



Delta Controls has developed a complete range of native BACnet products—HVAC, lighting control and access.

The combined use of Delta Controls' gateways, fully programmable controllers and intuitive building operations software, makes buildings easier to manage and more energy efficient.

Think, sense, speak—with Delta Controls' 03 Sensor Hub Delta Controls' 03 Sensor Hub detects motion, sound, light and temperature with unsurpassed accuracy, providing building automation systems with complete, centralized input to make economic decisions in real time.

Delta Controls' 03 Integrated Room Control system combines HVAC, access control and lighting control in a modular system. By merging multiple protocols as well as inputs and output into one unit, the system improves room control, avoids duplicate devices and lowers energy costs.

- Communicates with occupants via RGB light ring and integrated speaker.
- Saves time with easy-to-install mounting plate.
- Detects occupancy using sound and motion.
- Measures surface temperatures precisely with IR sensors.
- Combines temperature, humidity, light and motion in a single package.

[Connect with a Delta building automation expert now.](#)

---

## National LED Energy Market Observer:

- 1. LightFair Sweetens THE Deal** - LightFair is waiving the attendee fee for Exhibit Hall Only registrations. The most recent rates have been \$99 and \$79 for the early bird rate. RECENT POLICY: Exhibitors who downsize the size of their booth or pull out of the show altogether would not receive a monetary refund or credit for the unused booth space. UPDATED POLICY: Exhibitors who downsize the size of their booth WILL receive a monetary rollover credit for the unused booth space. The monetary credit can be applied to booth space at LightFair 2022 in Las Vegas only. This is also significant because even downsizing to a 10x10 booth, would keep the Exhibitor's loyalty streak alive. [LightFair Sweetens The Deal \(inside.lighting\)](#)
- 2. LightFair Requires Proof of Vaccination and Masking at Upcoming Conference** - Vaccinations will be required of all individuals 16 and older that plan to attend LightFair 2021. Individuals must show proof of vaccination at access points to the Javits Center. Masks are required to be worn by ALL individuals, regardless of COVID-19 vaccination status. This includes attendees, exhibitors, vendors, and LightFair staff. [Safety Protocols | LightFair Commercial Lighting Tradeshow](#)
- 3. LightFair Announces 2021 Pilot Mentorship Program Class** - LightFair recently announced the 11 mentees in its first annual mentorship program, a six-month program which enables emerging lighting professionals to connect with experts in the industry to learn about lighting design and architecture. Each of these 11 mentees were placed with one of LightFair's expert mentors based on their area of learning interest. These mentors are at: [LightFair Mentorship Program | LightFair Commercial Lighting Tradeshow](#)

4. **ArchLIGHT Summit: Somebody Had to Go First....by Randy Reid** - Cindy Foster-Warthen gave us some insight into the show. She gave great credit to NexGen Lighting Solutions and Hossley Lighting & Power Solutions for helping with the exhibitors. Cindy explained that there were approximately 400 pre-registrations and it looked like the onsite registration would top 300, so not bad for a first-time show. The 700+ does not include attendees that drifted over from Design Week, which was being hosted in an adjoining building. Most exhibitors seemed happy. Cindy also explained that somebody had to go first and help get our industry traveling again. [ArchLIGHT Summit: Somebody Had to go First.... - EdisonReport](#)

5. **Inside Lighting: Here's What Went Down at The ArchLIGHT Summit** - The return of in-person commercial lighting trade shows and conferences just happened in Texas. The first-ever ArchLIGHT Summit was held in Dallas on Tuesday and Wednesday, September 21-22. Approximately 50 exhibitors participated and over 400 attendees were pre-registered. Inside Lighting: "We went into the show with moderate expectations and – "grading on a scale" for the first-time event during a pandemic – it exceeded our expectations. In the end, the attendees seemed to appreciate the in-person education and the opportunities to engage in lighting conversations about lighting products they could see, feel and touch. Almost everyone seemed to appreciate the opportunity to interact with other lighting people in real life, collegial, in-person environments." [Here's What Went Down at The ArchLIGHT Summit \(inside.lighting\)](#)

6. **Signify Teams with Spotify to Offer Sound and Vision** - In the niche market for combining smart home lighting with music, Signify has teamed with popular music streaming service Spotify to enable Philips Hue bulbs to respond to the changing feel of a tune. Signify has added a feature called Philips Hue + Spotify to the Hue app. Using an algorithm, the app "analyzes the metadata of each song in real time to make the lights flash, dim, brighten, and change color right along with the beat, mood, genre, and tempo of any music on Spotify," Signify said. Never has the phrase 'singing and dancing' been more apt for Hue smart lights. [Signify teams with Spotify to offer sound and vision | LEDs Magazine](#)



7. **Micro LED – Poised to Fulfill Its Huge Potential** - LEDinside, a research unit under TrendForce, has observed that the effects of the COVID-19 pandemic have galvanized developers of Micro LED technologies to take on an even bolder and more forward-looking approach to R&D. At the same time, they are considering various aspects of product development such as mass production feasibility and product applicability. In light of these activities, Micro LEDforum 2021 will provide a wide-ranging exploration into the opportunities and challenges across the Micro LED supply chain. The presentations and discussions will revolve around application trends, with special focuses on large-sized displays, smartwatch displays, and smart automotive headlights and AR devices. [Next-Generation Display Technology Forum | TrendForce Micro LEDforum 2021](#)

8. **LEDucation Invites Lighting Industry Experts from Across the Globe to Present** - LEDucation is currently accepting proposals for the March 2022 educational program. Sharing your knowledge and expertise at LEDucation is an excellent way to give back to the industry, and to increase your visibility throughout the international lighting community. The LEDucation Trade Show and Conference is set for March 15–16, 2022, at the New York Hilton Midtown in New York City and will offer a hybrid—live and on-demand—educational program. Submit your forward-thinking presentation proposal by **October 31, 2021** to [bit.ly/3ksQwN7](https://bit.ly/3ksQwN7)

9. **LHRC Announces Enhanced Circadian Stimulus Calculator, Refines Accuracy** - The relatively new Mount Sinai Light and Health Research Center (LHRC) has added to its first major announcements with the launch of an improved circadian stimulus (CS) calculator that ultimately enables stakeholders to accurately predict the circadian impact of solid-state lighting (SSL) installations in an architectural space. The CS Calculator 2.0 adds enhancements that improve the accuracy of circadian impact projections based on stimulus from narrowband sources such as LEDs. [Much of the staff has moved over from the Lighting Research Center \(LRC\) at Rensselaer Polytechnic Institute](#), although some LRC staff remains and that lab continues to operate. Interested parties can [download the new calculator on the LHRC website](#). [LHRC announces enhanced circadian stimulus calculator, refines accuracy | LEDs Magazine](#)

10. **LED Supply Chain Disruptions: The Reasons Behind Shortages, Price Hikes and More by Craig DiLouie** - The lighting supply chain, like many industries, is largely globalized and vulnerable to macroeconomic shocks, such as tariffs and the COVID-19 pandemic. By the end of 2020, shipping delays and component shortages, such as semiconductors used for electronics, and notably LED drivers, have extended lead times and affected product availability. During this period, a number of major U.S. LED product manufacturers announced price increases ranging from 2%–8% on LED luminaires and up to 9% on LED drivers. They justified these increases by citing higher shipping costs, unstable logistics, raw material shortages, unfavorable exchange rates and supplier price increases. In March 2021, the U.S. Department of Energy (DOE) published [2020 LED Manufacturing Supply Chain | Department of Energy](#) which characterized the global manufacturing supply chain for LEDs and LED products. [LED Supply Chain Disruptions: The reasons behind shortages, price hikes and more | Electrical Contractor Magazine \(ecmag.com\)](#)

11. **LDI 2021 Event Will Be Held on November 19-21 at The Las Vegas Convention Center** - Your Exhibit Hall Pass gets you access to the trade show floor and a wide variety of special events including New Technology Breakfasts, Loudspeaker Demos, LDI Amplify Training & Demos, LDI Awards Reception, Live for Broadcast TechTalks, and Exhibitor Sponsored Sessions. LDI2021 is all about QUALITY, exhibitors, training sessions, speakers, networking, live demos, and cutting-edge technology and software debuting exclusively to LDI attendees. Check out the [LDI website](#)

12. **Air Force Installs UV Lights to Battle COVID-19** - At the Little Rock Air Force Base in Arkansas, the 189th Airlift Wing installed about 175 222-nm ultraviolet lights throughout the campus, reports the Defense Visual Information Distribution Service (DVIDS). The successful outcome resulted in the lights installed in other Air Force bases, the Pentagon and government vehicles. The next step in sharing this technology is to bring awareness of Far UV light to Arkansas school districts. [DVIDS - News - Ultraviolet light system could mitigate COVID risk in schools \(dvidshub.net\)](#)

13. **DOE's L-Prize Competition: Send Us Your Questions** - The U.S. Department of Energy's (DOE's) L-Prize® launched in May, and submissions for the first phase—the Concept Phase—are due November 19, 2021. In this phase, up to 10 winners will receive \$20,000 each for their bold ideas to advance the state of the art in LED lighting, part of a \$12.2-million total prize pool. There's a lot to be excited about with the L-Prize, and we're seeing lots of questions, as well. We've gathered a sampling of questions and answers below, with more posted in the [L-Prize Challenge Forum](#). At the start of the second phase, the Prototype Phase, DOE plans to issue a teaming partner Request for Information (RFI) to seek parties interested in teaming arrangements for the final phase of the L-Prize competition—Manufacturing and Installation. Check out the [L-Prize website](#).

14. **DLC Opens Comments for LUNA Draft 2 Requirements** - The DesignLights Consortium (DLC) has released for comment the second draft of technical requirements for outdoor LED luminaires that not only save energy and meet the DLC's Solid-State Lighting (SSL) Technical Requirements, but also include attributes that limit light pollution, sky glow. The DLC is accepting comments on the draft policy through October 22, 2021 ([comments@designlights.org](mailto:comments@designlights.org)) and anticipates releasing final LUNA technical requirements by December 16, 2021. The DLC will discuss specifics of the proposed technical requirements during a webinar on September 22, 2021 at 1:00 PM ET. [Registration \(gotowebinar.com\)](#)

## 15. **Apple Car May Use Exterior Screens to Signal Other Drivers** - An

[Apple Car](#) could provide detailed warnings of its actions to other drivers by using LED screens all over the vehicle to tell other drivers what the self-driving system is doing. Apple's long-rumored vehicle is anticipated to include some form of self-driving technology. While Apple's testing seems to be centered on reading the road and responding to conditions, there are other features of driving that inbound systems have to deal with. One of the problems is indicating to other drivers what the vehicle will do next. Apple proposes that it could be more explicit in what a self-driving system can tell other road users. Instead of the usual array of simple indicator lights, Apple instead believes it can do the same job using more complex lighting systems. In short, Apple's system involves the creation of displays that are placed on and around the vehicle, potentially as an all-encompassing strip of lights. [Apple Car May Use Exterior Screens To Signal Other Drivers - LEDinside](#)



16. **Battery Storage in the United States: An Update on Market Trends** - Electric power markets in the United States are undergoing significant structural change that we believe, based on planning data we collect, will result in the installation of the ability of large-scale battery storage to contribute 10,000 megawatts to the grid between 2021 and 2023—10 times the capacity in 2019. Energy storage plays a pivotal role in enabling power grids to function with more flexibility and resilience. In this report, we provide data on trends in battery storage capacity installations in the United States through 2019, including information on installation size, type, location, applications, costs, and market and policy drivers. The report then briefly describes other types of energy storage. [EIA - U.S. Battery Storage Market Trends](#)

17. **World's Largest Battery Energy Storage System Unveiled in California** - [LG Energy Solution](#) and [Vistra Corp.](#) recently celebrated the completion of the 400MW/1.6GWh Vistra Moss Landing Energy Storage Facility in Monterey County, CA. Moss Landing is a flagship project in which Vistra is developing advanced energy storage capacity, and LG Energy Solution has provided batteries for the first 400MW/1.6GWh of capacity using its Transportable Rack (TR1300). According to the stakeholders, the project is currently the world's largest lithium-ion battery energy storage project. [World's Largest Battery Energy Storage System Unveiled in California | EC&M \(ecmweb.com\)](#)

18. **Californians Will Pay Highest Gas Prices Ever for Labor Day Weekend** - Heading into the holiday weekend, Californians paid the highest price ever per gallon of gas for this time of year — \$4.39 for regular, according to the Auto Club of Southern California. Main cause is tax of \$.51 per gallon at the pump and additional \$.14 tax per gallon on the refinery, highest in the country. That price has remained unchanged over the last week. A year ago, the statewide average was \$3.24 a gallon for regular. The national average price is \$3.18 per gallon, up from \$2.23 per gallon a year ago, <https://gasprices.aaa.com/state-gas-price-averages/> according to the AAA. [Californians will pay highest gas prices ever for Labor Day weekend \(yahoo.com\)](#)

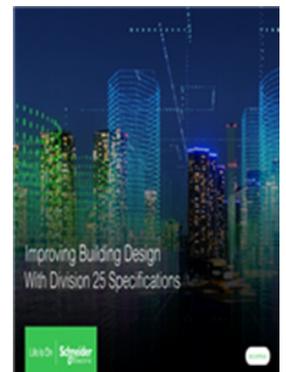
19. **Electric Carmaker Tesla Wants to Become an Electricity Provider** - A subsidiary of electric car maker Tesla has filed to become a retail electricity provider (REP) in Texas. Tesla Energy Ventures, which is headed by an executive who helped sell \$3.8 billion worth of regulatory credits to customers, will sell electricity drawn from the grid and from Tesla battery storage. The company also plans to allow customers for its solar panels to sell excess electricity back to the state's grid. [Interchange - Documents \(texas.gov\)](#)

**20. Modeling Spherical Irradiance Optimizes Designs For UV-C Air Disinfection** - IAN ASHDOWN outlines a computational method that simulates virtual spherical irradiance meters, delivering fast results for developing reliable UV-based air-handling systems. We have been using ultraviolet radiation as a means of disinfection for over a century. What we have yet to see, however, are comparable advances in our ability to model — and more importantly, analyze — the performance of UVGI systems. It is possible to model the UV-C dose, or fluence, of surfaces by considering multiple positions and dwell times for the mobile platform. Intelligent UV-C robots can be programmed to determine an optimal path for room disinfection. Using UVGI design software, it is possible to identify surfaces that may not receive a sufficient dose and flag them for enhanced terminal cleaning. [Modeling spherical irradiance optimizes designs for UV-C air disinfection \(MAGAZINE\) | LEDs Magazine](#)

**21. Smart Lighting Offers Facilities a Data Network to Support Health, Energy Savings by Kevin Van den Wymelenberg, Ph.D.** - Touchless technology, modular workspaces, and other emerging solutions help facility managers find ways to innovate and adapt to a “new normal” for commercial spaces. One technology that helps balance both health and energy efficiency is sensor-based Luminaire Level Lighting Controls (LLLC). LLLCs are generally seen as an energy saving solution because they use sensors to tune lighting where and when it is most needed based on occupancy and daylight to reduce overall energy use. In other words, LLLC sensors turn off lights when people are not present or dim lights when there is ample natural light from outside. Since lighting systems are ubiquitous throughout a space and LLLCs have sensors in every fixture, they offer a mesh network or data backbone for a building. LLLC’s dense network of embedded sensors offer facility managers much greater intel throughout a building as well as greater flexibility to deal with issues remotely. This is a big advantage given remote working is likely to remain a fact of life. [Lighting Controls In Facilities Can Support Health, Energy Savings \(facilityexecutive.com\)](#)

**22. eMagin Corporation Finalizes \$33.6 Million U.S. Department of Defense Contract** - eMagin Corporation, a leader in the development, design and manufacture of Active Matrix OLED microdisplays used in military and commercial AR/VR devices, and other near-eye imaging products, today announced it has finalized the details of its previously announced \$33.6 million contract with the U.S. Department of Defense to sustain and enhance domestic capability for high-resolution, high-brightness OLED microdisplays, including the Company’s direct patterning technology (dPd™). All capital equipment decisions have been made, with all qualification milestones in place, as the Company enters the second year of a three-year contract. A major portion of this Defense Production Act Title III investment will be used to install production-capable dPd equipment at eMagin’s Hopewell Junction, New York headquarters to improve throughput and yield of this innovative technology. <https://www.ledinside.com/node/32298>

**23. E-BOOK: Improving Building Design with Division 25 Specifications by Schneider Electric** - Like many consulting engineers, you may be asking yourself, “Why smart buildings and why now?” This e-book answers this question by sharing the key trends driving smart building specifications. It will explain how Division 25 specifications help building owners and managers get what they want now – increased value and the platform to expand for future technology. Most importantly, this e-book will answer many of the most common questions surrounding Division 25, including, “Where do I start?” Division 25 provides the connectivity knowledge that engineers need to successfully complete a smart building project. Project success begins with reaching out to a vendor with the Division 25 and iBMS knowledge to ensure MEP, IT, OT, and BMS work together as intended. [files \(schneider-electric.com\)](#)



**24. RESEARCH: DOE 2020 LED Manufacturing Supply Chain** - The U.S. Department of Energy (DOE) has published a new report that characterizes the global manufacturing supply chain for light-emitting diodes (LEDs) and LED lighting products. The report investigates the economic impacts of this supply chain on the United States and identifies opportunities for increased domestic manufacturing. The new report details the manufacturing process for typical LED products, identifying what proportion of LED products are manufactured and assembled in the United States and internationally, and analyzes the value added for a typical LED luminaire manufactured in the United States versus internationally. The report also examines recent macroeconomic events that have impacted the global supply chain for LED products, including tariffs and the COVID-19 pandemic. The analysis uses international trade data, market reports, and interviews with LED die, package, and lamp/luminaire manufacturers. [2020 LED Manufacturing Supply Chain | Department of Energy](#)

25. **CASE STUDY: Synapse Controls Produce 28% Energy Savings at Uline** - Uline, a distributor of shipping and packaging solutions to businesses throughout North America, wanted all of the more than 3,000 lights in its 800,000-sq.ft. Lacey, WA facility to operate as a single system with one interface that in turn would work the company's existing IT system. After testing several solutions in mockups, Uline selected Synapse Wireless, which designed an intelligent lighting solution that effectively manages all of the lights; enables setup, control, monitoring, and management of every light point from a single user interface that integrates with Uline's building management system; and ensures desired performance—ability to respond instantly and respond to daylight available through skylights as well as more than 550 motion sensors. Watch the below video:

<https://www.youtube.com/watch?v=exeiEhNOLiY>

26. **TRAINING: Leviton Launches Contractor Connect** - Leviton Contractor Connect features a host of educational resources relevant to the daily activities of contractors including a library of installation and programming videos, information on new and updated products in the industry, the latest NEC® requirements and code updates, a podcast library featuring exclusive conversations with industry experts, business support materials, and more. To learn more and explore Contractor Connect, visit [Contractor Connect - Leviton.com](#) Listen to all of the available Contractor Connect Podcasts at: [Leviton Contractor Connect Podcast - Leviton.com](#)

27. **TRAINING: AEE Certified Energy Auditor** - This training program has been fully revised and updated for 2021. It is designed to provide attendees an in-depth and technical review of energy auditing. Over four days (CEA exam on fifth day), our professional instructors will guide you through the essential steps necessary to evaluate facility energy systems from preliminary surveys through ASHRAE® Level 3 Energy Audits, how to analyze the results and deliver them to your client. What You Will Learn – Pre-audit requirements to ensure accurate data collection, measurement and verification – What you need to know when conducting audits of building equipment and systems, such as lighting, pumps, motors, drives, HVAC, water systems, transportation, etc. – The financial and economic aspects of an energy audit and how they can affect the bottom line for an organization. – How to analyze utilities, and how energy demand, energy rates, energy accounting and performance contracting all affect an energy audit – How to identify the “low-hanging fruit” that is ripe for energy conservation opportunities. [Virtual Certified Energy Auditor Training Program – aee-education \(aeecenter.org\)](#)

28. **WHITE PAPER: Luminaire Level Lighting Controls and the Future of Healthy Buildings** - As we build back from the pandemic, the building industry is rethinking how we approach health in commercial spaces. With sensors in every fixture, LLLC systems save significant energy (on average up to 63%) and also offer buildings a distributed mesh-network throughout a space. This has the potential to revolutionize how we monitor and respond to environmental factors that impact human health. Learn how LLLC could be used in countless ways to improve health and efficiency. [FINAL-LLLC-HealthyBuildings-whitepaper.pdf \(betterbricks.com\)](#)

29. **UL Helps Advance LED Lighting Innovations** - We are now accredited from the Digital Illumination Interface Alliance (DiiA) to be a Digital Addressable Lighting Interface (DALI) protocol test house. The Digital Addressable Lighting Interface (DALI) is a protocol for building lighting applications and is used for two-way communication between components of a lighting system. DALI and the latest version of DALI 2, both specified in the international standard IEC 62386, are now widely recognized as the global standard for lighting control. [Download](#) data sheet.

30. **New Option of Lighting Control System for Small and Medium-scale Plant Cultivation Factories** - At present, the food we produce can basically meet the needs of the global population, but nearly 800 million people are still hungry and 2.4 billion people are undernourished. It is estimated that the global population will reach 9.8 billion by 2050, and the food demand will be 70% higher than nowadays. This requires almost doubling food production in developing countries. One way to increase grain production is to develop modern agriculture, including the popularization and use of new technologies such as commercial greenhouses, indoor farms and vertical farms. LeDinPro focuses on the control of artificial lighting in modern agriculture. Through our accurate regulation of lighting, we can not only meet the DLI required by plant growth, but also reduce carbon emissions. **Several problems that small and medium-scale plant cultivation factories are facing at:** <https://www.ledinside.com/node/32302>

**31. DLC Final Policy Release: Surveillance Testing Policy SSL V5.1** - This document replaces the current Surveillance Testing Policy (V2) and is being referred to as 'SSL V5.1' to clearly indicate its alignment with the [V5.1 SSL Technical Requirements](#). This policy has an effective date of **October 1, 2021**.

## Global LED Energy Market Observer:

**32. LiFi Through Reconfigurable Intelligent Surfaces: A New Frontier for 6G?** - Light fidelity (LiFi), which is based on visible light communications (VLC), is celebrated as a cutting-edge technological paradigm that is envisioned to be an indispensable part of 6G systems. Nonetheless, LiFi performance is subject to efficiently overcoming the line-of-sight blockage, whose adverse effect on wireless reception reliability becomes even more pronounced in highly dynamic environments, such as vehicular application scenarios. Meanwhile, reconfigurable intelligent surfaces (RIS) emerged recently as a revolutionary concept that transfers the physical propagation environment into a fully controllable and customisable space in a low-cost low-power fashion. We anticipate that the integration of RIS in LiFi-enabled networks will not only support blockage mitigation but will also provision complex interactions among network entities, and is manifested as a promising platform that enables a plethora of technological trends and new applications <https://arxiv.org/abs/2104.02390>

**33. Seoul Semiconductor Seeks Greater Market Share with Innovative WICOP LED Technology** - Z5M4 is 10% brighter than the conventional products and is easy to replace the existing high-power products. Accordingly, Seoul Semiconductor seeks to expand its market share in the USD 2 billion worth of global high-power LED market for street lighting, bay-lighting, and horticulture lighting, which has been formed by vertical chip manufacturers. Z5M4 LED with WICOP technology is designed to be 1:1 compatible easily with existing high-power products, and its excellent heat dissipation structure makes it a high-power LED package suitable for high-brightness and high-efficiency. **It offers an industry-leading high luminous efficiency of 175 lm/W and can be used for up to 100,000 hours.**



<https://www.ledinside.com/node/32270>

**34. A Progress Report on Centro de Tecnología en Iluminación** - In 2017, the Mexican Ministry of Energy awarded international funding to the Universidad Autónoma de Guadalajara (UAG) in collaboration with the University of California Davis (UCD) to establish a lighting technology and design research center known as the Centro de Tecnología en Iluminación (CTI). This is a multi-year, public-private investment focused on addressing growing climate change concerns through translational research committed to clean energy and sustainability in Mexico. The purpose of CTI is to accelerate the development and adoption of energy-efficient lighting and daylighting technologies, as well as to help build talent and human capital for Mexico's lighting industry. CTI's research capabilities will help meet Mexico's long-term energy-efficiency and greenhouse gas emission reduction goals. Research: [Mexico's New R&D Center – Illuminating Engineering Society \(ies.org\)](#)

**35. Nichia Boosts UV-C LED Radiant Flux, Documents Germicidal Efficacy** - LED manufacturer Nichia has announced the NCSU434B LED radiating at 280 nm and delivering radiant flux of 62mW from a drive current of 350 mA. The ultraviolet (UV) performance in the germicidal UV-C band (100–280 nm) has been documented to deactivate the SARs-CoV-2 virus that causes COVID-19. Nichia said the LED is suitable for usage in water, near-surface, and air disinfection systems, and is commercially available immediately. [Nichia boosts UV-C LED radiant flux, documents germicidal efficacy | LEDs Magazine](#)

**36. EU Applies Simpler Labels for Lighting Products** - To help EU consumers cut their energy bills and carbon footprint, a brand new version of the widely-recognized EU energy label for light bulbs and other lighting products will be applicable in all shops and online retail outlets from Wednesday, 1 September 2021. The move follows the considerable improvement in energy efficiency in this sector in recent years. The most important change is the return to a simpler A-G scale. The new scale is stricter and designed so that very few products are initially able to achieve the "A" and "B" ratings, leaving space for more efficient products to gradually enter the market. The most energy efficient products currently on the market will typically now be labeled as "C" or "D". A number of new elements will be included on the labels, including a QR code that links to an EU-wide database, where consumers can find more details about the product. [EU Applies Simpler Labels for Lighting Products – lightED \(lightedmag.com\)](#)

**37. Fluence by OSRAM Implements LED Lighting into HortiPolaris's Cultivation and Research Facility** - HortiPolaris is supplying Beijing's expanding population with fresh, quality produce by cultivating greenhouse crops under Fluence's LED lighting solutions. HortiPolaris is a science and technology leader in the region, standing on the cutting edge of farming and education in booming Beijing where the population and demand for fresh, quality produce continues to grow. Its state-of-the-art greenhouse—inspired by the founder's work in the Netherlands—represents the future of controlled environment agriculture, housing 2,000 square meters of lettuce and 22,850 square meters of tomatoes. HortiPolaris originally equipped its farm with HPS lighting but found energy costs were too high for a market that valued quality over yield, prompting the company to switch to Fluence LED lighting systems that provide crop consistency, energy efficiency and seasonal cultivation flexibility for growers. <https://www.ledinside.com/node/32264>

**38. The Latest in Scalable Controls? Wirepas Might Support 4 Billion Lights** - The company recently landed a €10 million (US\$11.7M) round of financing to help develop the capability. Wirepas is a wireless proprietary mesh networking protocol that is less well known than the open Bluetooth and Zigbee wireless mesh. Like Bluetooth and Zigbee, it is not a lighting technology per se but is a general wireless communication conduit for all sorts of devices, such as phones and laptops and the myriad "things" (such as lights) that are joining the Internet of Things (IoT). A mesh approach expands the reach of a control network by using each connected device to act as an intelligent router passing instructions along to other devices in the network. The technology not only supports lighting controls but can help luminaires serve other IoT functions including asset tracking. An enhanced version of its wireless mesh protocol, now called Massive, could be ready in about a year. [The latest in scalable controls? Wirepas might support 4 billion lights | LEDs Magazine](#)

**39. Everlight to Begin Small-Volume Shipments for MiniLED BLUs for Automotive Displays in 4Q21** - LED packaging service provider Everlight Electronics will begin shipping miniLED backlight units (BLU) for automotive central information displays and dashboards in small volumes to makers in the supply chains of US and European automakers in fourth-quarter 2021, according to the company. Demand for miniLED-backlit automotive displays is taking off in 2021, with miniLED BLUs' penetration of automotive displays estimated to rise from 1% in 2021 to 35% in 2025. <https://www.digitimes.com/news/a20210928PD205.html>

## Monthly Feature:

### History of LED Rebates and What's Next

LED lighting is seemingly everywhere now, from schools and offices to parking lots and transportation centers. It's hard to believe that it was a fledgling technology with very little market penetration not too long ago. A big factor in getting LEDs to gain traction so quickly was the availability of rebates to help offset the high initial prices. While rebates for commercial lighting have been around since the 1980s, rebates for LEDs specifically didn't see widespread acceptance until 2011. Now, ten years in, we can see how LED rebates have evolved over time and where they may go in the future.



In the beginning, few rebate programs were willing to incentivize LEDs. In the technology's infancy, the light quality wasn't there, and products were unreliable. Manufacturers were claiming lifetimes of 50,000 or 100,000 hours with no standardized claims to back up their warranties. Over time, the light output could dim significantly or change colors from one fixture to the next. Programs also wanted to avoid the problems they saw with CFL early adopters. Many of those customers would go back to old incandescent technologies when they were unhappy with the CFL replacement. With these uncertainties, rebate programs were very cautious, and LED incentives saw a slow rollout.

[History of LED Rebates and What's Next \(briteswitch.com\)](https://www.briteswitch.com)

- **It All Started with Exit Signs**
- **Downlights Were First General Lighting Fixtures To Get Rebates**
- **Screw-in Incandescent Replacements Start Appearing**
- **Flat Panels and Troffers Gain Traction**
- **Outdoor Lighting Starts Seeing Significant Rebates**
- **LED Tubes Create Confusion**
- **The Rebate Decline Comes To A Halt**
- **Adapting To Keep Up with the Times**
- **What's Next for LED Rebates**
- **A Bright Future for LED Rebates**

It seems the future is bright for LED rebates. When considering a project, it's essential to keep looking into rebates to see the opportunity. While many people have the misconception that LED rebates are no longer available or that the amounts are too low, these incentives can still improve a project's payback by 20 - 25%.

[RebatePro by BriteSwitch](#) and [Rebate Assistant by BriteSwitch](#) tools can help you instantly find and identify rebates for all types of LED lighting.