’re going to discuss how LED fixtures can streamline building maintenance and even help improve air quality.

The smaller footprint and lower power consumption of today’s LED fixtures means that maintenance is more straightforward. When we install LED lights for our customers, we’re now able to install multiple lights on one circuit, which we were not able to do in the past with fluorescent or incandescent lighting. When we’re installing hundreds of fixtures in a building, that equipment ‘savings’ can really add up, which translates into less time and resources spent on maintenance.

Some LED fixtures are designed so that maintenance and bulb replacements can be performed without entering the room. This is perfect for ‘clean rooms’ and in hospital/medical settings. The room is designed with a compartment above the ceiling with enough room that service crews can perform necessary work all from above without running the concern of contaminating the room.

In other hospital applications, new advancements in LEDs allow for the lights themselves to clean the air using a combination of Indigo and White LEDs. We’ve been installing clean lights from manufacturers like Kenall to supplement or replace existing HVAC air filtration systems in applications where air quality and filtration is important. For example, Kenall’s Indigo-Clean lights emit narrow spectrum light that can kill bacteria and infections like staph and MRSA, while also providing ambient illumination. We’ve also installed motion-sensing lights that can switch from standard lighting when a room is occupied to a sterilization lighting mode when the room has been vacant for a set period.

Previously, fluorescent lights and even older LEDs were built with a lens and screws that had to be

removed to repair or service the fixture. To maintain these fixtures, the room had to be shut down for repairs and then recleaned and sterilized after the repairs were complete. Fixtures like Indigo-Clean from Kenall can help reduce the number of room cleanings and sterilizations because they are cleaning on an ongoing basis.

Exposed lighting in high-traffic areas is often subjected to vandalism and abuse. There are new features on some lights that help prevent vandalism and can withstand high levels of abuse. These fixtures can save thousands of dollars -- and many hours - on repairs and replacements. They feature extremely durable plastic and metal components, resist tampering and graffiti, can withstand extreme weather, and prevent damage from dirt, insects, and moisture. Interstate has installed this type of lighting in places like gyms, parking structures, schools, public buildings, and more.

We're always keeping an eye on the cutting-edge lighting technologies coming to market, and we're more than happy to answer any questions you may have about LED lighting or other electrical components. Feel free to contact us anytime!

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