

Amerlux's Curvano Puts the 'Arch' in First-Class Architectural Lighting

<https://bestlight.amerlux.com/curvano/>

Dazzling, versatile LED linear lighting — as if you drew it with a pen. Amerlux, an award-winning design-and-manufacture lighting company, launched a groundbreaking set of LED linear lighting solutions that gift wraps creative freedom so architects and designers can let their ceiling lighting design flow with the grace and bends of a scenic river — in standard and custom-request offering. Curvano offers a 2.5" aperture in recessed and pendant mount as well as direct and direct/indirect with five curved-diameter corner options and three circular selections. Paired with its superior color-rendering capabilities up to 4000K and 90 CRI, this latest addition to Amerlux's linear slot offering provides the autonomy to add stunning dimension and comfortable, flexible illumination to any interior architectural design.



Close your eyes, grab some paper, start drawing your next dynamic, head-turning ceiling.

What designs are you forming? Smooth, straight runs? Silky, rounded corners? Sleek radius circles? Criss-crossed lines? Curvaceous serpentine? With Curvano, the shapes are infinite, limited by only your imagination. Let your lighting flow with the grace and bends of a scenic river — around the corner, along the wall, up and down and all around — with Amerlux's latest curved LED creative lighting solution.

National Energy Market Observer:

1. How Will the New DLC 5.0 Standard Affect Rebates? - In February, the Design Lights Consortium ("DLC") finalized the technical specifications for the next generation of LED products. These new requirements, versions 5.0 and 5.1, are designed to help usher in new levels of energy efficiency, light quality, and controllability. The DLC started certifying products under the new v5 spec earlier this year, and they will remove older products that don't meet this certification on December 31, 2020. This change can have a significant impact on the potential rebates a project may receive. If you are working on any project that will continue into 2021, make sure the product is DLC v5.0 rated. You can easily find out this rating using [DLC's tool](https://briteswitch.com/workwithus.php) <https://briteswitch.com/workwithus.php>

2. DOE Study Examines Age-Related Changes in LED Device Efficiency and Optical Performance - Lighting application efficiency (LAE) describes the efficient delivery of light from the light source to the lighted task and is viewed as a new frontier — increasing energy savings with solid-state lighting (SSL) technologies. The framework for LAE that is proposed by the U.S. Department of Energy (DOE) consists of four major elements: light source efficiency, optical delivery efficiency, spectral efficiency, and intensity effectiveness. This report focuses on a sampling of the available SSL products that can be broadly defined as having modified spectral output because the method of spectra modification has a significant impact on light source efficiency and long-term optical delivery and spectral efficiencies. This report focused on the changes in light source, optical delivery, and spectral efficiencies that occur during aging of SSL devices. <https://www.energy.gov/sites/prod/files/2020/08/f77/ssl-rti-device-efficiency-jun2020.pdf>

3. The SaveOnEnergy.com® Electricity Bill Report: Who paid the most, least? - Most state electricity comparisons are made on the basis of electricity rates, usually expressed in cents per kilowatt hours (kWh). It's a number that doesn't mean much to average users, who care more about that figure on the bottom line of their electricity bills. That's why SaveOnEnergy publishes the SaveOnEnergy.com® Electricity Bill Report, a monthly look factoring the [latest average state rates](#) and average state usage to show what's happening with the monthly cost of electricity. The October Report, using the U.S. Energy Information Administration's data for July, shows that Utah residents have it best when it comes to electricity bills. On the other side, there's a cost to living in an island paradise – Hawaii residents pay among the highest electricity bills of any state. How does your state stack up? <https://www.saveonenergy.com/learning-center/post/electricity-bills-by-state/>

4. **FSG Lighting at Oculus Soars to New Heights** - The Oculus is the station house for the World Trade Center Transportation Hub — but it's also so much more. On Veterans Day, the Port Authority of New York/New Jersey unveiled a new lighting system at the Oculus in Lower Manhattan, bathing the iconic building in red, white, and blue to honor those who served. ETC, FSG, and Clarté Lighting worked together to create the system capable of bringing powerful, dynamic lighting to the iconic location. The Port Authority of NY/NJ and Constellation Energy chose FSG to re-design the lights for the Oculus based on a plan by Bernie Erickson, LC, CLEP, CLMC, and Mathle Leyes LEED AP, LC, both with New York-based lighting distributors FSG. [Lighting at Oculus soars to new heights | LEDs Magazine](#)



5. **LightFair 2021 Postponed to October 25-29 at the Jacob K. Javits Center in NYC**

- Postponing LightFair until October will give exhibitors and attendees more time and flexibility to allocate budget and resources for the show, while allowing the country and world more time to stabilize and recover from the pandemic. Additionally, staging the tradeshow in 2021 allows specifiers to place orders to alleviate pent-up demand before the next scheduled LightFair in late spring 2022. Registration information for the event will be announced mid-2021. For more information about LightFair 2021 Conference, visit the LightFair [website](#)

6. **Lumileds and BIOS Partner to Deliver More Efficient Circadian Lighting** - BIOS (Biological Innovations and Optimization Systems) LLC and Lumileds have jointly announced an efficacy breakthrough in solid-state lighting (SSL) systems intended to impact human wellbeing — technology often called human-centric lighting. Lumileds will supply BIOS and its BIOS Illuminated licensed partners with a new mid-power LED that delivers a significant energy peak at 490 nm in the cyan region. The new LED will result in a significant efficacy gain for BIOS SkyBlue-based systems during daytime operation. Human-centric lighting, lighting for health and wellbeing, and circadian lighting are all terms used to describe spectrally-tunable lighting that changes over the course of a 24-hour cycle to match the needs of the non-visual receptors in the human eye. <https://www.ledsmagazine.com/>

7. **NEMA Launches Industrial Control Panel Council** - The National Electrical Manufacturers Association (NEMA) announced the creation of its new Industrial Control Panel Council to promote the proper installation of industrial control panels, provide guidance and recommendations on installation practices for various jurisdictions, advocate for Standards and best practice documents for the industry, and develop educational materials. Participation in the NEMA Industrial Control Panel Council is open to all interested organizations that either manufacture Industrial Control Panels built in North America and sold into the U.S. or those that sell components for use in Industrial Control Panels. <https://www.nema.org/news-trends/view/nema-launches-industrial-control-panel-council>

8. **Two Existing Technologies Could Fight COVID Now** - Germicidal lighting and a tuberculosis vaccine should be a part of the pandemic response. The article explains that the technology has been around since 1937 when it was first used against a measles outbreak. <https://www.wsj.com/articles/two-existing-technologies-could-fight-covid-now-11605567973>

9. **2020 Will Not Be Fondly Remembered — What About 2021? by Maury Wright** - Most of us will be happy to see the year 2020 pass. So what about 2021? The LED and SSL sectors will have to deal with remnants of the pandemic even if multiple vaccines arrive for the start of the New Year. The same is true for many other sectors. The return to office work may simply not return. All of those IoT-enabled smart buildings may sit largely empty for some time. Without question, there are benefits of in-person collaboration. But there are hard costs associated with offices that may be seen as unjustifiable to many CEOs. <https://www.ledsmagazine.com/>

10. **EPA Releases Compliance Advisory for UV Devices Designed to Kill Germs, Bacteria, and Viruses** - In the midst of the COVID-19 pandemic and the resultant shortage of traditional household disinfectant products such as wipes and sprays, numerous ultraviolet (UV) devices have been marketed to consumers with claims that they kill germs, bacteria, and viruses. What some may not know is that UV lights that are sold or distributed with these claims are subject to various federal regulation, including the Federal Insecticide, Fungicide, and Rodenticide Act (FIRA), which governs the registration, distribution, sale, and use of pesticides in the United States. FIRA requirements are enforced by the Environmental Protection Agency (EPA), which recently issued a Compliance Advisory regarding such devices. <https://environmentallawmonitor.com/>
11. **Lighting Controls Association Offers Two Free Webinars and Publishes New Course** - The 30-minute tunable-white webinar provides a deep overview of tunable-white lighting, covering benefits and applications, advantages and disadvantages, color basics, the different types of color-tunable lighting, hardware and protocols, specification issues, and more. The shorter automatic plug load control webinar provides an overview of approaches used to automatically control plug loads in commercial buildings, covering code requirements, strategies, devices, system integration, and key decision-making points. <http://aboutlightingcontrols.org/EducationExpress/>
12. **Ultraviolet Light Kills Coronavirus, But Caution Required by Naomi Millán** - When used appropriately, ultraviolet radiation is very effective at killing or deactivating pathogens. It can also cause harm to humans, so care must be taken when evaluating new technologies racing to market in a bid to help mitigate the new coronavirus. Facility managers are familiar with UV-C technology, used commonly to keep coils clean of biofilm or used in whole-room sanitation in healthcare. The key component to both of these common applications is that they are in unoccupied space. The UV-C wavelengths emitted by these more common fixtures will cause damage to human eyes and skin. That said, as it is effective at its intended purpose, researchers at the University of California Santa Barbara are working on developing a UV-C LED. <https://www.facilitiesnet.com/hvac/tip/Ultraviolet-Light-Kills-Coronavirus-But-Caution-Required--46065>
13. **PNNL Study: Lighting Control in Patient Rooms** - A study undertaken by Pacific Northwest National Laboratory (PNNL) researchers surveyed 138 representatives of medical-surgical nursing staff as to environmental lighting factors and needs in med-surg patient rooms. Four hospital sites were compared, with various combinations of lighting equipment, controls, and number/form factor of fixtures. A key theme that emerged from the responses was control, across all four facilities under the study. The LED and solid-state lighting (SSL) industry can take these evaluated perspectives many steps further down the road, with white-light tunability and even colored light for specific needs. <https://www.energy.gov/sites/prod/files/2020/08/f77/ssl-mccunn-etal-2020-nurses-perceptions-hospital-lighting.pdf>
14. **Registration Has Opened for the 2021 Lighting R&D Workshop** - A virtual and free event co-sponsored by the U.S. Department of Energy and the Illuminating Engineering Society. Opportunities to hear from and interact with top lighting scientists and industry thought leaders and to provide input on future research needs. Partnerships established and renewed at this event have powered innovation in the lighting industry for nearly two decades. See what this year's virtual Lighting R&D Workshop features at: [Lighting R&D Workshop](#)
15. **The Home Depot Announces Agreement to Acquire HD Supply Holdings, Inc.** - The acquisition is expected to position The Home Depot as a premier provider in the MRO marketplace. Under the terms of the merger agreement, a subsidiary of The Home Depot will commence a cash tender offer to purchase all outstanding shares of HD Supply common stock for \$56 per share, for a total enterprise value (including net cash) of approximately \$8 billion. The closing of the tender offer is subject to customary closing conditions, including regulatory approvals and the tender of a majority of the shares of HD Supply common stock then outstanding (on a fully diluted basis) and is expected to be completed during The Home Depot's fiscal fourth quarter, which ends on January 31, 2021. The transaction is expected to be funded through cash on hand and debt. <https://finance.yahoo.com/news/home-depot-announces-agreement-acquire-130000944.html>

16. **Home Depot Sales Surge in Third Quarter** - Third-quarter sales surged 23% and the home improvement chain beat expectations by almost any measure. Revenue totaled \$33.54 billion for the three months ended Nov. 1. The pandemic has led to a vast shift in spending patterns. At least some of the money once spent on movie tickets, travel, restaurants, amusement parks, sporting events or concerts, is coming back home. While those industries have been devastated, the housing market, and Home Depot, have grown stronger. The big profit numbers arrive a day after Home Depot said it was reuniting with former subsidiary HD Supply in a deal valued at about \$8 billion. The acquisition will give Home Depot a stronger hand in the contractor and professional side of its business, which has boomed during the pandemic, like its more consumer-facing, DIY sales. 11/17 AP

17. **NEMA Standards that Power and Connect the Electroindustry** - NEMA publishes more than 700 electrical and medical imaging Standards and technical whitepapers that cover millions of Member products. We believe that Standards play a key part in the design, production, and distribution of products destined for both national and international commerce. A NEMA Standard defines a product, process, or procedure with reference to one or more of the following: nomenclature, composition, construction, dimensions, tolerances, safety, operating characteristics, performance, rating, testing, and the service for which the product(s) are designed. Each Standard is identified by number and date. For more information: <https://www.nema.org/standards>

18. **Dodge Data & Analytics Expects Construction Starts to Recover in 2021** - Dodge Data & Analytics released its 2021 Dodge Construction Outlook, a mainstay in construction industry forecasting and business planning. The report predicts that total U.S. construction starts will increase 4% in 2021, to \$771 billion. The dollar value of starts for residential buildings will increase 5% in 2021, nonresidential buildings will gain 3%, and nonbuilding construction will improve 7%. Only the residential sector, however, will exceed its 2019 level of starts thanks to historically low mortgage rates that boost single family housing. <https://www.construction.com/news/dodge-data-analytics-expects-construction-starts-recover-2021>

19. **Wrigley Field Designated National Historic Landmark** - U.S. Secretary of the Interior David L. Bernhardt has designated Wrigley Field in Chicago, IL, as a National Historic Landmark, recognizing the significant role the ballpark has played in the city of Chicago and the history of professional sports. National Historic Landmarks are buildings, sites, districts, structures, and objects that have been determined by the Secretary of the Interior to be nationally significant in American history and culture. Built in 1914, Wrigley Field has been the home of the Chicago Cubs since 1916, a National League charter franchise dating to 1876. Wrigley Field is the second oldest ballpark in Major League Baseball and the oldest in the National League. Two years younger than Fenway Park in Boston. <https://facilityexecutive.com/2020/11/wrigley-field-designated-national-historic-landmark/>

20. **GE Current's 365DisInFx™ Technology is Different** - 365DisInFx™ technology leverages a business' existing lighting infrastructure to deliver germicidal ultraviolet (UV) light in places where people gather. Current's patented technology is proven to reduce common pathogens on surfaces, and multiple application tests and end-user pilots are underway. With products using 365DisInFx™ technology, Current aims to deliver a "one-two punch" targeting bacteria on surfaces and viruses in the air 365 days a year. These solutions represent a first line of defense that fights a broad spectrum of germs including the SARS-CoV-2 virus around the clock. <https://products.gecurrent.com/indoor-lighting/disinfection>

21. **Tunable White Positions Itself as a Lighting Tool by Craig DiLouie** - White-light color tuning is one of the most exciting advantages of LED lighting, providing the ability to adjust luminaire color output across the white light spectrum. As the timed spectral emission of light plays a part in circadian lighting—the application of light to promote circadian health—this developing trend offers the potential to take tunable white more mainstream. Tunable-white lighting products produce white light that can be adjusted over a range of correlated color temperatures, typically from a visually warm (orangish-white) 2700K up to a visually cool (bluish-white) 5000K or 6500K. This is accomplished via the relative dimming of separately controllable arrays of warm- and cool-white LEDs, or primaries. <http://www.lightnowblog.com/2020/11/tunable-white-positions-itself-as-a-lighting-tool/>

22. Back by Popular Demand: The NAED Market Overview Survey - This year we are asking additional questions in our survey to include more products and overall size of the market now and in the future. Results will provide NAED members with a good overview of the electrical industry's sales efforts. To enhance the report, NAED would like to know more about the types of products you offer and your selling strategies to provide important benchmarks for the electrical industry. This information will assist in analyzing trends in the market. The survey should take about 9 minutes to complete and only the compiled results will be published. Take the survey at: https://naed.qualtrics.com/jfe/form/SV_9owlv0AbBuYH9yJ

23. Big Ass Fans Adds UV-C to Kill Airborne Coronavirus - Boosting air circulation can increase ultraviolet effectiveness. Lexington, KY's Big Ass Fans earlier this year started offering a couple of ceiling fans that include UV-C lamps embedded in the suspension stem, above the blades and pointing outwards. The idea is that the fans draw air up where it passes through the UV-C radiation before the whirring fan helps the air return its journey to lower levels. Big Ass Fans has at least two products with UV-C. One, called the Clean Air System and aimed at industrial spaces, also includes an ionization technology that Big Ass Fans says is effective at killing the coronavirus. A smaller model, which is part of their residential line called Haiku, does not have the ionization feature. [Ceiling fan company adds UV-C to kill airborne coronavirus | LEDs Magazine](#)

Global Energy Market Observer:

24. Another European Soccer Team Goes for UV-C to Fight COVID-19 - PSV Eindhoven taps ceiling luminaires from Signify to disinfect air in the locker rooms, even when people are present. Signify is installing coronavirus disinfection lighting in the locker room of another European professional soccer team, this time heading three miles up the road from company headquarters to outfit the Dutch team in its hometown of Eindhoven, where Signify is a corporate sponsor. PSV Eindhoven, which plays in the Netherlands' top league, will start installing a total of 15 UV-C ceiling luminaires next week in the locker rooms at the club's stadium, as well as at indoor areas at a separate training facility. <https://www.ledsmagazine.com/>

25. German Supermarket Trials UV-C Air Purifiers and Disinfection Boxes to Fight Coronavirus - A small supermarket in Hamburg, Germany is trialing UV-C purifiers as one possible method its larger group might use to remove coronavirus that could be present in the air. The branch of the national Edeka chain has also deployed a UV-C disinfection chamber to clean handheld scanners that employees share. The 14,538-ft² Edeka Clausen store in Hamburg has mounted 31 Philips UV-C disinfection fixtures from Signify, at between 10.5 ft and 11.5 ft high and pointing them outwards, parallel to the floor. The purifiers use conventional mercury vapor technology, not LED, to generate the ultraviolet radiation, which is invisible but commonly referred to as "light." UV-C has a shorter wavelength than ultraviolet in the A and B bands. When applied at optimal doses, it has been proven to kill SARS-CoV-2. <https://www.ledsmagazine.com/>

26. DLC Adds IoXt Alliance Certification Program to Recognized Cybersecurity Standards - The ioXt Alliance, the Global Standard for IoT Security, recently announced the DesignLights Consortium (DLC) has added ioXt security certification to its Networked Lighting Control System Technical Requirements (Version 5), also known as NLC5. Along with ioXt, NLC5 offers a full breakdown of all DLC-recognized cybersecurity certification options that are specifically designed for interior and exterior NLC systems associated with commercial and industrial buildings, roadways, and exterior environments. Adding ioXt as an option to the DLC's Cybersecurity Standards list allows commercial lighting manufacturers to provide proof of cybersecurity standard compliance via an ioXt certificate or letter from one of its accredited testing organizations. <http://lightingcontrolsassociation.org/>

27. Nichia Corporation Becomes First to License TriGain® Technology from GE Current - TriGain®, a potassium fluorosilicate (PFS) phosphor, is a breakthrough in phosphor technology that improves the color rendering for LEDs through its unique red emission, without sacrificing efficiency. Other solutions take a significant efficiency penalty to achieve similar color rendering. Current's TriGain® phosphor, with its patented narrow emission, presents a technological leap beyond the rest of the market for both color and efficiency. Only a few light sources can meet the guidance on the three design intents and priority levels of specification criteria for ANSI/IES TM-30 Annex E, and TriGain® stands alone as the only technology to do so with high efficacy. With industry requirements in color quality trending towards a more preferred performance range in fidelity and saturation, and TriGain® providing best-in-class color and efficiency. <https://www.ledinside.com/node/view/31735>

28. Yearly Revenue of Horticultural LED Expected to Grow by Nearly 40% in 2020 - Owing to the gradual legalization of marijuana cultivation and the pandemic-induced surge of recreational and medical marijuana markets in North America, horticultural LED has become one of the fastest-growing lighting markets in 2020, according to TrendForce's latest investigations. Moreover, as the COVID-19 pandemic's impact on the food supply chain starts to surface, capital expenditure (CAPEX) for indoor agricultural infrastructure has once again shown an upward momentum due to the rising demand for equipment replacement and procurement, resulting in a rapid growth in enterprise orders for horticultural LED. Global yearly horticultural LED revenue is expected to reach US \$158 million in 2020, a 39.7% increase YoY. <https://www.ledinside.com/node/31737>

29. Delta Electronics Obtains Energy-Saving Street Light PFI for New Taipei City - Delta Electronics announced on the 19th that the company has obtained the phase 2 project of the energy-saving street light replacement and maintenance PFI (private finance initiative) for the 13 administrative districts in the north of New Taipei City, after having obtained phase 1 of the project in 2014. The project has commenced in October this year, and a total of approximately 110K street lights in the area will be replaced. Delta Electronics has been developing smart LED street light solutions since 2010 and acquired Amerlux in the USA last year. <https://www.ledinside.com/node/31702>

30. Revised EU Regulations Light the Way to More Stringent Requirements for Light Sources - Two EU regulations on energy efficiency and labeling of lamps and light sources have been significantly updated. FABIAN FLIGGE explains how to meet challenges posed by the regulations and describes an innovative test method to facilitate market access. <https://www.ledsmagazine.com/>

31. Market Data: Outdoor LED Lighting Systems - As the efficacy of LEDs has increased and the price has declined, this lighting technology has become more desirable as an investment for outdoor lighting applications. The continued improved quality as well as superior controllability over legacy lighting technologies has helped grow the adoption of LEDs in outdoor lighting infrastructure. LEDs have continued to penetrate the market and take market share from traditional lighting technologies such as high pressure sodium (HPS), metal halide, induction, and fluorescents. This Guidehouse Insights report examines the global market for outdoor lighting and controls in city parks and public areas, sports parks, commercial site lighting, parking lots, parking garages, university and college campuses, roadways and highways, and other outdoor lighting applications. The study provides a brief analysis of the market issues, developments, and regional trends surrounding outdoor lighting systems. Global market forecasts for luminaire and lamp unit shipments and revenue, segmented by lamp type, product type, application area, and region, extend through 2029. [Market Data: Outdoor Lighting Systems \(guidehouseinsights.com\)](https://www.guidehouseinsights.com/)

32. OSRAM May Give Up IoT Lighting Business - Based on the reporting from LEDs Magazine, AMS CEO Alexander Everke is strongly hinting that OSRAM could abandon most of the businesses under its Digital Group. This group, which is also referred to as "DI", provides lighting solutions for a wide range of applications including IoT, horticulture, entertainment, and architecture. Earlier, Everke already acknowledged that DI is not a strategic asset, and that AMS as the dominant shareholder will soon make changes to OSRAM's investment portfolio. <https://www.ledinside.com/node/31741>

ENERGY OBSERVER

A MONTHLY NEWSLETTER FROM AMERLUX®

DEC 2020

Monthly Feature: The Transition -

| Millions | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| T12 | | | | | | | | |
| Units | 67 | 79 | 74 | 37 | 25 | 19 | 19 | 15 |
| Dollars | 130 | 140 | 155 | 97 | 60 | 37 | 35 | 27 |
| AUP | \$1.94 | \$1.77 | \$2.09 | \$2.62 | \$2.40 | \$1.95 | \$1.84 | \$1.80 |

| | | | | | | | | |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| T8 | | | | | | | | |
| Units | 230 | 245 | 230 | 190 | 165 | 130 | 104 | 100 |
| Dollars | 400 | 395 | 350 | 290 | 225 | 165 | 130 | 115 |
| AUP | \$1.74 | \$1.61 | \$1.52 | \$1.53 | \$1.36 | \$1.27 | \$1.25 | \$1.15 |

| | | | | | | | | |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| T5 | | | | | | | | |
| Units | 34 | 37 | 34 | 30 | 25 | 19 | 16 | 14 |
| Dollars | 122 | 125 | 110 | 95 | 65 | 42 | 35 | 29 |
| AUP | \$3.59 | \$3.38 | \$3.24 | \$3.17 | \$2.60 | \$2.21 | \$2.19 | \$2.07 |

| Dollars Millions | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| LED | 338 | 600 | 1100 | 1700 | 2000 | 1900 | 1800 | 1650 |
| Fluorescent | 819 | 815 | 740 | 630 | 480 | 365 | 300 | 250 |
| Halogen | 274 | 350 | 475 | 480 | 405 | 342 | 250 | 180 |
| Incandescent | 505 | 480 | 375 | 320 | 300 | 240 | 175 | 140 |
| HID | 336 | 315 | 280 | 245 | 200 | 150 | 120 | 100 |
| CFL | 659 | 660 | 610 | 460 | 240 | 145 | 100 | 70 |
| Total | \$2,931 | \$3,220 | \$3,580 | \$3,835 | \$3,625 | \$3,142 | \$2,745 | \$2,390 |

| Units Millions | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|----------------|------|------|------|------|------|------|------|------|
| LED | 23 | 40 | 105 | 290 | 540 | 600 | 760 | 742 |
| Incandescent | 1130 | 1030 | 690 | 480 | 465 | 385 | 310 | 250 |
| Halogen | 127 | 186 | 360 | 400 | 385 | 325 | 266 | 200 |
| Fluorescent | 400 | 405 | 385 | 330 | 280 | 230 | 190 | 170 |
| CFL | 410 | 360 | 355 | 250 | 131 | 90 | 60 | 50 |
| HID | 27 | 26 | 23 | 21 | 18 | 15 | 11 | 9 |
| Total | 2094 | 2007 | 1813 | 1481 | 1279 | 1045 | 837 | 679 |