Lumen Insights

Issue 1: 2019

UL Introduces Horticultural Performance Certification for Lighting Manufacturers

By David Edwards, Program Manager

In the fast-growing Horticultural market, UL is helping lead the way through the development of guidelines related to the performance, reliability and suitability of horticultural lighting products. **UL's Horticultural Lighting Certification Program** is comprised of lighting manufacturers who agree to have their products' performance evaluated by an independent third party both initially and continuously. That data is then made available to end-users (growers, specifiers, designers, etc.) on UL Product iQ ™ searchable database to reference when selecting the appropriate products for their horticultural lighting needs.

In this program, product evaluations are based on the recently released UL S 8000 Horticultural Lighting Performance Specification. This is the first lighting performance specification published by UL. It is open to various light sources and includes criteria for energy efficiency and performance. Additionally, factors such as photobiological impact and ingress protection are considered and reported.

End-users now have a trusted source in UL when designing lighting systems for controlled growing environments. While considering the energy and economic performance of different types of horticultural luminaires, referencing our Products iQ database will help in your determinations of factors such as luminaire intensity distribution, shading, efficacy and power demand.

UL is committed to providing services and knowledge to horticultural lighting manufacturers and actively participates in the development of horticultural specific test methods and standards for Industry Associations.

For more information, contact **PerformanceSolutions@ul.com** (610-774-1300) or visit **connect.ul.com/HorticulturalPerformance**

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Also in this issue

Spotlight: Letter from Adam

I'm very excited about the times ahead of us in the lighting industry. New technology advancements provide the opportunity to keep our industry relevant and also provide opportunities for safer and healthier spaces to live and work in. For example, as energy efficiency rebates from utilities shift the ROI equation for luminaires, lamps and controls, we also now collect data about the interactions between humans and buildings. This data, which has become meaningful to retail, office buildings and hospitals, accelerates the movement to networked LED lighting, and with it the need to develop sound cybersecurity strategies.

Another example, controlled lighting in the horticulture space enables us to grow more food for an ever-increasing world population and challenges us to ensure that the lighting that promotes plant growth is photobiologically safe for the people who work in the field. Lastly, as we develop a better understanding between daytime indoor illumination's impact on melatonin suppression, alertness and sleep patterns necessary for a healthy immune system, we have an opportunity to enable safer work environments.

As a former UL customer, I join UL's commitment to accelerate the adoption of sustainable practices in a sector that consumes a considerable amount of natural resources. We look forward to working with each of you to make your business more successful and relevant in an increasingly complex marketplace.

Warmly,
Adam Lilien
Business Development, Lighting, North America

Upcoming Education & Training for the Lighting Industry

At UL's 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 e-learning courses.

Public Workshops

Specifying and Evaluating Materials for Electrical, Electronic and Mechanical Applications

4/2/19 Northbrook, IL

Online e-Learning Courses

Available Anytime, Anywhere

LED Light Source Design Essentials

Signs UL 48 Online Curriculum

Luminaire, UL 1598

To view a Complete list of our public workshops and online courses, please visit **UL.com/lightingtraining**

Standards corner

By Joe Musso, standards program manager

Click here for Standards Information

Sign up for"What's New" to receive email notifications twice a month listing the various UL, UL's Environment division, and ULC Standards documents published during that timeframe.

UL 48 – electric signs

Several new proposals were posted for STP ballot Q3 2018. One proposal addressed sign constructions employing receptacles providing auxiliary functions separate from the signage application. The others related to reference standards and requirements for components used in PV signs. All proposals reached consensus, with several comments. Final recirculation closed November 23, 2018 with the proposals maintaining final consensus. The revisions were published in the Standard December 7, 2018.

UL 153 – portable electric luminaires

A new proposal covering locking type attachment plug configurations was circulated for STP ballot January 25, 2019, with a closing date of February 25.

UL 1088 – temporary lighting strings

A proposal for an additional exception to the metal lamp guard requirements was circulated for STP ballot Q2 2018. The proposal did not initially reach consensus, but after a successful comment resolution and recirculation, consensus was reached. The revisions were published in the Standard January 28, 2019.

UL 1598 – luminaires (tri-national standard)

The most recent revision cycle included 27 proposal topics which all reached final consensus and were published Q3 2018. Several new proposals have been received and are being compiled in preparation for the next revision cycle to begin. A call for proposals was circulated, with the submittal of new proposals due at the end of February 2019.

UL 1993 – self-ballasted lamps and lamp adapters

A set of 20 new proposals are currently under review by the technical harmonization committee in preparation for the revision cycle.

UL 8750 – light emitting diode (LED) equipment for use in lighting products

A new 10 topic proposal was circulated for preliminary STP review with comments due January 11, 2019. Comments received are being considered by the proposal author in preparation for STP ballot. The new set of proposals includes the following topics:

1. Required spacings for wiring terminals
2. New Supplement for Type IC LED drivers
3. Special Use LED arrays
4. LVLE circuits
5. Temperature Coded LED arrays
6. Grounding and bonding
7. Class 2 circuits
8. Output loading- Output short circuit
9. Markings and Product specification sheet
10. Supplement SG- Temperature value at TC point

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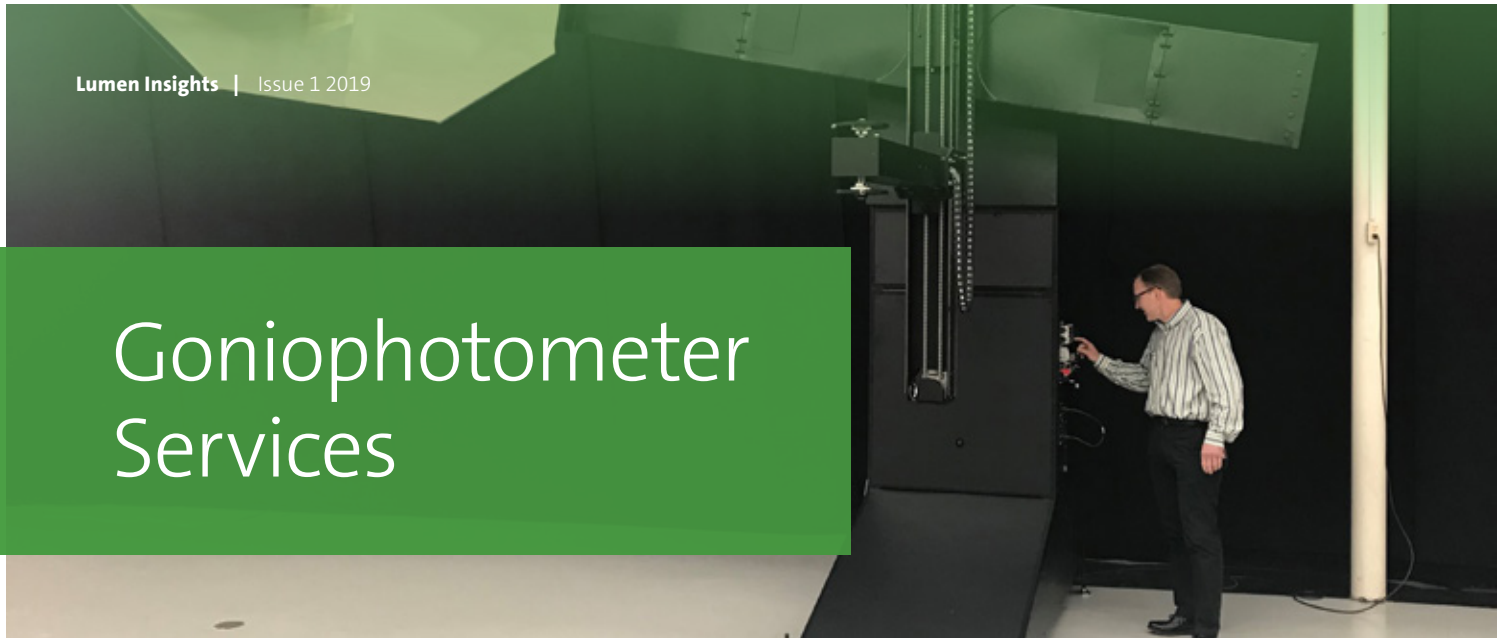


Goniophotometer Services

By James Walker

UL's Goniophotometer Services – Upgrades, retrofits, calibration, training, repairs and more

Upgrades/Accessories
UL has a complete line of accessories to modernize your laboratory and do more with your goniophotometer. The following accessories are available for all UL goniophotometers:

- Spectroradiometer – Perfect for measuring color angular uniformity and color metrics. Scientific grade spectroradiometers provides spectral power distribution (graphically and tabular) and color rendering index (CRI).
- Flicker Testing – we offer an option for conducting flicker testing for all UL goniophotometers, allowing the collection of lamp or luminaire flicker data. This testing meets California Energy Commission Title 24, Energy Star and NEMA-77.
- Temperature (Integrated and Non-Integrated solutions – Monitor 3 to 4 points on the device under test (DUT) and use DUT Temperature for stabilization.

Retrofits
Goniophotometers are expensive. Retrofitting an existing goniophotometer is an inexpensive way of getting more out of your existing equipment. UL is capable of modernizing an older goniophotometer by updating it to meet the latest standards and specifications, and the latest operating systems.

Services

- Calibration of the goniophotometer (recommended annually)
- Alignment Checks
- Preventative Maintenance
- Training – refresher, advanced, tailored for specific needs,,,
- Specialized software to meet specialized requirements
- Repairs
- Extended Warranties

Contact UL today at **ULGoni@ul.com**

Spotlight: New industry video

Learn how UL helps you build consumer trust – view our new industry video **here!**

Spotlight: Recognized Plastics Material Identification (RPMI)

RPMI helps ensure safety and quality control by verifying the correct recognized material is used for a specified application, avoiding potential product failures and recalls.

It is designed to help:

- Secure the integrity of the supply chain by confirming incoming Recognized Plastics for safety and quality control.
- Identify potentially mixed-up plastics.
- Identify potential formulation changes due to additives or blending with other plastics.

Click here to learn more >

GMA Corner

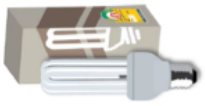
Thailand, new energy efficiency label (label no.5) for lighting products

By: Kongpob Rattanakornkun, Thailand Regulatory Program Expert.

Electricity Generating Authority of Thailand (EGAT), the program owner of Label no.5 (Energy label) held a meeting with manufacturers/importers of Lighting products to align the implementation of new energy efficiency criteria and a new Label no.5 for lighting products in 2019Y.

Since January 1st, 2019 onward, Manufacturers/importers who supply the lighting products that comply with label no.5 program shall apply the new label no.5 on products/ packaging according to the conclusion from EGAT meeting as follows.

- Compact Fluorescent lamp; Testing standard: TIS 2233-2548, TIS 2310-2556 (Required in-country test)



- LED lamp - MR16, PAR30/38, Bulb E27, Tube T8, High/Low Bay; Testing standard: IES LM79 – 08, IEC 62612:2013, IEC 62722-2-1 (Required in-country test)

- Example of new label no.5; (Enhance the Energy efficiency criteria by adding the no.5 with 1-3 stars)

Remark:

EGAT requires the applicant to show the TISI license of each product before receiving the label no.5 from EGAT to ensure that this product complies with TISI mandatory standards.

How UL can help:

UL's Thailand laboratory can assist the client by delivering full testing solutions as follows:.

- Handle the energy efficiency testing (in-country test) and EGAT application submission to achieve label no.5 issuance.
- Handle the TISI testing (in-country test) and TISI application submission to achieve TISI license issuance.

Contact point:

Underwriters Laboratories (Thailand) Limited.
Address: 888 Moo 5, Samrong Nua, Muang Samutprakan, Samut Prakan 10270, Thailand.
Phone number: +66 2106 9600
Email: sales.th@ul.com

Argentina – halogen lamps banned

By Ariel Amandi - Argentina Regulatory Program Expert

The Argentine Congress issued Law 27.492, which amends Law 26.473, to include Halogen lamps into the list of lamps not allowed to be marketed in Argentina starting December 31, 2019. The import and commercialization ban will be extended to halogen lamps in all types and models. The government may dictate the necessary measures to facilitate the import and production of energy saving and LED technology lamps.

How UL can help

UL's laboratory in Argentina is accredited by OAA and authorized by the local government to act as a Certification Organization for the Argentina S Mark and Argentina Energy Efficiency certification schemes, to issue local S Mark and EE Certificates for lamps. UL can work with you and local third-party testing laboratories to conduct the evaluations you need for your products.

Saudi Arabia, Market access - New requirements for lighting products (SASO IECEE and SASO EE)

By Federico Picco - Saudi Regulatory Program Expert

Saudi Standards, Metrology and Quality Organization (SASO) announced that, starting February 1, 2019, Lighting products will need to be certified and labelled according to newest SASO Energy Efficiency standards, as well as certified by SASO IECEE Recognition Certificate to receive a valid SASO Certificate of Conformity.

Lighting products which require a SASO Energy Efficiency certificate and label are:

Standard SASO 2870/2018:

- Incandescent lamps
- Halogen lamps
- Compact fluorescent lamps with integrated ballast (CFLi)
- Light-emitting diode (LED) lamps (Incandescent retrofit types)
- Light-emitting diode (LED) lamps (Halogen retrofit types)

Standard SASO 2902/2018:

- Incandescent lamps with a luminous flux above or equal 12,000 lumens
- Halogen lamps with a luminous flux above or equal 12,000 lumens
- Compact fluorescent lamps with integrated ballast (CLFi) with a luminous flux above or equal 12,000 Lumens
- Compact fluorescent lamps without integrated ballast (CFLni)
- Fluorescent Lamps (all types)
- High Intensity Discharge Lamps, such as:
  - Mercury Vapor Lamps
  - High/Low Pressure Sodium Lamps
  - Quartz Metal Halide Lamps
  - Ceramic Metal Halide Lamps
- LED Lamps (including 'retrofit LED lamps' with a luminous flux above or equal 12,000 Lumens)
- Directional integrated luminaires (provided with non-replaceable lamps)
- Non-directional integrated luminaires (provided with non-replaceable lamps)

Lighting products which require SASO IECEE Recognition Certificate are:

- Control gear and ballasts
- Lamp holders
- Lamps and lightings
- Luminaires

How UL can help

UL provides technical expertise, a worldwide network of CB testing laboratories and qualified staff that can support in delivering technical assessments and reports to cover the applicable international standards, national differences and regulatory requirements.
UL's NCBs in all regions can supply CB Test Certificates in a reliable and effective way.

UL's laboratories are fully equipped and accredited to carry out tests and issue valid test reports according to SASO and International Electrical Safety Standards, and the latest Saudi Energy Efficiency Standards.

UL also has Arabic speaking staff who are experts in SASO's processes, on-line systems and requirements.

UL can support in the obtainment of SASO EE labels and SASO IECEE recognition Certificates.

2019 Tradeshows:

Contact UL industry experts if you would like to arrange an in-person meeting at any of the listed tradeshows or if you have any general questions. We're here to help.

ISA Sign Expo
April 24-26 – Las Vegas, NV

Lightfair International
May 21-23 – Philadelphia, PA

Webinars:

RoHS 2 Directive and the New Requirements for Phthalates in Electrical and Electronic Equipment

June 11, 2019
9:30AM (CST)

Click here to register >

On-demand: UL 8800 Horticultural Lighting & System: A Comparison with UL 1598

In this free webinar, you will learn the function of horticultural lighting in controlled environment agricultural operations and the specific safety and performance requirements applicable to these specialized luminaires and systems.

Click here to view recording >

Discover the latest SASO requirements for lighting products

March 25, 2019
10:00am CST

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