

**Utilities Prefer Amerlux** - It's simple, we truly understand the principles and values behind lighting energy efficiency, sustainability, cost savings, and ease of maintenance. We work hand in hand with utilities every day to benefit all energy-focused stakeholders. It's understanding your values and creating the products you need. And we do. Our solid, attractive, tamper-proof exterior applications are offered in a wide array of utility-grade area luminaires. Whether you seek solutions for new construction or custom-designed LED retrofits, our high-quality, waterproof, weather-proof, secure products allow the easy, tool-free maintenance access you desire.



Our Avista® and SmartSite® are among our flagship utility lines. For a complete listing of our products for Utility applications: <http://www.amerlux.com/products/exterior?all=1>

## LED Energy Market Observer:

- 1. Trump Says U.S. and Mexico Reach Last-Minute Deal to Avoid Tariffs** - Mexico has agreed to U.S. demands that it tighten its borders to stop the flow of illegal Central American immigrants from coming into the U.S. through Mexico. The deal suspends steep tariffs on imported Mexican goods that were to go into effect on Monday. In a joint declaration, Mexico agreed to increase its enforcement efforts along their southern border with Guatemala, including deploying their national guard troops. Mexico also agreed to take action against human smuggling and trafficking organizations. The agreement leaves open the possibility that the deal could be altered if progress is not considered sufficient. <https://www.cbsnews.com/>
- 2. Nevada Takes a Stand on Lamp Efficiency Standards** - In February, the Department of Energy announced a plan to rescind an expansion of efficiency standards for lamps that was scheduled to go into effect in 2020. The expanded standards were adopted two years ago by the Obama administration. The expansion favors the growth of LED lamps, which are highly efficient. It will further accelerate the phase out of incandescent and halogen lamps, which are not. Several other states, including Vermont, Washington and Colorado, have already adopted legislation committing to the expanded Obama-era standards. Nevada now joins their ranks. <https://www.ecmag.com/section/lighting/nevada-takes-stand-lamp-efficiency-standards>
- 3. EEI Announces Finalists for 2019 Edison Award** - Five U.S. and two international electric companies have been named finalists for the Edison Electric Institute's (EEI's) 2019 Edison Award. Since 1922, the Edison Award has recognized electric companies for their distinguished leadership, innovation, and contribution to the advancement of the electric power industry. The Edison Award is regarded as the industry's most prestigious honor. A panel of former electric company chief executives will select the winners for the 91st annual Edison Award, which will be presented on June 10 at the EEI Annual Convention in Philadelphia. <http://www.eei.org/resourcesandmedia/newsroom/>
- 4. Oil and Gas Industry Issues Circadian Lighting Guidelines** - In an influential move to mitigate harmful blue-tinged LED light at night, the American Petroleum Institute (API) has issued new workplace safety guidelines directing sites to minimize circadian disruptions from light sources. API, the trade association for the US oil and gas industry, issued the new stipulations early last month in a Recommended Practice (RP) document entitled "Fatigue Risk Management Systems for Personnel in the Refining and Petrochemical Industries," also known as RP 755. The new guidelines are the second edition of RP 755, which API first issued in 2010, approved by the American National Standards Institute (ANSI). <https://www.ledsmagazine.com/>

5. **5 Steps on the Road to Smart Buildings by Steve Brown** - sbrown@esdglobal.com A single smart device or piece of equipment can't make a building intelligent. Instead, IoT devices are intended to serve as components that can be linked together to form a truly intelligent building. The intelligent building connects cutting-edge IoT components to a core, creating a common building platform, with the components working as an orchestra. When enabled to share their specialized data through an open-source data platform, smart building systems become collectively intelligent and their effectiveness increases exponentially. MEP (Mechanical, Electrical, Plumbing) infrastructure, lighting, elevators, critical electrical components, electrical infrastructure, and HVAC controls are all critical to the success of an intelligent building. <https://www.facilitiesnet.com/>
6. **EW's Top 10 LED Picks for May, 2019** - Congrats to Amerlux, Appleton/Emerson, Black+Decker, Chalmit, ESL, Foreverlamp, Hubbell Lighting, LITERONICS, Lutron, Nora Lighting, for being selected by Electrical Wholesaling's editors for our Top 10 LED Picks for May, 2019. Do you have a product you would like us to consider for our future monthly picks? Send a brief description of the product and high resolution image (300 dpi or better) to Jim Lucy, Content Director, EW at jim.lucy@informa.com <https://www.ewweb.com/news/ews-top-10-led-picks-may-2019>
7. **Five Myths About 5G, Debunked** - There are a lot of myths about what the fifth generation of wireless connectivity can and can't do. WSJ's Spencer MacNaughton debunks five common 5G myths. Wall Street Journal...Published on Mar 5, 2019. [https://www.youtube.com/watch?time\\_continue=296&v=lu9G7ef9uBg](https://www.youtube.com/watch?time_continue=296&v=lu9G7ef9uBg)
8. **Apple's Pro Display XDR Highlights Potential of Mini LED** - While Apple did not call the backlighting system mini LED technology, the sources indicated that the design of the superbright arrays of LEDs as demonstrated by the Pro Display XDR is regarded as "mini LED-like" technology. The Pro Display XDR is built using LED components from Japan-based Nichia, LED backlit unit from Taiwan's Radiant Opto-Electronics, display panels from LG Display, and TCON (timing controller) ICs developed in-house at Apple. More traditional LCD panels makers are developing mini LED technology as the development costs for this technology are much lower than those for OLED technology. <https://www.digitimes.com/news/a20190611PD212.html>
9. **5 States with the Most Interest in Rebates** - Over the past year, the top 5 states where customers were looking for rebates are CA, PA, TX, NY and IL. While these 5 states were the most searched for states in the past year, there is a high amount of interest across the entire US. It shows that customers are still struggling to find where the rebates are and how to claim them. With 75% of the US currently covered by an active commercial lighting rebate program, the opportunity is out there. <https://www.briteswitch.com/USrebates.html>
10. **NEMA New Lighting Systems Standard Available for Solid State Lighting Retrofit Kits** - The National Electrical Manufacturers Association (NEMA) published ANSI C136.42-2019 American National Standard for Roadway and Area Lighting Equipment—Solid State Lighting Retrofit Kits. This Standard defines the mechanical and electrical requirements for transforming an installed high-intensity discharge (HID) roadway and area luminaire to a solid-state roadway and area luminaire. This Standard is limited to non-screwbase retrofit kits only. ANSI C136.42-2019 is available for \$39: [https://www.techstreet.com/nema/standards/ansi-c136-42-2019?product\\_id=2042715](https://www.techstreet.com/nema/standards/ansi-c136-42-2019?product_id=2042715)
11. **NEMA New Standard Available for Fluorescent Replacement and Retrofit LED Lamps** - The National Electrical Manufacturers Association (NEMA) published ANSI C78.54-2019 American National Standard for Electric Lamps—Specification Sheet for Tubular Fluorescent Replacement and Retrofit LED Lamps, which standardizes the specification sheet, or data reporting format, as the means of communicating critical lamp characteristics. This new lighting Standard covers all types of fluorescent replacement and retrofit Tubular LED (TLED) systems. ANSI C78.54-2019 is available for \$100: [https://www.techstreet.com/nema/standards/ansi-c78-54-2019?product\\_id=2045092](https://www.techstreet.com/nema/standards/ansi-c78-54-2019?product_id=2045092)

12. **Signify Launches Trulifi** - Signify launched a new range of LiFi systems that includes the world's fastest and most reliable LiFi systems commercially available. The range, branded Trulifi, leverages existing and future professional luminaires. Instead of using radio signals (such as WiFi, 4G/5G, Bluetooth, etc.), Trulifi uses light waves to enable highly reliable, secure two-way wireless communications at speeds far above most conventional workplace wireless technologies. Trulifi uses optical wireless transceiver technology built, or retrofitted, into Philips luminaires. This means customers don't have to rip and replace their existing lighting infrastructure to receive great quality light and wireless connectivity. Trulifi overcomes the increasing congestion of the radio spectrum and is perfect for areas where radio frequencies don't work well, or at all, or are not permitted. <https://www.signify.com/global/our-company/news/press-releases/2019/20190619-signify-launches-trulifi>

13. **ENERGY STAR Certified LED Light Bulbs** - Light bulbs that have earned the ENERGY STAR offer value because they save you money on your energy bills. Enter your zip code to see sponsored offers in your area: <https://www.energystar.gov/product-finder/special-deals>

14. <https://www.ies.org/education/webinars/>



Each month, the IES presents a live webinar on topics we believe will be beneficial to our membership and the public at large. We are excited to offer you this education-oriented program where you can expand your knowledge about lighting and earn IES continuing education credits (CEUs). We hope that you will join us. The Educational Webinar Series features two categories of webinars; IES Standards Webinars and IES Lighting Education Webinars.

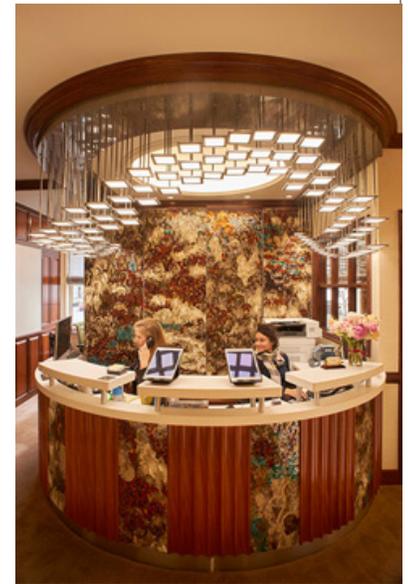
- IES Standards Webinars: Each webinar is devoted to a specific IES Standard. These webinars are typically presented by one or more lead contributors from the authoring committee of the standard. Webinar attendees have an opportunity to hear directly from experts who have in-depth knowledge on the topic of the standard. In addition, there is an opportunity for a question and answer session at the end. This allows viewers the ability to engage directly with the presenters.
- IES Lighting Education Webinars: Each webinar is devoted to a relevant and important lighting topic.

15. **The Retrofit Lighting Opportunity by Doug Chandler** - The lighting market is among the brightest sectors in an electrical industry that's growing steadily overall, and thanks for that can go to the humble light-emitting diode (LED). Most of the attention around the lighting market is focused on new buildings where architects and lighting designers are pushing the boundaries of what the latest LED technology and intelligent controls can do. Meanwhile, look around you at the buildings that make up your city, and you'll quickly see that all those offices, shops, conference rooms, lobbies, factories, warehouses, and parking garages where people spend their days beneath older fluorescent, incandescent, and high-intensity discharge (HID) lighting could benefit from the same technologies that are going into new buildings. The trick is getting them in there. <https://www.ecmweb.com/lighting-control/retrofit-lighting-opportunity>

16. **Enlighted Expands IoT Platform Lighting Control Capabilities** - Enlighted, a Siemens company, recently announced new lighting control capabilities have been added to its award-winning building Internet of Things (IoT) Platform. These include advanced tunable white lighting control, daylight harvesting group capabilities, and a two-wire interface for the company's powerful sensors. Together, these new advancements can improve the health and well-being of building occupants, improve lighting aesthetics, simplify fixture integration, and reduce costs. <http://lightingcontrolsassociation.org/>

**17. IES Active Core Sunlighting: Getting Daylight Beyond Windows to a Building Interior** - Active core sunlighting is the subject of a new design guide (DG-31-18) published by the Illuminating Engineering Society. With this approach, sunlight is captured using solar-tracking optics, delivered deep within the building core, and distributed as general, task and/or accent lighting. By replacing electric lighting at least a few hours of the day, active core sunlighting can save energy and improve lighting quality. Daylight is a desirable resource for nonresidential buildings. <https://www.ies.org/product/design-guide-on-active-core-sunlighting-for-buildings/>

**18. OLEDs Light Dentist Office on Park Ave** - Don Kossar, principal of Don Kossar Interiors, was designing the dental office of Dr. Pasquale Malpeso on Park Avenue in Manhattan, NYC, when he envisioned OLED fixtures encircling the reception desk and arching down the entry staircase. Organic light-emitting diodes (OLEDs) were the only type of lighting that could achieve his design vision as they produce no heat, no lamps have to be changed, and they are thin and small enough to accomplish his plan. Kossar selected 2nd Ave Lighting to manufacture the custom lighting fixtures. The chandeliers feature an array of OLED panels at varying heights with metal tubes connected to the ceiling. The 113-inch long fixture above the reception area renders a semi-circle style with 188 integral OLED ultra-thin panels. Illuminating the stairway is an 80-inch OLED fixture featuring 100 panels in a wave pattern. The luminaires dim with various controls to create a broad spectrum of light. The OLED luminaires deliver a color rendering index (CRI) in the mid-90s, while providing energy efficient 4000K illumination without glare from a flat source. <https://www.ewweb.com/>



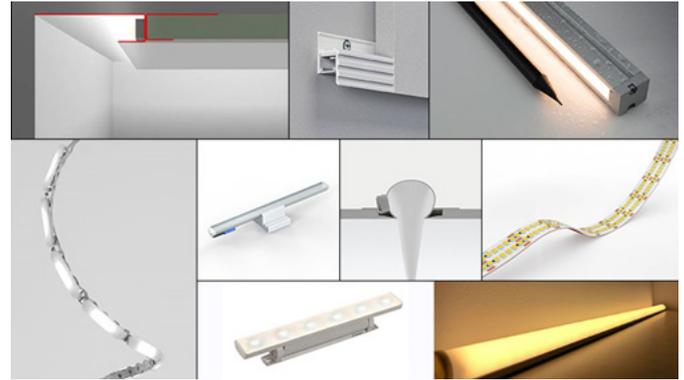
**19. EW's 2019 Top 200 Electrical Distributors** - Here's the complete Top 200 feature package, including the list, analysis and sidebars on the largest electrical distributors in the North American market, ranked by 2018 electrical product sales revenue. It's the definitive look at the companies that control about 51% of sales through the channel. Electrical Wholesaling's editors thought our readers might be interested in some of the stories behind the numbers in this year's Top 200 listing, so we are publishing capsule summaries of what's happening with some of the largest of the Top 200 distributors. We based these reports on news articles we published on these firms over the past 12 months, company websites and other public information sources. <https://www.ewweb.com/top-200/2019-electrical-wholesaling-top-200>

**20. Signify Teams Ericsson to Accelerate 5G Connectivity Lighting Solution** - Signify's indoor luminaire will be embedded with Ericsson 5G Radio Dot in a joint offering that will enable service providers to easily add indoor connectivity to buildings when the lighting systems are being built or upgraded. This is the latest concept born from the successful relationship between Signify and Ericsson, who previously co-developed Lightpole Site Slim, the connected outdoor lighting pole small cell solution. The new luminaire light fixture features an embedded Ericsson Radio Dot, and will deliver not only light, but also 5G connectivity inside buildings. Ericsson's indoor small cell solution, 5G Radio Dot, is embedded into Signify's lighting systems to deliver 5G indoors. <http://www.ledinside.com/>

**21. NYPA to Enhance Smart Street Lighting NY** - The New York Power Authority (NYPA) will be enhancing Governor Andrew M. Cuomo's Smart Street Lighting NY program to include a maintenance service option for interested municipalities. Smart Street Lighting NY, announced by the Governor in the 2018 State of the State and administered by NYPA, calls for at least 500,000 street lights throughout the state to be replaced with energy-saving LED technology by 2025. <https://www.ecmweb.com/>

## Global LED Market Observer:

**22. Cove Lighting by Allan Tulla** - Cove lighting used to be a row of LEDs behind a wooden pelmet or plasterboard moulding. But time moves on. A popular feature is the dropped ceiling or raft. Less common in the UK, but frequently seen elsewhere, is the architectural slot. In effect, a slot is a dropped ceiling which reaches to within a few centimetres of the wall. Once you start looking for cove lighting, you will find that there are scores of aluminium extrusions of different shapes and dimensions to suit just about any shape of ceiling/wall and room configuration you can think of. I reckon you could easily find over a 100. This review includes a lot of different types and style of luminaire which can illuminate a cove. Some luminaire types will be more suited to your particular needs than others. <https://luxreview.com/article/2019/06/lux-recommends-cove-lighting>



**23. Impacts on Lighting If China Weaponizes Rare Earth Metals** - The 17 rare-earth elements are cerium (Ce), dysprosium (Dy), erbium (Er), europium (Eu), gadolinium (Gd), holmium (Ho), lanthanum (La), lutetium (Lu), neodymium (Nd), praseodymium (Pr), promethium (Pm), samarium (Sm), scandium (Sc), terbium (Tb), thulium (Tm), ytterbium (Yb), and yttrium (Y). Despite their name, rare-earth elements are – with the exception of the radioactive promethium – relatively plentiful in Earth’s crust. Do you remember when China last manipulated rare earth exports, in 2010 / 2011? It was a nightmare for the fluorescent lamp industry, which relied on rare earth phosphors. There are three big differences in the lighting industry, however, between now and then:

1. LEDs require a small fraction of the phosphor (rare earths) that fluorescent lamps do. As a result, such a move by China could destroy the fluorescent lamp industry and force a final shift to TLEDs and LED lighting, more generally.
2. There have been some big investments around the world, after the last rare earth crisis, and new sources of rare earths have been found in various countries around the world. If China plays this card, they may trigger new rare earth mining, outside China.
3. Some alternative down converters could benefit from a rare earth crisis, such as quantum dots (QD), which don’t rely on rare earths. This could accelerate new downconverter investments, R&D, and lighting industry adoption.

<https://electricaltrends.com/impacts-on-lighting-if-china-weaponizes-rare-earth-metals/>

**24. Epistar Sees Opportunity in Mini LED and Might Benefit from US-China Trade Dispute** - Epistar continues to work on high margin LED products including UV LED, VCSEL, Mini LED and Micro LED. The company is working intensively with Mini LED projects and its products have been adopted in the end applications including monitors, notebooks and tablets. Epistar foresees an increase of product shipment with rising demands in the market 2020, which will push the production of Mini LED products. The company predicts that Mini LED will account for 20 to 30 percent of its blue LED chips capacity. Mini LED chips from Epistar have been made into fine pitch displays and were exhibited at InfoComm 2019. <https://www.ledinside.com/>

**25. Wireless Mesh Controls the Lights at Tata Steel HQ** - The company’s office in Deeside, North Wales has been equipped by its in-house engineers with Signify’s Zigbee-based Interact Pro with Philips Interact Ready luminaires. The Interact Pro system allows employees to tailor the light levels according to their requirements. It also allows them to customise scenes and schedules using the Interact Pro app. The system ensures that the lighting in the room is only used when it is needed, reducing energy costs. By pre-setting the room, employees can create the right mood for a range of client presentations and access valuable insights into energy usage. Interact Pro uses a wireless Zigbee Mesh network to connect luminaires, sensors and switches. This means that it is much easier to install than many existing lighting control systems and doesn’t require additional cabling. <https://luxreview.com/article/2019/06/wireless-mesh-controls-the-lights-at-tata-steel-hq>

26. **Signify to Install Solar LED Street Lights in Seville to Cut Energy Cost and Carbon Emission** -Signify announced a new project of installing solar panel powered street lights in the Infanta Elena Park in Seville, Spain to enhance the safety of visitors as well as to improve energy efficiency. With the pilot project, 20 Philips SunStay solar street lights will be set in the park, underscoring both Seville's and Signify's commitment to sustainability. By integrating solar panel, luminaire, charge controller and battery in one housing, the Philips SunStay street lights are compact and easy to install and maintain. They will also help Seville, a city committed to sustainability and ecology, to reduce energy costs and improve its carbon footprint. [https://www.ledinside.com/press/2019/6/solar\\_led\\_street\\_lights\\_install\\_seville](https://www.ledinside.com/press/2019/6/solar_led_street_lights_install_seville)

27. **Goeee and Croonwouter&Dros Have Signed a Contract That Will Connect More Than 5,000 Buildings** - Goeee's Building Operating System – which includes a Bluetooth sensing network deployed using the luminaires – will take control of inefficient, existing building systems to optimise both building and business performance. With almost 12 million square metres being maintained and serviced by CW&D, a Dutch property services giant, just 10 per cent saving on energy alone would save €120M in costs over the 10-year agreement. Goeee's platform empowers the smart real estate ecosystem together with IoT partners, Aurora Lighting, Dell, Tridium, Nordic Semiconductor, Pointgrab, Xovis, Vodafone, Feilo Sylvania, Interlight & HumbleBuildings. <https://goeee.com/>

28. **Osram Announces the Sales of Siteco Luminaires Business to Stern Steward Capital** - Osram moved a step forwards to its transformation to a high-tech company by selling its Siteco luminaires business to Stern Steward Capital, the investment arm of Stern Steward & Co. based in Munich. According to Osram, "Separation from Osram gives Siteco entrepreneurial freedom," and Stern Stewart Capital will continue the current transformation approach. Osram announced its plan to sell its luminaires business in 2018 and had sold the lamp business unit LEDVANCE in 2017. By axing its lighting business, the company aims to become a high-tech photonic company. [https://www.ledinside.com/news/2019/6/osram\\_sales\\_siteco\\_to\\_stern\\_steward\\_capital](https://www.ledinside.com/news/2019/6/osram_sales_siteco_to_stern_steward_capital)

## Monthly Feature:

**Lighting Controls Lead LED Conversation by Naomi Millán, Senior Editor of Building Operating Management** - Lightfair International is where the entire lighting industry gets together to debut innovations and showcase future concepts. It's an enormous show, but meeting with a dozen or so manufacturers of products geared at commercial facilities, some themes start to emerge. Here are three observations from #LFI2019 facility managers should keep on their radar:

— **Performance:** LED fixtures, while numerous, do not have a staggering amount of differentiation between them. How manufacturers are seeking to differentiate their product is through a performance arms race. At least one manufacturer had luminaires that can produce 10,000 K. For reference, 5,000 K is the [color temperature](#) of your average "bright white" bulb. So who needs 10,000 K? Nobody. But does anyone need to go 0-60 in 3 seconds either? In addition to face-melting Ks, manufacturers are continuing to push lumens per watt (highest I heard was 190 lm/watt), longer runs of linear LEDs (by going to AC direct or driverless fixtures), and CRIs as high as 100.

— **Controls:** [Lighting controls](#) are the biggest area of growth in lighting. LED luminaires with onboard sensors have reached a point of maturity where they are highly capable and increasingly affordable. But without controls, it's like having a smartphone with no apps. Sure, you can get illumination and limited control through occupancy and daylight sensing. But if you stop there, there's an entire universe of capability, energy savings, and building intel you're leaving in the ceiling.

For a couple of years now, the recommendation to facility managers considering LED fixtures for new construction or retrofit has been to put in the capability even if they're not ready to activate it with the current lighting project. The industry is doubling down on this concept, with several manufacturers producing luminaires with sensors targeted to the contractor and distributor market. This achieves two things. First, it facilitates [codes compliance](#) for sensing requirements in the build stage of a project. Secondly, if tenant space comes pre-loaded with smart-capable fixtures, that takes away the initial hurdle to implementing a controls solution once the tenant moves in. Another way manufacturers are trying to facilitate the move to more robust adoption of sophisticated lighting controls is by offering field-upgradable systems, which step up from basic, to mid-grade, to full-implementation when the use case and budget allows. The software can be pushed out to the fixture through the cloud in many cases.

— **Data:** Smart LED luminaires with on board sensors and robust controls can do everything from track assets to analyze space utilization. But beyond gathering data with the lights, facilities can now transmit data WITH the lights. This is not new, but manufacturers have made advances that have moved this concept from the bleeding edge to the cutting edge. Still niche, but very much in the realm of the possible. Closer to coming to a building near you is [visible light communication](#) (VLC). This tech leverages LED's ability to blink at a rate faster than perceivable by a human eye to communicate with the camera on a smartphone. The advance is that instead of needing a VLC fixture, at least two manufacturers have VLC lamps that retrofit into existing fixtures, making the hurdle to adoption much lower.

Also, now being deployed by at least one major manufacturer is LiFi. Again, LEDs blinking faster than can be seen are used to transmit data, at speeds up to 30 Mbps, with higher speeds soon anticipated. One of the challenges of WiFi is that everything in the built environment wants to use it, but there is only so much bandwidth available. Manufacturers solve for this by installing multiple radios on their devices which can hop frequencies, or by using a different communications protocol. LiFi provides an alternate path to transmit data, which could potentially take some of the pressure off the WiFi system, among other benefits. Stay tuned, as that tech is still in very early days. But at the rate the lighting industry iterates, the future is bright.