

# Amerlux's People-First Solution Boosts Comfort, Productivity

Amerlux announced that it will begin shipping in early 2020 an innovative lighting solution that caters to the needs of people inside the building. Amerlux's new AERUS lighting solution—which delivers a unique style and look compared to other indirect/direct pendants in the marketplace—maximizes technological advances in electronics and optics to create better work environments that promote productivity and employee health. The new Linea 1.5"Mini Indirect is part of a larger Linea product family:



#### https://www.amerlux.com

- Linea 1.5" Direct Wall Wash LED
- Linea 1.5" Direct LED
- Linea 1.5" Direct/Indirect LED
- Linea 2.5" Direct/Indirect LED
- Linea 2.5" Direct LED
- Linea 2.5" Indirect LED

#### National LED Energy Market Observer:

- 1. **This December 2020 Issue of Electrical Contractor is Not to be Missed** The lighting market is a large one. The U.S. Department of Energy (DOE) estimates each of the nation's 128 million households has, on average, 40 lamp sockets. Do some simple math and that adds up to more than 5 billion lamps in U.S. homes. Here's a closer look thanks to Electrical Contractor:
  - Seeking the Spotlight: 2020's Lighting Trends
  - Focus on Aging Eyes: Lighting Design for Seniors
  - The Last Frontier: Electrical Projects in Alaska
  - A Brave New LED World
  - Lighting for Darker Skies: Reducing Light Pollution
  - Safety: The Nuances of Recordkeeping
  - Code Insider: The Cycle Begins
  - Cool Tools: Portable Storage
  - Featured Products: Luminaires

Electrical Contractor - December 2020 - page Cover (ecmagdigital.com)





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#### 2. EVENTS AND TRADE SHOWS IN 2021 -

•	Lightovation	7-10 JAN	Dallas, TX
•	IES Annual Conference	6-7 AUG	New Orleans, LA
•	LEDucation	17/18 AUG	New York, NY
•	Strategies in Light	24-26 AUG	Santa Clara, CA
•	ArchLight Summit	21/22 SEP	Dallas, TX
•	IES Street & Area Lighting Conf.	7-13 OCT	Atlanta, GA
•	LightFair	27/29 OCT	New York, NY
•	Lux Live	11-12 NOV	London

- 3. **LEDucation Reschedules to August 17–18, 2021** The event is slated to be held at the New York Hilton Midtown and will continue to include multiple exhibition halls featuring the industry's top manufacturers and suppliers, as well as a dynamic conference program. The March 16-17, 2021 LEDucation Conference will still take place virtually and offer a variety of accredited webinars—all with a focus on solid-state lighting. For the Latest Information, visit: <u>LEDucation.org</u>
- 4. **Strategies in Light Postpones until 24-26 AUG** The LED and Lighting team within the Advanced Technology Business unit of Endeavor Business Media has made the decision to delay Strategies in Light to Aug. 24-26 in Santa Clara, CA thereby making it extremely likely that the event can proceed with in-person attendees and exhibits. Strategies in Light Event Schedule
- 5. **CABA Publishes Whitepaper on PoE** The Continental Automated Buildings Association (CABA) recently published a whitepaper on Power Over Ethernet, or PoE, now available for free download. The whitepaper describes the fundamentals of PoE, with explanations on the technology's current state and the applicable codes and standards. <u>Power-over-Ethernet: Basics 2020 CABA The Continental Automated Buildings Association</u>
- 6. New CABA Report Examines What COVID-19 Means for the Intelligent Buildings Industry The complimentary CABA report, Intelligent Buildings and COVID-19, Module 1 of 3, was released to industry this week. The coronavirus has brought fundamental change to businesses, with impacts in virtually every industry—and the intelligent buildings industry is no exception. CABA commissioned Frost & Sullivan to evaluate the sector's key challenges and opportunities and identify response measures that will help build resiliency. Today, the first part of that research is available, focusing on immediate implications, key regulatory guidance, and forward-looking mitigation measures. It is the first of three Modules, with the final two Modules to focus on Technology Potential Evaluation and Future Readiness Assessment. See the media release. Download the report: Intelligent Buildings and COVID-19, Module 1 (2020) CABA The Continental Automated Buildings Association
- 7. **DLC Extends SSL V4.4 Delisting Date and Application Deadline** The DesignLights Consortium (DLC) recently announced changes to its Solid-State Lighting Requirements V4.4 (SSL V4.4) due to continued disruption as a result of the COV-ID-19 pandemic. The new deadline to update V4.4 listed products to V5.0 or V5.1 is Jan. 31, 2021, while the deadline to delist V4.4 listed products that have not been updated has changed to Feb. 28, 2021. For more information about the delisting extension, review the manufacturer and industry guidance or visit: Notice: SSL V4.4 Delisting Date and Application Deadline Extension DesignLights Consortium
- 8. **PNNL Publishes Research on LED-Based Circadian Lighting for Schools** The US Department of Energy's PNNL has examined the impact on energy usage that would be incurred in school settings where published circadian lighting guidelines are followed. The report "Energy impact of human health and wellness lighting recommendations for office and classroom applications" was published initially in the academic journal <u>Energy and Buildings</u>. The intent was to examine the impact of lighting specification that meets WELL v2, UL Design Guideline 24480, and Collaboration for High Performance Schools Core Criteria 3.0 guidelines. <u>Energy impact of human health and wellness lighting recommendations for office and classroom applications</u>



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- 9. **Eaton White Paper: Intelligent Power Starts with Accurate, Actionable Data** As the world becomes more digital, electrical infrastructure is rapidly evolving and offering new ways to support more integrated, customizable, intelligent, and efficient buildings and processes. The data provided by connected devices can be used in commercial and industrial settings to provide newfound system visibility and predictive diagnostics that can create fail-safe systems, enabling new functionality not previously available. Read this white paper to learn about leveraging intelligent power. <a href="Intelligent Power Starts with Accurate, Actionable Data">Intelligent Power Starts with Accurate, Actionable Data</a> | EC&M (ecmweb.com)
- 10. **Lighting & Homes for Tomorrow Announces 2020 Competition Winners** The LHFT competition has recognized nine connected home products and platforms, including three connected lighting, controls, and ceiling fan products. In 2020, the competition sought residential connected lighting, lighting controls, ceiling fans, plug load controls, heating and cooling (HVAC) and thermostats, windows and window attachments, and other connected home devices that successfully deliver a positive consumer experience, energy management, and grid benefit. View the winning designs from the 2020 Lighting & Homes for Tomorrow competition as well as the 2014-2017 competitions at: Winning Designs Lighting & Homes for Tomorrow (lightingfortomorrow.com)
- 11. **The Lighting Quotient Acquires Electrix Architectural Lighting Business** Sylvan R. Shemitz Designs, LLC, doing business as The Lighting Quotient®, the maker of Elliptipar® and Tambient® lighting products, has acquired the operating assets and products of Electrix, LLC 's architectural lighting business, including the Electrix® brand, strengthening The Lighting Quotient 's position in the LED lighting market and enhancing its manufacturing operations in Connecticut. The Lighting Quotient 's lighting fixtures and electronic controls solutions are used in commercial and residential projects, regularly featured in offices, hotels and restaurants, universities, museums, houses of worship, facades and monuments worldwide. The Lighting Quotient's products are actively utilized in infrastructure projects including architectural bridges, airports and transportation terminals. <a href="http://www.thelightingquotient.com/">http://www.thelightingquotient.com/</a>
- 12. OPINION: UV Can Make Us Safer If It's Used in the Right Way by Scientist Karl Linden of the University of Colorado
- Ultraviolet light is an important tool in our fight against pathogens, but we must observe strict procedures in its deployment. It has a long history as a disinfectant and the SARS-CoV-2 virus, which causes COVID-19, is readily rendered harmless by UV light. The question is how best to harness UV light to fight the spread of the virus and protect human health as people work, study, and shop indoors. As an environmental engineer who studies UV light, I've observed that UV can be used to reduce the risk of transmission. OPINION: UV can make us safer if it's used in the right way Lux Review
- 13. Place Your Order: The Changing World of Online and Direct Buying by Claire Swedberg While a purchasing transition was already underway, COVID-19 has created more uncertainty about the supply chain. Contractors have some choices when it comes to acquiring the necessary tools and materials for each new project. Purchasing these items online could make buying easier, just as online purchasing for consumer goods does. As part of this trend, suppliers offer apps that enable purchasing, tracking and replicating the orders in the future. By buying online, contractors can easily compare prices, but they would need funds for upfront payments. The choice between online and direct purchasing, the two methods are likely to coexist for some time. Place Your Order: The changing world of online and direct buying I Electrical Contractor Magazine (ecmag.com)
- 14. **Signify and Honeywell Team Up in UVC Market** Honeywell and Signify announced a strategic alliance to deploy integrated, smart lighting solutions for commercial buildings. Together, the companies aim to improve the occupant experience focusing on productivity and well-being and to reduce energy consumption. The collaboration integrates Signify's Interact connected lighting system and software, and its <u>UV-C disinfection lighting</u>, with Honeywell Building Management Systems and the Honeywell Forge enterprise performance management platform. The combined offerings will manage energy consumption while factoring in occupancy along with air quality indicators such as temperature and humidity. Signify's lighting solutions\* will complement Honeywell's Healthy Buildings air quality solutions beginning in early 2021, and can be controlled, measured and monitored via the Healthy Buildings dashboard to understand air and surface cleaning compliance and metrics. 12/21/20 PRNewswire/



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15. **Congress Considers the Energy Act of 2020** - Congress is now considering the Energy Act of 2020, which contains numerous provisions related to energy production, distribution, and more-efficient end use. Not much directly related to lighting but maybe the Commercial Buildings Tax Deduction will get another extension. Microsoft Word - Energy Act of 2020 Section-by-Section v4p.docx (senate.gov)

### Global LED Energy Market Observer:

- 16. **TrendForce: Global LED Demand Set to Rebound from Rock Bottom in 2021** The COVID-19 pandemic has had a substantial impact on the LED industry in 2020, resulting in a considerable drop in market demand and a projected yearly revenue of merely US\$15.127 billion, a 10% decrease YoY, according to TrendForce's latest investigations. Although the YoY decline in 2020 represents a magnitude of historic proportions, as COVID vaccines become more widely available in 2021, long-term pent-up market demand will likely rebound from rock-bottom levels, resulting in a forecasted yearly revenue of \$15.7 billion for the global LED industry next year, a 3.8% increase YoY. <a href="https://www.ledinside.com/node/31776">https://www.ledinside.com/node/31776</a>
- 17. **TrendForce 2021 Global LED Video Wall Market Outlook and Price Cost Analysis** TrendForce provides readers with a comprehensive understanding of the LED video wall market, manufacturer development, LED video wall product trends and prices. It is estimated that the CAGR of LED video wall will be 16% during 2020 to 2024, maintaining a relatively faster growth rate. All-in-One LED display integrates wireless transmission, video conference, and interactive writing functions. It can be applied to medium- and large-sized meeting rooms, lecture halls, multipurpose halls, multimedia rooms, exhibition and classrooms, to largely improve collaboration of meetings. With increasing demand for HD display as 5G transmission develops and consumption upgrades, LED commercial displays will be very promising in the coming future. In addition to office meeting, All-in-One LED display is also applicable to remote medical treatment, emergency command, distant education and home theater. <a href="https://www.ledinside.com/intelligence/2020/9/trendforce2021-led-video-wall">https://www.ledinside.com/intelligence/2020/9/trendforce2021-led-video-wall</a>
- 18. Samsung MicroLED Opens a New Era of Breathtaking Picture Quality and Design Samsung Electronics announced the launch and pre-sale of the ground-breaking 110" Samsung MicroLED beginning today in Korea. Unlike any other displays currently available on the market, Samsung MicroLED delivers astonishing color vibrancy and brightness with self-emissive LED display technology. This results in stunning, lifelike colors and accurate brightness from the display's 4K resolution and 8 million pixels. Its all-new Micro Al Processor delivers stunning 4K HDR content resulting in bright, vivid, realistic picture quality that is optimized to each scene. https://www.ledinside.com/node/31759



- 19. Warsaw Rolls Out Huge Lighting Replacement Project The city of Warsaw is rolling out one of the largest street lighting replacement projects in Europe. The Polish capital is replacing its 38,500 luminaires on its main arterial roads with LED versions made to a unique design. The new lamps will be installed in stages, and the last batch should appear on the streets of the metropolis in December 2022. The street luminaires will be custom-made for Warsaw under the £6 million (€7 million) deal. They're being designed and manufactured from scratch by local firm LUG Light Factory to the specification of the Public Road Administration. Warsaw rolls out huge lighting replacement project Lux Review
- 20. **MLS Aims to Become a Lighting Brand** MLS currently owns two brand names: "MLS" and "LEDVANCE". Its strategy going forward will be primarily about building up brand recognition and opening new sales channels. MLS announced that it is fully committed to become a brand in finished lighting products and will be scaling back the role of LED packages in its business portfolio over the next few years. Regarding the state of the LED market, MLS said that the demand related to lighting applications is expanding steadily. The global market for LEDs used in lighting products has been showing annual growth rates of 10-20% in the recent years. MLS anticipates that the market will eventually become more concentrated and dominated by a few major brands. <a href="https://www.ledinside.com/node/31746">https://www.ledinside.com/node/31746</a>



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- 21. **Signify Will Shrink HQ** As the world's leading lighting company, Signify routinely practices what it preaches, installing its latest innovation in connected, human-centric, germicidal or other offerings at its own facilities. Now, it's about to also gain first-hand experience in the foreboding market possibility that commercial office use could permanently shrink. A spokesperson further explained to LEDs Magazine that Signify expects by early next year to say more about how it will establish a "lean central organization." CEO Eric Rondolat revealed to financial analysts that the company will pare back corporate headquarters in Eindhoven, a consequence of costs incurred in coping with the coronavirus pandemic and in acquiring Cooper Lighting Solutions. Signify will shrink HQ | LEDs Magazine
- 22. **Horticulture Lighting Market with COVID-19 Impact Analysis by Technology** Global Forecast to 2025 by Marketsand-Markets. The global horticulture lighting market is projected to grow from USD 2.3 billion in 2020 to USD 6.0 billion by 2025; it is expected to grow at a CAGR of 21.4% from 2020 to 2025. The key factors fueling the growth of this market include rising number of government initiatives to promote the adoption of CEA practices and SSL technology, growing demand for food owing to the continuously increasing population, increased funding to develop vertical farms and greenhouses, and ongoing legalization of cannabis cultivation. To know about the assumptions considered for the study, Request for Free Sample Report <a href="https://www.marketsandmarkets.com/Market-Reports/horticulture-lighting-market-131559722.html">https://www.marketsandmarkets.com/Market-Reports/horticulture-lighting-market-131559722.html</a>
- 23. **Hybrid Working 'Requires Major Investment in Lighting Controls'** Tamlite Lighting, one of the UK's leading lighting manufacturers is calling on commercial building managers to future-proof their lighting systems in response to a major shift towards more flexible working models. With a growing number of employees adopting a hybrid working style, office buildings will need to prepare for reduced occupancy levels and changes in density ratios. The key to achieving this will be investment in the integration of the latest lighting control systems. Hybrid working 'requires major investment in lighting controls' Lux Review
- 24. **OSRAM Presents its First UV-C LED to Fight Viruses** Osram Opto Semiconductors now enables particularly small and robust disinfection applications with its LEDs, while also driving the industrialization of these special light sources forward. The Oslon UV 3636 marks the beginning of a comprehensive portfolio in the UV-C LED sector. Osram has been active in the UV area for many years and developed in-depth knowledge of UV technology from participating in various research projects with partners from industry and research. Particularly noteworthy are the <u>UNIQUE</u> and <u>UV-Power</u> project, as well as <u>IPCEI</u> on Microelectronics. Further information about disinfection can be found at: <u>Opto Semiconductors I OSRAM</u>



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## **Monthly Feature:**

Lighting for Wellbeing Expands into the Ultraviolet in 2020 by Carrie Meadows - The pandemic created a surge in germicidal solution seeking, but lighting for general human health remained a focus for commercial enterprises and researchers alike. It should surprise no one that the analytics of our lighting for health & wellbeing channel revealed that the most-read articles of 2020 presented both scientific and commercial advances in ultraviolet (UV) technology for germicidal irradiation. Whether based on LEDs or other light sources, UVGI has, to many, represented an enormous business opportunity while also creating an incredible demand for responsible distribution of reliable, research-backed information.

Lighting for wellbeing expands into the ultraviolet in 2020 | LEDs Magazine

#### 1. Osram, like Signify, is ramping up conventional UV-C lamps to fight Covid

Our Mark Halper learned back in June that the world's second-largest lighting company (still at the time of this writing – the future remains to be determined post-acquisition by ams) was increasing its production of conventional mercury-vapor-based UV-C (254-nm) sources that were demonstrated to be effective in deactivating the coronavirus that causes COVID-19.

#### 2. Boston University validates Signify UV-C for coronavirus deactivation

The university's National Emerging Infectious Diseases Laboratories (NEIDL) exposed materials containing the SARS-CoV-2 virus to a UV-C tube lamp from Signify and found that a dose of 5 mJ/cm2 reduced the amount of detectable virus by 99% in 6 seconds. Signify provided its mercury-vapor lamps for the study, and planned to make its technology available to other lighting manufacturers.

#### 3. LRC studies the use of UV-A LED lighting to disinfect hospital room

The most commonly reported wavelength range for UVGI has been the UV-C range, which covers 100 to 280 nm, with scientists noting the most effective wavelengths for near-instantaneous disinfection to fall between 254 260 nm. But in February, scientists from the Lighting Research Center (LRC) at Rensselaer Polytechnic Institute reported findings from a trial with UV-A LED luminaires by GE Current. Designed to test effectiveness against potential hospital-acquired infections (HAIs), the LRC determined that exposure in the 350-to-380-nm range would be safe for humans present over the period required to kill target pathogens. But the UV energy did damage surfaces and fabrics in the rooms.

## 4. Signify readies a wide family of UV-C lights for coronavirus frontline

Signify's announcement to the industry that it would dedicate a number of resources to meet a "surging demand for disinfection," according to Digital Solutions division head Harsh Chitale, reiterated CEO Eric Rondolat's position that LED technologies would not be effective in germicidal applications from a cost and power requirement perspective in the immediate term.

Not all of the most popular health & wellbeing content was driven by the concern about exposure to pathogens, however, so I've extended our list to several additional stories. Over the course of the year, advances in commercial products that can deliver a lighting experience more in line with that of the natural day/night cycle began to support the notion that improvements in the built environment to enhance worker productivity and comfort should no longer be considered a luxury but a necessity to achieve both sustainability and wellness. And a possible LED light treatment for brain injury also warranted a second look.

## 5. LEDvance announces LED lamps with natural light

A broad set of frosted and clear filament lamps from LEDvance has a spectral power distribution that more closely mimics incandescent performance or what the company calls natural light.

## 6. Signify builds sensors into snap-in bundle for luminaires, targeting office health

The company adds new and existing capabilities including desk-level temperature, people count, noise, and others, in optional wireless and PoE formats.

## 7. Blue-light study shows promise in healing mild TBI

A new research study by the University of Arizona finds reason to hope that blue light may help in healing mild traumatic brain injury (mTBI), also known as concussion.



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- 8. **To reduce jet lag, get a private jet** The next generation of private aeroplane is set to feature 'the most advanced circadian lighting system in aviation', said its maker Gulfstream. The lighting in the £58 million flagship G700 will recreate sunrise and sunset through thousands of white and amber LEDs, 'gently coaxing' its high net worth passengers into their new time zone and 'greatly reducing the physical impact of traveling halfway around the world nonstop', says the company. Oh, and it can fly 7,500 nautical miles at Mach 0.85.
- 9. **Blue and red lighting keeps office workers alert** A combination of blue light in the morning and red light in the afternoon is best for keeping office workers alert, a study showed us this year. Researchers from the Lighting Research Center (LRC) at Rensselaer Polytechnic Institute and the U.S. General Services Administration have just published the latest in a series of analyses exploring how light impacts alertness during the day and the quality of sleep. The study tested a special luminaire developed by the LRC.
- 10. **British lights may get a new symbol after Brexit** UK manufacturers of lighting may replace the CE mark in the British market with a new 'UK Conformity Assured' symbol in the event of a no-deal Brexit. If there is no agreement between the EU and the British government at the end of 2020, the UKCA symbol could start appearing on luminaires. It is designed to assure buyers that the lighting equipment complies will all the relevant standards. The rules will mirror those which currently apply for the CE marking.

