

Ask the Electrician: How LED lighting is changing interior design & construction - by Corey Page

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Lighting technology is constantly evolving – as soon as you understand the latest developments, new products that improve efficiency, functionality, or aesthetics make their debut. For example, LED technology has come a long way in recent years. At first, LEDs were mostly designed as replacements for incandescent "A type" bulbs, like you'd see in normal household applications. But soon, as the technology advanced, LEDs were designed specifically for more efficient recessed lighting fixtures than the "troffer style" fixtures that you might see in an office building, which were in most cases fluorescent bulbs. Today, LEDs are available in just about every shape and size for any type of application, with features like dimming and even color changing technologies.

These advances have not only changed the lights themselves but, due to their flexibility, have also spurred an evolution in architecture and interior design. Historically, buildings were accented with elaborate trims, patterned wallpaper and textured surfaces. Now, we are seeing numerous extravagant lighting installations as the main accent in these designs. Common areas of buildings are beautiful highlighted with tools like angled lighting, unexpected spots of illumination, and artisan or custom-designed fixtures. These are more readily available to designers now than ever before.

For us at Interstate, this has changed a lot about how we plan for and implement lighting installations. Compared to older fluorescent lighting fixtures, the total cost to install LED lights tends to sit lower than comparable fixtures. There are several reasons for this. LEDs consume far less power than other types, which not only means cost savings in terms of power consumption, but also that there is less circuitry necessary to install.

Another, less obvious benefit of LEDs, is that the equipment required (fixtures and other infrastructure required for installation) have a more compact footprint. This reduced footprint means that there's more room for the other trades (plumbing, HVAC, fire suppression, etc.) for their equipment, and also that architects have more flexibility with ceiling height as there is potentially less dead space between floors. Finally, since LEDs require less circuitry and are nimbler,

installation times are also reduced, allowing us to spend more time on other aspects of the project and complete our work faster.

In next month's installment of "Ask the Electrician," we'll take a look at maintenance, upkeep, and new and exciting applications of LED lighting, including technology that can actually clean the air better than a standard air filtration system!

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