A MONTHLY NEWSLETTER FROM AMERLUX®

VIDEO: Amerlux's Commitment to Best-In-Class, US Made Lighting Design Solutions

Amerlux's Commitment to Best-In-Class, US Made Lighting Design Solutions - YouTube

Amerlux, an award-winning design-and-manufacture lighting company, announced the latest addition to its signature, awardwinning <u>Hornet downlight series</u>—a versatile fixture that caters to retail and commercial applications without compromising on budget or design.

The evolution of the Hornet lighting collection underlines a theme highlighted in Amerlux's new corporate video, which emphasizes the company's transformative technologies in making project design light-years faster and better for architects and lighting designers.

The video features the robust design, engineering and production capabilities of Amerlux's state-of-the-art 200,000-squarefoot manufacturing facility in Oakland, N.J. Featured prominently are their multiple-stacking C&C laser-cutting capabilities, advanced photometric labs and the industry's swiftest conveyor powder coat system, as well as their commitment to sustainability, green manufacturing and human-centric building automation.

"Take the Hornet LED downlight collection and our innovative approach to reinventing it to be more efficient and cost-effective," Plageman said. "Our unique blend of in-house technology, experience and know-how empowered us to accomplish both goals. We're not your typical lighting company. We continuously stand apart, a fact that's evident in this video and underscored by our latest product launches and capabilities."

Amerlux's leading role with parent company Delta Electronics and their family of companies in creating sustainable and productive, net-zero carbon spaces is also featured.

To learn more about Amerlux's lighting and building automation solutions, visit <u>Amerlux.com</u> or call 973.850.4342. National LED Market Observer

National LED Market Observer

1. How a Landmark Supreme Court Decision Will Reshape the U.S. Energy Sector - The Supreme Court's decision to toss out the Chevron doctrine will give courts more power to interpret ambiguous laws, which could have wide-ranging effects on the energy industry that could affect federal regulations of everything from power plant emissions to electric vehicles to transmission lines. The ruling could affect everything from Environmental Protection Agency power plant standards and Federal Energy Regulatory Commission transmission line orders to standards for vehicle emissions. "In the short run, we expect a significant increase in regulatory litigation, including challenges to existing regulations, ongoing rulemakings and existing precedents," said Gordon Todd, co-chair of Sidley Austin's regulatory litigation practice group. How the Supreme Court's 'Chevron Deference' Ruling Could Remake the Energy Sector I Scientific American

2. **US Electricity Prices Rise Again as Al, Onshoring May Mean Decades of Power Demand Growth: BofA** - The year-overyear inflation rate for U.S. electricity prices reached 5.9% in May, up from 3.8% in January, according to Bank of America Institute, a think tank utilizing proprietary data to develop insights into consumer behavior and the economy. Electric vehicles and heat pumps are driving consumer electricity demand higher, while industrial onshoring and the rise of data centers and artificial intelligence are also putting upward pressure on prices, the analysts said. BofA Global Research estimates Al computing will require an additional 18 GW to 28 GW of generation capacity by 2026. Data centers <u>could consume 9% of the United States' electricity</u> generation by 2030 — double the amount consumed today. <u>US electricity prices rise again as Al, onshoring may mean decades</u> <u>of power demand growth: BofA I Utility Dive</u>



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3. Artificial Intelligence Requiring Unprecedented Power Consumption - Artificial intelligence requires a lot of energy. That's no secret. But what's surprising is just how much computing power these AI systems require, and how energy demand is spiking faster than experts expected. The power consumed by data centers could represent up to 7.5 percent of all electricity by 2030, according to GovTech. This is an increase in data center power demand of as much as 160 percent, according to Goldman Sachs. Overall demand for power increase could increase as much as 20 percent by the end of the decade, according to CNBC, a demand increase not seen since the early days of the 21st century. Artificial Intelligence Requiring Unprecedented Power Consumption - Facility Management Data Centers Quick Read (facilitiesnet.com)

4. **Texas to Double \$5 Billion State Fund Aimed at Expanding the Power Grid** - The Electric Reliability Council of Texas estimated that the state's main power grid would have to provide nearly double the amount of power it currently supplies by 2030. Texas state governors have announced plans to raise financing available from the Texas Energy Fund from \$5 billion to \$10 billion amid those forecasts. A large portion of the funding will be allocated to low-cost loans for building new gas-fueled plants to the main grid by June 2029, and to offer grants for modernizing, weatherizing and managing vegetation growth around electricity infrastructure in Texas outside the main electricity market, which meets around 90% of the state's power needs. The state received notices of intent to apply for \$39 billion in loans — almost eight times more than what was initially set aside. The average plant will take three to four years to complete, and new transmission lines will take three to six years to complete. Texas to double state fund aimed at expanding power grid | The Texas Tribune

5. New Study Finds 46% of EV Buyers in the US Want to Go Back to ICE - It appears that EV ownership isn't equally excit-

ing for all buyers, as a great portion of them are considering going back to ICE. According to a new survey by McKinsey & Co., a staggering 46 percent of EV owners in the US will likely opt for a combustion-powered vehicle for their next purchase. As reported by Automotive News, the results suggest that 29 percent of EV owners worldwide will likely go back to ICE for their next vehicle. The most crucial factor in abandoning EVs is the state of the public charging infrastructure, followed by the high costs of ownership and the need to find a more suitable car for longer journeys. New Study Finds 46% Of EV Buyers In The US Want To Go Back To ICE I Carscoops



6. **IMARK Electrical Shareholders Approve Merger with AD** - A landmark transaction in the electrical supply industry is another step closer to completion. Independent distributor buying groups AD and IMARK Electrical announced July 8 that IMARK Electrical's shareholders voted earlier that day overwhelmingly in approval of the group's merger with AD, previously announced on June 4. A news release stated that the transaction is scheduled to close later this year and is subject to customary closing conditions. AD and IMARK Electrical represent a combined 725 independently-owned electrical distributors in the U.S. IMARK Electrical Shareholders Approve Merger with AD - Modern Distribution Management (mdm.com)

7. Lightstar Tapped to Build 10-MW Agrivoltaic Solar Portfolio for City of Detroit - At its core, this venture seeks to empower the local community by marrying solar power generation with agriculture — also known as agrivoltaics. Potential crops such as lettuce, kale, carrots and a variety of berries are anticipated to thrive alongside solar panels, illustrating a harmonious balance between energy production and urban farming. Lightstar is actively seeking urban farming partners that can provide fresh, local and sustainably farmed produce and livestock products to the people of Detroit. These collaborations are intended to fortify Detroit's food distribution systems, ensuring that the fruits of this project nourish the city's residents for decades to come. Lightstar tapped to build 10-MW agrivoltaic solar portfolio for city of Detroit (solarpowerworldonline.com)



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8. **Updated National Energy Standard: New Rules Increase Efficiency in Commercial Buildings by Craig DiLouie** - While the United States does not have a national commercial building energy code, the Department of Energy (DOE) recognizes an energy reference standard and requires states to have a code that is just as stringent to receive code implementation funding. In February 2024, the DOE issued a determination that <u>ANSI/ASHRAE/IES Standard 90.1-2022</u>, <u>Energy Efficiency Standard for</u> <u>Buildings Except Low-Rise Residential Buildings</u>, increases energy efficiency in commercial buildings by nearly 10% over the previously recognized 2019 version. Within two years of publication, all states must have an energy code at least as stringent. While some jurisdictions write their own codes, the majority adopt a model such as 90.1 or the International Energy Conservation Code (IECC), both of which are updated every three years. Based on previous adoption, at least half the states are likely to eventually gain compliance. A majority will adopt a comparable version of the IECC, which recognizes 90.1 as an alternative compliance standard. <u>Updated National Energy Standard: New rules increase efficiency in commercial buildings - Electrical Contractor Magazine (ecmag.com)</u>

9. DLC Controls Summit 2024 - Integration for the Future - October 15 – 16, 2024 Milwaukee, WI - Everyone agrees that the potential to optimize savings by integrating lighting controls with other building systems is real, but getting alignment on how to do this is less clear. By convening different groups of professionals to discuss the possibilities and challenges, we can begin to solve the problem together. Integration is the last step on a larger pathway to connected lighting. Energy efficiency programs are starting to incorporate more than simple LED replacements, including controls, LLLCs, and NLCs plus other building systems such as HVAC. Summit attendees will have opportunities to network and discuss how controls can be used to optimize savings in a variety of building types, share experiences with installing NLCs and integrating lighting controls with other building systems, and explore new DLC resources that will encourage more NLC installations. 2024 Controls Summit - DesignLights

10. Award-Winning Cultivator LightSky Farms Collaborates with Fluence on Innovative LED Lighting Strategy - Fluence, a leading global provider of energy-efficient LED lighting solutions for commercial cannabis and food production, announced today the success of its partnership with award-winning, Michigan-based cannabis grower LightSky Farms. Founded in 2009 by wine industry veteran Shannon Walters, LightSky Farms was created with a precise vision for preserving original source terpenes, building a world-class team of cultivation experts and leveraging leading technologies to cultivate an unmatched cannabis experience. Known for their advanced growing techniques such as phenotype hunting and selective breeding to grow novel cannabis strains, LightSky leverages Fluence's VYPR and RAZR-M LED light fixtures to optimize plant expression and improve energy efficiency from seed to harvest. Award-Winning Cultivator LightSky Farms Collaborates with Fluence on Innovative LED Lighting Strategy - LEDinside

11. A Contractor's Guide to Luminaire Level Lighting Controls by Craig Casey - Over the last 20 years, LEDs have made lighting more efficient, smarter, and versatile. Luminaire level lighting controls (LLLOs) are helping to integrate these benefits into individual LED luminaires and redefine the way we think about lighting control in offices, classrooms, conference rooms, and more. While wired, fixture-level control has been possible for more than a decade, wireless technology puts flexible, adjustable, smart control well within reach for most projects from a budgetary and scheduling standpoint. From an industry standpoint, LLLOs are wireless lighting control devices integrated directly into a luminaire, typically by the manufacturer. Equipped with this device, the luminaire can be individually controlled (or digitally grouped) to create lighting zones that meet the customer's specific needs. For the contractor, using a digital solution — LLLO devices or digital drivers — simplifies the wiring and installation of controls and luminaires. A Contractor's Guide to Luminaire Level Lighting Control | EC&M (ecmweb.com)

12. **PNNL's LED Lighting and Controls Guidance for Federal Buildings** - The Pacific Northwest National Laboratory (PNNL) has published a concise and informative guide to help designers and project managers select the most cost-effective and energy-efficient lighting and control systems, including lessons learned from evaluations conducted in federal buildings. LED Lighting and Controls Guidance for Federal Buildings supports the BRIGHT Act and provides practical guidance to federal agencies on choosing and using cost-effective and energy-efficient lighting systems, though the information is contains is helpful for anyone interested in upgrading buildings. Download it at: LED Lighting and Controls Guidance [GSA]



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13. Senate Committee Proposes Energy Permitting Reform Legislation - U.S. Senators Joe Manchin (I-WV) and John Barrasso (R-WY), Chairman and Ranking Member of the Senate Energy and Natural Resources Committee, released the Energy Permitting Reform Act of 2024. This bipartisan legislation will strengthen American energy security by accelerating the permitting process for critical energy and mineral projects of all types in the United States. However, Senate Majority Leader Chuck Schumer (D-New York) says a deal to speed up the permitting process is dead. Read the text of the Energy Permitting Reform Act of 2024 <u>here</u>. Senate Committee Proposes Energy Permitting Reform Legislation – electrifieD (tedelectrified.com)

Global LED Market Observer

15. **Big Brands Back Circular Lighting Live 2024** - Major lighting brands including Signify, Holophane, Glamox, ASD, Bell Lighting, Prime Light, Mymesh, Stoane Lighting, Light Projects Evolve, Trojan Lighting and Silent Desing have thrown their weight behind Circular Lighting Live 2024. The companies have signed sponsorship and exhibiting deals for the one-day conference and exhibition, organised by lighting industry sustainability authority Recolight and billed as the UK's largest event dedicated to sustainable lighting. The event, taking place at the Royal College of Physicians in London on Wednesday 9th October 2024, is designed to inspire and educate in equal measure with a programme exploring innovation in best practice, inspirational projects and design and procurement. It brings together lighting specifiers and suppliers to consider the practical ways we can collaborate to drive sustainability. Further details and bookings are available at: www.circularlighting.live

16. **Tech Companies Use as Much Electricity as Countries** - Advances in artificial intelligence adoption and use are causing massive spikes in electricity use, as well. Tech companies are now using so much electricity for data centers that the organizations' total energy spends rival those of entire nations. Comparing the energy spend of individual companies to entire countries illustrates the intense energy requirements of the computing power required for artificial intelligence. It also highlights the high environmental price of the move toward Al. Google and Microsoft are the second and fourth largest global companies, measured by market capitalization. Both these companies have carbon neutrality pledges which look increasingly unlikely as their energy consumption skyrockets. Tech Companies Use as Much Electricity as Countries - Facility Management Software Quick Read (facilitiesnet.com)

17. Efficient Rare-Metal-Free Phosphorescent Molecule Discovered - Japanese researchers led by Osaka University have published the discovery of a family of significantly more efficient organic, rare-metal-free, phosphorescent materials: thienyl diketones. Room temperature phosphorescence (RTP) without using rare metals has been an area of intense research. Most commercial RTP materials today utilize iridium or platinum, both rare metals with high costs. RTP materials are currently used in OLEDs and cancer diagnostics. The material discovery and new design guidelines for developing organic, rare metal-free phosphorescent materials have the potential to lead to significant advancements in lighting, OLEDs, and medical diagnostics. The full research paper can be found here. Efficient Rare-Metal-Free Phosphorescent Molecule Discovered | LightNOW (lightnowblog. com)

18. Exhibition Space for Light + Intelligent Building Middle East 2025 - The 2025 edition of Light + Intelligent Building Middle East is set to illuminate the Dubai World Trade Centre from January 14-16, 2025, bringing together the brightest minds and latest innovations in lighting design, technology, and building automation. As the premier event in the region for these sectors, this 18th edition is a gateway to the burgeoning markets of the Middle East and North Africa (MENA). Industry reports forecast that the LED lighting market in the Middle East and Africa will reach USD 3.95 billion by 2030, while the intelligent building market is expected to hit USD 8.9 billion by 2029. This growth reflects the dynamic expansion and increasing investment in these fields. Light + Intelligent Building Middle East 2025 promises to be an essential platform for businesses looking to connect with potential clients, find new partners and distributors, and broaden their global network. Book your stand now and learn more at: Light + Intelligent Building Middle East Booking Form (mailingwork.de)



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Monthly Feature:

Lighting Controls Association Updates Education Express by Craig DiLouie - For nearly a quarter century, the Lighting

Controls Association has educated the building industry about lighting controls technology and applications. Last month, we completed a major update for Education Express, relaunching the site with robust features, including quicker loading speed and video versions of many courses. This article introduces the free content at Education Express and what's new.

Lighting control technology has evolved rapidly over the last 20 years. Commercial building energy codes have increasingly mandated detailed control. And best practices in application yield optimal results. This resulted in a powerful need for education to develop experts who could design, select, install, and commission lighting control systems.

Recognizing this need, the Lighting Controls Association introduced Education Express in 2006. Education Express is a free, online, 24/7 series of courses covering lighting control technology and applications. Starting with a handful of courses, it has since grown to 32 learning modules authored by experts Craig DiLouie, C. Webster Marsh, and Steve Mesh. Since its launch, 47,000 students have completed more than 450,000 learning modules and 320,000 tests for education credit.

Why enroll with Education Express? You can level up your expertise in a growing area of lighting and become more valuable and competitive, while acquiring or maintaining one of several key certifications. The Education Express curriculum is designed to create lighting control experts—individuals and firms able to select appropriate lighting control strategies and solutions and effectively apply them to buildings and spaces. All learning modules are updated based on evolving best practices and generally available technology. They are also written for a broad audience possessing a basic knowledge of lighting, offering accessibility and expedited education for individuals with lighting and control expertise ranging from fundamental to intermediate.

Each learning module is a readable course with plenty of helpful graphics. Eight learning modules now feature a video option to take the course as a narrated PPT presentation. Each learning module is available as a downloadable PDF document along with a single-page PDF summary. Students may provide feedback on learning modules and Education Express as a whole via a survey at the end of each module. Based on nearly 3,200 responses, the average student rates Education Express content highly in relevance, ease of understanding, comprehensiveness, and organization.

Start your education experience today—or return to level up with additional courses—at Education Express. Thank you for using this service to advance your lighting control education! Lighting Controls Association Updates Education Express

The curriculum currently includes:

- EE101: Introduction to Lighting Control
- EE102A: Occupancy and Vacancy Sensors
- EE102B: Panel-based Lighting Control Systems
- EE103: Dimming Controls, Introduction to Dimming
- EE103: Dimming Controls, Dimming Controls & Systems
- EE103: Fluorescent Dimming Ballasts: Technology
- EE103: Fluorescent Dimming Ballasts: Application
- EE105: Lighting Control System Design, Programming
- EE105: Lighting Control System Design, Basis of Design
- EE105: Lighting Control System Design, Control Zoning
- EE105: Lighting Control System Design, Design Development
- EE107A: Lighting Controls for Existing Buildings
- EE107A: Lighting Controls and Commercial Lighting Rebates

- EE110: Commissioning and Lighting Controls
- EE115: Integration and Building Automation
- EE201: Daylight-Responsive Lighting Control
- EE202: Automatic Plug Load Control
- EE203: Lighting Controls and Commercial Energy Codes (90.1, IECC, Title 24)
- EE300: Lighting Control of LEDs
- EE301: Wireless Lighting Controls
- EE302: Centralized Intelligent Lighting Control, Technology
- EE302: Centralized Intelligent Lighting Control, Application
- EE302: A Year with a Networked Lighting Control System
- EE303: Tunable-White Lighting
- EE304: Lighting Control and the Internet of Things
- EE305: Lighting Control Protocols





