

LUMINOUS SPEC

SPRING 2016

“...we’re in a revolution
unlike anything we’ve seen
in modern day”

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FEATURED PROFILE

Charles Thompson

Zen and the passion for lighting design

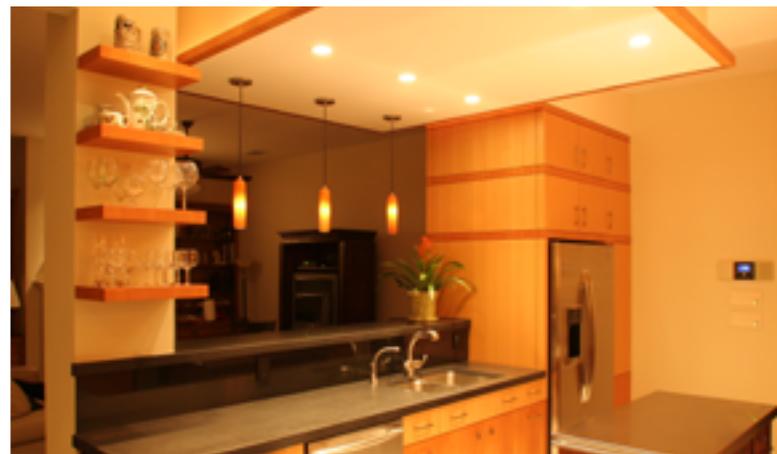
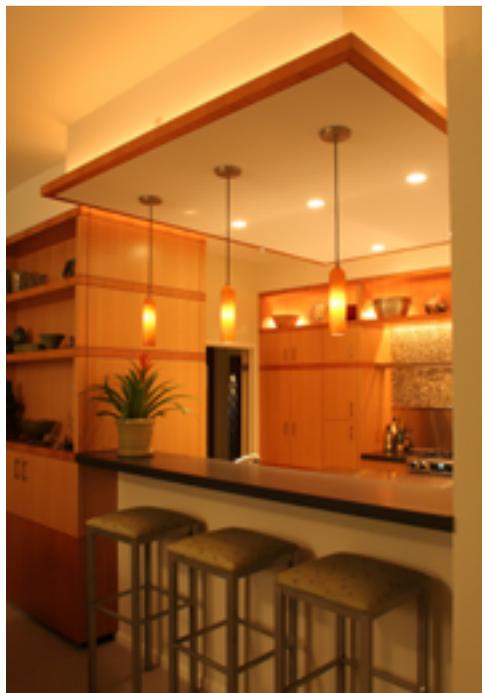
Charles Thompson, Principal and Vice President of ARCHILLUME LIGHTING DESIGN in Austin, Texas, is a conduit for energy. Whether he's creating a lighting design, participating in a discussion, or even touring on his Harley Davidson motorcycle, Charles finds a way to simultaneously impart and derive energy in just about any situation. At an early age, Charles Thompson focused on architecture, and in fact, he is a registered architect in the state of Texas. Yet he recalls the decision to specialize in architectural lighting design, when the profession was itself just emerging, was an "early, casual career choice."

What drew you to lighting design as a career? What was that deciding factor that made you focus on lighting design?

It wasn't a conscious goal at the time. I was actually immersed in architecture since high school, where I was involved in a work program. I went to University of Texas School of Architecture, and worked for a mechanical, electrical, plumbing (MEP) firm in Austin while I was in school and beyond. Lighting seemed to be the right fit. I was skilled in system design, I had lighting experience, and I liked the challenge; it was the right path. So in 1985, I started ARCHILLUME LIGHTING DESIGN. In the 80s, architectural lighting design was such a young profession that it was hard for architects and engineers to separate the intent of a manufacturer's salesperson focused on their portfolio, versus that of an independent consultant that reached across all product types to solve problems. At the same time, I had to assure my client base, mostly architects, that although I was a registered architect, I was focused only on lighting design. That foundation is so strong now; ARCHILLUME's purpose is crystal clear.



Mr. Charles Thompson



“It's so much more than just knowing the lingo...”

You, and your wife, Laura, who is Principal and President of Archillume, both incorporate speaking engagements and lectures into your schedules. How did you meet? What is that underlying current of passion for lighting design?

Laura and I met at the IALD conference in Cancun, Mexico several years ago and as fate would have it, our relationship evolved from friends and colleagues to marriage and business partners. We like being in each other's worlds, and when Laura became President of ARCHILLUME in 2014, she brought a new energy and a new direction, and ARCHILLUME is stronger today than it has ever been. As far as speaking and teaching, it's important to me because when I'm in that environment with a dynamic and engaging group of professionals, I'm energized and invigorated, it's almost euphoric. I tend to lean towards teaching other professionals while Laura tends to lean towards teaching students, and she does an amazing job connecting with them, so our speaking engagements complement rather than overlap. I like to help others, talk with them, and solve problems and challenges. In a small practice, the day-to-day aspects of running a business

can bog you down, it's a much different animal compared to a large corporation. So engaging, teaching, lecturing, in a way, researching – all of those are ways to either keep or restore my energy level.

LED technologies continue to evolve at a fast pace – how do you stay on top of the latest developments?

We got rid of our print library. It's gone. We use a manufacturer's web site to build a virtual product catalog for every project. Even with something we use frequently, like an MR16 residential downlight, we always download a new cut sheet because we know it likely will change. We've had downlight cut sheets and model numbers change four times during the course of a job. On top of that, we've got some really strong manufacturer reps here in central Texas that we rely on. We appreciate hearing from them on product updates, and we'll often broadcast a description of something we need to this network to see how they can fill that need. It's also important for us to see and evaluate samples first-hand, especially high-performance or unusual products.



“.....change is the new normal”

Even if it's an internal evaluation at ARCHILLUME, it's important for us to understand the product so we can inform our customers – architects, electrical contractors, electrical engineers, owners – we keep them informed with what's available for their project needs.

Lighting designers often work on a team with architects, engineers and others. How has your background helped in these situations? What's important for these teams to know when it comes to lighting design?

I have an architecture background, Laura has an architecture and interior design background, and we use these to quickly mesh with others on the project. It's so much more than just knowing the lingo; it's understanding different perspectives, solving problems and bridging communication across the entire project team. I do a lot of freehand drawings and detailed sketches. Drawings help to communicate the lighting intent while operating within the architect's environment. That segues into what I want people to know about lighting design. There's no more 'business as usual' in lighting; we're in a revolution unlike anything we've seen in modern day. Every single thing we do is changed, and this is an opportunity for professional lighting designers to fill a void in project design teams. It's almost impossible for an architect to stay abreast of lighting technology, and the same goes for many electrical engineers, with all they have to deal with in their respective professions. Energy restrictions, code

requirements, environmental expectations; change is the new normal. By relying on a lighting designer to manage these details, architects and engineers can focus on other project areas and ultimately work more efficiently.

You've served as a judge in competitions like the 2015 NGL SSL Design Competition. What stands out for you in a winning technology or project or idea?

Judging is another way to be invigorated and see what's next. When I judge products, like in the Next Generation Luminaires™ (NGL) competition from the Department of Energy, we look at the total package: performance, controllability, smooth dimming or color change, glare control, source brightness, light output and performance from a raw lumen standpoint, serviceability and overall value. We've come a long way, with an incredible product range, since the first judging eight years ago, but that's the point – to spur lighting technology development. On the flip side, when I judge lighting or architectural design, I want to know that it's a well-developed solution for the project's needs and limitations. Is someone working outside the box? Is there order? Is the solution simple? You also presume that it met the budget parameters. Design discussions are significantly different than those of product, but both are opportunities to engage and energize. I'm at the table with other lighting designers, say, or a mixed group of lighting designers, contractors, architects, engineers, manufacturer's reps, and by interacting with those folks, I come away with a different and improved perspective.

We understand that you enjoy riding your Harley Davidson motorcycle, can you elaborate on what this means to you?

Harley riders are unique, I'm drawn to the nostalgia, and it's one of the things that Laura and I enjoy together. It's a distraction from other things, and I tend to solve more problems on the bike than any other place. Some people backpack, some people ski, and I ride a Harley; it's a zen experience. When we're riding, Laura and I are extremely dialed into the natural lighting. We're going out to Big Bend National Park in west Texas (an almost annual trip) where the natural lighting is unlike anything in Texas. I feel similar when I'm dialed into a design process, solving problems and getting into a zone. Or realizing a project, where we go in for aiming and commissioning, we refine the solution and see a marked difference and improvement from the raw project. It's all about dialing into that zen.

Images used in this profile are as follows:

*Texas State photos (cover, pg 2 & 3)
Architect of Record: Barnes Gromatzky Kosarek Architects
Associate Architect: RCG Architects
Photographer: Alain Jaramillo*

*Lake house Kitchen (pg 2)
Photographer: Paul Bardagjy*

*Pickering kitchen remodel (pg 2)
Photographer: Charles Thompson*

“...that's the point – to spur lighting technology development”

PROJECT SPOTLIGHT

LIGHTING BECOMES ART FOR MARRIOTT HEADQUARTERS

As one of the most recognized hotel brands in the world, Marriott International wanted its Bethesda, Maryland headquarters lobby to reflect its leadership position. Vice President of Corporate Facilities Jim Young wanted to upgrade the lobby and create a spacious, inviting atmosphere for employees, designers, engineers and visitors. He came across Philips large luminous surfaces; “I was fascinated when I first saw it, and decided immediately to incorporate it into our remodeled lobby,” said Young.

Marriott collaborated with architecture firm Gensler to design a space with four luminous textile panels in the lobby of the headquarters. Initially, the panels were installed to display low resolution video and vibrant lighting patterns, but Young now considers the new addition a beautiful piece of art.

In addition to the unique look, the panels can personalize spaces, soften acoustics, and enhance the ambiance of a lobby, restaurant, or other space. Visitors and employees stop and marvel at the vibrant, glowing panels in the lobby area, formerly an unremarkable passageway into the building.

Visit <http://applications.nam.lighting.philips.com/blog> to learn more.



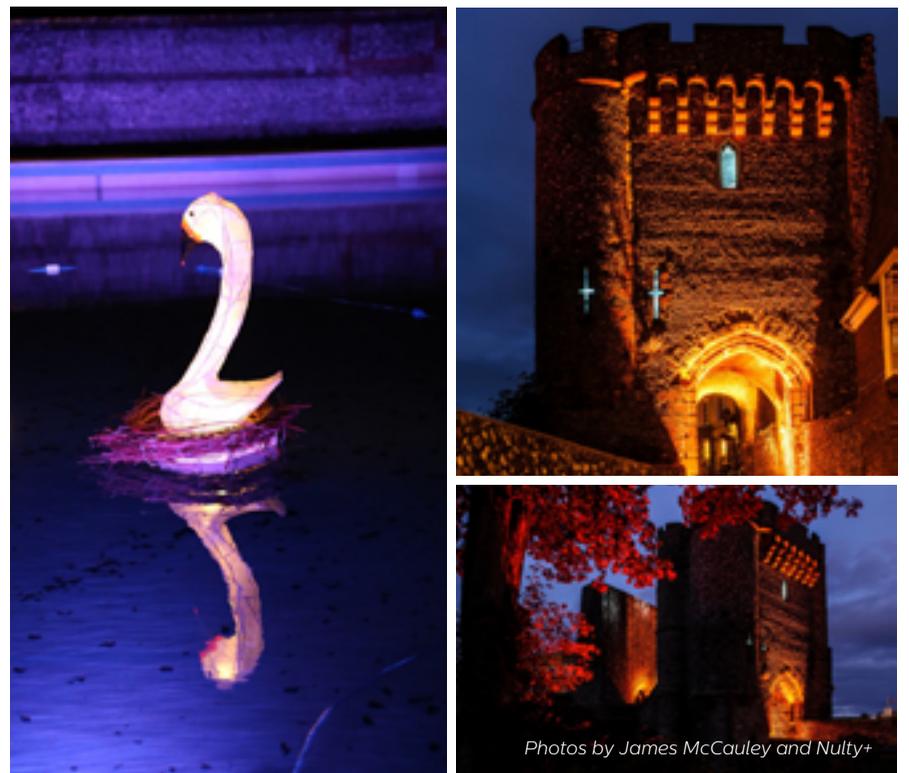
AROUND THE WORLD

ILLUMINATING THE HISTORY OF LEWES

In the Fall last year, the world was introduced to the first Lewes Light Festival, a celebration of the first Festival of Light in the strong, creative community of Lewes, East Sussex, England. The small town and its beautiful, historical architecture were brilliantly transformed into a vibrant, bright beacon extending across the town's landscape. This event welcomed and inspired visitors from around the world through the use of art, design, technology, and the environment.

Graham Festenstein, Lewes based lighting designer and Festival Director, had a vision of a lighting event as he walked around the small town. “We wanted to deliver a festival that created beautiful scenes and spaces but also one with community engagement and an educational component,” said Festenstein. He collaborated with the Sussex Downs College, who shared their expertise, putting in many hours of hard work helping the professional team deliver a successful event.

Visit <http://applications.nam.lighting.philips.com/blog> to learn more.



TECHNICALLY SPEAKING



Are All BIMs Created Equal? – Donna Gafford, LC, MIES, CM-BIM

As Building Information Models, commonly referred to as BIM, are becoming increasingly adopted, more and more manufacturers are now offering content for their products. While this seems wonderful on the surface, you may find yourself wondering, “Are all BIMs created equal?”

There is no way to sugar coat it, the answer is **No**.

In this three-part article series, we deconstruct BIM so that you can fully understand the importance and impact of this information on your lighting projects. First, let's discuss Building.

Building

It's easy to misinterpret the word, building, in this acronym. If the project you're working on happens to be, in fact, a building – it's easy to understand. But, what if you're a lighting an interchange or an amusement park? Is BIM still applicable? Yes.

This is why it's important to use “building” as a verb.

Building refers to your project. What are you building, remodeling, deconstructing, or managing? Are you lighting an interstate, renovating a school, dismantling a tired façade or scheduling facility maintenance? It doesn't matter. Building, in this context, is suitable for all instances.

Now that building has been placed in the correct context, let's move on. As a specifier, it's your job to choose quality products that meet your project's needs, right? Of course. So, in your virtual project it would only make sense to do the same. That's where the “I” and “M” come in the picture.

Check out our next installment of Luminous Spec, where we discuss BIM in the context of Information, or contact us at design.resources@philips.com with your specific question.

PRODUCT NEWS



Easily upgrade to an economical LED downlight

The Philips Lightlier **CorePro LED** product family is a multi-purpose solution for retrofit and value driven, new construction applications. These downlights are available in 4”, 5” and 6” apertures and are the perfect solution for retrofit, remodeling and new construction. They are an affordable solution for customers accustomed to the economic price and light output of an incandescent and compact fluorescent system. Complete offering of remodeler and new construction Frame-in-Kits are also available.

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



Unprecedented uniformity for white-light applications

Philips Color Kinetics **EvenBalance** Powercore's gentle, uniform wall grazing and washing are perfect for illuminating textured and flat surfaces. The even bright-white light draws attention to the beauty of the architecture and environment. **EvenBalance** delivers the highest uniformity with the most lumens for the least

power – providing the most even illumination in the marketplace.

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



Parking with confidence

When garages are constantly lit to maintain a sense of security for patrons, maintenance and operating costs can become expensive. Patrons should enjoy peace of mind as they leave their vehicles unattended, drive,

and move about in a parking garage.

Philips Gardco **SoftView** parking garage luminaires use indirect illumination and uplight to reduce glare and eliminate the cave effect so that patrons can feel comfortably secure. Utilizing LED technology reduces energy and maintenance costs compared to conventional HID technologies, and savings are further enhanced through a variety of dimming and control options.

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



Light only where, and when it's needed

Today's industrial facilities are tasked with improving productivity and efficiency while reducing costs. However, the lighting required to facilitate the site's continuous operation can account for a significant portion of overall operating expenses. The combination of SpaceWise Technology with energy efficient LED

luminaires from Philips Lighting can help your customers reduce these operating expenses by delivering up to 75% energy savings*.

* Savings from a 24,000 lumen FBX Luminaire with SpaceWise Technology over a 400W conventional Metal Halide fixture

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



Customized lighting at your fingertips

You can now create the perfect atmosphere for any application, from quiet and moody, to bright and energetic, to anything in between.

Philips **Antumbra iColor** keypad is a compact stand-alone lighting controller for use with intelligent RGB and intelligent white-light LED lighting fixtures from Philips Color Kinetics. The wall-mounted controller triggers up to six light shows at the touch of a button. Power over Ethernet (PoE) technology eliminates the need for a separate power source, giving you more freedom of placement, higher reliability, and easy installation.

Visit www.philips.com/colorkinetics 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 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

SYNOPSIS: This workshop focuses on lighting trends and the latest technologies for both outdoor and indoor lighting applications. Participants are able to earn over 5-7.5 hours of CEU and AIA LU.

This workshop is a special offering and is by invite only. To enroll, contact your local sales representative.

Workshop Content

- Psychology & Physics of Light and Color
- LED Lighting: Changing All The Rules
- LED Technologies in Various Applications Environments
- Simplified Energy & Code Updates

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

Learning Objectives

- Articulate the value and competitive advantages of the entire Philips product portfolio (Indoor & Outdoor).
- Have an understanding of how lighting can positively influence building energy codes and standards in the U.S.
- Attain a basic understanding of the fundamental factors that affect seeing and have a basic understanding of the spectral interactions between light sources, objects, and the human vision.
- Describe how LED luminaires are designed and tested for thermal and photometric performance.

LOCATION: Somerset, New Jersey

DATES: June 8-9, 2016
August 31-September 1, 2016
December 6-8, 2016

- The *December* seminar will offer an additional day. Participants are treated to a special viewing of the Times Square Ball in New York City where Philips Lighting has been a corporate sponsor for over 16 years.

REGISTER: Visit www.philips.com/LightingApplicationCenter

Workshops

Lighting Specialist Workshop

SYNOPSIS: This 2-day Workshop builds on a basic understanding of lighting to address the critical issues in the experience, measurement and assessment of lighting and lighting systems. This workshop is aimed at the needs of those with two-to-five years of lighting experience and the desire to augment their lighting knowledge and know-how.

We take an interactive, experience-based, and participant-centered approach, using full-scale and hands-on demonstrations. Participants observe lighting in action, measure and evaluate lighting alternatives, and practice applying the content.

Workshop Agenda:

- Human and Business Impacts of Lighting
- Language of Light – Terminologies and a Technical Review
- Analyzing the total cost of ownership
- Photometry
- Color and Its Impact on Source Selection
- Choosing Luminaires to Meet Specific Needs for Each Application
- Light Over Life

Controls: Components, Interaction and Strategies

LOCATION: Toronto, Canada

DATES: March 21-22, 2016

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.

Workshop Agenda

- Understanding how LEDs produce light
- Principle operational issues
- Negative effects of heat on all aspects of LEDs
- LEDs and their effect on color
- Industry specification guides
- Specifying LEDs in the present and the future

LOCATION: Toronto, Canada

DATES: March 23, 2016

REGISTER: Visit www.philips.com/LightingApplicationCenter

Top Gun – LED Luminaires Workshop

SYNOPSIS: This workshop provides an up-close and hands-on approach to LED lighting systems, including sources, drivers, lamps and luminaires. Participants take a more in-depth look at LED technology, focusing on system interaction, life, and control.

Workshop Content:

- Understanding the core technology at a deeper level
- System performance, energy effectiveness, reliability and lifetime
- Dimming control and compatibility for LED lamps and luminaires
- Looking ahead

Learning Objectives:

- Communicate the benefits and limitations of LED lighting systems with positive results
- Specify compatible LED control systems
- Trouble shoot basic LED/control problems
- Explain LED life ratings and predicted performance – what the data mean and what they don't

LOCATION: Burlington, Massachusetts

DATES: April 7-8, 2016

REGISTER: Visit www.philips.com/LightingApplicationCenter

EDUCATION

Lighting Application Workshop

SYNOPSIS: This workshop applies basic design process to typical lighting applications. Working with the Philips product portfolio, participants will develop lighting concepts into specific lighting recommendations. Participants investigate key applications using exercises and team-based problem-solving methods.

Successful participants will earn 8 AIA Learning Units.

Workshop Content:

- Lighting design process
- Illuminance calculations
- Energy code compliance
- Lighting for work applications
- Lighting for retail and hospitality applications

Learning Objectives:

- Develop lighting concepts for basic applications
- Communicate lighting design concepts
- Select lighting systems to meet design parameters
- Calculate illuminance, LPA and LPD

LOCATION: Somerset, New Jersey

DATES: April 13-18, 2016

REGISTER: Visit www.philips.com/LightingApplicationCenter

Controls Workshop

SYNOPSIS: Participants will feel more comfortable with Controls in general, learn information needed to supply your customers with the best energy management and architectural controls solutions available.

LOCATION: Toronto, Canada

DATES: May 4, 2016

REGISTER: Visit www.philips.com/LightingApplicationCenter

Lamp, Ballast, and Driver Workshop

SYNOPSIS: Allows participants to acquire the knowledge to choose the optimal light sources and lighting systems for all lighting application solutions. Technological advancements in both lamps and the auxiliary devices that make them perform are changing and improving. Discover how the luminaire systems: lamps, ballasts, drivers, and optics will allow you to choose the best lamp and ballast combination to optimize your lighting designs.

LOCATION: Toronto, Canada

DATES: May 5, 2016

REGISTER: Visit www.philips.com/LightingApplicationCenter

Healthcare Application Workshop

SYNOPSIS: New research is discovering that light not only allows us to see but also can affect our health both positively and negatively. This workshop will explore the latest in light and the circadian rhythms, color temperature on attention, light therapy, light and the ageing 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 "Lighting for Hospitals and Healthcare Facilities".

LOCATION: Toronto, Canada

DATES: May 9-10, 2016

REGISTER: Visit www.philips.com/LightingApplicationCenter

Lighting Fundamentals Workshop

SYNOPSIS: 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 workshop is aimed at those that are interested in learning the essentials of lighting and/or wish to augment their lighting knowledge and know-how.

Workshop Agenda:

- Light Generation
- Quality of the Visual Environment
- Lighting Metrics & Photometry
- Lighting Calculation Methods
- What lighting does: the perception and psychology of light and color
- What lighting costs: sustainability and the total cost of ownership
- Lighting systems: sources, ballasts, luminaires and controls for filament, LED, fluorescent, and HID technologies
- Introduction to lighting for office space and industrial facilities applications
- LEDs

LOCATION: Toronto, Canada

DATES: June 6-9, 2016

REGISTER: Visit www.philips.com/LightingApplicationCenter

Webinars

Is it all Flicker?

SYNOPSIS: This talk gives an overview of the state of the art in the methods for measuring the temporal quality of light. First, different aspect of temporal quality of light are discussed and defined. In the second part, the parameters that influence the visibility of Temporary Light Artifacts (TLA) are reviewed. The last part gives an overview of the recommended methods for the quantification of the different temporal light artifacts.

HOSTED BY: Dragan Sekulovski

DATE: March 24, 2016 (10 a.m. EST)

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.

INDUSTRY NEWS

IALD Education trust benefit dinner

April 27, 2016
San Diego Air and Space Museum
San Diego, CA USA

The annual IALD Education Trust Benefit Dinner has proven that one night of generosity can bring a year of lighting education support to students and educators worldwide. The Trust Dinner is critical for the continued support of students, educators and academic programs in architectural lighting education – it alone raises anywhere from 70 percent to 90 percent of the Trust's annual budget.

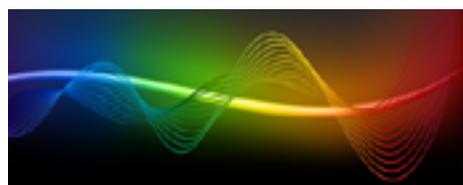
Philips, dedicated to the development of the IALD industry, is a proud sponsor of the 2016 IALD Education Trust Benefit Dinner + 33rd Annual IALD International Lighting Design Awards.

For more information, go to: www.iald.org

INTERNATIONAL ASSOCIATION OF LIGHTING DESIGNERS

IALD

Light+Color



April 3-5, 2016
Gaithersburg, MD USA

The IES Research Symposium will draw on the talents and expertise of the researcher, the technologist and the design professional to better understand the growing role of color in lighting from the standpoints of color vision, color perception, color preference, color metrics and color technology.

Philips will sponsor this symposium event and have technical experts onsite to share their knowledge and expertise on the subject matter.

For more information, go to: www.ies.org/symposium/index.cfm

Mark your calendar

- **May 19 - 21, 2016**
AIA Convention, Philadelphia, PN
- **September 21 - 22, 2016**
WEEC, Washington, DC
- **October 13 - 15, 2016**
IALD ENLIGHTEN, Puerto Vallarta, Mexico
- **October 5 - 7, 2016**
GreenBuild Conference, Los Angeles, CA
- **October 23 - 25, 2016**
IES Conference, Orlando, FL



LIGHTFAIR® International



April 24-28, 2016
San Diego Convention Center, San Diego, CA USA

LIGHTFAIR® International (LFI), the world's largest annual lighting trade show/conference for lighting, design and technology innovation, brings together the top industry professionals from around the world.

The LFI Innovation Awards® take place on April 26, 2016 and highlight the industry's most innovative products and designs introduced in the past year..

Visit Philips at booth: #3623.

For more information visit www.lightfair.com

CLUE Jury Panel Announced



CLUE (Community Lighting for the Urban Environment) is an international lighting competition open to all lighting applications and spaces. Edition 02, under the theme: **LIGHTIUS LOCI** – Spirit of Light – closed on January 30, 2016. With

over 200 submissions and nearly 1,000 registrants, Edition 02 significantly surpasses previous records. Jury deliberations will occur on March 7, 2016 with the following Jury Members presiding:

- **Chip Israel** – Founder of the Lighting Design Alliance
- **Fred Oberkircher** – Retired Emeritus Associate Professor at the Texas Christian University
- **Judith Portier** – Multi-disciplinary and Entrepreneurial Designer, Design par Judith Portier
- **Julie St-Arnault** – Senior Landscape Architect, Senior Partner, VLAN Paysages
- **Marc-André Carignan** – Urban/Architectural Design Columnist, MATV, Radio Canada, Journal Metro
- **Paul Tarricone** – Publisher/Editor, LD+A Magazine – The Illuminating Engineering Society
- **Peter Kuehnel** – Business Leader for Office, Industry & Healthcare luminaire portfolios, Philips Lighting

To learn more visit www.cluecompetition.com