# LUMEN INSIGHTS®



#### FEATURED ARTICLE

## UL 8800: UL's Outline of Investigation for Horticultural Lighting Equipment

By Ed Joseph / Principal Engineer - Lighting

#### On May 4, 2017, UL announced the publication of the first edition of UL's Outline of Investigation for Horticultural Lighting Equipment, UL 8800.

UL 8800 provides a published set of safety requirements specific to lighting equipment intended for installation within a horticultural environment. It is the first published document of its kind. UL is leading the way to bring safety requirements to horticultural equipment manufacturers and the horticultural industry. In its current form as an Outline of Investigation (OOI), UL 8800 will be used to evaluate horticultural lighting equipment submitted to UL to obtain a UL safety Mark. Over the coming months, through its collaborative standards development process (CSDS), UL will work with industry representatives to develop the Outline of Investigation into a UL Standard. Stay tuned in for future announcements.

In prior communications UL announced its plans to issue UL1598D as an OOI for evaluation of horticultural (grow) lighting with a scope limited to the 'lighting' fixture only. In contrast, the UL 8800 OOI has a broad scope which includes requirements for luminaires intended for horticultural use as well as other equipment and components used in conjunction with horticultural luminaires including lampholders, wire harnesses, plugs and connectors, LED packages, ballasts/LED drivers, lamps, and hardware and structures

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## Spotlight: Letter From Roberto



With this edition of Lumen Insights, I am pleased to announce the addition of two new corners.

The first corner, dedicated to global market access, is where you will find relevant information and updates on compliance and country requirements including news related to standards updates from IEC technical committees.

The second corner will be dedicated to professional lighting designers following the strategic alliance with the Professional Lighting Design Alliance (PLDA). PLDA's Chairman, Joachim Ritter, will give us an overview of the needs of professionals who are regularly involved in lighting design and planning, taking into consideration the use of LED products and the biological impact of light on human beings.

I am sure these two new spaces will be of interest, and I wish everyone a beautiful summer season.

Kind Regards,

Lelisti Roleho

Roberto Inclinati Global Commercial Leader for the Lighting Industry

## A new Source of Transparency in the Lighting Industry: *The UL Verified for Photometric Data* Mark

By Valeria Zappalà – UL Marketing Specialist

The shift is momentous. In a lighting market populated by products with performance metrics self-declared by manufacturers, but unfortunately not guaranteed, UL introduces a new solution for verified transparency.

The 'UL Verified for photometric data' mark is the result of a new Verification program created by a team of UL lighting experts. This program verifies the correspondence of the photometric data of a lighting product declared by its manufacturer and guarantees and monitors their truthfulness against the ISO/EN 13032 (for Europe) or LM 79 (for North America) standards.

Lighting products bearing the mark 'UL Verified for photometric data' provide final users the certainty that the luminous performances described on the packaging of the product (or marketing claim) are true and trustworthy. As a result, choosing the right lamp becomes safe and easy without missed expectations like getting weak, cold or blinding light.

To celebrate this momentous turning point in the lighting sector, UL signed an agreement with Relux Informatik AG, a Swiss company known for the development, production and distribution of software for lighting planning.

According to this agreement, all lighting products bearing the 'UL verified for photometric data' mark are entered in the Relux database and displayed alongside the new mark as a guarantee of the marketing claim of the product. This will also help lighting planners – through Relux's software – get trustworthy and realistic rendering simulations.

"In the lighting industry, performance is and will be increasingly important to differentiate products in the market place. UL is certain that this new Verification mark will help manufacturers to differentiate their products from those of their competitors," said Roberto Inclinati, Global Commercial Leader for UL Lighting.

The new mark *UL Verified for photometric data* helps your lighting products stand out from those with self-declared or unsubstantiated claims, and can help you succeed in the market. To learn more, visit <u>verify.ul.com</u>.

## New Testing Services in Allentown

By Zachary Mooney – UL Engineering Leader

UL's lab in Allentown has been expanding to include a wide array of testing services for our customers.

Along with our core lighting business offerings, such as LM–79, Energy Star, DesignLights Consortium (DLC), Lighting Facts and California Energy Commission (CEC), UL's lab in Allentown will be offering an expanded portfolio of performance testing services including:

- Cyclic Corrosion
- Thermal Shock
- Ultraviolet (UV)
- Vibration
- ISTA Packaging
- IP and IK

Our goal is to provide customers everything they require for the entire the design phase, from testing and certification to the packaging and shipping of their products.

For more information, call us at (610) 774-1300, or email PerformanceLighting@ul.com





# Upcoming UL Education & Training for the Lighting Industry

At UL Knowledge Solutions, our goal is to help you develop safe, useful products that meet and exceed your customers' needs. Here you will find dozens of training courses taught by qualified instructors, both Public Workshops and Online eLearning Courses.

#### **Online eLearning Courses**

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LED Light Source Design Essentials

LED Equipment, UL 8750

Luminaire, UL 1598

Self-ballasted Lamps, UL 1993

Webinar Wednesdays: Lighting Performance and Energy Efficiency Regulations

Low Voltage Lighting, UL 2108

To view a COMPLETE list of our public workshops and online courses, please visit <u>UL.com/lightingtraining</u>

## "Shift Happens" - The Birth of a new Profession

*By Joachim Ritter – PLDA Chairman* 



Society is dynamic. Just as our lives are in a continual process of change, so too is everything around us. This applies in particular to our professional lives. Social change continually gives rise to new professions and the prerequisite for any new

profession is always new knowledge, technological progress and further education.

What has been described here in a few sentences is taking place right now in the architectural lighting design world. This may come as a surprise to some, given that lighting designers who work in the theatre or film industry, or even in the video game industry – the latter group of lighting design specialists being far more significant than the other two together, economically speaking – are accepted and recognized as being a normal part of our society. No one questions what they do or why they are needed. Strange though it may seem, only in the field of architecture does our society seem to find it difficult to image what a lighting designer's scope of work might be. However, architecture and architectural spaces of all kinds are designed for human beings and are sensitive to our needs.

Once something has been designed and realized – including lighting – any misguided decisions that may have been taken along the way can have lasting consequences. Even consequences related to our health and well-being. The main reason for this is that we spend more than 90 per cent of our time inside architectural structures that have been designed and built by – and for – humans. Lighting can significantly affect human health in different ways, either by supporting the development of anything from depression to cancer, or conversely by promoting a preventative effect. The vitamin D produced in our skin when we expose ourselves to (day)light has an influence on practically every organ in the human body.

The design of our architecture and of the lighting applied in and around it therefore no longer merely involves technical or energy-efficient aspects, but is also a question of health and well-being. We must take care that we do not act unknowingly, and thus negligently, and ensure that the person or team responsible for the lighting on a project – be that an architect, a lighting designer or a lighting engineer - is trained and qualified to perform the task. With this in mind, VIA-Verlag, in cooperation with researchers, educators and practicing lighting designers, developed a long-term concept for continuing professional development (CPD) to facilitate lighting specialists' access to basic lighting knowledge and design skills, and furthermore to the latest technological know-how opportunities to expand their design approach based on scientific research outputs. Structured CPD is a prerequisite for defining the profession of an architectural lighting designer.

VIA's software provider and collaborator for this CPD project is UL.

The goal is to ensure that future lighting in, on and for architecture is designed by qualified professionals in the interest of the people using the illuminated interior and exterior architectural spaces from both a technical and health/safety perspective. In the interim, an independent body or, as is the case for architects, a chamber, is to be set up to outline and control the needs for the profession. A group comprised of practicing lighting designers and other members of the lighting design community is currently forming under the PLD Alliance. Anyone can become an Alliance partner and support this process and development.

The CPD website is due to be launched in July 2017. Those interested can already register via the Alliance website to be sure to be involved from the start.

www.pld-alliance.org



## **Change of Resistance Test Station**

By James Walker – Global Manager Lighting Testing Equipment

The Change of Resistance (COR) method is used for determining the average steady-state temperature of an electrical conductor during operation through a series of electrical resistance measurements over time.

Consider that the hottest part of the coil is at the geometric center where the heat sinking to surrounding surfaces or media is minimized and the heat sourcing contribution of surrounding conductors is maximized. The COR method will provide the average temperature of the entire conductor that forms the coil.

The COR method leverages the fact that the electrical resistance of a metallic conductor is linearly proportional to its temperature. A series of resistance values are taken as the system cools, and these resistance values are then converted to corresponding temperature values. An initial temperature is calculated by extrapolating a curve fit of the data points to time zero (the moment when power was removed from the coil and cooling began).

In some cases, the COR method is the only way to accurately measure the temperature of a coil. In others, it is simply much easier and potentially lower cost to use the COR method than to have thermocouples mounted into a coil as it is wound.

Thermocouples applied to the surface of the coil, where the heat sinking to the surrounding air is maximized and the contribution of the heat sourcing mass is from a single direction, will always be at a lower temperature than inside the coil.

The UL COR Test Station automates disconnecting the high voltage AC power, connecting the sensitive 4-wire resistance measurement meter, and recording coil resistance with precision timing.

The software allows the technician to easily find the best curve fit to extrapolate the cooling coil temperature back to the time the power was removed.

The system is also capable of measuring a number of thermocouples to aid in determining when the coil temperature has stabilized. Further, It can measure power with the optional power meter. **High precision** measurements to evaluate compliance of products to Change of Resistance in UL1598.

Can be used for any product where change of resistance measurements are necessary.

Self-contained, all instruments are rack mounted, **easily accessible.** 

High accuracy compared to external thermocouple method.

**Saves time** and headaches over custom conductors with embedded thermocouples.

Made in the USA.



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#### (cover story continued)

### UL 8800: UL's Outline of Investigation for Horticultural Lighting Equipment

associated with optimizing light for growing. Equipment and components used in conjunction with horticultural luminaires are often subject to the same environmental conditions as the luminaire itself thus the reason for the broad scope of products addressed within UL 8800.

Equipment installed in a horticultural environment is commonly exposed to dust, water spray, high humidity levels, and high ambient temperatures conditions. Horticultural Lighting equipment is also commonly designed to be raised, lowered, or repositioned to maximize plant growth, so supply connections often make use of cords and plugs instead of permanent wiring. Further, horticultural lighting equipment produces wavelengths of light and light intensities different than that needed for general illumination, requiring some additional consideration for protection against light exposure. UL 8800 includes safety requirements for these environmental, installation and use conditions. In addition to safety certification services, UL offers a complete portfolio of performance and photometric services for horticultural lighting equipment. To find out how to obtain access to UL 8800 or to learn more about UL's Safety Certification service and performance and photometric testing services for horticultural lighting equipment, please contact us at LightingInfo@UL.com.

#### (continued)

## **Change of Resistance Test Station**

An easy to use graphical interface allows monitoring power and thermocouple measurements while the system is stabilizing and can even check the measurements against stabilization criteria to let you know when it is ready for a COR measurement.

Contact <u>ULGoni@ul.com</u> for more information or visit our website for more information <u>www.UL.com/testequipment</u>



# Standards Corner

Standards information link: http://ulstandards.ul.com/standards

Sign up for "What's New" at: <u>http://ulstandards.ul.com/access-standards/whats-new</u> by selecting "Join Email List" on the What's New site to receive email notifications twice a month listing the various UL, UL Environment, and ULC Standards documents published during that timeframe.

#### Standards Update

#### UL 1786 – Direct Plug-In Nightlights (Bi-National Standard)

• The next revision cycle is starting. UL and CSA both issued Calls for Proposals in May with a due date of June 10, 2017. Any proposals received in response to the requests will be processed jointly. UL is the Publication Coordinator.

#### UL 1088 – Temporary Lighting Strings (Bi-National Standard)

• A proposal was issued for ballot on August 12, 2016 with a due date of September 12, 2016. The proposal relates to adding requirements for temporary lighting strings for indoor use only. Link to summary of topics: http://www.comm-2000.com/ ProductDetail.aspx?UniqueKey=31461. A recirculation proposal was issued on November 8, 2016. However, this proposal failed to achieve consensus. No further action will be taken.

#### UL 1598 – Luminaires (Tri-National Standard)

• The next revision cycle has started, which will be a 2-year cycle. Proposals received by the SDOs were issued for preliminary review on August 28, 2015. Comments are due on October 12, 2015. Link to summary of topics: http://www.comm-2000. com/ProductDetail.aspx?UniqueKey=30005. Proposals were issued for ballot on April 28, 2017. Ballots and comments are due on June 12, 2017. Link to summary of topics: http://www. shopulstandards.com/ProductDetail.aspx?UniqueKey=32711.

#### UL 1598C – Light-Emitting Diode (LED) Retrofit Luminaire Conversion Kits

• A proposal was issued for ballot on May 26, 2017 with a due date of June 25, 2017. The proposal relates to adding requirements to LED stage and studio luminaire retrofit kits.

#### UL 1838 – Low Voltage Landscape Lighting Systems

• A new proposal was issued for ballot and comment on February 24, 2017 with a due date of March 27, 2017. The proposal relates to cord size for power units with receptacles and pond and fountain luminaires located near pools. Link to summary of topics: http://www.shopulstandards.com/ProductDetail. aspx?UniqueKey=32415. Revisions were published on April 12, 2017.

#### UL 2108 – Low Voltage Lighting Systems

• A new proposal was issued for ballot and comment on April 14, 2017 with a due date of May 15, 2017. The proposal relates to: 1) Addressing equipment for use in environmental air spaces; 2) Revising requirements for enclosure openings; and 3) Adding electrical ratings for power units and luminaires. Link to summary of topics: http://www.shopulstandards.com/ ProductDetail.aspx?UniqueKey=32653.

#### UL 935-1 – Discharge Lamp Control Devices, Part 1 – General Requirements (Tri-National Standard)

 A proposed first edition of NMX-J-611/1-ANCE / CSA C22.2 No. 74-1 / UL 935-1 was issued for preliminary review on February 10, 2017 with comments due on April 10, 2017. The proposed tri-national new edition is intended to harmonize ballast safety requirements in the North American region. The proposal is considered Part 1 describing general requirements applicable to all types of ballasts. Part 2's of this standard will be published at a later date and will include descriptions of test procedures, test modules, and specific requirements. CSA is the Publication Coordinator. Link to summary of topics: http://www.comm-2000.com/ProductDetail.aspx?UniqueKey=32349.

#### UL 1029 – High-Intensity-Discharge Lamp Ballasts

• A proposal to reaffirm the Fifth Edition of the Standard for High-Intensity-Discharge Lamp Ballasts, UL 1029, was issued for ballot on March 17, 2017 with ballots and comments due on May 1, 2017. Link to summary of topics: http://www.shopulstandards. com/ProductDetail.aspx?UniqueKey=32510. Revisions were published on May 17, 2017 to reaffirm the ANSI approval of UL 1029.

#### UL 1993 – Self-Ballasted Lamps and Lamp Adapters (Tri-National Standard)

• The next revision cycle has started. A Call for Proposals was sent out on December 2, 2016. UL (Publication Coordinator) has forwarded the proposals to the Technical Harmonization Committee for review.

#### UL 2577 – Suspended Ceiling Grid Low Voltage Systems and Equipment (Bi-National Standard)

A proposal was issued for ballot on August 5, 2016 with a due date of September 19, 2016. The proposal relates to the definition of low voltage/extra-low voltage and revised voltage references in the standard to correlate with the Canadian Electrical Code and the National Electrical Code. Link to the summary of topics: http://www.comm-2000.com/ ProductDetail.aspx?UniqueKey=31416. Revisions to the joint UL/ ULC standard were published on February 16, 2017.

## UL 8750 – Light Emitting Diode (LED) Equipment for Use in Lighting Products

- A new proposal was issued for preliminary review on January 8, 2016 and was subsequently issued for ballot on August 19, 2016. The proposal relates to the addition of a new Supplement SF covering Requirements for LED Drivers with Control Circuits. Link to the summary of topics: http://www.comm-2000.com/ ProductDetail.aspx?UniqueKey=31492. The proposal was issued for recirculation on December 23, 2016 with ballots due on January 23, 2017.
- A new proposal was issued for preliminary review on October 14, 2016. The proposal relates to the expansion of UL 8750 scope to include LED controllers supplied from branch circuit. Link to summary of topics: http://www.comm-2000.com/ ProductDetail.aspx?UniqueKey=31812. This proposal was issued for ballot on April 7, 2017. Ballots and comments are due on May 23, 2017.
- A new proposal was issued for ballot on March 24, 2017. The proposal covers multiple topics. Link to summary of topics: http://www.shopulstandards.com/ProductDetail. aspx?UniqueKey=32539.

#### UL 496 – Lampholders (Bi-National Standard)

• A new proposal was issued for ballot on May 23, 2016. The proposal relates to the proposed Fourteenth Edition of the Standard for Lampholders, UL 496, includes the following changes from the previous version: (a) Addition of SA2.4

and SA2.5, to Add Requirements for Lampholder Fittings with Integral USB Connectors, (b) Addition of 4.8.6.6, to Add Requirements for Minimum Lead Wire Gauge Size for GU24 Outlet-Box Lampholders, (c) Addition of 4.9.10, to Clarify the Creepage Distances and Clearances Measurements, (d) Editorial Updates. Link to summary of topics: http://www.comm-2000.com/ProductDetail.aspx?UniqueKey=31132. Consensus was achieved but the comment received was addressed by the proposal submitter and sent to the THC to evaluate. Recirculation will follow after receiving feedback from the THC regarding the comment to the proposal.

#### UL 482 – Portable Sun/Heat Lamps

• FDA proposal to amend performance standard for sunlamp products and ultraviolet (UV) lamps intended for use in these products (which may be viewed at https://federalregister. gov/a/2015-32023) would reference IEC 60335-2-27, Household and similar electrical appliances – Safety Part 2-27: Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation, rather than UL 482. The FDA is seeking comments on the proposed rule by March 21, 2016.

#### UL 48 – Electric Signs

• A new proposal was issued for preliminary review on May 24, 2016. The proposals relate to: 1) New Requirements for Shipment of Sign Sections; 2) Standard Reference for LED Components and LED Retrofit Kits; and 3) Revision title of Section 4.4.10.2. This proposal was issued for ballot on March 3, 2017 with ballots and comments due April 3, 2017. Link to summary of topics: http://www.shopulstandards.com/ ProductDetail.aspx?UniqueKey=23299.

#### UL 924 – Emergency Lighting and Power Equipment

• Multiple proposals were issued for ballot on September 30, 2016 with a due date of October 31, 2016. A subsequent recirculation was issued on January 20, 2017 with ballots due on February 20, 2017. Link to summary of topics: http://www.comm-2000. com/ProductDetail.aspx?UniqueKey=32245. Consensus was achieved and revisions were published on March 8, 2017.



## India BIS - Compulsory Registration Scheme: Expansion of Scope for Phase 3

On April 27, 2017, a Stakeholders Consultation meeting under the Joint Secretary of Ministry of Electronics & Information Technology (MeitY) was held to finalize the list of products to be covered in the next phase of "Electronics and Information Technology Goods (Requirements for Compulsory Registration) Order, 2012." MeitY has now come up with 16 additional electronic product categories which are likely to be notified in the next phase of the Compulsory Registration Order which includes all the LED products. The current Order includes Fixed General Purpose Luminaires. Although recessed luminaires, lighting chains, etc. are considered fixed general purpose luminaires, they are covered by different section numbers (section 2 to 8 of IS 10322) and are not included in the Order. Here are the proposed LED products to be added:

PRODUCT	INDIAN STANDARD NUMBER
Recessed Luminaries	IS 10322-5-2
Luminaires for road and street lighting	IS 10322-5-3
Portable General Purpose Luminaires	IS 10322-5-4
Flood Lights	IS 10322-5-5
Hand lamps	IS 10322-5-6
Lighting Chains	IS 10322-5-7
Luminaires for emergency lighting	IS 1032-5-8

#### **Implementation Dates:**

Since the Official Gazette Notification has not been released, there is no implementation date yet. We will provide more information when the Gazette Notification is published.

#### How UL can help

Our laboratories in India are already prepared to start testing for the new standards. Therefore, once the Gazette Notification has been published, you can start submitting your products for testing. For more information, visit our Global Market Access website Global Market Access or contact our experts at gma@ul.com.

These updates are for information purposes only and are not intended to convey legal or other professional advice.

## UL Makes it Easier to Export Your Products to the Mexico Market

UL is proud to announce our enhanced NOM-003-SCFI-2014 certificate services. Based on our new agreement approved by the Mexican government, if you choose UL, you are no longer required to send samples to Mexico for NOM-003-SCFI-2014 safety testing. We are now the first to provide these more flexible safety testing options to the market.

#### Convenience

UL's new safety testing service options for products evaluated to the new NOM-003-SCFI -2014 standard are now more convenient. You can simply choose the option below that best fits your needs:

- Select one of UL's nearby global laboratories for testing and local access to our engineers
- Or submit your test data to a local laboratory if you are qualified under UL's DAP program

UL is pleased to offer this new alternative for worldwide manufacturers and Mexican importers to facilitate commerce by reducing costs and time to introduce their products into the Mexico Market.

When it comes to success in global markets, complexity is often the problem. UL works hard to be a part of the solution, empowering trust in a complex world.

For details and more information contact us at GMA@UL.com!



## China Spotlight: UL's Lighting Tour Seminars Closed Successfully

With the global economy picking up, China's LED industry continues to expand and the market penetration is increasing gradually as more and more domestic lighting enterprises are looking for overseas markets. To seize opportunities and outshine the competition, quality and safety will continue to be two of the more important factors. To this end, UL successively held seven lighting technology seminars in April and May to explore an approach for lighting enterprises to successfully enter the overseas markets.

## Innovation - UL advances new high-end lighting applications

The annual US International Lighting Fair recently ended in Philadelphia. During the fair, the organizers established the theme of intelligent lighting to facilitate the global lighting enterprises to display new intelligent lighting products. Afterwards, "The Belt and Road" International Cooperation Summit Forum was held in Beijing. The summit further highlighted the significance of innovation-driven development. Through publicity and initiation of new ideas and new technology, new development vision and transformation ideas were introduced to the domestic lighting and LED industries. Taking horticultural luminaires as an example of one of the high-end applications of innovative lighting, it has aroused the widespread concern of domestic lighting manufacturers in recent years. The lack of an analysis of specific spectral components in the lighting management of a horticultural luminaire lighting factory leads to impure treatment of the lighting quality and inconsistent light intensity where the problems of being lower than the horticultural luminaire light compensation point and low efficiency of irradiation light sources are general problems. During the tour seminars, by focusing on the key points of the UL 1598D standards for horticultural luminaire, UL made detailed introductions and analyses for customers, bringing more confidence and skills to customers engaged in the lighting market.

# "The Belt and Road" - UL brings the new opportunity for global access

China has been keeping close economic and trade cooperation with the countries along "The Belt and Road," including the trading of LED lighting products. According to a data analysis, in the first quarter of 2017, China has a total

> amount of \$637 million of LED lighting products exported to 64 countries along "The Belt and Road," with a yearon-year increase of 12.42%, accounting for 24.3% of the LED export market. With the progress of technologies, for LED lighting, the issues of luminous efficiency, heat dissipation and drive circuit reliability have been solved successively, and the issue of blue light hazards has also been basically resolved after intense discussions.

In the future, promoted by "The Belt and Road" policy, LED lighting will bring to the domestic lighting enterprises more opportunities for development, and how to break the trade barriers between countries will be a compulsory



2017 UL Lighting Tour Seminars were successfully held in Guangzhou, Hangzhou, Shenzhen, Shanghai, Suzhou, Xiamen and Ningbo

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course for enterprises to seize the opportunity. From 2017, UL has been accredited by the European Electrical Products Certification Association (EEPCA) to become an accreditation agency in a country or region outside Europe to test and certify lighting products. Therefore, the domestic enterprises in China can apply for ENEC certification without sending test samples to Europe, so a lot of time and costs can be saved while certification efficiency is improved. During the tour seminars, UL's relevant engineers gave a detailed description of the ENEC certification operation procedures and the ENEC certification related matters needing attention, arousing the lighting manufacturers' interest as well as intense discussions at the site.

## Multi-place tour seminars - UL helps customers catch up with the new trends in the industry

With more than 100 years of technical experience, UL has been committed to enhancing customers' experiences in the fields of testing and certification. By holding the lighting technology tour seminars, UL's lighting teams collaborated and discussed issues including venue selection, marketing promotion and determination of seminar themes for several days where the geographical distribution, industry focuses and development trends of the domestic lighting industry are considered. We held two of these seminars in the Pearl River Delta region where lighting enterprises are located, four in Ningbo, Hangzhou, Shanghai and Suzhou in the Yangtze River Delta, and one in Xiamen in the Fujian Delta. In this way, the seminars covered the geographical distribution range of lighting enterprises. The seminars included not only the contents involving intelligent lighting, horticultural luminaires, global access and other industry highlights, but also detailed instructions and descriptions on the issues of updates of the UL 1993 standard for light sources, changes in the UL 1598 factory inspection policy and other issues. It is particularly worth mentioning that UL arranged a full-day agenda for the seminar in Shenzhen where industries are densely distributed, presented the essence to customers on the ground based on the local situation and received allround praises.

More than 500 customers attended UL's lighting technology tour seminars. At the 22nd Guangzhou International Lighting Exhibition on June 9, UL continued to focus on the industry sent its top experts to give instructions in safety requirements, energy efficiency related matters needing attention and trade risk aversion related to the lighting industry.

## **US Event: East Coast Lighting Stakeholder Forum**

To bring to light some of the new standards and regulations in the lighting industry, the UL Lighting team hosted approximately 30 attendees made up of customers and industry stakeholders at the UL lighting stakeholder forum on Wednesday, June 14, 2017 in Melville, New York.

The forum educated attendees on a variety of topics, including brand protection through UL's anti-counterfeiting programs, safety requirements for lighting equipment, cybersecurity best practices for lighting systems and energy efficient regulations for general lighting equipment. One area of focus was on horticultural lighting, which is lighting that usually stimulates plant growth while reducing energy consumption. LED drivers, luminaires and other lighting equipment was also discussed in depth. The interactive forum offered plenty of Q&A opportunities, allowing participants to get involved. Thank you to all those that were in attendance.





# **Tradeshows & Webinars**

#### 2017 DLC Stakeholder Meeting

July 10-12, 2017 – Portland, OR

## American Lighting Association Annual Conference 2017

September 10-12, 2017 – Vancouver, BC

DesignLights Consortium July 10-12, 2017 - Portland, OR

Shanghai International Lighting Fair September 5-7, 2017 - Shanghai, CN

### BIEL Lighting Argentina – LATM

September 12-16, 2017 - Buenos Aires, AR

LpS – Austria September 26-28, 2017 - Bregenz, AT

Sign Expo Canada October 27-28, 2017 - Mississauga, ON

### **Free Recorded Webinars**

Take Advantage of UL's FREE Industry Recorded Webinars

 Shining a Light on 2017 Regulatory Updates – <u>A Retail Lighting Overview</u>

Lighting uses about 10% of the total power generated in the US, and this makes lighting efficiency a focus for regulations and energy efficiency incentive programs. Staying on top of these changes is challenging but necessary for retailers to plan ahead, particularly those with private brands. This 1-hour webinar will highlight recent changes to requirements, effective dates, and anticipated impacts of these changes.

#### • <u>Title 20 and Title 24 Updates – Are Your Lighting</u> <u>Products Ready?</u>

California regularly updates their Title 20 Appliance standards and Title 24 Building standards, both of which have complex requirements for lighting products. This 1-hour webinar will provide an overview of lighting requirements, and highlight the recent changes that manufacturers and retailers need to know.

#### Growing the Understanding on Safety & Performance in Horticultural Lighting

This 1-hour event will cover the fundamental differences between Horticultural lighting equipment and lighting equipment intended for general lighting application. Also hear about UL's new safety requirements for Horticultural lighting equipment and the broad range of safety and performance evaluation offerings for this specialized lighting equipment.

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