ENERGY OBSERVER

A MONTHLY NEWSLETTER FROM AMERLUX®

OCT 2020

As the COVID-19 pandemic evolves, our employees' safety remains our highest concern. Therefore, Amerlux has activated contingency plans that will protect our employees without missing a shipment.

We are experimenting with innovative ways to stay productive companywide, while upholding our civic responsibility to protect our communities. We are keenly focused on the health of our employees, customers and the entire Amerlux family at large.

Together, we will emerge stronger.

To protect communities and maintain high levels of service, we have implemented additional measures:

- For employees who work on-site, we have implemented extra health precautions in the building to limit exposure to other team members.
- For employees who can work off-site, we have made it easier for them to work remotely.
- All business travel has been suspended.
- Our headquarters, including the showroom, remain closed to visitors.

And our innovative plan is working.

Our production capabilities have not been impacted by the COVID-19 outbreak. From different venues, our employees remain committed to working hard to ensure our products are ready for delivery with the same amount of care and custom craftsmanship that build our brand. We continue to work with our suppliers to ensure a productive supply chain. If we are required to shut down production, we will send separate notification.

Our resolve has not waned during these challenging times.

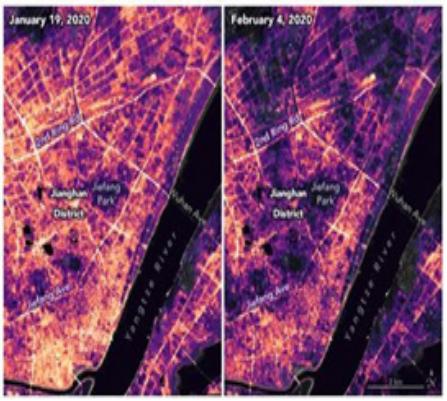
As part of the dedicated Amerlux family, we wish good health to you and your families.

Please stay safe and be well.

Chuck Campagna
President,
Amerlux, LLC

National Energy Market Observer:

1. **Artificial Lights Tell the Story of the Pandemic** - Satellite views of Earth at night reveal the distinct imprint of humankind's response to a fast-spreading virus. From a satellite's perspective, Earth at night, under cloudless conditions, is, in normal times, a navy-blue marble with a dusting of gold. The electric sparks of human activity shimmer in the darkness: a bustling downtown, a well-traveled highway, a fleet of container ships in open water. But when the coronavirus swept across the globe, the glow of civilization shifted from city centers to residential areas. Entire stretches of road, once shiny like strands of tinsel from car headlights, vanished from the nighttime map. As entire populations and industries curtailed their usual movements, pixels of light on satellite images rearranged themselves accordingly—a new bright cluster here, a fresh spot of darkness there. https://www.theatlantic.com/



2. **ALA's Women in Lighting Launches Mentorship Program** - The American Lighting Association (ALA) recently announced that its Women in Lighting Committee has launched a mentor matching program, open to any woman who is an ALA member. All segments of the industry and all experience levels are welcome. The new program will randomly pair participants with each other to encourage networking and expand members' industry contacts. Pairings will change each quarter to rotate mentors and help establish more one-on-one contacts between members. Pairs will be encouraged to have a call with each other at least once a month. To learn more about the mentorship program, visit the Women in Lighting landing page on the ALA website.

3. **Proposed CEA Horticultural Lighting Policy May Require LEDs in California** - The 2022 code cycle for the California Energy Commission is well underway, and proposed CEA lighting policy would impose horticultural efficacy limits that essentially mandate SSL. The State of California and its California Energy Commission (CEC) creates regulatory policy that mandates the most stringent energy-saving requirements in the world. The ongoing activity in the CEC for its 2022 Title 24 code cycle that would go into effect in January 2023 includes a virtual mandate that all new horticultural lighting use LED sources. Without question, such a mandate would save significant energy, but it would also require growers to make more costly upfront investments. The policy story will play out over the next couple of months. https://www.ledsmagazine.com/

4. **NEMRA Launches New Online Training Resource** - The National Electrical Manufacturers Representatives Association (NEMRA), Carmel, IN, has bolstered the training resources it offers rep and manufacturer members with the launch of NEMRA U, utilizing the BlueVolt e-learning platform, an online training tool already loaded with 600 courses. To get started with NEMRA U, reps simply log in and a drop-down menu directs them to the training of their choice. The interface's simple design is designed to save reps time accessing training material. NEMRA members can register for NEMRA University by clicking here. For additional registration information and assistance, contact Sue Todd at stodd@nemra.org

5. **LaaS Market Expected to Grow 50.4% During 2020-2025** - According to a new report out by Reportlinker, the lighting as a service (LaaS) market is expected to grow at a CAGR of approximately 50.4% during the forecast period of 2020-2025. The primary driver for the market includes the increasing demand for efficient lighting systems. The growing convergence of the Internet of Things (IoT) in the lighting system has a lower consumption of energy across various parts of the world. However, the service's subscription program typically imposes a higher overall cost than the owner pays for the self-installation system, which can likely pose a challenge. Read the full report: https://www.reportlinker.com/p05962035/?utm_source=PRN

6. **UV-C Lighting to Disinfect Trays at Airport Security** - The UV-C LEDs are designed to disinfect the baggage trays as they return on the concealed rollers embedded in the security unit. A newly-formed subsidiary of LED iBond – LED Aviation – won the business to supply 50 UV-C LED-based disinfection systems for integration in security checkpoint systems made by specialist manufacturer Vanderlande. The system is designed to cut the transmission of viruses and other pathogens, reduce the health risks for staff and passengers and provide an extra measure in making airports 'Covid-secure'. The integration of UV-C lighting into security checkpoint systems isn't the only deployment of the technology at airports. https://www.luxreview.com/2020/09/17/uv-c-lighting-to-disinfect-trays-at-airport-security/

7. **Lighting Research Center Releases Results of Online UV Disinfection Survey** - The Lighting Research Center (LRC) at Rensselaer Polytechnic Institute is currently examining a range of UV disinfection technologies. The goal of this work is to provide information that will help decision makers select UV products that are effective, safe, and energy efficient. A unique feature of this effort is the testing and evaluation of several UV disinfection products. This project is supported by members of the LRC's Lighting Energy Alliance and the McClung Lighting Research Foundation. To launch the project, the LRC administered an online survey asking about people's experiences with and concerns about UV disinfection products. The LRC will use the results of this survey to guide the testing and evaluations, and to provide decision makers with technical information for selecting UV disinfection products and application types. http://www.lightnowblog.com/

8. **What's New in Connected Lighting by Craig DiLouie** - Three leading lighting brands say demand for connected lighting is solidly increasing in both indoor and outdoor markets, driven by simplified energy code compliance and value-added features such as data and location services. As such, this premium segment of the lighting category offers electrical distributors opportunity—but may require a shift in sales approach from focusing primarily on energy cost savings to include newer capabilities. Connected lighting consists of a system of luminaires with integrated or remote load controllers that communicate via low-voltage wiring or a wireless frequency. With digital communication, the resulting system has the potential for luminaires to be programmed and controlled using multiple strategies, either individually or in groups. Additionally, there is a potential for two-way digital communication, enabling measuring, monitoring, and data sharing. http://www.lightnowblog.com/2020/08/whats-new-in-connected-lighting/

9. **Smart Lighting Beyond Energy Savings by Paul Tarricone** - For this look at connected lighting projects, LD+A went in search of aspirational case studies. Our criteria: to be truly "smart," connected lighting needs to go beyond the energy-use dashboard. Room occupancy data, employee satisfaction and productivity, and our old, elusive friend "quality" are also signs of lighting intelligence. Here are three case studies where lighting systems show off their smarts.

- Lexus of Glendale
- Telsmith, Inc.
- Comfy Headquarters https://www.ies.org/lda/smart-lighting-beyond-energy-savings/

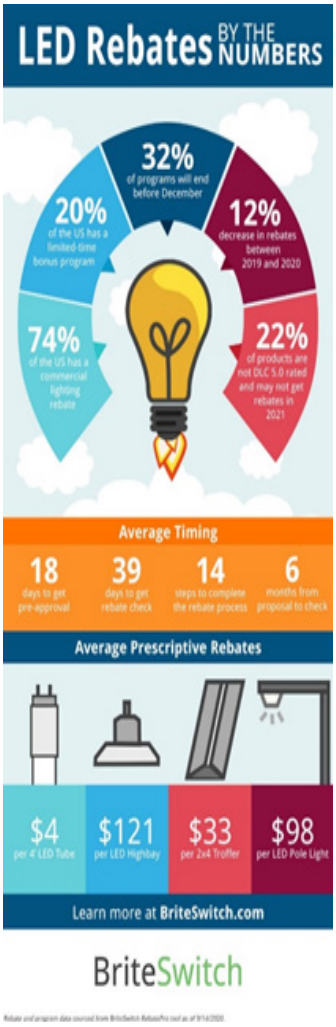
10. **NECA 2020 Live October 6-8** - This year's NECA convention is going to be a little different than usual. We have just a few more weeks before NECA 2020 LIVE kicks off—NECA's entirely revamped, first-ever, all-virtual convention and trade show taking place October 6–8. As originally planned, 10,000 people in the electrical contracting world were supposed to come to Chicago to hobnob, share information, renew friendships, sell their products, educate themselves and more. Then along came COVID-19. No Problem: explore the virtual convention floor, people wandering about, looking like folks you might see at, well, an ordinary trade show. https://www.ecmag.com/tags/neca-2020-live

11. **NEMA Unveils New Website** - The National Electrical Manufacturers Association (NEMA) launched its new website, showcasing a fresh look for the Association with its mobile-responsiveness and easy-to-navigate design. The revamped website encompasses many features to help users get faster search results, filter by news type or topic, and customize personal newsfeeds with a new preference center. https://www.nema.org/news-trends/view/nema-unveils-new-website

12. **NEMA Launches Healthcare Facilities Council** - The National Electrical Manufacturers Association (NEMA) has announced the establishment of its Healthcare Facilities Council (HFC) to help improve healthcare delivery environments while expanding market opportunities for manufacturers serving the healthcare facilities market. The HFC creates a forum for professionals to share knowledge and best practices in the area of healthcare delivery environments and execute projects that improve outcomes for the healthcare, electrical, and medical imaging industries. https://www.nema.org/

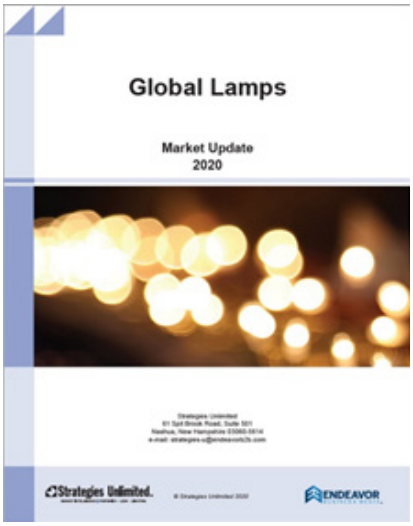
13. **DLC Horticultural Technical Requirements V2.0** - The DesignLights Consortium (DLC) today released the final version, an update that will continue the industry transition from traditional lighting data and metrics to horticultural-specific lighting data and metrics that best represent horticultural lighting performance. The changes have an effective date of March 31, 2021. Controlled Environment Agriculture (CEA) is quickly becoming the fastest growing electric load for many utilities, with lighting representing the greatest portion of that load. Well-designed horticultural lighting products have the potential to save significant energy while optimizing plant growth and health. Finally, V2.0 addresses barriers to listing multiple product variations by introducing a process for family grouping and private labeling of already listed OEM products, meaning more horticultural products will be available to choose from on the QPL.Download at: https://www.designlights.org/workplan/horticultural-technical-requirements-v2-0/

14. **BriteSwitch LED Rebates by the Numbers (Infographic)** - LED rebates significantly cut the cost of installing LED lighting in commercial facilities. Using our RebatePro Tool, we took an in-depth look at the rebate opportunities currently available in the US and Canada. Learn more about funding levels, program timing, and average rebate amounts for popular LED products. https://briteswitch.com/news/LEDRebatesByTheNumbers.php



15. **DOE Research Evaluates Lighting Application Efficiency for LED-Based Products** - The US Department of Energy (DOE) has released initial research performed under contract by RTI International that considers a new performance characteristic called LAE (lighting application efficiency) of solid-state lighting (SSL) products. One element of LAE is spectral efficiency and the RTI study focused on five commercially-available, LED-based lamps or luminaires that each integrated some technology intended to modify spectral output. Moreover, the research considered the performance of new products and measurements after rigorous AST (accelerated stress testing). The DOE is proposing a framework for LAE that considers four aspects of SSL product performance including source efficiency or efficacy, optical efficiency, spectral efficiency, and intensity effectiveness. https://www.energy.gov/eere/ssl/downloads/changes-ssl-device-efficiency-and-optical-performance-under-accelerated-aging

Global Energy Market Observer:



16. **Global Lamps Market Update and Forecast 2020** - It is clear that LED lamps are the future of lighting, but in order to thrive in this rapidly changing market, it is imperative to know where, when, how quickly and what technology they will be replacing more readily. The Global Lamps Market update will provide market numbers in the form of unit shipments, revenues, and average selling prices of the global lamp market, broken out by region and with a forecast through 2024. The report will contain a detailed breakout of the most widely used lamp shapes (A, reflector, Tube and MR) and technologies (Incandescent, Halogen, CFL, Fluorescent and LED) that are in use in the global market today. Additionally all numbers will further be broken out by end use application (Retail, hospitality, healthcare, office, industrial, "other" and residential) and region (North America, Latin America, Western Europe, Eastern Europe, China, Japan, Middle East and Africa and Rest of APAC). https://store.strategies-u.com/

17. **LightingEurope Advocates Installation of UVC Disinfection Technologies in EU Renovation Plans** - LightingEurope is promoting the benefits of UVC disinfection and advocating the integration of the technologies in the EU Renovation Wave. Aiming to stimulate market demand and fair market access in Europe, LightingEurope also calls for including UVC technologies in to the application and enforcement of existing safety rules and standards. LightingEurope has already published a Position Paper https://www.lightingeurope.org/ on the benefits of using UVC disinfection to combat COVID-19 and is reaching out to European regulators.
https://www.ledinside.com/news/2020/9/lightingeurope_uvcdisinfection

18. **LightingEurope Position Paper on the Benefits of Using UV-C Disinfection to Combat COVID-19** - LightingEurope calls on European policy makers to actively support and stimulate the uptake of UV-C disinfection technologies - in particular as part of the EU Renovation Wave initiative - and to ensure that EU and national financial instruments are available to support their installation. UV-C disinfection technology is an effective tool in combating micro-organisms and viruses, including SaRS-CoV-2 UV-C is an established technology for disinfection. It has been applied extensively since 1910 when it was found to be an effective tool in preventing the spread of disease. https://www.lightingeurope.org/

19. **UV-C LEDs Enable New Frontiers in Water Quality Monitoring** - The importance of clean water and water quality has come front and center in the current COVID-19 pandemic. Tackling water contamination requires the availability of affordable sensors that can be broadly deployed and enable regulatory authorities to track and identify sources of water contamination in lakes and rivers in real time, mitigate the effects immediately, and develop measures to prevent future contamination events. While it is common knowledge that affordable sensors are key to improving water quality, such sensors were not possible prior to the development of high-light output, long-lifetime, deep ultraviolet (UV-C) LEDs. https://www.ledsmagazine.com/

20. **Six Trends in Solar Area Lighting by Leo Liao, CEO at SOLTECH Solar Lighting** - Distributors, contractors, and specifiers have to keep up with many changes in lighting technology. One of the growing outdoor lighting categories is solar area lights. The global solar area lighting market is projected to more than double to $10.8 billion by 2024, up from $5.2 billion in 2019, a compound annual growth rate (CAGR) of 15.6%, according to the research firm Markets and Markets.

1. Independently aim-able solar panels and LED modules.
2. Increased light output.
3. Increased LED run times.
4. More automated control options.
5. Strong ROI.
6. Increasing use in roadway, parking lots, bike paths, and parks.

21. **SETi & Seoul Viosys Begin Mass Production of Violeds UV LED Module That Sterilizes 99.9% of Coronavirus in 3 Seconds** - Sensor Electronic Technology, Inc. (SETi) and Seoul Viosys, (KOSDAQ: 092190) the leading global providers of UV LED technology and subsidiaries of Seoul Semiconductor, announced that they have started mass production of UV LED module designed to sterilize 99.9% of the coronavirus in 3 seconds using "Violeds," a UV LED technology developed by Seoul. Seoul Viosys is also developing a "Photon Shower" device that applies the UV LED technology to contribute to the safety of medical staff and patients who have been struggling amid COVID-19 pandemic. The new "Photon Shower" device is a whole-body sterilization solution that uses only light, (photons) to sterilize various germs on the surface of peoples' clothing in seconds when they enter the "Photon Shower." This sterilization function can also be added to conventional air shower devices, which are used for dust removal only. http://www.s-et.com/en/

22. **EOI, Edison See Rebounding Shipments for LED Automotive Lighting** - Excellence Optoelectronics (EOI) and Edison Opto have seen orders for LED automotive lighting modules rebound in third-quarter 2020 and expect booming shipments to remain until November 2020 at least, according to the companies. Currently, LED automotive lighting modules account for 88% of EOI's consolidated revenues, LED streetlamps 7%, and LED packaged devices 5%. Edison saw general lighting account for 58% of second-quarter 2020 LED module shipments and automotive lighting for 28%. Due to rebounding shipments to the US, the proportion of revenues for automotive lighting modules is expected to rise from about 15% in second-quarter 2020 to 15-20% in third-quarter 2020 and to over 20% in fourth-quarter 2020, Edison indicated. https://www.digitimes.com/news/a20200827PD216.html

23. **Samsung Partners with ScoreVision to Integrate Sports Software Technology with LED Display and Mobile Devices** - Pairing Samsung's line of LED displays with ScoreVision's integrated platform of scoring, video capture, and fan engagement software gives teams the tools they need to provide a professional game-time experience both inside and outside of their venues. Within sporting venues, Samsung's LED displays will showcase content relevant to sporting events including scores, stats, media content, video highlights, sponsor messaging, and more, powered by ScoreVision's cloud-based suite of scoring, video capture, advertising, production, and display control software. Beyond the arena, fans can also receive game updates, video clips, and fan engagement content via mobile application. https://www.ledinside.com/press/2020/8/samsung_scorevision

24. **OPPLE Lighting Partners with Huawei** - During the recently closed Huawei's Developer Conference 2020, Huawei and its 12 partners, including OPPLE Lighting, announced the launch of HMS Go Global Ecosystem Alliance, with an aim to provide Chinese developers eying the global market with a "go global service engine" to address the three major challenges of "product localization", "local compliance" and "local marketing". As the only strategic hardware partner of Huawei among the alliance members, OPPLE Lighting will be a significant contributor to the alliance. Leveraging its lighting expertise, OPPLE Lighting will team up with Huawei to develop the go global ecosystem and related ecosystem products, so as to help more Chinese applications enter the global market. 9/17 BUSINESS WIRE

25. **Big Brands Vie for Next Generation Smart Lamp Market** - A new generation of keenly-priced high-functionality smart lamps is about to hit the European market and, it's hoped, change the way people think about light bulbs forever. Big brands including Signify, Ledvance and Aurora have all unveiled major ranges targeted at tech-savvy consumers who want full control of their lighting. The newest products come with Wi-Fi and Bluetooth dual protocol chips which make the pairing process easier and more reliable. The products can be controlled optionally by voice command or app and offer a suitable solution for a wide range of requirements. https://www.luxreview.com/2020/09/01/big-brands-vie-for-next-generation-smart-lamp-market/

26. **Osram Adopts UVA LED Technology for In-car Air Disinfection and Purification** - The product, named Air Zing Mini, is designed to removes germs from the air inside vehicles to improve air quality for drivers and passengers. The UV light of Osram's Air Zing Mini works at a wavelength of 360 to 370 nm with a disinfection rate of 99.9% for the in-car air. Osram said that the device has already been successfully tested against bird flu viruses. The air purifier also eliminates airborne allergens, pollutants and smells. According to the description of Osram, the device draws air into the unit and passed through a titanium dioxide filter, where it is cleaned by an array of UVA LED. A photo-catalytic reaction kills viruses and bacteria cells before the purified air is expelled through the top of the housing. https://www.ledinside.com/products/2020/9/osarm_uvaled_airpurifier

27. **Osram and AMS Getting Closer to Case Close** - The deal of Austria sensor company buying Osram is moving one more step forward as Osram announced that it has agreed with ams on the conclusion of a domination and profit and loss transfer agreement. In this regard, the Managing Board and the Supervisory Board of Osram adopted resolutions to sign the agreement with ams Offer GmbH and to convene an Extraordinary General Meeting for November 3, 2020 in which, inter alia, a resolution is to be tabled to approve Osram's entry into the agreement. Osram expects comparable revenue growth between 6-10%. https://www.ledinside.com/news/2020/9/osram_ams_transfer_agreement

28. **Sanan to Supply Mini LED Chips to Apple? TrendForce: Patent is Still the Key** - If Sanan joins the supply chain with lower price to supply its product to Apple's iPad Pro and MacBook in 2021., the business of Epistar, the Taiwan-based LED supplier who is reportedly the major Mini LED chip supplier of Apple, may be impacted. However, TrendForce said that Sanan has yet made its way into the Apple supply chain and the low price may not be the first priority of Apple for building its new Mini LED-based products. Apple usually collaborates with two or even more suppliers to ensure stable shipment and to negotiate the price. For LED products, Apple is working with Epistar, Osram, Seoul Semiconductor and Nichia, who own completed patent portfolio. https://www.ledinside.com/news/2020/9/sanan_apple_miniled

29. **Hiroshima University in Japan Proves 222 nm UVC Light Effectively Deactivate SARS-CoV-2 Virus** - Researchers at Hiroshima University offered first proof that UVC light with a 222 nm wavelength, which many claim to be safer for human and animals, can effectively kills the SARS-CoV-2 virus, pathogen of COVID-19. The study was published in the American Journal of Infection Control on September 4, 2020, titled "Effectiveness of 222-nm ultraviolet light on disinfecting SARS-CoV-2 surface contamination." The article demonstrated the results of an in vitro experiment of the research team which showed that 99.7% of the SARS-CoV-2 viral culture was killed after a 30-second exposure to 222 nm UVC irradiation at 0.1 mW/cm2. https://www.ledinside.com/

30. **Horticann Light + Tech Event Prepares Virtually for the New Reality of Farming** - In early 2019, the LEDs Magazine team and Lighting group at Endeavor Business Media convened planning for the annual Horticultural Lighting Conference. Although the global health crisis caused by the novel coronavirus pandemic has pushed HortiCann Light + Tech to a virtual format in 2020, the conference will maintain its focus on sharing advances, research, and case studies regarding lighting optimization, efficacy, energy savings, operations and environmental control systems, and strategies for integrating multiple AgTech systems. The program will take place over Oct. 20—21 online to allow a bit of breathing room in the virtual format. Register free at: https://www.horticannlt.com/

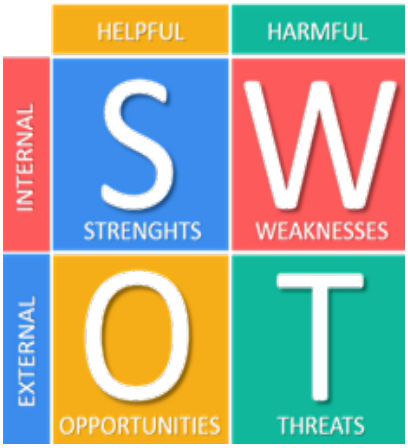
31. **Vuzix Announces Its Plan to Launch Micro LED Smart Glasses in 2021** - Micro LED will be used as projectors for the smart glasses to deliver high density pixel arrays with both monochrome and full color solution. The glasses will also feature a larger field of view (FOV), advanced waveguide optics and binocular displays, including 3D, alongside Vuzix' patent pending immersive stereo acoustic speakers. The glasses also have noise-cancelling microphones that enable phone calls and voice/UI integration between the user and their phone. Moreover, the batteries will be in the temples of the glasses to enhance comfort for users. In addition to WiFi and Bluetooth, there will be a cellular LTE integration option, so a phone will not be required for hands communications. https://www.ledinside.com/news/2020/9/vuzix_microled_glasses_ar

32. **LiFi Enables Underwater Data Transmission at 6000-meter Below Sea Level** - Hydromea has developed a miniature optical modem that can operate down to 6,000 meters below the ocean's surface. It is sensitive enough to collect data at very high speeds from sources more than 50 meters away. Radio wave can hardly work underwater as they are easily absorbed by water. So wireless internet connection underwater is nearly impossible. But it would be another story if the connection is based on light. Hydromea has developed an underwater modem called LUMA that communicates through a rapidly blinking blue light. The modem converts data into light pulses that it sends out, or inversely, converts light pulses that it receives into data – all in the blink of an eye. https://www.ledinside.com/news/2020/9/hydromea_lifi_underwater

33. **Osram, Continental Dissolving Smart Headlight Joint Venture** - The two German companies Osram and Continental AG are disbanding the 50-50 joint venture (JV) they established two summers ago to develop sensor-linked, software-driven, intelligent LED and laser headlight systems and other digital illumination for car exteriors and interiors. They cited the downturn in the automotive market as the reason for dissolving the venture. Osram said it will continue to work with Hanover-based Continental as a partner but not in a joint venture. https://www.ledsmagazine.com/

Monthly Feature:

It's Time as We Adjust to the New Normal for Your Annual SWOT Analysis - The SWOT (Strengths / Weaknesses / Opportunities / Threats) Analysis is an important tool in the strategic marketing planning process and is taught in every graduate and undergraduate business course in academia. My view is that this should be an annual event, to spend the time during the planning process to ask your key people the select critical questions in each quadrant because it starts us to gather the most viable internal and external information to plan and run a successful business. How you gather, manage, and use information will determine whether you win or lose (Bill Gates). Well, in my travels in the lighting world, I offer a short cut with five (5) questions, yes – just 5 judicious questions that could help us maneuver thru the intelligent lighting combat zone and be on the winning side. Your answers could pave the wave to a workable strategic plan but it's only a start:



1. **What are your core competencies?** SUSTAINABLE COMPETITIVE ADVANTAGES, not easily duplicated by your competitors, is driven by your core competencies. Those unique strengths, embedded deep within your business that allow you to differentiate your offerings so profoundly that they create higher value for your customers than anyone else. Can you identify them? More importantly, can you communicate them effectively to your customers, employees and interested stakeholders?

2. **What are the key technologies shaping your industry?** Let me repeat what I have been saying: every lighting source out there will be replaced over the next 5 to 10 years. Everything! That means every Taco Bell, every Home Depot, every Olive Garden, every Walmart, every home, office, hotel, hospital, streetlight, supermarket, et al will be upgraded to Intelligent Lighting and to all the advanced technologies that connect everything we do. Where do you want to dominate? Not just a leadership position but a dominant leadership position....A SUSTAINABLE BRAND OF CHOICE!

3. **What's motivating your customers to buy from you and how are they adapting to change?** The focus of all your marketing activities is the customer. That's the first multiple choice question I have on every exam I give and I will not let a student leave my class until they answer that question correctly. So, what are your customers asking of you? Do they know about Smart Lighting? About Intelligent Lighting? What are you telling them? When they understand the advantages and benefits of the new technologies, and there will be many, will they buy them from you? Why not? Just remember when they do ask, we are not just selling light anymore.

4. **Who are the new entrants in the industry and are they a threat or opportunity?** Incumbents do not like change, so if you are one, I feel your pain. Chris Brown calls the new entrants the gorillas that will be driving the bus. He IS right. Lighting has never seen the likes of Cisco, Apple, Qualcomm, Verizon / Sensity, Gooee, Opple, MLS, et al... What are they doing in the lighting industry? Get out, you say! Well, lighting has the potential to be the core connector to every device you own. They are here and the only question is will they be a threat to your survival or will it be cooperative innovation, as it has forever been? The lighting industry has always been an interdependent industry. Lamp companies working with ballast companies working with luminaire companies, all working with the supply chain: agents, distributors, contractors, designers, the spec community, all working together to serve everyone's lighting needs. Time will tell but it is clear, we are on a pathway to connected information using light! The real game changer: Big Lighting vs. Big Networking. New entrant IT companies see a real opportunity to reshape the lighting industry and they want a piece. Maybe even dominate.....don't look back, they may be gaining on you.

5. **What are your existing competitors doing that's working against you?** What are you doing to them that's working for you? Let's get local...we all know that all sales are local. Whether you are a manufacturer, distributor, contractor, agent, whatever, you compete in the lighting industry now and you know who your existing competitors are and it's personal, new entrants not-withstanding. Your first responsibility is the day-to-day operations of your business to win in a very competitive market. Are you winning? You must! This is the only way it allows you to invest in tomorrow's technologies and opportunities. Times, they are a changin and the future is moving at the speed of light (sorry about that). Are you keeping up? I leave you with a quote from Jack Welch: If the rate of change on the outside is greater than the rate of change on the inside, the end is near.

It's a whole new world out there, with new playing fields, rules, and players. Your choice is to either learn this new game or continue to be the very best player in a game that is no longer being played.
Larry Wilson