

LUMINOUS SPEC

SUMMER 2015

“... understanding **the science of lighting** provides you with **the freedom to be creative.**”

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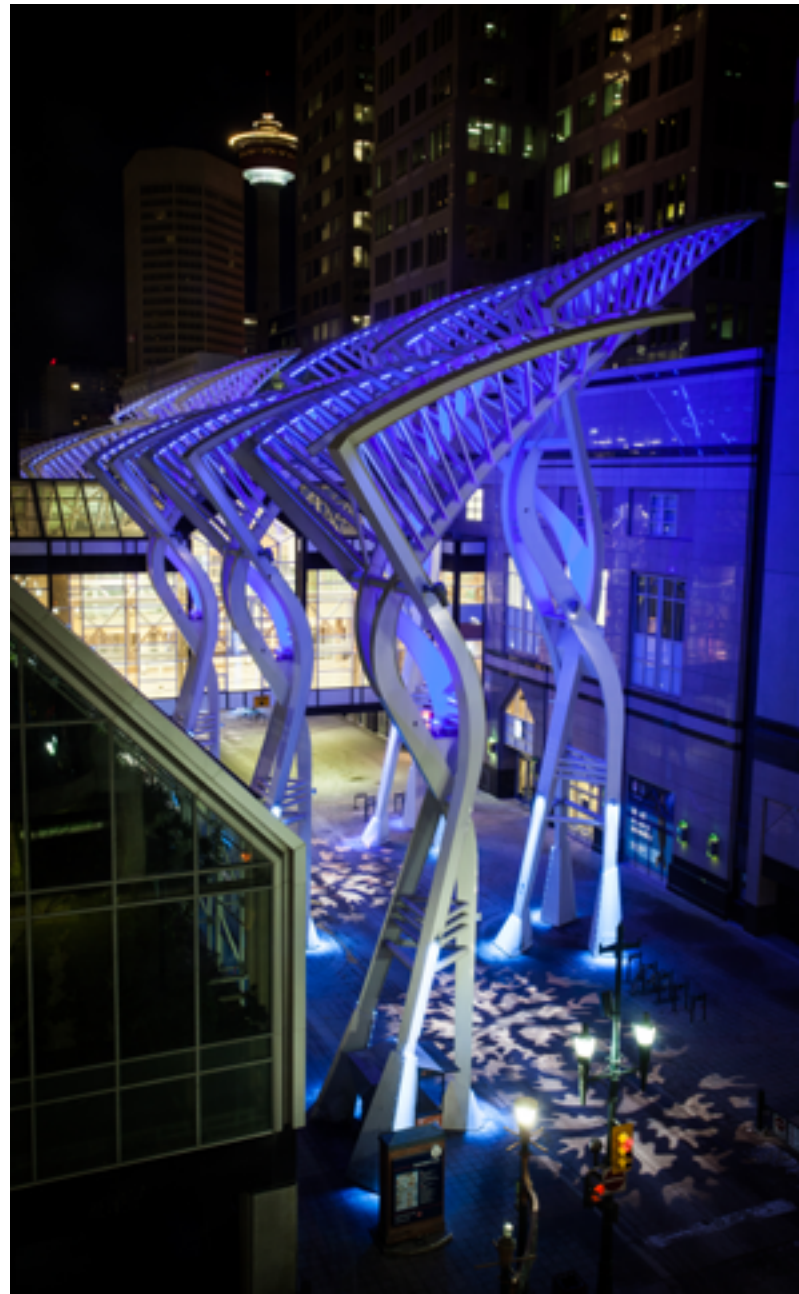
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FEATURED PROFILE

Paul Mercier

Integrating creativity within the science of illumination

As the principal and founder of Lighting Design Innovations, with offices in Calgary, Alberta and Batavia, New York, Paul Mercier’s passion for lighting clearly shines. He is also a recent textbook author, holds various industry association memberships and certifications, serves as an adjunct teacher in the U.S. and Canada, and has significant IES (Illuminating Engineering Society) involvement, including the recent conclusion of his term as President of the Society.



Top left: Photo of Paul Mercier by Michael Heywood, Studio 1826

Bottom left and right: Trees in the city by Michael Heywood, Studio 1826

How have LED technologies changed the way you design, and what future enhancements would make your life easier?

Well, there’s no question that they’ve changed our methods of design. There are some very positive aspects of LED. One is the idea that we have new form factors that we’ve never had before. So, in architectural lighting design, these new LED form factors allow us to create projects that we never could before. Then, there’s OLED, which is a good example of how sources will challenge us in the future. Controllability is the next aspect – it allows us to do things that we’ve never done before. Allowing us to control the lighting in a more active way – as opposed to a passive way – will result in true energy efficiency. One difficult aspect of LED – the speed at which product offerings change and improve – actually changes how lighting designers have to work. If my studio has a long-term project, I have to revisit all the products and instruments that we’ve specified on the project to make sure that the design is current when it is released for construction. So,

although difficult, it’s positive because we’ve embraced that change as well, and believe it’s a great opportunity for us to take a last look at things. We owe it to our clients as designers to make sure we can do the best job possible.

Looking ahead, where do you see the entire lighting industry and lighting design profession headed?

It’s an exciting time for designers. First of all, I think there will be a number of changes. We’re going to see an advancement of onboard sensors in lighting products. The core benefit is on the networking side of the design equation – it means that luminaires are more than just light fixtures. Mesh networking, of both exterior and interior lighting, will create a lot of new functionality in our designs. I also believe that there’s an opportunity for a lighting design change – I believe we will be more integrated into building design than we ever have in the past, and the process will start at an earlier stage. This change will allow us the opportunity to make both daylighting and electric lighting part of the fabric of

design, a sharp contrast to the “lighting designer as problem solver” approach. In the past, lighting designers got involved in projects after the space was designed; after the building or architecture of the interior was completed. I think that we will have a bigger impact, and that impact will be on more than just source technology, it will also bring improvement to the lighting performance of spaces.

Can you tell us a bit about your new textbook, “Architecture for Light”?

Well, the development of the textbook is kind of interesting. Frankly, it actually started out as a challenge from a colleague who believed that we could no longer design interesting spaces due to code restrictions, and that we were going to be dictated by the watts per square foot of a space. We started thinking about space and volume, and the geometry and verticality that we live in right now. When we think about human evolution, the original context of a lot of lighting design was based on horizontal light levels at a time



Mountain Lodge (Private Residence)
Canmore, Alberta, Canada

Photo by Michael Heywood, Studio 1826

when a lot, or all, of our tasks were still on a horizontal plane. We're no longer on that horizontal plane; we're on a vertical plane where most of our communication is done while we're standing up or sitting up when we're communicating with each other. So that premise led to a particular process of design, one that will allow us to become much more efficient at designing and utilizing light where it truly belongs, in more of a vertical plane than a horizontal plane.

The textbook content is different than a traditional course because it focuses on the effect of design decisions on spaces and their ability to deliver light. It allows students to understand how vertical elements and material physics affect the lighting efficiency of a space, and help to create efficient yet interesting spaces. And it was developed to provide a lighting program that could educate interior design students and architecture students in either a full semester course or a half semester course.

You've commented that lighting design is both an art and a science. What does that mean to you?

I look to my past for that answer, to be honest. I'm a very technical person in some ways, although I am the creative design person when I'm at the studio. I am creative because I have this tremendous foundation of the science of illumination. I feel that it's just like having a tool available to you. Being properly trained and understanding the science of lighting provides you with the freedom to be creative. It is what I tell my students, if they understand the foundation, they can allow their minds to be free because they don't have to worry about whether they're technically sound in their approach. They can look at a space, understand the client's needs, understand

“ Sometimes a simple solution is the best solution, and sometimes you need something that's more complex. ”

human needs - for both the physical aspect of creating a functional space, as well as something that allows them to feel good about being in the space - and consider the health requirements. I truly believe that the science of illumination is the foundation, and if you have this solid foundation, you can be very creative with your approach to design.

When judging lighting designs, as you've done in the past (IES Illumination Awards, etc), what are you looking for in a winning design?

I like this question because it gives me an opportunity to talk about something I believe in, which is that every space deserves the best lighting possible. When I'm looking at awards, I think the biggest challenge for almost any judge is to look beyond a project's tremendous architecture to see whether the lighting solution was truly integrated into that architecture and actually a unique solution. Sometimes a simple solution is the best solution, and sometimes you need something that's more complex. So, I'm looking beyond that architecture to find the lighting design concept, and figuring out if it's the appropriate solution for the project. There are some amazing projects out there that really deserve those awards, there's no question, but other fantastic lighting solutions occur in nondescript buildings with extremely limited budgets.

Between running a business with your wife, creating lighting designs, serving as IES president, writing a book, and teaching at two universities, you must be exhausted! How do you relax and take a break from lighting?

I have several interests, but those things actually influence my creative side when it comes to illumination. One is traveling. I like to travel, and the travel can be very influential in a lot of the decisions that we make. It's interesting to look at how cities or places we visit have developed, and that's my relaxation. The other thing I really enjoy is music - both playing and listening. I find that when you listen to the souls of people that create music, it has an influence on your philosophy of life and your approach to communication. So, I enjoy these interests as relaxation, and also appreciate how they reinvigorate me in my chosen passion, which is lighting.

Paul's impact across the lighting industry is so extensive that we couldn't fit it all into one article. Visit www.lumec.com/blog for additional excerpts of this interview, including Paul's IES involvement and especially memorable projects.

PROJECT SPOTLIGHT

BIG FOUR BRIDGE BECOMES A NIGHTTIME BEACON OF VISUAL INTEREST



The Big Four Bridge in Louisville, Kentucky was built over 120 years ago to allow freight trains to cross the Ohio River; and in 2013, the historic bridge was repurposed as a pedestrian walkway and bicycle path. Spurred by the success of the walkway and path during the day, City Mayor Greg Fischer, the city of Louisville and the Waterfront Development Corporation decided to extend community and visitor enjoyment at the bridge throughout the night. Vincent Lighting Systems (VLS), Bright Focus Sales and Philips were brought in to transform the bridge into a dynamic nighttime art installation for those on the bridge and in the surrounding parks to enjoy.

Color-changing luminaires were affixed under the bridge's arches, along the deck, and inside hollow beams to wash the bridge with brilliant hues of slowly fading colors. The luminaires offer very precise beam angles, so light is focused only where it is needed, and does not spill into the night sky. Motion and color in the lights were essential to creating exciting visual interest across the bridge, and the lights can be customized to celebrate holidays and highlight city events.

The dynamic luminaires create a vibrant backdrop and dazzling atmosphere, and are sure to bring vitality and excitement to the Ohio River waterfront.

AROUND THE WORLD

DAZZLING LED LIGHTS BRING VIBRANCY TO A SHOPPING AREA IMITATING TIMES SQUARE

The VEGAS Crocus City media facade is the first connected LED lighting project in Russia that integrates into the complex architecture of the building and the ventilated facade. From the lighting concept, design and installation to the technical launch, Philips' innovative mix of connected LED facade lights, light panels and HD-screens integrate into the interiors of the mall to imitate the vibrancy of Times Square in New York City.

Using the same next generation LED technology that has been used to light world-renowned architectural landmarks, Philips iColor Flex LMX gen 2 features 16 million different colors, and can manage multiple media content from a single point. VEGAS Crocus City can broadcast text, images, graphics, color effects, commercials, and online broadcasts for sport events, news, and even the latest on traffic jams in the city.

"This ambitious project included a media facade and a unique light design that mimics the shopping area of Times Square, demonstrating the growth of our business as well as our local expertise. That's why we are truly proud of what we have achieved today", said Marina Tyschenko, Head of Philips Lighting in Russia and CIS.

Visit <http://colorkinetics.com/showcase/installs/Vegas-Crocus-City/> to learn more.



EDUCATION

Lighting Application Center



Whether you're new to the industry, or want to learn additional skills, the Philips Lighting Application Center offers a variety of courses in the United States and Canada for all levels.

Visit www.philips.com/LightingApplicationCenter for the complete 2015 schedule and to find additional information about the Lighting Application Center's programs or please write to us at lightingapplicationcenter@philips.com to arrange a customized visit.

Specifier Seminar Series: Lighting Trends & Technology Update

SYNOPSIS: The 2015 quarterly events have expanded to include an optional day in NYC to learn about lighting design with offerings from Philips Color Kinetics plus earn 1.0 AIA credit for attending a presentation on Intelligent LED Lighting Systems and Controls. To end the day in a true New York fashion, participants are treated to a special viewing of the Times Square Ball where Philips Lighting has been a corporate sponsor for over 16 years.

The remainder of the 2-day seminar will be held at the Philips Lighting Application Center in Somerset, NJ and focuses on lighting trends, as well as the latest technologies for both outdoor and indoor applications. With a variety of topics presented over the two days, attendees are able to earn additional 5.5 hours of Continuing Educational Units (CEU) and AIA Learning Units.

These popular seminars will return in 2015! Earn credits for participating in the following Keynote Presentations:

- Psychology & Physics of Light and Color – Presented by Mark Roush, Principal of Experience Light
- LED Lighting: Changing All The Rules – Presented by Dr. Jack Curran, President of LED Transformation, LLC
- LED Technologies in Various Applications Environments – Presented by Mark Roush, Principal of Experience Light
- Simplified Energy & Code Updates – Presented by Charles K. Thompson, Principal of ARCHILLUME LIGHTING DESIGN

Other topics that will be covered include: Indoor Luminaires – Downlight, Accent & Decorative; Indoor Luminaires – Architectural & Commercial; Outdoor Site & Area Luminaires; Controls Update; and a LED Lamp Technology Update.

LOCATION: Somerset, New Jersey

DATES: September 15-17, 2015
December 1-3, 2015

REGISTER: Please note that these are special offerings and cannot be found on the Lighting Application Center website. Registration information for the 2015 sessions will be provided to all local sales reps as it becomes available.

Workshops

LC Exam Preparation

SYNOPSIS: One of our most popular courses, this three-day LC Exam Preparation workshop takes place about seven weeks before the exam. It focuses on selected topics from the LC curriculum and provides techniques and practice for taking the exam itself. While the workshop does not address all of the LC material, participants will be able to review areas where their experience is weak, practice on multiple-choice and case study questions, and develop an action plan for their final preparation. This workshop has a high success rate in those who have taken the course and passed the LC certification test.

LOCATION: Rosemont, Illinois

DATES: August 25-28, 2015

REGISTER: Visit www.philips.com/LightingApplicationCenter

LED Lighting Systems Workshop

SYNOPSIS: This two-day LED Systems workshop provides a thorough foundation in the technology and application of LED lighting systems, including sources, drivers, lamps and luminaires. Participants take a more in-depth look at the technology, focusing on system interaction, performance, life, and control.

LOCATION: Somerset, New Jersey

DATES: September 14-15, 2015

REGISTER: Visit www.philips.com/LightingApplicationCenter

Lighting Fundamentals Workshop

SYNOPSIS: The 3-day workshop offers a practical understanding of the principles of lighting and an introduction to today's lighting technologies, including sources, luminaires, and controls. We take an interactive, experience-based and participant-centered approach, using full-scale, hands-on demonstrations, and lots of practice. Participants see lighting in action, explore how lighting systems work, and measure and evaluate lighting alternatives.

This program is aimed at the needs of the lighting novice in a range of disciplines: electrical distribution, contracting, interior and architectural design, facility management, energy and utility service, or any other practitioners interested in learning the fundamentals of lighting.

LOCATION: Toronto, Canada

DATES: September 21-23, 2015

REGISTER: Visit www.philips.com/LightingApplicationCenter

LED Workshop

SYNOPSIS: The 1-day LED Workshop is designed to give the participant all the tools to make an intelligent decision in choosing the correct LED for the respective application. While there is much talk about LEDs, there is a lack of knowledge with regards to this ever popular light source. We will explore the history of the LED, physical characteristics of a light emitting diode, effects that will limit an LED's effectiveness, LEDs in comparison to other available sources, as well provide a look into the future.

This workshop is designed for any lighting professional interested in learning more about specifying LEDs.

LOCATION: Markham, Canada

DATE: September 24, 2015

REGISTER: Visit www.philips.com/LightingApplicationCenter

Lighting Fundamentals Workshop

SYNOPSIS: The 4 day Lighting Fundamentals workshop offers a practical understanding of the principles of lighting and an introduction to today's lighting technologies, including sources, luminaires, and controls. We take an interactive, experience-based and participant-centered approach, using full-scale, hands-on demonstrations, and lots of practice in putting it all to work. Participants see lighting in action, explore how lighting systems operate, and measure and evaluate lighting alternatives.

LOCATION: Somerset, New Jersey

DATES: October 20-23, 2015
December 8-11, 2015

REGISTER: Visit www.philips.com/LightingApplicationCenter

EDUCATION

Office & Commercial Application Workshop

SYNOPSIS: This workshop will delve deep into the changing landscape of office and commercial lighting. With the improvements of LED and new studies on the topic constantly being released, office and commercial applications present fabulous opportunities for better lighting for the occupants and improved energy savings. We will look into IES' Lighting Handbook Tenth Edition, RP-1-12 "American National Standard Practice for Office Lighting", RP-4-13 "Recommended Practice for Library Lighting" and RP-3-11 "Recommended Practices for Educational Facilities". LEED and ASHRAE requirements will be presented. Cutting-edge studies on light, circadian rhythms and workplace health will also be deliberated. All with an eye toward quality lighting design.

LOCATION: Toronto, Canada

DATES: November 9-10, 2015

REGISTER: Visit www.philips.com/LightingApplicationCenter

Healthcare Application Workshop

SYNOPSIS: After LEDs, light and health is the most discussed topic in lighting. New research is discovering that light does not only allow us to see but also can affect our health both positively and negatively depending on many critical factors. This workshop will explore the latest in light and the circadian rhythms, color temperature on attention, light therapy, light and the aging eye and many more Healthcare-pertinent topics. We will look at IES RP-28-7 "Lighting and the Visual Environment for Senior Living" and RP-29-06

LOCATION: Toronto, Canada

DATES: November 11-12, 2015

REGISTER: Visit www.philips.com/LightingApplicationCenter

Outdoor Application Workshop

SYNOPSIS: This workshop will detail outdoor application requirements with respect to the latest recommendations from IES. We will explore the latest in outdoor lighting technologies including outdoor commercial, municipal and roadway lighting, as well as vast controls. We will also look into IES' Lighting Handbook Tenth Edition and recommended practices; RP-33-99 "Lighting for Exterior Environments", RP-20-98 "Lighting for Parking Facilities", RP-8-00 "Roadway Lighting", and RP-22-05 "Tunnel Lighting"; and the IES technical manuals TM-15-11 "Luminaire Classification System for Outdoor Luminaires", and TM-10-00 "Addressing Obtrusive Light - "Urban Skyglow and Light Trespass". We will also discuss Scotopic/Photopic Ratios - what they are, how can they be used and how NOT to use them. If you work with outdoor lighting in any way this course is a must.

LOCATION: Toronto, Canada

DATES: November 24-25, 2015

REGISTER: Visit www.philips.com/LightingApplicationCenter

Webinars

Light and Health: implications for hospitality and beyond

SYNOPSIS: Join this webinar hosted by Mariana Figueiro, and see how different hues of illumination have different effects on our bodies and minds.

Most people live and work indoors, and we travel great distances in little time. Both of these facts skew our bodies' natural sense of day and night, and, as a result, this affects our health and well-being. Using the right light source can help mitigate or even reverse these effects. In this webinar you will discover how new neurological and behavioral insights are transforming lighting applications in the hospitality and health industries, and beyond.

HOSTED BY: Mariana Figueiro

DATE: September 30, 2015 (10 a.m. EDT)

REGISTER: Visit www.philips.com/LightingWebinars

Lighting Academy for you



Lighting Academy offers a comprehensive range of educational resources for people who want to expand their lighting knowledge. With a rich history in lighting, Philips is uniquely qualified to bridge the gap between the cutting edge in lighting innovation and the real-world solutions required by professionals.

The Academy partners with world-leading experts to provide you with up-to-date information and valuable inspiration. You will be sure to find something on this website that will enlighten you.

Visit www.philips.com/lightingacademy to see what training options are available.

PRODUCT NEWS



Design elegance. Astonishing performance

Philips Ledalite **TruGroove LED** luminaires are now available in suspended, surface and wall mount versions, complementing our high performance recessed line-

of-light luminaires, and extending sustainable elegance throughout any space. Whether you seek direct or indirect light, or a combination of the two, TruGroove LED offers unparalleled light distribution for the utmost design flexibility and visual comfort.

Visit www.philips.com/trugroove to learn more.



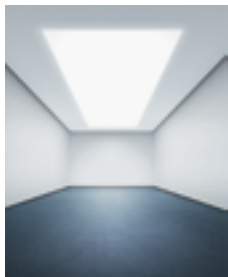
Provide eye-catching graphic effects

Philips **Vaya tube** is a reliable and cost-effective direct view linear LED lighting fixture designed for exterior and interior accent and contour lighting applications. Designers can create graphic effects with a resolution of up to 6" per pixel. Vaya tube fixtures can be connected together - up to 80' per control module, creating a

continuous, even line of light viewed from 180°. The Vaya tube's ethernet and DMX-512 control options make it simple to use with Philips Color Kinetics or third-party DMX controllers. This versatile, lightweight fixture with its slim profile is easily integrated into existing structures, allowing you to provide eye-catching graphics and dynamic content within your budget.

Visit www.colorkinetics.com/vaya to learn more.

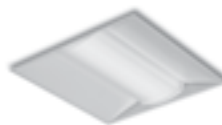
PRODUCT NEWS



Re-think the ceiling

Philips **OneSpace** luminous ceiling integrates LED lights with textile to create a white light ceiling surface that completely hides the source of light. The result is a smooth and clutter-free ceiling that emits a uniform and glare-free light. This revolutionary product will redefine how you use light in architecture and design. Now you can use light as an architectural component instead of just an add-on in a space.

Visit www.lighting.philips.com/main/products/onespace to learn more.



Change within reach

Philips Day-Brite / Philips CFI **EvoGrid** recessed architectural luminaires combine style and affordability so that you can create comfortable, energy-efficient spaces within reach of any budget. Attractive 2'X2', 2'X4' and 1'X4' configurations and three color temperatures, along with standard 0-10V dimming and optional, integrated energy-saving sensors, provide pleasing illumination that is highly energy efficient, yet priced similarly to specification-grade fluorescent luminaires.

Visit www.philips.com/evogrid to learn more.



Create an inviting city experience

Philips Lumece **SleekVision** post top and bollard offer a modern style for urban areas that want a contemporary feel. These high quality, performance post tops and bollards feature cutting-edge **ClearGuide** Technology so you can enjoy energy-saving LED illumination without the harsh glare or pixelization commonly associated with LEDs.

Visit www.philips.com/clearguide to learn more.



Create elegant nighttime splendor

Philips Lumece **ClassicStyle** post top and bollards are ideal for traditional settings and feature leading-edge **ClearGuide** Technology. This new breakthrough vertical light engine was specifically designed to mitigate the pixelization and glare commonly associated with LED illumination, providing a full, comfortable glow.

Visit www.philips.com/clearguide to learn more.



Easily upgrade PL-L lamps to LED

Philips has added a new **PL-L lamp** to its popular **InstantFit** family. This plug-and-play replacement for 40W PL-L fluorescent lamps works with existing fluorescent ballasts so it does not require expensive, time-consuming rewiring. It's also perfect for a wide range of applications and offers full light output in spaces with temperatures down to -4°F (-20°C).

Visit www.philips.com/instantfit to learn more.



New luminaire catalogs are now available

The new Philips **ProLuminaire Guides** provide you with a comprehensive look at the company's professional luminaire portfolio. The guides are intended to be a companion to the company's digital tools – **ProLuminaire App** and **eCatalog** – and help you connect faster to updated product details. An image and high-level spec information are provided for each product family so you can quickly scan the guide to find what you need. Indoor and outdoor versions are available.

Please ask your Philips Sales Rep to order you a copy today.

INDUSTRY NEWS

IALD Enlighten Americas: October 8-10, 2015 – Baltimore

Enlighten Americas will be held October 8-10, 2015 at the Hilton Baltimore in Baltimore, Maryland. In its fifteenth year, Enlighten Americas 2015 plans to inspire, educate and provide unparalleled opportunities to meet and interact with world-class and award-winning lighting design professionals. The two-day Enlighten Americas 2015 conference will follow a three-track system, featuring courses in the Art, Science and Professional Tools Tracks. Philips Lighting is a proud sponsor of this year's Conference, hosting the Saturday evening Closing Reception on October 10th.

For more information visit www.iald.org

IALDENLIGHTEN'15

INDUSTRY NEWS

Recommend Practice RP-1 Office Lighting available in Spanish and French



In recognition that IES has members whose native languages are French and Spanish, the society is now offering a technical document in two other languages, in addition to the original English version. Both are now in the Bookstore area of the website.

For more information visit www.ies.org/store

IES Annual Conference: November 8-10, 2015 - Indianapolis



Share The Brilliance
IES Annual Conference
 November 8-10, 2015
 JW Marriott Hotel | Indianapolis
 Illuminating www.ies.org/ac

The 2015 Annual IES Conference “Share The Brilliance” will take place at the JW Marriott Hotel in Indianapolis. Professionals from diverse disciplines will come together to explore, present, discuss, debate and exchange best practices in the art and science of lighting. Philips is a proud sponsor of this year’s conference.

For more information visit www.ies.org/ac/

Philips Achieves ENERGY STAR’s Highest Honor - Partner of the Year: Sustained Excellence



The U.S. Environmental Protection Agency (EPA) has recognized Philips, the global leader in lighting, with a 2015 ENERGY STAR (ES) Partner of the Year – Sustained Excellence Award for the company’s continued leadership in protecting our environment through superior energy efficiency achievements. For the third year in a row, Philips took top honors with over 500 ENERGY STAR certified products in 2014, including SlimStyle, the world’s first ENERGY STAR certified flat light bulb. Over 68 percent of the company’s product lines are ENERGY STAR certified, including the recently announced 60-watt equivalent LED bulb with dimming that mimics the warm glow of an incandescent.

NOTEWORTHY

GG Cousins Award



Mr. Tom Butters

The GG Cousins Award honors the memory of GG Cousin, first President of IES Toronto Section, and is presented by the Toronto Section to a member in recognition of outstanding service. Factors that are considered are continuous dedication and involvement in the growth of the section and support for the lighting community in the Greater Toronto area.

Philips is proud to share that this year’s GG Cousins Award was given to Tom Butters, Senior Manager, Philips Lighting University.

For more information visit www.iestoronto.org/25-year-awards.html

Rita Harrold, Past President, IES Fellow and Director of Technology, Retires After 23 Years at the IES



Ms. Rita Harrold

In June, the Illuminating Engineering Society of North America (IES) announced the retirement of Rita Harrold, Director of Technology. Ms. Harrold has been part of the lighting industry for almost 50 years. She was the first woman elected President of the IES and served from 1985 to 1986. Ms. Harrold became the Director of Educational and Technical Development (now Director of Technology) in 1992, and during her tenure, she became IES’s chief liaison to the lighting industry, built the Society’s education program, and guided hundreds of technical documents and standards to publication. Visit www.ies.org to learn more about Ms. Harrold.



We want to provide you with a newsletter that is inspiring and informative. Please take a few minutes to visit www.philips.com/feedback to answer a few questions. In return for your feedback, you’ll be entered to win one of twenty \$100 gift cards. More details on promotion rules and regulations are available on the site.