

SMART DRIVERS

Driven to Success?

Back to the floor of Lightfair, the big buzzwords surrounding color tuning, human-centric lighting and "smart" lighting, abounded in full force. But before going all in on the latest lighting tech, perhaps, an old-fashioned focus on blocking and tackling illumination basics is a strategy that shouldn't be underestimated.

LED is a no-brainer, but understanding the nuances of the tech is not so obvious. Take for example, lifetime and warranties. According to Jeff Gatzow, CEO of OptecLED, whose company focuses on delivering quality, controllable and economical exterior lighting to municipalities, what end-users seek is reliability and ease of maintenance burdens. True lifetime of products, therefore, should be fore of mind. Right now, Gatzow says there's a big push in the industry to offer 10-year warranties on fixtures. While, indeed, major components—LEDs, housings, and optics—may have few issues over the life of the average fixture, power-related componentry has always been a weak link in anything electronic; in the case of LED, it's the driver—the power device which has replaced ballasts—that is susceptible to failure. In LED's early days, talk of fixtures lasting 100,000 hours was common. But now, with many fixtures having been in place for

some time, the industry is finding its not hitting those early projections. "We need new and better drivers—you can't give a 10-year warranty, and then have a driver that's only going to last five years," says the manufacturer.

"Smart" drivers are also at the heart of greater fixture controllability, notably for color tuning and other "Big Data"-related desires. One driver called out

To remedy glare, manufacturers need to develop luminaires that remove the point light source from the line of sight, making the illumination more comfortable.

at LFI, was that of Acuity brand, EldoLED, which won an Innovation Award for its 75W LED driver product family. The fully programmable driver family is capable of dim-to-0.1%, dim-to-warm, and tunable white performance. All 75W drivers are UL Class P listed. Control options include 0-10V and DALI-2.

Another notable driver on the show floor belonged to OSRAM Digital, specifically, its Tunable White System. It's based on DALI-2 designed for human-centric lighting applications. It can be

used as part of a connected solution that communicates via DALI-2 or as a standalone system. Lutron, too, with its new HXL system, gave show visitors a glimpse into a fully tunable office of the future. The system, the company believes, reflects the importance of biophilia, a human connection to nature; and incorporating the Internet of Things with smart technology to allow people to manage their environment with a variety of personalized control. "The concept of human centric lighting is about creating more comfortable and engaging environments for people. With this approach, Lutron puts the benefits of human centric lighting at the core of any discussion about lighting control and technology," says Scott Hanna, Lutron senior vice president.

And lest we forget tunable fixtures, one that particularly caught my eye was USAI's Incline for Sloped Ceilings. Most lighting systems are designed for leveled surfaces, and oftentimes cannot deliver the specific needs of an inclined surface. These fixtures, however, achieve high-quality, precision recessed lighting at angles up to 45 degrees; they are available for the BeveLED Mini and BeveLED 2.2 families, and can be equipped with USAI's Warm Glow Dimming and Color Select tunable white technology.

PRODUCTS



FOCUS ON PEOPLE, PRODUCTIVITY

At Lightfair, Lutron launched its HXL platform to support human centric lighting, which according to the company, should promote comfort, enable enhanced well-being, and foster engagement. HXL combines four elements: quality light, natural light, connection to the outdoors and adaptive and personalized control. The system's approach for addressing natural light, of course, is a combination that maximizes daylight with dynamic shading solutions, while also incorporating color tuning via its Ketra line. The company's office of the future demo, which took visitors through the changing light in the course of a typical work day, was impressive.

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REDUCES GLARE

The OLPG1 addresses the common problem of glare with a flat light guide that removes LEDs from the line of sight without compromising luminaire efficacy or distribution performance. Featuring a circular housing to eliminate alignment issues and work effectively in low-clearance garages, it produces up to 16,900 lumens at 130 W. A simplified quick-connect mounting bracket for seamless surface or stem-mount installation. It's tapered shape deters bird nesting and reduces cleaning and maintenance costs. The all-aluminum, pressure die-cast design offers durability and excellent thermal dissipation. According to Optec's Jeff Gatzow, recent refinements in mid-power LED construction, coupled with end users' need for low glare and high efficacy, are leading luminaire manufacturers away from arrays of high-powered point source LED and optics. Light guides, on the other hand, are created using many proprietary materials and techniques and will reach upwards of 85% transmittance, meaning flat lenses can now be achieved.

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TUNABLE-WHITE FIXTURE CONTROLLER

The ELED2 tunable-white fixture controller is the wireless solution for creating human-centric lighting systems. With two separate outputs—one for intensity, one for color temperature control—the ELED2 can deliver a variety of color temperature and dimming control sequences. When paired with a photo sensor with color correlated technology (like the Echoflex TAP-41), the ELED2 can automatically adjust a fixture's color temperature in open and closed loop applications. The ELED2 also features Dim-to-Warm technology, replicating a natural look with LED fixtures even as they dim.

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