



Illuminating
ENGINEERING SOCIETY

IES ANNUAL CONFERENCE

November 7-9, 2010

TORONTO

Quality Lighting in a Greener World

You Need to Be There...

Review of the *IES Handbook* 10th Edition

Great Debate: Banning the Incandescent Bulb - Brandston vs den Daas

Cutting-edge Lighting Research Papers

CEO Roundtable: Bridgelux, Cooper, Zumtobel

ASHRAE President's Update

First Ever Lighting Designers' Forum

Progress Report and Much More!

SESSION AND EVENT SPONSORS

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Quality Lighting in a Greener World

Dear Fellow Members and Lighting Professionals:

Greetings!

Toronto, the Fairmont Royal York Hotel, and, most importantly, a program you will not want to miss—bring your passport and participate in the IES Annual Conference.

These are unprecedented times in our industry. New technologies are taking over the industry. Traditional lamps are being banned. There is an inescapable emphasis on sustainability as well as carbon footprint. The lighting industry will change more in the next three years than it has in the last thirty. The 2010 IES Annual Conference will address all of these issues and more with many of the topics being covered by presidents and CEOs. While we continue to be true to our core technical audience, we have tried to create a sea-change by broadening the scope to appeal to a wider group of professionals.

Take a look at the program. From our traditional offerings of the latest technical research papers, top-notch seminars, Illumination Awards and Progress Report, to our new CEO roundtable and Lighting Designer Workshop, the conference has something for everyone.

There has never been a time of greater change in the lighting industry. Participating in the 2010 Conference will ensure you have the knowledge to prosper during this unprecedented time of opportunity.

We look forward to welcoming you.

Sincerely,



John Selander, MIES
Acuity Brands Lighting
President 2010-2011



Randy Reid, MIES
Luxim Corporation
Chair, Conference Steering
Committee

The following listing is a limited meetings schedule for Saturday and Sunday. A full IES committee schedule of meetings is located at the IES website at www.ies.org/ac

SATURDAY - NOVEMBER 6

8:00am-1:00pm	Board of Nomination Meeting
8:30am-12 Noon	District 6 Executive Council
10:00am-12 Noon	District 1 Executive Council
1:00pm-4:00pm	Regional Membership Council Meeting
4:00pm-6:00pm	District 7 Executive Council
8:00am-5:00pm	Committee Meetings

SUNDAY - NOVEMBER 7

8:00am-12 Noon	Board of Directors Meeting
9:00am-3:00pm	Leadership Forum
8:00am-4:00pm	Committee Meetings

5:00pm-8:00pm



Welcome and Opening Program

Welcome comments

John Selander, IES President
Acuity Brands Lighting

Presentation of the IES 2010
Illumination Design Awards



Welcome Reception

A cocktail reception will follow the program.

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MONDAY - NOVEMBER 8

7:30am Networking Continental Breakfast

8:15am-9:15am General Session I

Opening Session: The Great Debate: The Banning of the Incandescent Bulb

The most far-reaching lighting legislation is set to take effect in 2012. Your panel will debate the wisdom of that legislation and discuss whether or not we are ready for it.

Howard Brandston and Kaj den Daas,
Philips Lighting

Moderator: Ian Lewin, Lighting Sciences Inc.

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9:30am-10:30am Seminar

Why Fluorescent Lighting is not Dead

With all the current buzz about LEDs, one might be tempted to think that fluorescent lighting has already lost the war of the lighting sources. On the contrary. This speaker argues that all general illumination is poised on the brink of a revolution: controllable lighting, a system which will work in concert with emerging luminaires to improve lighting quality and user satisfaction. This session will demonstrate hybrid lighting solutions combining the best of controllable fluorescent and LED sources as a practical cost-effective solution in the move to the next level of lighting energy efficiency.

Francis Rubinstein, Lawrence Berkeley National Lab

9:30am -10:30am Paper Session Daylighting I

Visual Comfort Analysis of Innovative Interior and Exterior Shading Systems

K. Konis, E. Lee, R. Clear

View Characteristics and Discomfort Glare

N. Tuaycharoen

9:30am -10:30am Paper Session Performance/Testing

Proposing Measures of Flicker in the Low Frequencies for Lighting Applications

N. Miller

Application of the EPRI System Compatibility Concept to Improve the Performance and Reliability of LED Systems

P. Keebler

10:45am-11:45am Seminar Quality Lighting and Energy Codes: Can We Serve Two Masters?

Your speaker will review the sometimes tenuous relationship between lighting quality and energy issues. And, how both at times work at odds to one another. Discussion will focus on the efforts underway by IES in partnership with IALD and ALA to educate lawmakers, code writers and those who establish standards of practice.

Randy Burkett, Randy Burkett Lighting Design

10:45am -11:45am Paper Session Daylighting II

Field-measured Performance Evaluation of a Digital Daylighting System

J. Granderson, V. Gaddam, D. DiBartolomeo, X. Li

Simulating the Daylight Performance of Complex Fenestration Systems Using Bidirectional Scattering Distribution Functions within Radiance

G. Ward, R. Mistrick, E. Lee, A. McNeil,
J. Jonsson

12 Noon-1:30pm Membership Luncheon

IES Annual Meeting and Town Hall

1:45pm-2:45pm General Session II Green Building Climate Change

Buildings account for about 40% of the greenhouse gas production in North America. The US and Canada Green Building Councils have moved aggressively to develop green building rating systems, education, public policy advocacy, and professional accreditation programs to reduce the use of fossil-fuel based energy in buildings. Your speakers will discuss their current programs and those "on the drawing boards" as part of the ongoing effort to deal with this issue in the built environment.

Kim Shinn, Senior Sustainability Consultant, TC Engineering for Architecture, US Green Building Council and Blair McCarry, Principal, Busby Perkins+Will, Canadian Green Building Council

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CONFERENCE SCHEDULE

3:00pm-4:00pm

Seminar

A Real World Energy Story: Whole Foods

Your speaker will discuss the challenges of lighting Whole Foods Market stores. These include building without a prototype design, addressing architects' aesthetic expectations, educating engineers, optimizing roof space and incorporating energy-efficient products and daylighting. This seminar features examples of real stores that reduced their lighting intensity and usage as part of the company's 25% energy reduction goal.

Kathy Loftus, Whole Foods

3:00pm-4:00pm

Paper Session Office Lighting

Low Ambient / Task Lighting for Offices: Real Energy Impacts, Occupant Response and Cost-Effectiveness
O. Howlett, M. Mutmanský

Saving Energy with Highly-Controlled Lighting in an Open-Plan Office

A. Enscoe, F. Rubinstein

4:15pm-5:30pm

IES Progress Report

New products, services, trends and publications presented by the IES Progress Committee

5:30pm-7:30pm

Product Showcase and Reception

Tabletop reception featuring new products and services offered by lighting manufacturers

Tabletop Refreshments

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COOPER Lighting

TUESDAY - NOVEMBER 9

7:30am Networking Continental Breakfast

8:15am-9:15am

General Session III

Broad Changes to the IES Handbook

The new *IES Lighting Handbook* has been completely rewritten with an organizational structure and updated content to provide a wide audience with detailed recommendations and guides to good design practice in all aspects of lighting. This session will outline the most important changes and additions.

David DiLaura, DLDL Consulting

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OSRAM SYLVANIA

9:15 am-11:30 am

Off-site Lighting Tours

Three lighting tours will be conducted on Tuesday morning. Space will be limited and based on a first-come, first served basis. The buildings are located in downtown Toronto. Transportation will be provided.

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LUMEC**

T1-The Schad Gallery – Royal Ontario Museum

The Schad Gallery of Biodiversity is devoted to exploring our world's

incredible living diversity. Explore seven ecosystem experiences, approximately

2,500 specimens and the Earth Rangers

Studio featuring live animal ambassadors to convey

an important message about the interconnectedness of nature's amazing web, and the ability that each

of us has to care for the environment. Lighting Designer Suzanne Powadiuk won an Illumination Award of Merit for her design that successfully addresses

visitor, museum and spatial issues. Learn how conservation issues were addressed while managing the tight constraint of the existing long, narrow black box gallery with exposed ceilings.



T2-Telus Corporate Headquarters

Communication heavyweight Telus has a new 30-story green office tower in downtown Toronto for which they are seeking LEED

Gold (Core & Shell). Lighting Designer Paul Boken from

Mulvey Banani International will review the lighting design in some of the key areas including the soaring 30-ft lobby

space that will carry heavy pedestrian traffic as it connects with Toronto's PATH

system of sheltered and underground walkways. This Illumination Award of Merit project includes daylight harvesting, extensive use of occupancy

sensors and much more in this tenant-focused, worker-friendly office tower.



T3-Robarts Library – University of Toronto

The Robarts Library at the University of Toronto features a raw, concrete style. Lighting Designer Rafael Correa of Smith + Andersen created a lighting

design to soften and improve the lighting of the



space. An Illumination Award of Merit project, the Robarts Library includes a range of lighting technology and application. Strong architectural details were highlighted to provide better visual comfort by concealing LED luminaires within coffers. While fewer fixtures are used in the new design, the end result is an improved visual environment for the users of the space.

9:30am-11:30am

Lighting Designer Workshop

A hands-on workshop where lighting designers and others can create lighting designs in real-time. A collaborative team effort will be fostered to provide a design solution to a unique and challenging lighting design.

Note: This workshop will be held at the hotel at the same time as the Lighting Tours.



11:45am - 1:15pm

Lighting Topics Networking Luncheon

Lunch and informal discussion groups on relevant topics in the field of lighting. Facilitators will be assigned to topic tables

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1:30pm-2:30pm

General Session III Modeling a Sustainable World

Lighting practitioners have lighting tools, such as energy simulation, daylight analysis, and BIM software, which enable us to create and refine our vision of building. These resources help us guide other design professionals and building owners to determine building orientation, shading and shape, and to select materials and systems that optimize building performance. As leaders in sustainable design, we must set an example by using innovative, energy-efficient solutions to meet present and future energy needs.

Lynn Bellenger, President, ASHRAE

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2:30pm-3:30pm **CEO Roundtable**
The Transformation of the Lighting Industry

The industry is poised to change more in the next three years than it has in the last thirty. These CEOs will discuss this sea change and the effect it will have on our industry.
Bill Watkins, Bridgelux; Mark Eubanks, Cooper Lighting and Tim O'Brien, Zumtobel Lighting

2:30pm-3:30pm **Paper Session**
Technology

A Dimmable Ceramic Metal Halide Lamp for Indoor Use
W. Cottaar

High Dynamic Range Images Generated under Mixed Types of Lighting
T. Chung, H. Cai

2:30pm-3:30pm **Paper Session**
Human Factors

Towards the Definition of New Visual Color Quality Representations
J. Carreras, J. Hendricx, P. Antonis, M. Meeuwssen

Reading Performance is Affected by Light Level and Lamp Spectrum
B. Liebel

3:30pm-4:30pm **Poster Session**

A poster format session with the authors on a wide range of topics in research work or studies. Posters will include work in new technologies, novel lighting design solutions or product applications and con-

cepts for improving measurement or the evaluation of lighting systems.

4:30pm-5:30pm **Seminar**
Why Go Organic? Envisioning OLED Lighting

OLED's are unlike any other light source. This session will take a deep dive into technology, challenge our current perceptions of lighting design and explore the transformational impact OLEDs may have on lighting practice.
Peter Ngai and Jeannine Fisher, OLED Lighting Design Center, Acuity Brands Lighting

4:30pm-5:30pm **Seminar**
IES Public Policy Interests

This session will cover areas related to IES public policy, including strategy, updates and results, federal and state-level legislative activity relating to energy and environmental issues, and important pending legislation.
Bob Horner, IES Director of Public Policy

4:30pm-5:30pm **Paper Session**
LEDs

Reliability Analysis of LED Based Streetlights on the Temperature Effect
H. Wang, O. Bukhtiyarov, J. Chen

A Statistical Method Analyzing LED Lumen Depreciation and Projecting LED Life
H. Qiao, T. Pulsipher, J. Hathaway, E. Richman

6:00pm-9:00pm **IES Gala Dinner**
Dinner and awards program. Presentation of the 2010 IES Awards.

Recipients



IES Fellow
Mark Roush, Experience Light
Matthew Tanteri, Tanteri + Associates, LLC



IES Distinguished Service Award
Kevin Flynn, Kiku Obata & Company
Willard Warren, Willard L. Warren Associates, Inc.



IES Louis B. Marks Award
Delores Ginthner, Professor Emeritus, University of Minnesota

The conference concludes on Tuesday night.

NOTE: Due to any circumstances beyond its control, IES reserves the right to change any of its program offerings, speakers or designated session time slots.



CONFERENCE HOTEL

Fairmont Royal York Hotel
100 Front Street West
Toronto, ON, Canada M5J 1E3

Hotel Direct Phone: 416-368-2511

Hotel Toll Free: 1- 800-441-1414

IES Conference Room Rate: \$205.00 CANADIAN (Single/Double) plus tax.

IES Room Rate Cut-off Date: October 8, 2010

Online Reservations at www.ies.org/ac

Airport: Lester B. Pearson International Airport is Toronto's major airport located approximately 20 miles from the hotel. It is served by most major airlines, including direct flights from key US gateways.

STEP 1 - Personal Information (One registration form per registrant)

IES Member # _____

First Name _____ Last Name _____ Nickname for Badge _____

Job Title _____ Company _____

Address _____ City/State/Zip Code _____

Telephone: () _____ Email: _____

Industry Sector: Architect Academic/Researcher Electrical Contractor Electrical Distributor Electrical Utility
 Government Agency Interior Design Lighting Designer Manufacturer Manufacturer's Rep.

STEP 2 - IES Membership

Not a member? - Join now! ADD \$170 membership dues.
 Receive 10% discount on a full conference registration.

New Member Dues Subtotal \$ 170

STEP 3 - Registration

FULL CONFERENCE: Includes all sessions, Sunday reception, lunches, exhibit reception, and Gala Dinner. (TOURS NOT INCLUDED). _____

Sunday Nov 7th open at noon

On-site

IES Member	ON SITE ONLY	\$625	\$ _____
Nonmember		\$725	\$ _____
IES Student/Retired/Emeritus Member		\$150	\$ _____

DAILY CONFERENCE: Monday: Includes all sessions, breaks, lunch, tabletop reception.
 Tuesday: Includes all sessions, breaks, lunch. Gala Dinner and TOURS ARE NOT INCLUDED

IES Member	ON SITE ONLY	\$350	\$ _____
Nonmember		\$400	\$ _____

DAY: ___ MONDAY ___ TUESDAY

Registration Subtotal \$ _____

TICKETED EVENTS: Ticketed events are included in the FULL CONFERENCE REGISTRATION except the Lighting Tours which are limited and available on a first-come, first-served basis.

Sunday - November 7

Welcome Program Reception **ON SITE ONLY** \$85 \$ _____

Monday - November 8

Membership Luncheon \$55 \$ _____
 Tabletop Reception \$70 \$ _____

Tuesday - November 9

Networking Luncheon \$55 \$ _____
 Gala Dinner \$95 \$ _____

Guest Name _____ **Guest Subtotal** \$ _____
First Name, Last Name

Tuesday - November 9 (9:30am-11:30am) Lighting Tours are complimentary and sponsored by Philips Lumec.
 Seating is limited. One tour per person. **You must be registered for the conference (no guests).**

Lighting Tour - T3 - Robarts Library, University of Toronto

Lighting Designer Forum (at the hotel)

NEW MEMBER DISCOUNT (From STEP 2) Deduct 10% from full registration only (-\$57.50)

COMMITTEE CHAIR/VICE CHAIR DISCOUNT Deduct \$50 from FULL REGISTRATION ONLY (-\$50)

Current Chair/Vice Chair/Committee: _____

SECTION OFFICER DISCOUNT Deduct \$50 from FULL REGISTRATION ONLY (-\$50)

Current Section Office/Section: _____

Leadership Forum: Sunday Nov. 7 (9am-3pm NO CHARGE) I will attend I will not attend

Grand Total Enclosed \$ _____

STEP 4 - Payment Information

Check (Payable to IES) American Express MasterCard Visa

Card# _____ Exp. Date _____ CVC _____

Signature _____

STEP 5 - Send Completed Registration with Payment to: IES, 120 Wall Street, 17th Floor, New York, NY 10005 or **Fax:** 212-248-5017

**REGISTRATION OPENS SUNDAY NOV 7TH AT NOON
THIS IS FOR PRICE INFORMATION ONLY**