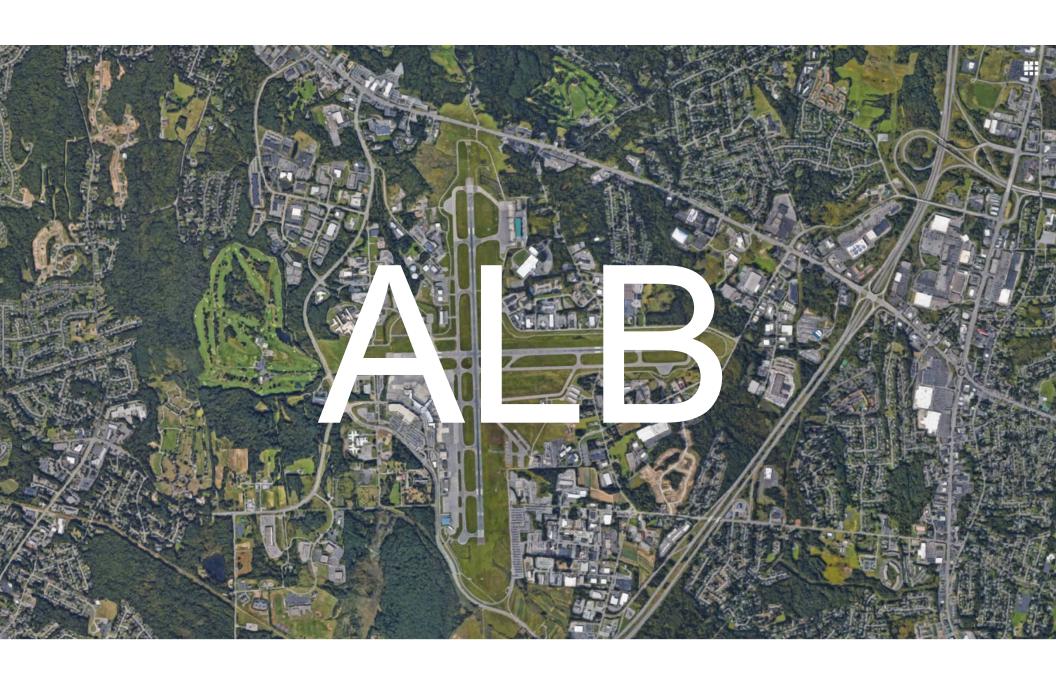


Illuminating Engineering Society Updates

IES Aviation Lighting Committee Technology Meeting Monterey, California

Alex Baker MSc, LC, IES
Manager of Government Affairs and Public Policy
Staff Liaison to the IES Aviation Lighting Committee

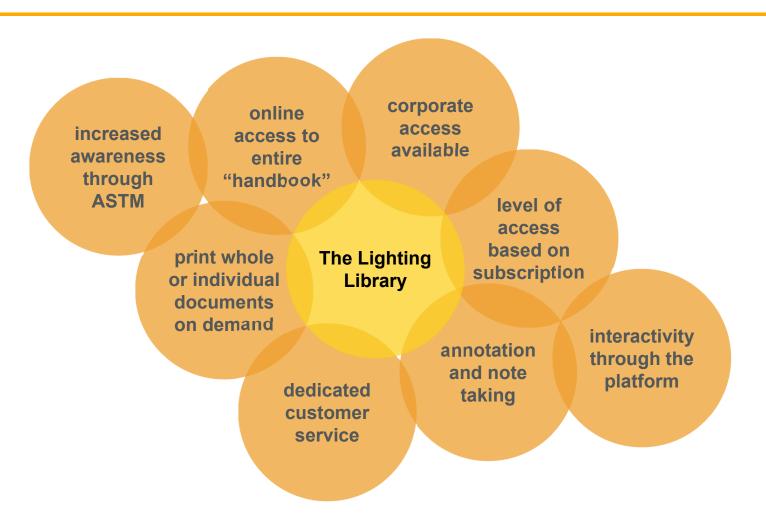




Standards

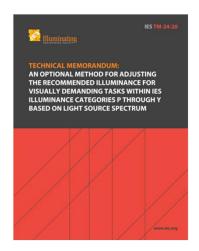


The Lighting Library – Coming in 2020

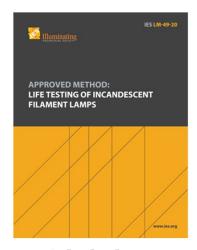




IES Standards: The Lighting Library



Lighting Science



Lighting Measurement



Lighting Practice



Lighting Applications



Roadway Lighting



- Aged and Partially Sighted Lighting Committee
- Assembly and Performance Lighting Committee
- Aviation Lighting Committee
- Building Information Management Committee
- Color Committee
- Computer Committee
- Daylight Metrics Committee
- Daylighting Committee
- Discomfort Glare in Outdoor Nighttime Environments Committee
- Education/Library/Office Lighting Committee
- Energy Efficiency Lighting Programs Committee



- Healthcare Facilities Committee
- Horticulture Lighting Committee
- Hospitality Facilities Committee
- Industrial Lighting Committee
- Internet of Things Committee
- Light and Design Committee
- Light and Human Health Committee
- Light Sources Committee
- Lighting Commissioning Committee
- Lighting Control Systems Committee
- Lighting Maintenance Committee



- Lighting Upgrades Committee
- Luminaire Design Committee
- Museum and Art Gallery Lighting Committee
- Nomenclature Committee
- Outdoor Environmental Lighting Committee
- Outdoor Public Spaces Committee
- Photobiology Committee
- Port Terminals Lighting Committee
- Residential Lighting Committee
- Resilience Committee
- Retail Lighting Committee



- Roadway Lighting Committee
 - Roadway Intersection Task Group
 - Roadway Measuring & Calculating Task Group
 - Roadway Maintenance Task Group
 - Roadway Obtrusive Light Subcommittee
 - Roadway Off-Roadway Task Group
 - Roadway Outdoor Controls Task Group
 - Roadway Research & Visibility Task Group
 - Roadway Signs Task Group
 - Roadway Toll Plaza Task Group
 - Roadway Tunnel Lighting Control Design Task Group
 - Roadway Tunnels & Overpasses Task Troup
 - Roadway Work Zone Task Group



- Security Lighting Committee
- Skyglow Committee
- Sports and Recreational Area Lighting Committee
- Sustainable Lighting Committee
- Testing Procedures Committee
- Videoconference and Presentation Lighting Committee
- Vision Science Committee



- Annual Conference Steering Committee
- Annual Conference Young Professionals Scholarship Fund
- Audit Committee
- Board of Fellows Award Committee
- Distinguished Service Award Committee
- Education Material Review Committee
- Education Strategy Committee
- Finance Committee
- Global Development Committee
- Government Affairs & Public Policy Committee
- Illumination Awards Committee



- Leadership Forum Committee
- Marks Award Committee
- Medal Award Committee
- Membership Advisory Panel
- Nominating Committee
- Progress Report Committee
- Research Symposium Committee
- Rules Committee
- Street & Area Lighting Conference Committee
- Taylor Technical Talent Award Committee
- Teachers of Lighting Workshop Committee



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ANSI/IES RP-16-17, Nomenclature and Definitions for Illuminating Engineering

The IES defines illumination engineering terms in ANSI/IES RP-16, which is available here online. You can search terms by their first letter using the categories listed in the Categories window, by the first letter of the term in the alphabetical list below, or by typing the term in the search window. You can find the Introduction material for RP-16 on these pages:



- Copyright, Disclaimer, and American National Standards Statement
- Foreword, Nomenclature Committee members, Introduction, and Scope
- Spectral Parameters Used in Illumination Engineering
- RP-16 Addenda



ALL 0-9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Abbe's law absolute luminance

absorptance, a

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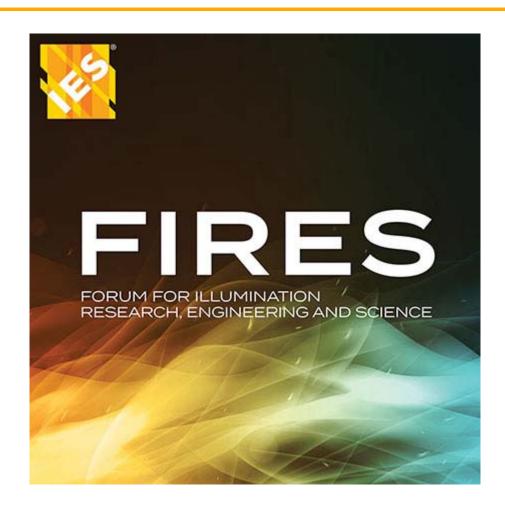
www.ies.org/standards



Research



Forum for Illumination Research, Engineering and Science



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Forum for Illumination Research, Engineering, and Science (FIRES)

Membership *

The ability to control fire is considered one of the most important factors in expanding and developing our human ancestors' societies. The societal importance of fire required larger and larger groups to work together in order to maintain and sustain the fire; individuals had to work together to find fuel for the fire, maintain the fire, and complete other necessary tasks. Ultimately, fire had a significant influence on the development of language and the size and social interactions of communities.

The Forum for Illumination Research, Engineering, and Science (FIRES) is the IES online space for our lighting community to openly share and discuss the latest research

and innovations in illumination engineering and science. As a space for the free dissemination of knowledge and exchange of ideas, FIRES is intended to foster relationships between individuals and larger institutions, and reignite the emphasis on science and engineering in the lighting industry. Through FIRES, we hope to have a significant influence on the development and advancement of lighting.



Recent Posts

Focusing on Daylight Spectra

Discomfort Glare Metrics: Elusive, but not Illusive: A companion piece to The Elusive Discomfort Glare Metric

Simplifying Melanopsin Metrology

The Elusive Discomfort Glare Metric

In Defense of Lighting Quality

Categories

Daylighting

Glare

Internet of Things

Light and Health

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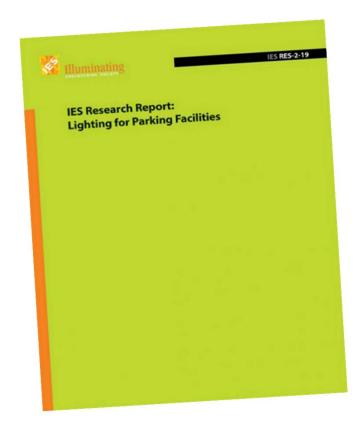
IES Research Funding Opportunities

Standards Specific Research:

- Must advance IES standards through short-term research (2 years)
- Must address one of four Strategic Objectives
 - Refine Knowledge about Lighting and Visual Processes
 - Understand the Impact of Light Exposure on Human Health
 - Foster the Integration of Lighting into the Holistic Built Environment
 - Demonstrate the Value of Quality Lighting
- Must have co-sponsors
- Contact research@ies.org



IES Research Projects



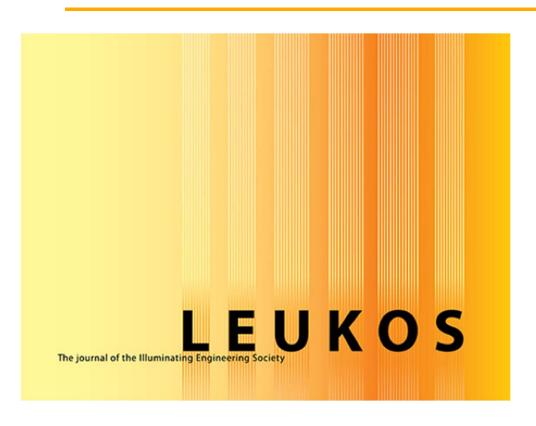
Standards Specific Research:

2019: Published RES-2-19;
IES Research Report:
Lighting for Parking Facilities

2020: ASHRAE/IES Standard 90.1: Lighting Computer Modeling Project



LEUKOS: The Journal of the Illuminating Engineering Society



- Peer-reviewed journal, issued quarterly, free to members.
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Outreach



Washington D.C. Advocacy

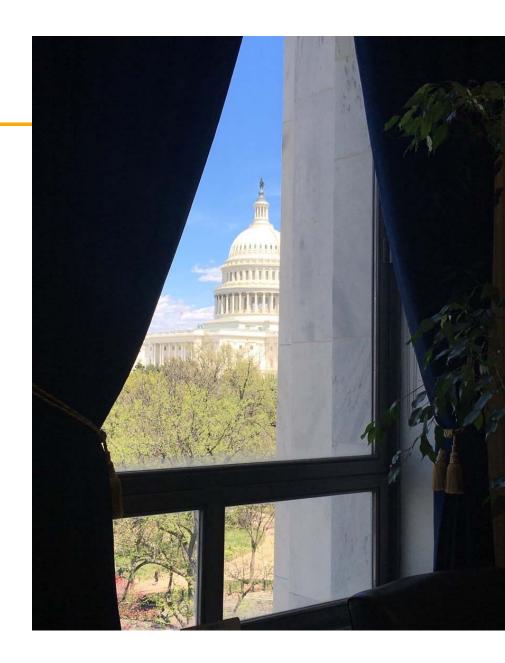
In Collaboration With

Alliance to Save Energy

American Lighting Association

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

High Performance Buildings Congressional Caucus Coalition





Washington D.C. Fly-In 2019

Congressman David McKinley (WV-1)
Congressman Paul Tonko (NY-20)
Congressman Peter Welch (VT)

ASHRAE

Alliance to Save Energy
Independent Electrical Contractors
Institute of Transportation Engineers
National Electrical Manufacturers Association
Smithsonian National Museum of American
History

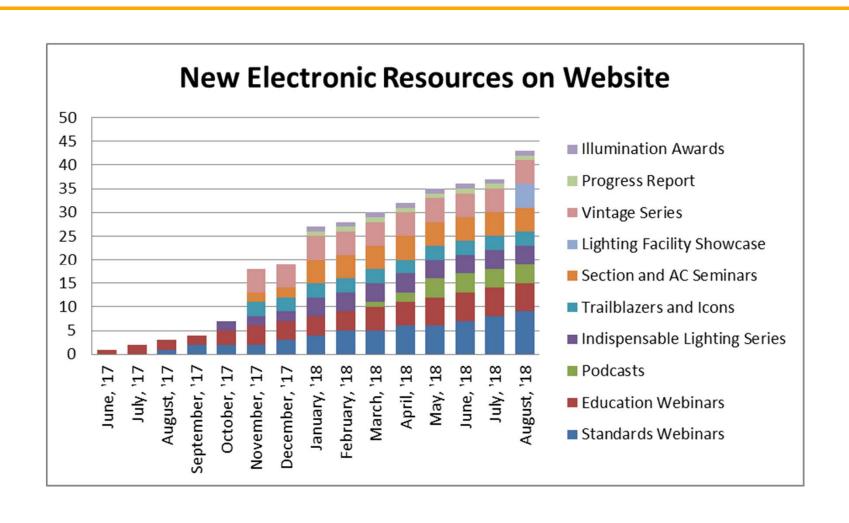
US Department of Energy
Building Technologies Office





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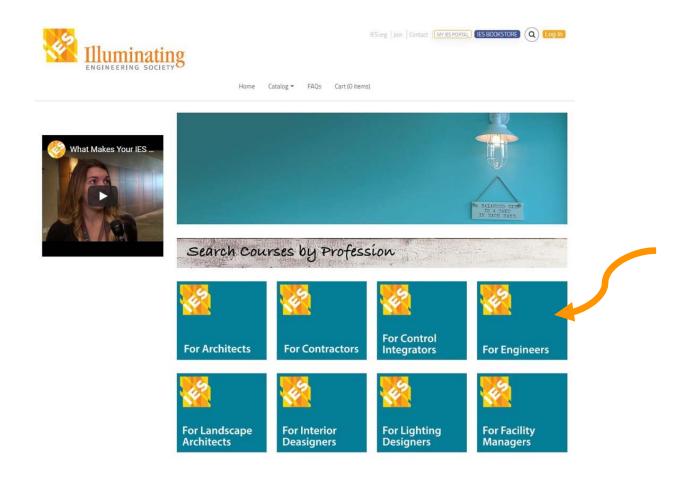








New IES eLearning



Search by who you are (or who you want to be).



Monthly Webinars

Theatrical Lighting: From the Newest LED Trends to the Traditional Art Form

October 17th 12:00 PM ET

PRESENTER: Billy Tubb

Billy Tubb is currently a Theatre Consultant, Lighting Designer, Special Systems Designer, Architectural Lighting Controls Specialist and Acoustical Consultant. Billy retired from the University of New Mexico after a 30+ year career where he served as Technical Director for over 6500+ live events such as Phantom of the Opera, Lion King, Wicked, Elton John and the Rolling Stones in concert. He is also an accomplished Theatrical Lighting Designer and Audio Engineer, receiving the NM Governor's Award for Excellence in the Arts for his work. Billy is currently



serving on the IES Board of Directors as the Southern Regional Director, he served as Chair and Vice-Chair of IES District 4 and was the President of the IES Albuquerque chapter from 2009 to 2016. He is also a member of the IALD. A native of Albuquerque, he holds a Bachelor of Fine Arts degree in Technical Theatre and Design from the University of New Mexico.

Wireless Lighting Controls

January 16th 12:00 PM ET

PRESENTER: Gary Meshberg, LC, CLCP, LEED AP, IES

Gary Meshberg, LC, CLCP, LEED AP, IES is chair of the Lighting Controls Association (www.lightingcontrolsassociation.org) and director of industry and market engagement for OSRAM. A 30+-year industry veteran, he previously served as director of marketing, VP of sales and specification business manager for major lighting manufacturers. He chairs the IES Lighting Commissioning Committee, previously served as past education chair for the Dallas Section, and founded and served as chair of the Home Lighting Control Alliance.



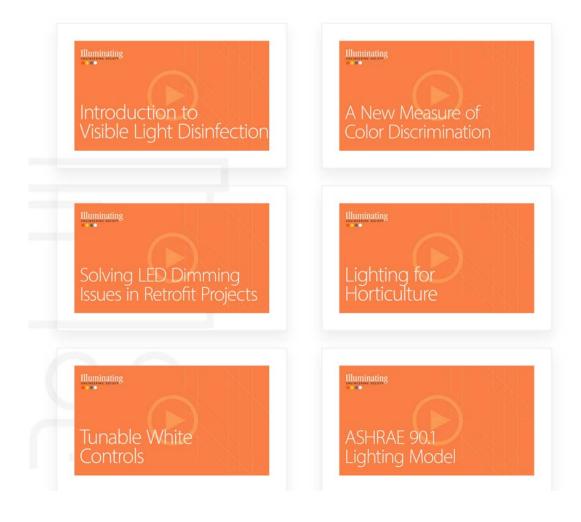


Archived Webinars





Archived Webinars





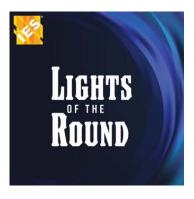
Indispensable Lighting Series







Indispensable Lighting Series







Trailblazers & Icons





Lighting Education Facility Showcase





New York School of Interior Design









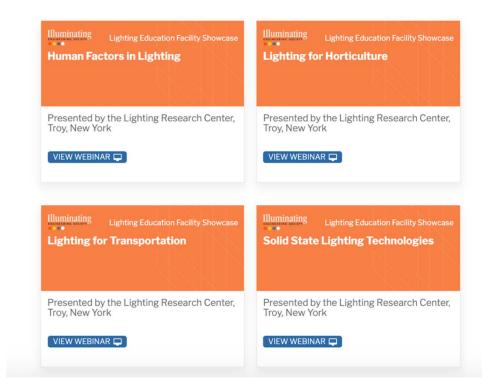


Lighting Education Facility Showcase

Lighting Research Center at RPI

Faculty, Research Scientists and Graduate Students of the Lighting Research Center at Rensselaer Polytechnic Institute in Troy, New York discuss the various research they are working on and have completed in a variety of lighting related fields.







Forces of Change Podcast







IES GO Podcast Channel



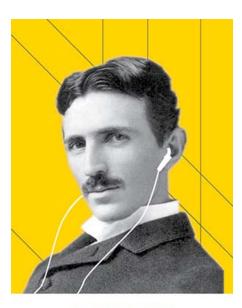












ENLIGHTEN YOURSELF

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IES Ready Reference App

Launched August 2018

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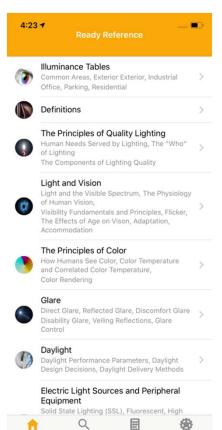


Welcome to the Ready Reference App

Supporting all lighting applications is a body of "core knowledge," information that the lighting designer needs to understand in order to execute a successful lighting design, one that will meet the needs of its intended users. These topics include the principles of quality lighting; the physical principles of lighting, including reflection and refraction; the physiology of human vision and related topics, including color and glare; lighting equipment, including light sources, lighting equipment, including light sources, lighting controls, and luminaire classification systems; and practicalities of lighting design, including energy, economics, sustainability, and maintenance.

Supporting all lighting applications is a body of "core knowledge," information that the lighting designer needs to understand in order to execute a successful lighting design, one that will meet the needs of its intended users. These topics include the principles of quality lighting; the physical principles of lighting, including reflection and refraction; the physiology of human vision and related topics, including color and glare; lighting equipment, including light sources, lighting equipment, including light sources, lighting controls, and luminaire classification systems; and practicalities of lighting design, including energy, economics, sustainability, and maintenance.

Continue





The Principles of Color

A fundamental understanding of how human perceive color, the factors that affect that perception, and how color attributes are described is important for any lighting designer.

HOW HUMANS SEE COLOR

Color perception results from the interaction of many factors, including the characteristics of the object or light source, the light incident on the object, the color of the surround, viewing direction, observer characteristics, and observer adaptation level.

Some responses to certain colors and color combinations are almost universal. Although personal tastes in color vary, there is almost universal agreement that yellows, yellow-reds, reds, and red-purples are "warm" colors; and greens, blue-greens, blues, and purple-blues are "cool" colors. All tones of gray approach neutrality of character, whether from the warm or cool side.

It is important to understand that objects have no inherent color. Color can be perceived and defined only by means

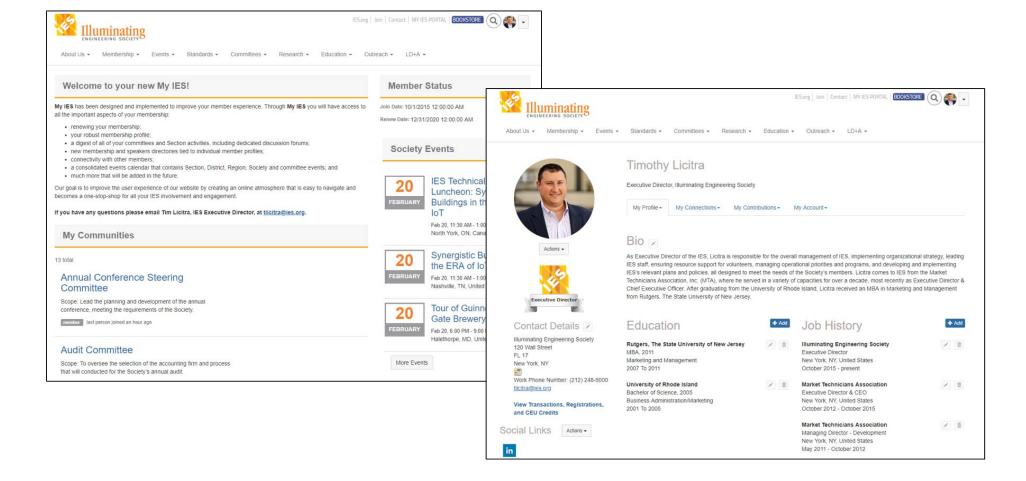


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Events



IES Annual Conference 2019: Louisville, Kentucky















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IES Street and Area Lighting Conference 2020: Dallas, Texas



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IES Research Events: Cosponsor of DOE Lighting R&D Workshop





IES Research Events: 2020 Symposium: Orlando, Florida



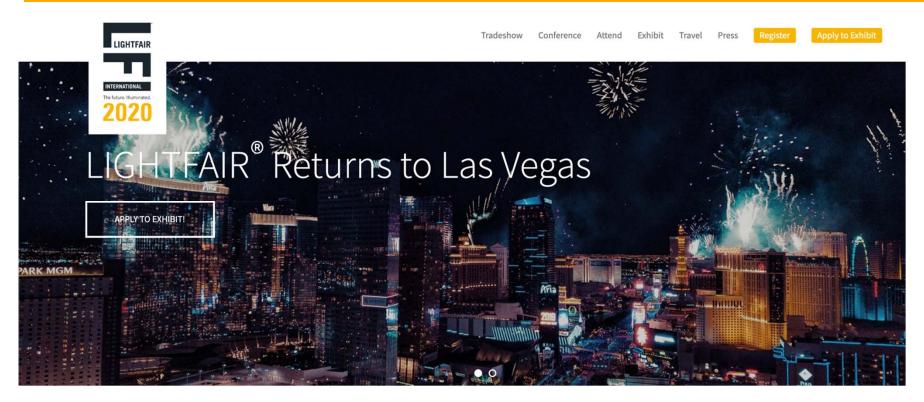
Objective: Determine quantitative metrics for qualitative benefits

Orlando, Florida April 27-29, 2020

The 2020 IES Research Symposium is the fifth biannual Symposium sponsored by the IES. We invite global researchers to broaden our knowledge and improve our standards.



LIGHTFAIR® International 2020: Las Vegas, Nevada



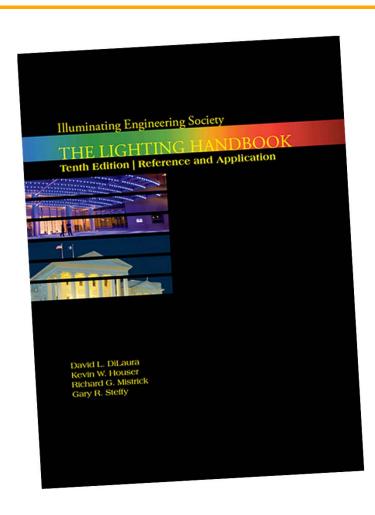
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Contact Info

Alex Baker MSc, LC, IES

Manager of Government Affairs & Public Policy

Staff Liaison to the IES Aviation Lighting Committee abaker@ies.org

(202) 374 - 4348



