

EnergyWatch



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<http://www.attardimarketing.com/energywatch/>
www.energywatchnews.com



Something to Think About... TRANSITION IS ALWAYS MESSY

The lighting industry is going thru a transition, to put it mildly. Think about it...have you ever gone thru any transition in your life. Well, in most cases, it's just messy. Whether in your personal life, a company, an organization, or, as we see, in an industry. There's conflict. Conflict between those that don't like change in any form as change is in conflict with who they are, in conflict with their behavioral style. They don't want change, they like it the way it is.....most likely, they are successful people that see change / transition as a threat to their success. Then there are those that work well in a changing environment. Change is a steroid that drives them to higher achievement. Many are never satisfied with the status quo. On the other hand, they may be unsuccessful people that need a change to get them back on track.

The Illumigeddon blog by my good friend, the Sky is Fallin Chris Brown illustrates conflict between us tepid prognosticators in our industry. We are not the only ones.....there are good arguments on both sides. Where do you come down?

We all agree that change / transition has many faces. A lot of uncertainty. But one thing is certain, it will happen, whether you like it or not, whether you can adapt or not, whether you transition with the skill-sets necessary to reposition your company to thrive or not. During any transition, there will be winners and losers. Great opportunity for many, devastating for some.....

Solid state lighting is the most dynamic change we, who have been in this lighting industry for a lifetime, have ever seen. We are transitioning from the traditional / legendary lighting industry into the digital / electronic lighting era. It's out of our control. Whether you want change or not, whether you can survive this transition or not, whether you have the desire to learn new skills to successfully participate in this new era, it will happen with or without you. I agree with Chris: *"The Internet of Things and the integration of Smart Lighting products into building systems have enormous potential.....but for whom? Traditional ED and LD will need new levels of high technical competences and new services/solutions to elbow their way to the table."*

50 years from now, let's talk again as we will know by then how all of this turns out. And don't be surprised if we are not transitioning into another new dynamic era of lighting. You don't think LED is forever, do you?

LED Issues to Watch...

- 1. *Lighting Fixtures and Luminaires: 'Shaping' the Future of Lighting - 2014 Global Strategic Business Report*** - High energy-efficiency, optimal durability, and comparatively low total cost-of-ownership as compared to other luminescent lights, are factors that are supporting rapid penetration of LED lighting products across the world, which is turn is driving demand for LED luminaires. As stated by the new market research report, China, the United States and Japan represent the largest markets for outdoor lighting fixtures. For more information please click on: http://www.researchandmarkets.com/publication/mf4ckrg/lighting_fixtures_and
- 2. *The Smart Money Is on Smart Lamps*** - The market for home lamps that do everything from dance to transmit data is about to turn on, as vendors will sell nearly a quarter of a billion smart lamps annually by 2020, according to a new research report. 'Smart bulbs,' as US-based ABI Research calls them, are LED lamps that tie into digital networks and can thus perform in all sorts of innovative ways. For instance, users can remotely switch them on or off and change their brightness or color from their sofa or from around the world via apps; smart bulbs can flash when they detect smoke or intruders; they can pulsate to music and respond to other sounds; they can light up inside the house when your car pulls into the driveway or when you turn the house key in the lock; and so on. <http://www.luxreview.com/news/530/the-smart-money-is-on-smart-bulbs>
- 3. *Rah-Rah: China's Lighting Wunderkind Opple Officially Opens for Business in Europe*** - It's official. The company that represents everything that's roughing up the traditional lighting companies has landed in Europe, opening its regional headquarters in, where else, Holland, the home of the industry's biggest company. Take that Philips! Shanghai-based Opple is a rapidly expanding LED specialist that is marching into countries around the globe with a strategy to underprice the venerable Philips', Osram's and GE's of the world, which it can probably afford to do because it does not carry the costs of a conventional lighting business the way the old timers do. CEO Ma Xuihui – known in her home country as the Queen of Lighting – recently led Opple into India. Opple actually opened the Best, Holland office back in March, and has staffed up considerably with former Philips professionals. <http://www.luxreview.com>



4. ***White Paper: Prospects for U.S.-Based Manufacturing in the SSL Industry*** - Public-sector investments in energy efficient lighting technology, in particular those made through the U.S. Department of Energy Solid-State Lighting Program, are yielding excellent returns for taxpayers in the form of savings on electricity bills and reductions in carbon emissions. These benefits will compound in coming decades as LED and OLED lighting continues to improve in efficiency and win over consumers. Meanwhile, a question looms: to what extent will the U.S. economy *also* benefit from the robust business and job creation that will emerge alongside solid-state lighting (SSL)? The white paper identified six closely interrelated factors that generally weigh in location decisions. http://energy.gov/sites/prod/files/2014/11/f19/ssl_manufacturing-prospects_oct2014.pdf
5. ***Lux Review: The 10 Most Annoying Things About LEDs*** - Check out this [informative and entertaining article](#) about the things that LED manufacturers don't like to talk about, from our lighting friends across the pond at [Lux Review](#). The post highlights some of the blemishes of LEDs, in stark contrast to much of the coverage about them in the lighting biz, which treats LEDs as the lighting market's child prodigy. <http://electricalmarketing.com/blog/lux-review-10-most-annoying-things-about-leds>
6. ***The Smart Money Is on Smart Lamps*** - The market for home lamps that do everything from dance to transmit data is about to turn on, as vendors will sell nearly a quarter of a billion smart lamps annually by 2020, according to a new research report. 'Smart bulbs,' as US-based ABI Research calls them, are LED lamps that tie into digital networks and can thus perform in all sorts of innovative ways. For instance, users can remotely switch them on or off and change their brightness or color from their sofa or from around the world via apps; smart bulbs can flash when they detect smoke or intruders; they can pulsate to music and respond to other sounds; they can light up inside the house when your car pulls into the driveway or when you turn the house key in the lock; and so on. <http://www.luxreview.com/news/530/the-smart-money-is-on-smart-bulbs>
7. ***Lux Review: The 10 Most Annoying Things About LEDs*** - Check out this [informative and entertaining article](#) about the things that LED manufacturers don't like to talk about, from our lighting friends across the pond at [Lux Review](#). The post highlights some of the blemishes of LEDs, in stark contrast to much of the coverage about them in the lighting biz, which treats LEDs as the lighting market's child prodigy. <http://electricalmarketing.com/blog/lux-review-10-most-annoying-things-about-leds>
8. ***A Flickering Failure Among 40W Replacement LEDs*** - Sometimes sold under Lowe's "Utilitech Pro" branding, the Feit 40W Replacement LED (model number LA19DMCLED) looks appealing enough on paper, with a respectable amount of brightness, a relatively low wattage, and promises of dimmer compatibility. Look closer at the competition though, and you'll realize that Feit's bulb actually lags behind the pack in both pricing and performance. What's more, it failed our dimmability and omnidirectionality tests, bombing worse than any LED to date. <http://www.cnet.com/products/feit-electric-40w-replacement-led/>
9. ***Zhaga Consortium Starts Work on New Specification for COB LED Arrays*** - In response to feedback from a broad range of stakeholders, the Zhaga Consortium, which develops specifications for interchangeable LED light sources, is now working on a new Book that will include Chip-on-Board (COB) LED arrays. The new Zhaga Book will specify a family of six rectangular or square LED modules with different dimensions. For additional information and updates, visit: www.zhagastandard.org



10. EPA Issues Directive on LED and Legacy Lamp Verification Testing for Energy Star - The US Environmental Protection Agency (EPA) has issued a guidance document intended to instruct certification bodies (CBs) in their implementation of verification testing of lamps, including LED-based products, that are certified to the Energy Star lamps V1.0 and V1.1 specifications. The guidance covers mandatory and randomly-selected tests and defines limited cases in which verification testing can differ from the original certification testing.

www.energystar.gov/products/spec/lamps_specification_version_1_0_pd

11. Why OLED Lighting Will Soon Shine on You - The Acuity flat-panel lighting tech is for sale at Home Depot starting at \$200, providing a new energy-efficient alternative to LED lights. Steady advances in manufacturing technology have made OLEDs bright and long-lived enough to use, and now they're going mainstream. Because OLED panels are not piercingly bright, they can be mounted in fixtures seen directly by the eye; there's no need for reflectors or diffusers to cut the glare. At Home Depot, Acuity is selling two fixtures, each in configurations that can be suspended or that can be mounted directly to a wall or ceiling. The \$300 Chalina is like a four-petal flower, with four square OLED panels arranged around a central one. The Aedan uses two elongated panels facing opposite directions and costs \$200. The company also offers a variety of OLED fixtures for commercial customers.



<http://www.cnet.com/news/why-oled-lighting-will-soon-shine-on-you/>

12. DOE Financial Opportunities - DOE financial opportunities for solid-state lighting (SSL) include competitive solicitations, grants, and other federal funding mechanisms to advance innovative, energy-saving SSL technologies. The DOE SSL program supports research and development of promising SSL technologies through annual competitive solicitations that cover three areas:

1) **Core Technology Research**

2) **Product Development**

3) **Manufacturing Support** <http://energy.gov/eere/ssl/financial-opportunities>

13. DOE Publishes GATEWAY Report on High-Luminous-Flux LED Lighting in a High-Temperature Environment - The U.S. DOE has released a GATEWAY report on a trial demonstration in which the incumbent quartz metal halide (QMH) area lighting was replaced with LED at three pole locations along a 7.2-mile stretch of the Yuma (Arizona) Sector Border Patrol Area. This high-luminous-flux and high-temperature application is not unique, and similar applications can benefit from the findings of this installation – including correctional facilities, military bases, and, more generally, street and area lighting. The full report can be downloaded from the [DOE SSL website](#)

14. Check Out the Events Page - <http://energywatchnews.com/events/> Now you can go to one place to plan the Show & Events you want to attend throughout 2015. Catch the latest products and electrical technologies. Learn new market trends and innovations on the horizon from industry experts. Build your camaraderie with professional peers through networking opportunities. The electrical industry's vibrant and abundant national and regional trade events vital resources for personal knowledge and business growth. We highlight all the USA Events in 2015 by month along with their website link. Check it out...and let us know how we can make even more useful.



- 15. Warren Buffett Putting His Stamp on Smart Grid Technology** - There is a good reason Warren Buffett's name seems to be turning up everywhere in the energy sector. When he bought Nevada utility NV Energy last year, he said there would be further energy acquisitions. Already heavily involved in solar and wind power, his Northern Grid Power Holdings Co. is wrapping up a home energy management pilot project with Siemens in the UK. <http://www.smartgridnews.com>
- 16. DOE Announces NOI for Smart Manufacturing Innovation Institute** - A Notice of Intent (NOI) may be of interest to the SSL community. EERE seeks to develop, demonstrate, and transition to industry advanced sensing, instrumentation, monitoring, control, and process optimization using both advanced hardware and software platforms, as well as real-time and predictive modeling and simulation technologies for industrial automation. EERE plans to issue the FOA early in calendar year 2015 via the EERE Exchange website <https://eere-exchange.energy.gov/>
- 17. Philips: A Long Goodbye to Lighting?** - Opplé serves as a symbol of everything that prompted Philips CEO Frans van Houten to decide that he's had enough rough-and-tumble in the brave new world of digital lighting. Or at least enough of it to cast off lighting into a group that Philips won't outright own and that therefore might somehow behave more nimbly in an industry increasingly characterized by fleet footed types. Lighting has been good to the Dutch giant over most of its 123 years. In the second quarter ended June 30, LEDs accounted for 36 percent of lighting sales, up from 25 percent in the same quarter a year earlier. However, selling LEDs is one thing; making money from them is another. Therefore, van Houten's quest for an 'alternative ownership structure' for the lighting solutions business. But what, exactly, did he mean by it, other than, as Philips said in a press release, he hopes to broaden 'direct access to capital markets'? The company said it will provide more information in 2015. <http://www.luxreview.com>
- 18. Lighting Industry Says LEDs Are Not Ready for Mass Consumer Uptake, Blasts Anti-Halogen Report** - The donnybrook surrounding Europe's proposed ban of halogen lamps has raged up again, as the lighting industry assailed a report that claimed LEDs are ready to take over for halogens. Industry trade group LightingEurope [called the report 'flawed,'](#) and described the conclusions as 'questionable, partly misleading, and containing incorrect information, with 47% of the test based on non-compliant lamps.' LightingEurope, which represents Philips, Osram and other lighting vendors, wants to postpone a ban on halogens from Europe's planned 2016 until at least 2020. It has warned of a huge [shortage of household bulbs](#) if the EC vanquishes halogens before 2020. <http://www.luxreview.com>
- 19. Over 100 China-based LED packaging Firms to Go Out of Business in 2014** - More than 100 relatively small China-based LED packagers will be forced out of business in 2014, and the number is expected to increase to over 300 in 2015. Economies of scale have also made the larger China-based LED packaging firms more competitive compared to smaller ones. The large makers account for most of the total capacity expansion among all China-based LED packaging houses. MLS, for example, is increasing its monthly LED packaging capacity to 22 billion chips at the end of 2014 and further to 30 billion units in 2015. International LED vendors including Cree, Philips Lumileds Lighting, Seoul Semiconductor, and Osram have either set up factories in China or increased outsourcing to China-based makers, placing further pressure on China-based packagers to merge or go out of business. <http://www.digitimes.com/news/a20141202PD205.html>



20. **Lighting Veterans Debate Future of LED Lighting in EnergyWatchNews.com** - <http://ewweb.com/lighting/lighting-veterans-debate-future-led-lighting-energywatchnewscom>
21. **Copenhagen Lighting the Way to Greener, More Efficient Cities** - On a busy road in the center of town here, a string of green lights embedded in the bike path — the “Green Wave” — flashes on, helping cyclists avoid red traffic lights. On a main artery into the city, truck drivers can see on smartphones when the next light will change. And in a nearby suburb, new LED streetlights brighten only as vehicles approach, dimming once they pass. Cities worldwide are expected to replace 50 million aging fixtures with LEDs over the next three years, with roughly half of those in Europe. Many want to take full advantage of the LED’s electronics, which are more conducive to wireless communication than other types of lighting. http://www.nytimes.com/2014/12/09/business/energy-environment/copenhagen-lighting-the-way-to-greener-more-effecient-cities.html?_r=0
22. **Q: How Does BMW Enter the Streetlighting Business? A: It Partners** - It seemed a bit of a leap last month when German automaker BMW announced it was entering the streetlighting business with a combination pole that serves as both an LED streetlamp and a car charger. The Munich mate: [Eluminocity](#), which BMW said specialises in 'connecting lighting systems.' The company is targeting the fledgling market for 'Smart Cities' (note the 'city' in its name) connected by digital LED lighting, a concept in which lights equipped with sensors and tied into information networks would provide information on everything from traffic conditions to air quality to emergency situations and crowd behavior. Eluminocity sees an expanded role for itself in, among other things, detecting available parking spaces, information which it would presumably feed to motorists via smartphone apps. <http://www.luxreview.com/news/542/how-does-bmw-enter-the-streetlighting-business-partners>
23. **Smart Buildings: Smart Wireless Lighting Controls 2014 to 2018** - This Report is the NEW 2014 Definitive Resource for Smart Wireless Lighting Controls Market Research including Market Positioning, the Competitive Landscape, Market Sizing & Investment Analysis. The OECD and EIA estimate that cutting the energy used by lighting by 40% would save \$53 billion in the USA whilst annual energy costs and savings across the globe could be 3 to 4 times as much. There could not be a more appropriate time to assess current and future demand for lighting and its control in public industrial and commercial buildings, particularly if it assesses how wireless control can open up the retrofit business, which has for so long been stagnant. This report’s objective is to size current and future demand for wireless control in the commercial and industrial lighting industry and analyze why and how, induced by 2 major drivers, LED and Wireless Lighting Control will converge to create enormous opportunities in smart lighting controls over the next 15 years. <http://www.memoori.com/portfolio/smart-buildings-wireless-lighting-controls-2014-to-2018/>
24. **More Lighting Blues: Yes, Gadgets are Ruining Our Sleep** - Don't take the new e-readers from Santa Claus to bed. The light will ruin your sleep. That's the conclusion yet again of another study into the health effects of blue-spectrum light emitted by screens and by LED lighting, many of which have found that blue light keeps people awake. Researchers from Harvard Medical School specifically observed the sleep patterns of people reading gadgets at night versus those reading paper books. They found it took longer to nod off with a back-lit e-reader, which led to poorer quality sleep and being more tired the next morning. The flip side of the LED sleep deprivation story is that blue LED light can stimulate alertness when required and can aid things like learning and healing. <http://www.luxreview.com/news/561/more-lighting-blues-yes-gadgets-are-ruining-our-sleep>



LED Technologies to Watch...

25. ***EW's Top 5 LED Product Picks for December*** - LED products from Appleton, Maxlite, Orbit Industries, Soraa and Universal Lighting made it into *Electrical Wholesaling's* Top 5 LED Product Picks for December. http://ewweb.com/lighting/ews-top-5-led-product-picks-december#slide-0-field_images-21701
26. ***A Tiny Technology to Brighten Skyscrapers*** - The technology that makes for a brighter display on your smartphone is primed for a revolution in the next five years—one that will also make it cheaper and more practical for businesses to illuminate their commercial office buildings. There's one problem, though. Fixtures using organic light-emitting diode (OLED) technology cost thousands of dollars each. What's more, because OLED lighting involves sending electricity through multiple, millimeters-thick layers, the light emitted at the bottom of the stack can be as low as 25% of what could be emitted if light didn't become trapped in higher layers. Pixelligent Technologies in Baltimore is developing lubricant-coated nanocrystals that form tentacles to prevent clumping, allowing more than twice as much light to pass through. OLED lighting could total \$1.4 billion in sales by 2019. 12/29 Fortune
27. ***Have Yourself an Energy-Efficient Christmas*** - You can now dim or change the color of your Christmas tree lights from your phone, thanks to a new LED light chain from Osram – part of the Lightify range of smartphone-controlled products. The company says you can pick from any of 16 million different color tones. Of course, there's no reason you can't use the lights at other times of year too – the color changes to match any occasion, and they're just as happy outside as in. <http://www.luxreview.com/news/562/have-yourself-an-energy-efficient-christmas>
28. ***Xicato Delivers First XIM with Integrated Dimming Driver*** - The XIM intelligent module provides extremely smooth dimming, as low as 0.1 percent in DALI systems and can be connected via DALI or 1-10V systems. The module also monitors and records its own performance and “health” using on board microelectronics and software that Xicato has pioneered in the light source. To ensure maximum performance and lifetime, the onboard diagnostics allow Xicato's XIM to monitor real-time temperature of the LEDs and electronics and to autonomously enter protection modes if the module's maximum temperature is exceeded. www.xicato.com/XIM
29. ***Hubbell Building Automation Unveils New Family of Energy-Saving LightHawk2 Lighting Control Sensors*** - Hubbell Building Automation (HBA) has enhanced its popular wall switch vacancy and occupancy sensor family with the introduction of the LightHAWK2™. From conference rooms, offices, and hallways to storage areas, restrooms, and hotel guest rooms, the LightHAWK2™ sensors provide building operators superior control and energy-savings. The enhanced LightHAWK2™ family includes six different options including three brand new sensor choices: a combination 0-10V Dimming / Passive Infra Red (IR) wall switch sensor, and a combination Night Light / Passive Infra Red (IR) wall switch sensor, and a low voltage version of the Passive Infra Red (IR), Ultra Sonic (US), and Dual Technology wall switch sensors. <http://www.hubbell-automation.com/>

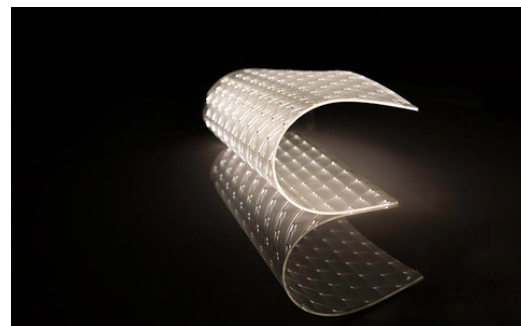


30. Design LED Demonstrates Thin and Flexible LED Shelf and Back Lighting - Low- and high-density, flat and flexible light engines and luminaires enable a variety of SSL applications.

Design LED Products Limited used LuxLive to launch a new portfolio of LED light engines and luminaires that utilize LEDs embedded in flat and flexible light guides for applications such as retail shelf lighting and backlighting for signs or displays.

The product family includes models with LEDs embedded in light guides with output on one or both sides of the sheet, and in

versions with a low or high density of LEDs to serve a range of applications and light-output requirements. www.designledproducts.com/



31. Calgary Tower Gets New LED Lighting - The Calgary Tower, an iconic symbol in Craig DiLouie's adopted city of Calgary, recently got new LED lighting that is impressing people across the city with impressive colorful light shows occurring each day from 5AM to sunrise and nightly from dusk to midnight. There are three luminaires on the roof, 12 on the crown, and 24 each on the upper and lower pods, each individually addressable and capable of being programmed to produce a wide spectrum of colors and effects. <http://www.lightnowblog.com> See the video at:

https://www.youtube.com/watch?v=XaBKkSMSTus&list=UUuJ5fGDpw684B-WA4OZrC_w

32. A Big Ass Light for Your Garage - Big Ass Light, the LED-oriented offshoot of Big Ass Fans, thinks it has the solution for your garage: an ultra-powerful LED fixture that puts out 13,000 lumens while promising to last 150,000 hours. At 23 inches long, the Big Ass Light Shop LED shines hot and white at a color temperature of 5,000 K, and puts out those 13,000 lumens from a power draw of 122 watts. That's over 100 lumens for each watt. The Big Ass Light Shop LED is available for sale on the company website and through Home Depot.



<https://store.bigasssolutions.com/lights/shop-led.html>

33. CLTC Helped to Successfully Commercialize Next-Generation Sensor - The commercialization of Echelon's Lumewave MWX-LVE <http://echelon.com/applications/lighting> long-range outdoor microwave sensor illustrates CLTC's success in supporting advanced next-generation sensors for adaptive outdoor applications. It can detect movement and distinguish between slow and fast moving objects such as pedestrians, cyclists and motorized vehicles. The sensor reacts to the size of objects from longer distances, automatically raising the light levels to high output when the areas are occupied and lowering them when areas are vacant. <http://cltc.ucdavis.edu/commercialize-next-generation-sensor>



34. Provolt Daylight Harvesting and Occupancy Sensors by Leviton - Leviton's Provolt ODC family of line-voltage occupancy and vacancy sensors simplify energy management with an easy to install, self-contained solution. Provolt occupancy sensor models include line-voltage occupancy sensing, daylight harvesting and manual-ON/auto-OFF override control in a single unit with no special control stations required.

http://www.leviton.com/OA_HTML/SectionDisplay.jsp?section=62270&minisite=10251

National Energy Issues to Watch...

- 35. *New Ballast Regulations Are Now in Effect*** - New fluorescent ballast energy efficiency regulations took effect in November. The new rules expand previous regulations to cover seven classes of T12, T8 and T5 fluorescent lamp ballasts. Outdoor sign and residential-only ballasts, exempted from previous DOE ballast regulations, are now covered and will be significantly affected. Many T12 electronic ballasts comply with the new rules, while some are being redesigned and others discontinued. T12 magnetic sign ballasts are being discontinued, with T12 electronic ballasts as an alternative. Today's offering of T8 and T5 electronic ballasts complies. The net effect of the regulation appears to be elimination of previously exempted T12 magnetic sign and residential-only ballasts, and a marginal efficiency improvement in the T12 electronic ballast offering. <http://www.lightnowblog.com/>
- 36. *Current and Future Business Conditions Indexes Gain Ground in November*** - NEMA's Electroindustry Business Conditions Index (EBCI) for current conditions in North America improved for the second month in a row in November, rising to 60.4 from 58.3 last month and from 57.1 in September. <http://www.nema.org/Intelligence/Pages/Electroindustry-Business-Conditions-Index.aspx>
- 37. *Illuminating Outdoor Rebates by BriteSwitch*** - LED outdoor lighting is rapidly gaining in popularity due to tremendous energy and maintenance savings and significant rebates are available. More than 3,000 electric utilities span the country, each potentially with different rebate programs and eligibility requirements. BriteSwitch specializes in rebates and incentives. <http://www.briteswitch.com/news/IlluminatingOutdoorRebates.html>
- 38. *New Energy Guide Labels Coming to Ceiling Fan Packages*** - The Federal Trade Commission (FTC) issued a Notice of Proposed Rulemaking, which would require new "Energy Guide Labels" to be placed on the tops of ceiling fan packages. The proposed artwork of the label is similar to what you would see while shopping for appliances, such as a refrigerator. http://www.lightrays-digital.com/lightrays/november_2014#pg2
- 39. *Circleville, OH GE Lighting Plant Idles Soft White Assembly Line*** - The GE Lighting plant in Circleville plans to idle its "Soft White" light bulb assembly line for six weeks to allow demand from retailers to catch up with supply. The Soft White line makes a halogen bulb for household use. The line and its roughly 50 jobs were brought to Circleville last year, moving production away from a plant outside the country. The Soft White initiative, which includes two other GE Lighting plants, was in response to Wal-Mart wanting to obtain a larger share of its products from within the United States. 11/19 The Columbus Dispatch
- 40. *Something for Everyone to Like or Loathe in the \$1.1T Bill: School Lunches, Light Bulbs, Pot*** - School kids, truckers, marijuana smokers and fans of old-fashioned light bulbs are among millions of Americans with something extra riding on passage of the \$1.1 trillion, 1,603-page giant spending bill needed to keep the government running. The bill extends a ban on the government spending money to enforce the ongoing phase-out of incandescent bulbs. It may not have much effect, since manufacturers and stores are already well-along in the switch to spiral bulbs and other energy-saving alternatives. <http://www.foxbusiness.com/markets/2014/12/13/something-for-everyone-to-like-or-loathe-in-11t-bill-school-lunches-light-bulbs/>



41. Decoding IECC 2015 by Craig DiLouie - In 2014, the International Code Council published the 2015 International Energy Conservation Code (IECC), a model residential and commercial building energy code. ICC states: **“This code shall regulate the design and construction of buildings for the use and conservation of energy over the life of each building.”** The IECC is not a code in itself but instead a template that states and other jurisdictions may use this model in whole or in part for their own energy codes. First published in 1998, the IECC was updated in 2000, 2003, 2006, 2009, 2012, and 2015. <http://lightingcontrolsassociation.org/>





42. Photometrics Explained - Learn more about photometrics. This educational video by Philips Lighting describes how a luminaire delivers its light at what angles and at what intensity, and how this information is recorded on a photometric report and analyzed. Watch this 6 minute video: <https://www.youtube.com/watch?v=hByR2V4qyq8>

43. IES Announces 2014 Illumination Awards Winners - The IES granted two Awards of Distinction, 11 Awards of Excellence, and five Special Citations. The Awards program recognizes individuals for professionalism, ingenuity and originality in lighting design based on the individual merit of each entry. See all the winning projects with photography at: <http://www.ies.org/pdf/Awards/ia/2014-Illumination-Awards.pdf>

44. Top 10 Markets for Electrical Products in 2015 - DISC Corp.'s Herm Isenstein busts out his own Top 10 list for the Largest Markets for Electrical Products in 2015. *Electrical Wholesaling's* editors added key business indicators and related demographics for each of Herm's picks. <http://ewweb.com/>

- #1 - Chicago-Naperville-Elgin, IL-IN-WI MSA
- #2 - Houston-Sugar Land-Baytown TX MSA
- #3 - Los Angeles-Long Beach-Santa Ana CA MSA
- #4 - New York-Northern New Jersey-Long Island NY-NJ-PA MSA
- #5 - Atlanta-Sandy Springs-Marietta GA
- #6 - Anaheim, Calif.
- #7 - Minneapolis-St. Paul-Bloomington MN-WI
- #8 - Lake County, Ill.
- #9 - Dallas-Fort Worth-Arlington TX MSA
- #10 - Milwaukee-Waukesha-West Allis, WI Metro Area MSA

45. Third-Party Certification - http://www.energystar.gov/index.cfm?c=third_party_certification.tpc_index
To ensure consumer confidence in the ENERGY STAR label and to protect the investment of ENERGY STAR partners, The U.S. EPA requires all ENERGY STAR products to be third-party certified. Products are tested in an [EPA-recognized laboratory](#) and reviewed by an [EPA-recognized certification body](#) before they can carry the label. The resources below serve as the requirements for EPA-recognized certification bodies (CBs).

- [Conditions and Criteria for Recognition of Certification Bodies](#)  (60KB)
- [Directives](#)
- [Standard Operating Procedure for Certification of Products to ENERGY STAR Specifications](#)  (60KB)
- [Verification Testing Roles and Responsibilities](#)
- [Qualified Product Exchange system](#)





46. 2014 Green Building Standard Now Available from ASHRAE/USGBC/IES - New requirements to further reduce energy and environmental impacts of buildings are contained in the 2014 version of the green building standard from ASHRAE, the U.S. Green Building Council and the Illuminating Engineering Society. ANSI/ASHRAE/USGBC/IES Standard 189.1-2014 addresses the areas of site sustainability; water-use efficiency; energy efficiency; indoor environmental quality; and the building's impact on the atmosphere, materials and resources. <http://www.techstreet.com/ashrae/products/1886477>

47. Energy Efficiency May Be the Key to Saving Trillions by Beth Gardiner - Compared with eye-catching renewable power technologies like wind turbines and solar panels, energy efficiency is nearly invisible. But advocates say doing more with less power may be an even more critical weapon in the fight against climate change and offers big economic benefits, too. Worldwide, governments, companies and families could be saving trillions of dollars by improving efficiency with cars that go farther on less fuel and improved appliances, light bulbs and factories. 11/30 NT Times

48. High-Efficacy Residential Lighting Guide Now Available - CLTC developed the High-Efficacy Residential Lighting guide to provide information about lighting products and key lighting principles and best practice recommendations. The guide is designed to help builders and lighting industry professionals working on zero-net energy (ZNE) and sustainable residential projects. Lighting designs consisting of high-efficacy luminaires and lamps currently exceed California's energy code requirements. Such designs are increasingly attractive to home buyers as demand grows for energy-efficient smart homes and ZNE residences. <http://cltc.ucdavis.edu/publication/high-efficacy-residential-lighting-guide>



49. EPA Releases ENERGY STAR Luminaires V2.0 Draft 1 - The cover letter, draft, comments and agency response are available on the ENERGY STAR Luminaires V2.0 product development webpage at www.energystar.gov/luminaires. Questions may be directed to Taylor Jantz-Sell, EPA, at Jantz-Sell.Taylor@epa.gov or (202) 343-9042 or Austin Gelder, ICF, at Austin.Gelder@icfi.com or (770) 419-9249. EPA will be holding a webinar and an in person meeting in Washington, D.C. on January 21, 2015 from 2:00 pm to 5:00 pm EST. lighting@energystar.gov

50. EPA Releases New Version of Online Database for Incentives and Joint Marketing Exchange (DIME) - DIME is designed to provide partners with an easily accessible, user-friendly online search tool to help manufacturers and retailers identify incentive and marketing opportunities for promoting ENERGY STAR certified products, and to enable all partners to coordinate with the appropriate contact from other partner organizations on promotional opportunities. Features of the upgraded DIME tool include a streamlined look and feel, a search by state, incentive type, and/or product, an option to view zip codes covered by each promotion, and a filter by utility option. www.energystar.gov/dime

51. The Worldwide Market for Lamps - Strategies Unlimited's new research report covers the 'total' lamp market. This report provides a comprehensive look at LED and non-LED (incandescent, CFL, halogen and fluorescent) market numbers for A, reflector, MR and T-lamps. It also covers the regional and application breakouts to show where and why the market for LED lighting technology is expanding globally. <http://store.strategies-u.com/the-worldwide-market-for-lamps-report-bundles/>



52. Chinese Investment in US Business - A Growing Trend in the Energy Sector - U.S. energy companies looking for investors or to sell should be looking to China, where investors are waiting with cash in hand to make deals with U.S. businesses. The United States continues to be the most attractive destination for Chinese Overseas Direct Investment (ODI). That trend is explosively accelerating -- from July through September 2014 alone, Chinese firms spent \$3.1 billion on overseas foreign direct investments in the United States. Businesses in the energy sector, particularly small and medium companies, will see a huge pool of new potential buyers open up. Chinese firms are often willing to pay a higher price than domestic buyers. They look for strong brands, distribution, local manufacturing and capable leadership. <http://www.energycentral.com>

City & State Energy Issues to Watch...

53. New York's Dark Skies Bill a Model for Outdoor Lighting - New York Governor Cuomo signs into law the *Dark Skies* bill, which establishes requirements for outdoor lighting applications installed by state agencies. Specifically, the bill requires the use of properly shielded light fixtures to prevent unnecessary up- and side-lighting, thereby reducing sky glow. The bill also limits lighting to only recommended levels for particular applications. www.nema.org

54. Town of East Hartford, CT Partners with Ameresco for LED Street Lights - Under a \$2 million Energy Savings Performance Contract (ESPC) including more than \$480,000 in incentives, new street lights are being installed throughout town, and the Public Safety Complex, Community Cultural Center, Town Hall Offices, Terry Pool Park, Town Green Alumni Park and Firehouse #5 will benefit from exterior lighting upgrades resulting in more than 1.6 million kWh in annual electric savings. Further leveraging the resulting energy savings, East Hartford has engaged Ameresco for the duration of the contract to provide on-going maintenance of the new LED fixtures in the case of outages, repair, or damage ensuring the benefits will continue. 12/16 BUSINESS WIRE

55. EPA Applauds Bennington College Energy Efforts - The EPA has released a short video that praises the voluntary efforts by Bennington College in Vermont to help the local community combat climate issues by analyzing energy use of municipal streetlights and working with the local power utility to increase efficiency and save thousands of dollars. In the class led by Professor Susan Sgorbati students worked with officials in North Bennington, who in turn identified a program publicized by Efficiency Vermont and Green Mountain Power to convert municipal street lights to more energy efficient LED lighting. The students identified all street lights in the community, monitored their use, and solicited input from members of the community on the use of the lights. The class identified that some lights had been on continuously for several years. 12/27 AP

56. Lighting Strikes Twice on San Francisco Bay Bridge - \$4 million in additional funding has been found to turn 25,000 temporary flashing LED lights on the western span of the San Francisco-Oakland Bay Bridge into a permanent art installation. The lights, which run the length of the 1.8-mile western half of the bridge, have been called the largest light sculpture in the world. Now, the installation will be in place to light the way to [Levi's Stadium](http://www.digitajournal.com/life/driving/lighting-strikes-twice-on-san-francisco-bay-bridge/article/421448) in Santa Clara for the 2016 Super Bowl. <http://www.digitajournal.com/life/driving/lighting-strikes-twice-on-san-francisco-bay-bridge/article/421448>



Monthly Special Feature... *Top 20 Illumination in Focus Stories of 2014:*

1. Cree launches LED PAR38 lamps, T8 replacement

Cree has again expanded its presence in LED retrofit lamps with PAR38 products in varied beam spreads while also entering the market for SSL tubes intended to replace T8 fluorescents and work with existing ballasts.

2. Philips announces slim flush-mount LED downlight delivering 980 lm

The SlimSurface measures only 5/8-in thick and can be installed in most any space as a surface-mounted downlight while delivering 90-CRI performance.

3. Oakland will upgrade 30,000 street lights with GE LED fixtures

The GE Evolve LED Roadway Scalable Cobrahead fixtures are projected to deliver \$1.4 million annual savings in energy and maintenance costs for the city of Oakland, CA.

4. Cree adds 100W-equivalent LED lamp, drops prices on earlier A-lamps and BR30s

Marking one year participating in the LED retrofit lamp business, Cree launched a 100W-equivalent lamp and reduced prices across its SSL retrofit lamp portfolio.

5. Soraa launches new MR16 lamps based on third-generation GaN-based LEDs

The latest directional MR16 lamps offer a 30% increase in efficiency and specifically target high-end environments such as restaurants and retail.

6. LED lamps at LFI: Controls, dimming, and durability on display

SSL manufacturers introduced a broader range of dimmable LED lamps at LightFair, including wireless-enabled and three-way products, while durability remains a key selling point.

7. Samsung delivers LED-based tubes with step dimming capability

Mimicking the operation of some advanced fluorescent products, the Samsung LED Tube can output a selection of 100%, 4-% or 15% of maximum output.

8. Lighting and LED manufacturers discuss the state of technology

Leading into The LED Show, executives from lighting and LED manufacturers discussed the latest in lighting technology including dimming, color tuning, and networked controls.

9. Lunera Lighting gains funding, launches LED lamps for CFL and MH sockets

The startup lighting company will use funding to push new replacement lamps designed to work in fixtures with existing fluorescent and metal-halide ballasts, enabling simple SSL adoption.

10. LuxLive: Ten must-see solid-state lighting products and compelling keynote program

The LuxLive event scheduled for Nov. 19–20 in London will feature the latest in LED-based lamps and luminaires along with keynotes on topics such as human-centric lighting.

11. GE Lighting delivers next-generation LED-based canopy fixtures

12. Lighting control requirements will drive building energy reduction

13. Walmart plans major LED transition in supercenter lighting globally

14. Cree enters the LED MR16 lamp market with 92-CRI offering

15. Philips launches SlimStyle BR30 lamps with mid-power LEDs

16. Wireless Environment announces battery-backed LED lamp socket for emergency lighting

17. Cree and Musco light Bay Bridge with LEDs, Musco wins sports complex project

18. Osram completes the SSL retrofit of the Vatican's Sistine Chapel

19. Cooper brings WaveStream planar technology to round LED pendant

20. The Lighting Quotient launches workstation LED fixtures with controls

<http://www.ledsmagazine.com>

