

Shedding New Light on LED Lighting

By Scott Szycher

LED lighting has come a long way in a relatively short time. And it's not just the technology itself that has improved, providing better lighting while consuming less energy, thereby saving money for building owners and tenants. In recent years, the real revolution is the integration of LED lighting with the sophisticated building automation systems that are increasingly common in commercial construction. There are many LED options, however, and choosing the best solution is not a simple matter even for traditional lighting experts.

Celeste Wunder is President of International Marketing Management Inc. (IMMI), a minority-woman owned certified business that supplies industrial, medical, health care and scientific laboratory products to industries and government agencies. She has established a niche for herself as a solutions provider to building owners and electricians integrating LED lighting into their existing facilities and new development projects.

"I've seen how the industry has moved from fluorescents to LEDs, largely due to technological innovation, and also from government-supported energy efficiency rebates, which helps shorten their payback period on the investment," said Wunder. She possesses two things of great interest to those in the market for lighting upgrades: an extensive knowledge of the LED lighting products available by working with manufacturers both in USA and China, and a similar knowledge of governmental support and rebates across the six New England states.

She prides herself on representing only products that are UL, DesignLights Consortium (DLC), and Energy Star certified, and thus are eligible for rebates from states with incentives in place. And that's a real value-add for building owners weighing their lighting options.

"The electricians are in a tough spot: they're being asked to keep up with how certain LED products are enabling energy efficiency, and they're finding themselves under pressure to use products that qualify for rebates," Wunder noted. "And when you combine the rapidly-changing landscape of LED lighting with financial incentives that vary on a state-by-state level, it's just not realistic to think electricians can stay on top of this."

That's where IMMI provides critical value – Wunder personally goes into facilities to see what lighting products they're using, and makes recommendations that combine the best in lumens, look, and rebates. "I'll do a needs analysis, then come in with the most energy saving products with the maximum rebate. With my audits a building owner can know his return on investment ahead of time," Wunder said. "The big problem is the utility rebates, which are governed by the states. I've seen people with great intentions replace 1000-watt halide lights, then get a rude awakening when they find out that retrofit wasn't eligible for a rebate."

With that dual set of knowledge in both LED technology and the highly variable rebate landscape, Wunder's found herself on projects across New England, including multiple audits in Massachusetts; a

hospital in Connecticut; a warehouse in Rhode Island; and even one of New Hampshire's popular, state-owned liquor stores. She often finds herself working side-by-side with master electricians, who find themselves pleasantly surprised – and sometimes shocked – at the amount of energy savings which can be realized through LED lighting retrofits and/or replacements.

Even better, when modern LED lighting technology is integrated with building automation systems – which allow facility managers to monitor and control the mechanical, security, lighting, HVAC, and ventilation systems – the end results can be sparkling for building owners.

Automated Logic, a national provider of building automation technology with three offices in southern New England, is known for its major lighting integration and control projects. “We’ve retrofitted many lighting panels that have become inoperable with age,” said Leo Perritano, Senior Sales Engineer. “By reusing existing lighting panels and relays, we can reduce installation costs, and replace low-voltage interior boards with building automation and control networks.”

These devices give facility managers the ability to control lighting across a building's entire footprint, including its perimeter, lobby area, corridors, interior offices, conference rooms, stairways, and more. Frequently, occupancy sensors are in place to provide light when needed, but modern systems now leverage the use of daylight harvesting systems, which use natural light to offset the amount of electric lighting needed for a given space.

The benefits aren't just limited to better controls and reduced energy costs; they extend to a building's workforce, as well. Academic studies demonstrate that cerebral blood flow was increased when light came from sophisticated “edge-lit” LED lighting, a technology that helps distribute light more uniformly across a fixture.

Moreover, employers may find their employees in better moods, and more productive, when LEDs provide the lighting instead of fluorescents. Researchers at the Natick Soldier Research Development and Engineering Center investigated the effects of different lighting types on soldiers, and found that LED lighting in a work environment fosters positive moods, increased alertness, and faster performance on visual perceptive and cognitive tasks.

Between cost-savings, heightened lighting control, and a more upbeat and productive workforce, it's no wonder that the LED revolution shows no sign of slowing down.

For more information on Newington, NH-based International Marketing Management, Inc., please visit immienergy.com, or contact Celeste Wunder at 603-430-1119.