A MONTHLY NEWSLETTER FROM AMERLUX®

JULY 2022

ActiveCLEAN's high-intensity, antimicrobial wavelengths of 405 nanometers protect your business with the most beautiful, comfortable, non-glare illumination. Utilizing VyV's signature UV-free antimicrobial technology, our spec-grade (Linea or Gruv) family of luminaries provides continuous surface cleaning by creating spaces that are inhospitable for bacteria, fungi, yeast, mold, mildew and viruses to live, on any surface—and in any application—the light touches.

Grüv Active CLEAN Family







ActiveCLEAN's high-intensity, antimicrobial wavelengths of 405 nanometers protect your business with the most beautiful, comfortable, non-glare illumination.

Amerlux - Commercial Interior Lighting Products

National LED Energy Market Observer:

- 1. "Turbulence Now, More Turbulence to Come," Says NEMA Each month, the National Electrical Manufacturers Association (NEMA) publishes the Electroindustry Business Confidence Index (EBCI). The index is based on surveys of senior managers at NEMA member companies designed to gauge the business environment of the electroindustry in North America. Member companies include most of the ten largest lighting manufacturers in North America, along with other manufacturers of lighting and electrical products. This most recent ECBI shows the number of negative sentiments recording the highest reading in many months. The details: Industry Confidence Has Become "Rather Wobbly" (inside.lighting)
- 2. Inflation Takes a Bite Out of New Infrastructure Projects The price of a foot of water pipe in Tucson, Arizona: up 19%. The cost of a ton of asphalt in a small Massachusetts town: up 37%. The estimate to build a new airport terminal in Des Moines, lowa: 69% higher, with a several year delay. Inflation is taking a toll on infrastructure projects across the U.S., driving up costs so much that state and local officials are postponing projects, scaling back others and reprioritizing their needs. The price hikes already are diminishing the value of a \$1 trillion infrastructure plan President Joe Biden signed into law just seven months ago. If inflation continues, it may be a decade before infrastructure projects gets completely done. Inflation Takes a Bite Out of New Infrastructure Projects tEDmag
- 3. **DOE's New GSL Definition Final Rule Now Regulates Many LED Lamps** Most of the public discussion around the new GSL definition focused on the addition of incandescent and halogen specialty lamps to the regulated GSL category. However, the new expanded GSL definition encompasses many LED lamps, as well. This means that many LED A-lamps, LED specialty lamps, and LED tube lamps will now be regulated by the DOE, in less than two months. For LED lamp manufacturers, this means self-certifying the regulated models onto DOE's database of regulated products, known as CCMS. This is a great deal of spread-sheet work and will be most difficult for manufacturers that have no previous experience uploaded spreadsheets to CCMS. Well-placed sources tell me that DOE will take more than two months to create the forms for manufacturers to submit all of the new regulated lamp types, thereby giving manufacturers some much needed additional time for certification compliance. It's unlikely that the new 45 lpW "backstop" Final Rule will create problems for any LED lamps, as most are significantly above the 45 lpW requirement for GSL. DOE's New GSL Definition Final Rule Now Regulates Many LED Lamps | LightNOW (lightnowblog.com)



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4. **Electrical Wholesaling's 2022 Top 150 Ranking by Jim Lucy** - After successfully navigating through most of the 2021's COVID-induced challenges, Top 150 distributors now must learn to overcome historic product price increases, supply chain snafus and labor shortages in the field and at their own companies. From what EW's editors saw in the survey responses for this year's Top 150 ranking, North America's largest electrical distributors are confident they can overcome these challenges. Over the past two years, distributors of electrical supplies found that they could not only adapt to COVID-19 restrictions out in the field and hybrid work strategies at their own businesses, but also grow market share by investing in their businesses and focusing on service basics. EW_2022_Top_150_Ranking_and_A_Z_list.629650c280b74.pdf (ewweb.com)



- 5. 2022 ArchLIGHT Summit Opens Registration for Attendees ArchLIGHT Summit, the new lighting trade event and educational platform for the architectural, specification and design communities, has officially opened registration for attendees. The event taking place September 15-16, 2022 at the Dallas Market Center will welcome attendees to review new technologies, network, and attend a wide range of CEUs from lighting and design/build thought leaders. The first edition of ArchLIGHT Summit was the first commercial lighting event held in nearly two years and included the participation of 60 lighting brands with dozens of accredited educational sessions, along with networking events designed to build connections. For a full list of speakers, visit https://archlightsummit.com/events/ and to register, visit https://www.archlightsummit.com/exents/
- 6. Sustainability with Networked Lighting Controls by Rachael Jernigan The Design Lights Consortium (DLC) has provided independent verification of energy optimization with networked controls, resulting in an energy reduction of nearly half compared to LED lighting installed without controls. The energy reduction increases to a significant 63% when each luminaire has the capability of individual control. However, the challenge has always been getting buy-in for networked controls on energy savings alone, since it is not always top of mind in new construction or retrofit jobs due to additional time and cost. Networked lighting controls offer multiple strategies to significantly optimize energy usage and reduce overall costs, including trimming/scene control, support zones, controls embedded luminaires, retro-commissioning, grouped response to motion, and building management integration. Read more about how networked lighting controls positively impact sustainability initiatives.
- 7. **New Logos for the DLC** The DesignLights Consortium (DLC) launched a set of updated logos for DLC-approved products for Solid-State Lighting, Networked Lighting Controls, Horticultural Lighting and LUNA qualified products lists (QPLs). Meant for use with new marketing materials and specification sheets, the new logos are "designed to be visually simpler and easier to differentiate and read at small sizes," says DLC Executive Director and CEO Christina Halfpenny. While the DLC does not expect manufacturers to immediately update older materials, and old logos are still valid in identifying QPLs, it does encourage updates be made as soon as possible. The updated logos are available to all DLC members and remain under the same logo use guidelines as their predecessors. To view the full guidelines, visit www.designlights.org.



8. **LLLC Shows Promise by Craig DiLouie** - Luminaire-level lighting control (LLLC) combines the energy code-mandated functions of occupancy and light sensing in an LED luminaire capable of operating autonomously using an onboard lighting controller. The latest generation of products adds a layer that enables programming and collection of useful occupancy and other data. Typically installed in office buildings and schools, LLLC is also suitable for high-bay, parking garage, gas station, and other applications, particularly luminaires that are high wattage and have long operating hours and would therefore benefit most from enhanced energy savings. The Department of Energy estimated the installed base of networked luminaires will grow from less than one percent currently to nearly a third of all lighting by 2035. **LLLC Shows Promise | LightNOW (lightnowblog.com)**



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9. **Bright New Ideas on Emergency Lighting by Maura Keller** - Emergency lighting is an important part of a facility's overall emergency preparedness plan. Functional and effective emergency lighting can literally save lives in the case of any type of facility emergency. So, understanding codes and standards for emergency lighting is crucial to making sure emergency lighting is most effective. Stacy Carr, electrical engineer design leader at <u>Stantec</u>, says emergency lighting can be accomplished in two primary ways – use the normal space lighting with an emergency power source or provide separate dedicated fixtures that only



serve the emergency purpose. While the two options have not changed much in recent years, advances in technology have brought change to both methods. <u>Bright New Ideas on Emergency Lighting - Facilities Management Insights (facilitiesnet.com)</u>

- 10. **AD Merges with Torbsa** <u>AD</u> and <u>Torbsa Limited</u>, a leading building supplies buying group in Canada, are announcing an agreement to merge the two groups. The merger is expected to close July 1, 2022. Established in Ontario in 1966, Torbsa is a shareholder-owned group made up of twenty-seven independent building supplies distributors, with 48 locations across Canada. The merger will create a new division: AD Canada Building Supplies. Torbsa President Paul Williams will head the division while reporting to Rob Dewar, president of AD Canada, and three additional Torbsa employees will join the AD team. <u>AD Merges With Torbsa</u> tEDmag
- 11. **TRAINING: DLC and LCA Join Forces to Improve Network Lighting Controls Training** The DesignLights Consortium (DLC) and the Lighting Controls Association (LCA) have announced an agreement to collaborate in the offering of online courses that advance students' knowledge of networked lighting control (NLC) technology and applications. A 2020 study by the DLC and Northwest Energy Efficiency Alliance (NEEA) found that adding NLCs to LED lighting projects yields additional energy savings of nearly 70 percent for some building types and averaging 49 percent across a variety of building categories. For various reasons, however including inadequate training, the technology remains under-utilized and its energy savings potential largely untapped. A memorandum of understanding (MOU) between the DLC and the National Electrical Manufacturers Association (the LCA's parent organization) announced today will help boost adoption of NLCs by filling this need for greater awareness and understanding. Education Express courses, and more are available free, 24/7 at www.LightingControlsAssociation.org
- 12. How to Meet UL 924 Requirements for Emergency Lighting by Ethan Biery, Lutron Electronics Commercial buildings require emergency lighting to facilitate the safe egress of occupants in the event of a power outage or other emergency. Emergency specifications that meet UL 924, Standard for Emergency Lighting and Power Equipment, requirements ensure that the project has reliable and compliant emergency lights in the space. As products and systems change, UL periodically revises its standards that may impact the emergency lighting design. Effective April 2022, UL 924 updated the requirements for compliant products. As a result of the change, a building's UL 924-listed emergency lighting components must now actively monitor normal power to ensure emergency lighting is deployed within 10 seconds of power loss. This change eliminated some previously allowed methods; fortunately, there are still a variety of ways to meet UL 924. How to Meet UL 924 Requirements for Emergency Lighting I EO&M (eomweb.com)
- 13. **Five Misconceptions About Lighting Rebates by Randy Young** Lighting rebates have been around since the 1980s, yet many people still have some long-held, misplaced beliefs about these incentives. BriteSwitch sheds some light on some of the more common misconceptions. While some rebate programs may have been discontinued, several large programs, like APS in Arizona and TVA in Tennessee, reinstated lighting rebates after previously stopping them. With LEDs penetrating the market more and more each year, many people think rebates for these products no longer exist. However, that isn't the case at all. The availability of rebates has remained relatively consistent throughout the years. While some programs may have been discontinued, we've also seen several large programs (like APS in Arizona and TVA in Tennessee) reinstate lighting rebates after previously stopping them. If we look at North America as a whole, 77% of the US still has lighting rebates available. That's just shy of the record of 79% that was seen in 2017. Five Misconceptions About Lighting Rebates | EC&M (ecmweb.com)



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- 14. WHITE PAPER: Top 10 Trends in High Bay Retrofits for Warehouses & Production Facilities A new white paper is titled The Top 10 Trends In High Bay Retrofits For Warehouses & Production Sites. The white paper was published by Lighting Expertise & Design Services (LEDS), a leading lighting retrofit firm in the United States, that specializes in lighting upgrades for warehouses and production sites. The white paper goes into detail on 10 trends: access the full whitepaper here. Top 10 Trends In High Bay Retrofits For Warehouses & Production Facilities | LightNOW (lightnowblog.com)
- 15. Synapse Releases Online DLC 5.0 Networked Lighting Control Rebate Finder Synapse Wireless, Inc., an Internet of Things (IoT) company and a member of the McWane family of companies, recently announced an online search tool for locating utility rebate incentives that are available when utilizing DLC 5.0 Networked Lighting Control solutions. The DesignLights Consortium Networked Lighting Controls Qualified Product List (QPL) identifies systems that are eligible for utility rebates and incentives by meeting minimum DLC Technical Requirements. The free search tool identifies specific utility rebate programs for lighting control systems and offers a new way for lighting designers, facility managers, specifiers and engineers to compare solutions. Key requirements of a DLC NLC listed solution include individual fixture control using a true networked control system, reconfigurable zoning, scheduling, daylight harvesting and motion sensing. The service is available at: Synapse Wireless | Networked Lighting Controls Rebate Search
- 16. **RESEARCH:** Comparing Tunable LED Systems to Conventional Lighting in Senior Care Centers A recent study partnered by Pacific Northwest National Laboratory (PNNL) with Energy Performance Lighting and Midwest Lighting Institute suggests that LED tunable lighting system retrofits can offer energy savings and reduced costs, along with the possibility of improved quality of life for residents in senior care centers when compared to outdated fluorescent systems. For example, the ability to dim and tune the color of hallway lighting overnight can provide a more suitable sleeping environment for residents by reducing the light that spills into their rooms. Further, tuning the color and increasing the intensity during the day can create greater contrast between daytime and nighttime environments, which can support biophilic design goals and circadian alignment with natural light/dark cycles. Lighting in Senior Care Centers: Comparing Tunable LED Systems to Conventional Lighting Systems in Four Senior Care Centers (energy.gov)
- 17. **Compelling Lighting Projects Receive Prestigious Lumen Awards at IESNYC Gala** The New York City Section of the Illuminating Engineering Society (IESNYC) announces the recipients of the 2022 Lumen Awards at the 54th Lumen Gala held last night (June 16) at Pier 60 in Chelsea Piers. A signature program of the IESNYC, the Lumen Awards and Gala, showcase and celebrate excellence in lighting design. The Gala, billed as the "lighting event of the year," was on hiatus for the past two years due to COVID. The recipients of 2020 and 2021 Lumen Awards and their winning projects, previously announced online, were also acknowledged, and feted at this year's Gala. This year, ten lighting design firms received a total of 12 Lumen Awards for their winning projects. The award-winning projects are presented in three categories: Compelling lighting projects receive prestigious Lumen Awards at IESNYC Gala | LEDs Magazine
- 18. **Li-Fi's Latest Champion: Cisco** Networking stalwart Cisco, a longtime provider of gear for wired and radio frequency (RF) wireless connectivity such as Wi-Fi, is now starting to talk up the possibilities of Li-Fi, the stuck-on-the runway light-based technology intended to provide Wi-Fi-like service.Li-Fi vendors such as pureLiFi and Signify have slowly added customers. For instance, both have sold Li-Fi to the U.S. Army, leveraging the security advantages that Li-Fi provides over Wi-Fi. But they have not yet shaped Li-Fi into a mainstream play. Cisco is now speaking up for the technology, in a bid to help prod it out of prolonged fledgling status and give it flight. Li-Fi's latest champion: Cisco I LEDs Magazine



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- 19. **Electrical Wholesaling's Top 10 LED Picks for June 2022** Here they are! Congratulations to the product managers and marketing teams from AlloyLED, American Lighting, Earthtronics, Evluma Halco, Kenall, LEDVANCE, Nora Lighting, Signify and Synapse Wireless for having their lighting products selected this month as Top 10 LED Products by Electrical Wholesaling magazine. Do you have a LED lighting product you would like considered for one of our future Top 10 galleries? Send a high-res photo and product description to Jim Lucy, editor-in-chief jlucy@endeavorb2b.com Electrical Wholesaling's Top 10 LED Picks for June 2022 | Electrical Wholesaling (ewweb.com)
- 20. **RESEARCH:** Emergency Lighting Systems by Guidehouse Insights Although the popularization of intelligent buildings has increased the adoption of connected lighting globally, emergency lighting has been slow to make the transition. This Guidehouse Insights report analyzes the global market for emergency lighting systems in five technology segments: LED exit signs, combination emergency lights and exit units, emergency drivers, unit equipment, and inverter systems. The study provides an analysis of the market issues, including market drivers, market barriers, and trends associated with emergency lighting systems. Global market forecasts for unit shipments and revenue, broken out by technology segment and region, extend through 2031. Emergency Lighting Systems (guidehouseinsights.com)

Global LED Energy Market Observer:

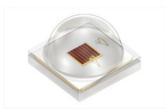
- 21. **RESEARCH: LED Lighting Market by Installation** Global Forecast to 2027 MarketsandMarkets estimates the global LED lighting market size to be USD 75.3 billion in 2022 and is projected to reach USD 124.7 billion by 2027, at a CAGR of 10.6% during the forecast period. Some of the major factors contributing to the high demand for LED lighting market includes the increasing need for highly energy-efficient lighting systems with low maintenance costs, the enhanced average life span of LED lamps compared to conventional lamps, easy availability of LED lamps in different color lighting combinations, and high interest among consumers in high-lumen low-watt products as they save energy bills substantially. To know about the assumptions considered for the study: Request for Free Sample Report or download the pdf brochure LED Lighting Market Size & Share Industry Report, 2022-2027 | MarketsandMarkets™
- 22. **Global Market for Vertical Farming Estimated to Grow 14% (to 5.8 billion) by 2026** The "Vertical Farming Global Market Trajectory & Analytics" report has been added to ResearchAndMarkets.com's offering. The global market for Vertical Farming, estimated at US\$2.7 Billion in the year 2020, is projected to reach a revised size of US\$5.8 Billion by 2026, growing at a CAGR of 14% over the analysis period. Lighting, one of the segments analyzed in the report, is projected to grow at a 13.9% CAGR to reach US\$2.2 Billion by the end of the analysis period. After a thorough analysis of the business implications of the pandemic and its induced economic crisis, growth in the Hydroponic Components segment is readjusted to a revised 13.6% CAGR for the next 7-year period. This segment currently accounts for a 20.3% share of the global Vertical Farming market. The U.S. Market is Estimated at \$779.3 Million in 2021, While China is Forecast to Reach \$888 Million by 2026. Vertical Farming Global Market Trajectory & Analytics (researchandmarkets.com)
- 23. For Strawberries Only: Signify Tailors a Lighting System for Just One Fruit There's a lot of talk in horticultural lighting circles about controls that allow spectral shifting to suit different crops. Still, many lighting systems are hardwired for a specific cultivar. That's certainly the case with a new Signify offering, aimed at strawberries in a couple of Belgian greenhouses. Growers Fresa and Fragaria will soon deploy Signify's FR_5 recipe in luminaires at new greenhouse space under construction in Beveren and Oostkamp, respectively. The "FR" denotes the far-red portion of the light recipe emitted from a strawberry-specific version of Signify's GreenPower TLC (toplighting compact) fixture, which is the smaller of Signify's two horticultural toplighting LED luminaires, measuring 28.4×9.4×3.5 in. For strawberries only: Signify tailors a lighting system for just one fruit | LEDs Magazine



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24. **Ams Osram Adds to Horticultural LED Family** - The new Oslon Optimal combines the separate optics and die size advantages of the company's existing chips, which it will continue to offer. When ams Osram sold off its horticultural lighting company Fluence, it insisted it was still in the horticultural game. This wasn't doublespeak. Ams was exiting finished lighting systems, but it would still provide LEDs for those systems. Driving the point home, the Premstaetten, Austriabased group has introduced a line of packaged LEDs designed for horticultural use, with a target market of tight-spaced growing environments such as vertical farms and what the company



called "high-density greenhouses." Ams also said it is positioning the emitters for use in interlighting — lights placed among the leaves of a crop in a greenhouse as opposed to above the plants. Ams Osram adds to horticultural LED family | LEDs Magazine

Monthly Feature:

How Rebate Programs Are Addressing the DLC v5.1 Changeover (briteswitch.com)

How Rebate Programs Are Addressing the DLC v5.1 Changeover - A significant change is on the horizon that can significantly impact rebates and incentives for commercial lighting projects. At the end of this month, the Design Lights Consortium (DLC) will be transitioning its solid-state technical requirements from v5.0 to v5.1. With most rebate programs requiring a DLC listing to get an incentive, this changeover can have major implications for projects underway.

What is the DLC?

The DLO is a non-profit organization that sets standards for efficiency, controllability, and light quality of LED products and controls. Their product specifications ensure that customers get high-quality and efficient lighting that they can depend on. Their qualified product lists cover most types of commercial lighting, as well as networked lighting controls and horticulture lighting.

What does the DLC have to do with rebates?

Many incentive programs use DLC as the gold standard for LED products. Across North America, roughly 60 - 80% of rebates, depending on the product category, require a LED product to be DLC listed in order to get an incentive. In other cases, non-DLC products may still get a rebate, but it may require additional engineering review, or the dollar amount may be lower. Many of the large utilities and rebate programs are also members and stakeholders of the DLC and actively participate in developing the standards.

What's New With DLC v5.1?

The DLC locked in the specification for this version on July 1, 2020. The DLC v5.1 technical requirements focus on better quality of light. Version 5.1 adds new color quality requirements to ensure good color rendering and better consistency over time. It also introduces improved glare performance for products seeking the DLC Premium v5.1 qualification. In addition, almost all the products listed must be dimmable. This update is mainly about the quality of light and controllability; the efficacy (LPW) remains the same between v5.0 and v5.1."The latest technical requirements were developed to improve user satisfaction and comfort, by ensuring enhanced lighting quality and enabling greater energy savings from controls of QPL-listed fixtures," DLC Executive Director and



CEO Christina Halfpenny said. "Many commercial lighting energy efficiency programs recognize the importance of features such as dimmability and integral controls and rely on SSL V5.1 compliance for incentive programs."

On June 30, all products that do not meet the v5.1 spec will be delisted and removed from the active list. This deadline was originally scheduled for December 31, 2021, but the DLO extended it by six months after they received feedback from multiple manufacturers and stakeholders about component shortages.



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What LED Products Will Be Impacted?

The new technical requirements apply to every category of LED lighting. For a product to qualify under v5.1, the manufacturer had to submit additional testing information by April 15th. Update applications are still being processed, but the DLC estimates over 200,000 v5.1 products will be on the list by June 30th.

Still, a lot of products will be falling off the list. Roughly two-thirds of the current DLC list will be removed during the changeover. Most of the soon-to-be delisted products have been DLC approved for four or more years, meaning that they're older products and probably no longer available for sale. The category that's impacted the most is mogul-based HID replacement lamps (sometimes referred to as corn cobs), with almost 80% of the listing being removed.

Rebate Programs and the v5.1 Transition

Some rebate programs have already released how they'll handle the transition, while a majority still haven't made an official statement. Typically a rebate program will either immediately require a product with a v5.1 listing, or they'll allow a grace period for v5.0 products.

Here are a few examples of how some large rebate programs are addressing the change. As you can see, each program has a different approach.

Eversource

Eversource, which has programs in Connecticut, New Hampshire and Massachusetts, has stated that "only v5.1 products will be accepted for all Eversource lighting incentives beginning on July 1."

PPL

PPL services roughly a quarter of the state of Pennsylvania. In their recent email to contractors participating in the program, they revealed that "Products that meet the requirements of SSL v5.0 will be grandfathered for use if purchased before May 31, 2023." Potomac Edison

Potomac Edison covers the western part of Maryland. In an email to their Program Allys, they indicated that "the current and one previous DLC versions are available for use in the program."

How To Handle The Changeover

The most important thing you can do is check to see the current status of the product you're using on the DLC website. You can use the DLC's online search tool to quickly see which version a LED is approved under. Access to the DLC list is free, but you do need to sign up for an account with DLC before using it. When you click the product in the tool, you can easily identify if it's approved under v5.0 or v5.1. It's also helpful to make a note of the Product ID. This identifier is the easiest way to help rebate programs look up the fixture on the list.

If the product shows v5.1, you're all set. However, if it shows v5.0, you should check with the local rebate program you're working with to see how they're handling this change.

Remember that an active DLC listing on their website is what really matters when checking eligibility. It doesn't matter if there's a DLC logo on the spec sheet or on the manufacturer's website. Most rebate programs will go to the DLC website and check the products to confirm eligibility. Some programs even have the DLC list built directly into their online application tool to verify products on the spot.

If you are planning a project and need help with the rebate process, BriteSwitch can check that the products you're using are eligible, estimate the incentive amounts, and file the paperwork.

If you file for rebates yourself, our RebatePro tool is a great resource that speeds up the process of estimating and filing rebates. For any rebate program that has stated how they will handle the DLC v5.1 transition, we've included that information in RebatePro. https://briteswitch.com/

