

2023



IMPROVING LIFE THROUGH QUALITY OF LIGHT™

Mission Statement

The IES seeks to improve the lighted environment by bringing together those with lighting knowledge and by translating that knowledge into actions that benefit the public

Vision Statement

The IES will build upon a century of excellence to create the premier lighting community dedicated to promoting the art and science of quality lighting to its members, allied professional organizations, and the public.

WE BELIEVE

- Light is vital to life; it is as important as air, food, water and shelter
- Light and the absence of light affect human vision, health, and behavior
- Lighting should enhance comfort and aesthetics, important components of the built environment
- Lighting designs should respond to human needs, while minimizing negative environmental impacts
- Lighting quality should be a priority at the onset of any design and be maintained throughout the construction process
- Sustained research is necessary to quantify lighting benefits that improve the quality of life
- Lighting Standards and policies should be based on the consensus of topic experts informed by scientifically validated data
- As the lighting authority, the IES believes that collaboration with other non-lighting organizations on lighting policies and regulations is essential for the benefit of the public interest
- Global collaboration and member participation are vital to the long-term viability of the lighting community
- Education is critical to maintaining a robust, dynamic lighting community and for continued professional growth

- **The IES has over 8500 members in 50 countries**



IES Post Covid Priorities

- **Reduce operating expenses & increase revenue streams**
- **Reformat Lightfair due to maturity of technology and demands of the industry**
- **Expand and update Education offerings and Standards development**
Standards will now be updated every 2 years
- **Lighting Library updates – Lighting Science is free to members - new Illuminance Selector – reduced cost for Library to \$200**
- **Expand membership locally, regionally and globally**
- **Partner with other organizations and industry pillars**



Submission Breakdown:			
Code	Type	No.	Percent
IS	Inc Sources	1	0.5%
FS	Fluorescent Sources	2	0.9%
MS	Metal Halide Sources	3	1.4%
SS	HPS Sources	1	0.5%
LS	LED Sources	29	13.5%
HB	HID Ballasts	1	0.5%
FB	Fluorescent Ballasts	6	2.8%
LD	LED Drivers	16	7.4%
EM	Emergency	0	0.0%
EL	Emergency LED	1	0.5%
CO	Controls	16	7.4%
AC	Accessory	8	3.7%
FL	Fluorescent Fixtures	2	0.9%
ML	Metal Halide Fixtures	1	0.5%
LL	LED Fixtures	121	56.3%
RE	Research	2	0.9%
PU	Publications	2	0.9%
MA	Materials	1	0.5%
DT	Design Tools	2	0.9%
		215	100.0%



2012

slide content courtesy of Mark Lien (used with permission)

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Submission Breakdown:				
Code	Type		No.	Percent
HS	Historical Sources		0	0.0%
LS	LED Sources		13	10.4%
FB	Fluorescent Ballasts		0	0.0%
SO	Solar		0	0.0%
EM	Life Safety		7	5.6%
CO	Controls		14	11.2%
AC	Accessory		4	3.2%
FL	Fluorescent Fixtures		0	0.0%
LL	LED Fixtures		60	48.0%
RE	Research		3	2.4%
PU	Publications		7	5.6%
MA	Materials		0	0.0%
DT	Design Tools		10	8.0%
PS	Power Sply		4	3.2%
SY	Lighting System		3	2.4%
			125	100.0%

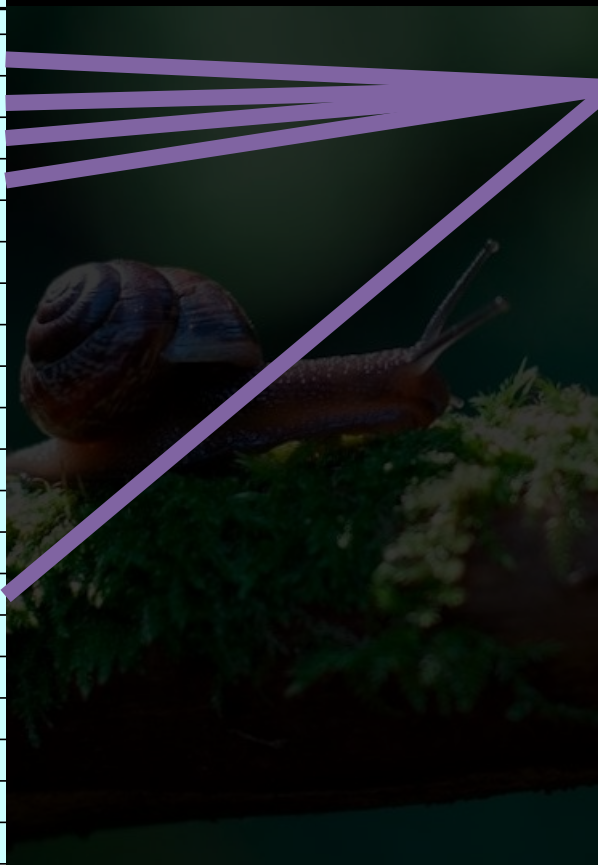
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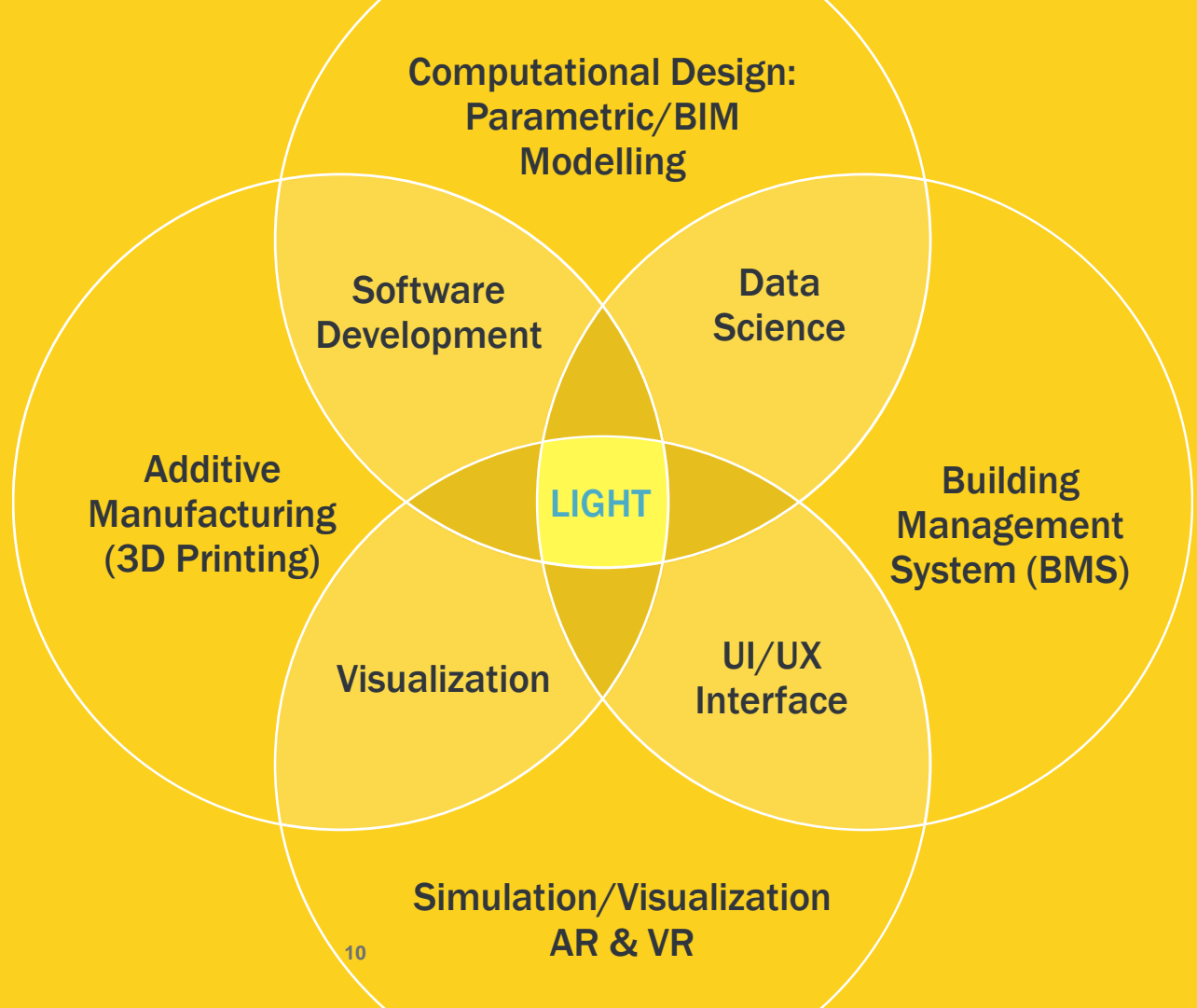
Convergence is accelerating.

New developments.

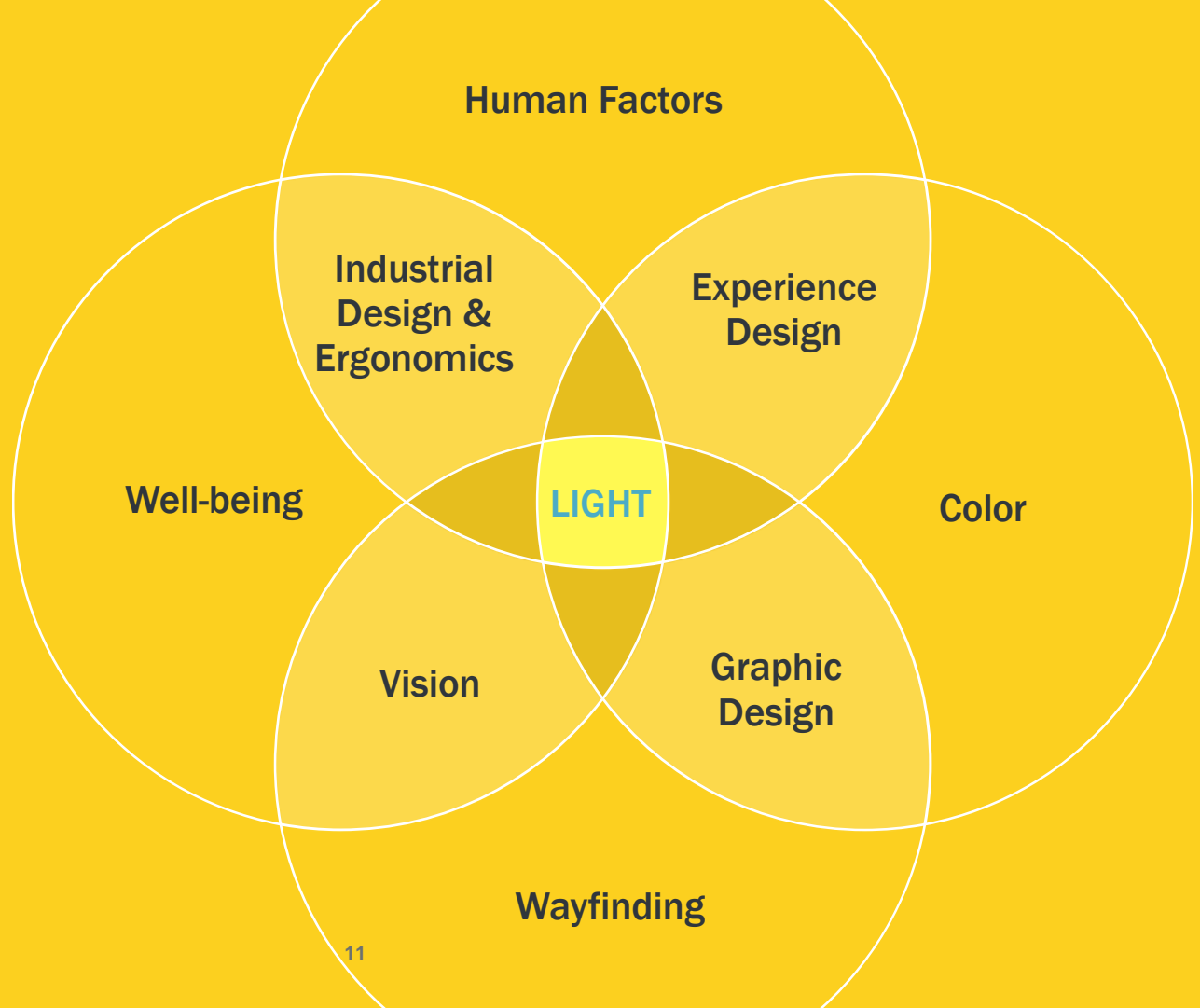
Standards progress.

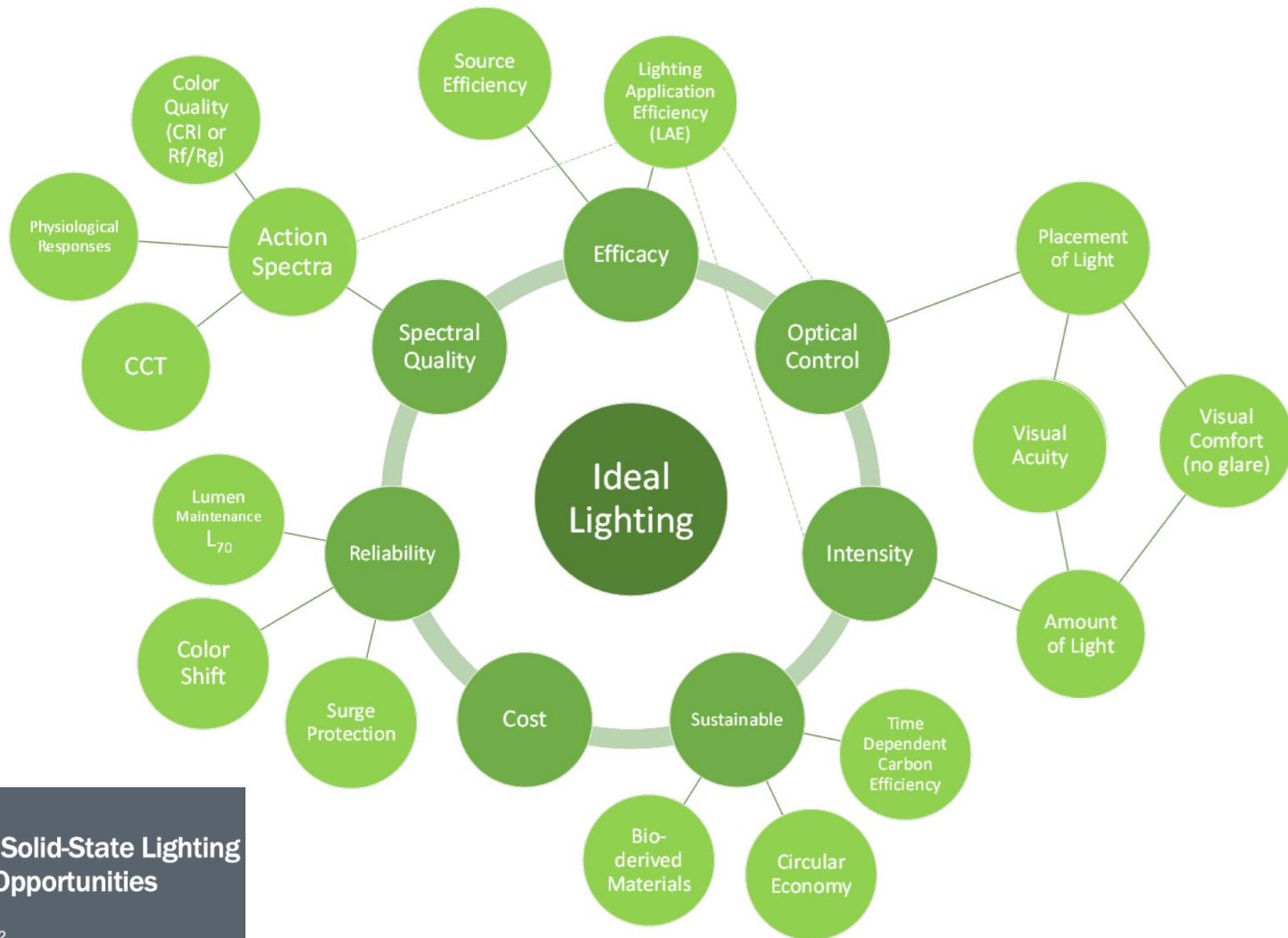
2023

Light + Technology



Light + Health





DOE

		2020	2025	2030	2035
Current SSL Path	LED Installed Stock (million units)	2,790	5,040	6,780	7,910
	Commercial	558	964	1,230	1,370
	Residential	2,060	3,800	5,230	6,210
	Industrial	25	56	76	84
	Outdoor	146	218	242	256
	LED Installed Stock Penetration (%)	35%	60%	76%	84%
	Commercial	44%	72%	88%	93%
	Residential	33%	56%	73%	82%
	Industrial	29%	63%	83%	90%
	Outdoor	66%	93%	98%	99%

U.S. DEPARTMENT OF
ENERGY

Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

2022 Solid-State Lighting R&D Opportunities

February 2022

LIGHT TO PROTECT THE NIGHT

Five Principles for Responsible Outdoor Lighting



Illuminating
ENGINEERING SOCIETY



USEFUL



ALL LIGHT SHOULD HAVE A CLEAR PURPOSE

Before installing or replacing a light, determine if light is needed. Consider how the use of light will impact the area, including wildlife and the environment. Consider using reflective paints or self-luminous markers for signs, curbs, and steps to reduce the need for permanently installed outdoor lighting.

TARGETED



LIGHT SHOULD BE DIRECTED ONLY TO WHERE NEEDED

Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.

LOW LIGHT LEVELS



LIGHT SHOULD BE NO BRIGHTER THAN NECESSARY

Use the lowest light level required. Be mindful of surface conditions as some surfaces may reflect more light into the night sky than intended.

CONTROLLED



LIGHT SHOULD BE USED ONLY WHEN IT IS USEFUL

Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.

COLOR



USE WARMER COLOR LIGHTS WHERE POSSIBLE

Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.



Standards & Education Progress

RP-37-22 Lighting Airport Outdoor Environments

G-1-22 Guide for Security Lighting for People, Property, and Critical Infrastructure

LS-1-21 Nomenclature & Definitions

TM-37-21 Skyglow

LP-12-21 IoT

RP-43-22 Exterior Lighting

RP-44-21 UVGI

RP-45-21 Horticultural Lighting

LM-92-22 UV LEDs

LM-91-22 Distance Radiometry

TM-38-21 Tunable-White SSL

LM-80-21 Measuring Maintenance LEDs

TM-21-21 Radiant Flux Maintenance LEDs

RP-8-21 Roadway Lighting

LP-16-22 Control Narratives

RP-27.1-22 Risk Group Classification and Minimization of Photobiological Hazards From Ultraviolet Lamps and Lamp Systems

Where we are headed...

Expanded LightFair Conference and new education opportunities

Intensive Courses: Roadway, then Lighting Controls



eLearning portal

[eLearning Home](#)

[GETTING STARTED](#)

[My eLearning Dashboard](#)

[FAQs](#)

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IES EDUCATION IS
MADE POSSIBLE BY
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Search by Type

ANY

Search by Content Type

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IES Webinar Archives



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THANK YOU!

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Expanding the boundaries of lighting™

EXPLORE COURSES BY TOPIC



Codes &
Standards

Daylighting

Design

Energy
Efficiency

Light & Color

Lighting
Basics

Lighting
Controls

Lighting
History

Maintenance
& Economics

Lighting
Measurement

Outdoor
Lighting

Roadway

elearning.ies.org/topic

Standards Access

Individual Standards: Buy any Standard, any time, in PDF.

The screenshot displays the IES website interface. The top navigation bar includes links for About, Membership, Advocacy, Donate, MY IES, and Sign In. A secondary menu below contains Standards, LD+A Magazine, Education, Events, Research, Resources, and IES Webstore. The IES Webstore link is circled in yellow, with a yellow arrow pointing to it. A dropdown menu for the IES Webstore is open, showing options: Books, Individual Standards (circled in yellow with a yellow arrow), Lighting Library Subscription, Research, LD+A Magazine, and Educational Courses. A large magnifying glass graphic on the right contains the text "Add to cart".

Learn more about our community of lighting professionals

Join us on our journey as we share how our beliefs guide us in our mission to improve life through quality of light.

Add to cart

Standards Access

Library Subscription: Access all standards, cloud-based, collaborative, always up to date.

The image is a screenshot of the Illuminating Engineering Society (IES) website. The header is dark blue with the IES logo and the text 'Illuminating ENGINEERING SOCIETY' on the left. On the right, there are links for 'About', 'Membership', 'Advocacy', 'Donate', 'MY IES', and 'Sign In'. Below the header, a navigation bar contains links for 'Standards', 'LD+A Magazine', 'Education', 'Events', 'Research', 'Resources', and 'IES Webstore'. The 'Resources' link is circled in yellow, and a yellow arrow points to it. Below the navigation bar, a dropdown menu is open, showing 'Books', 'Individual Standards', 'Lighting Library Subscription' (circled in yellow), 'Research', 'LD+A Magazine', and 'Educational Courses'. A yellow arrow points to the 'Lighting Library Subscription' link. In the bottom right corner, there is a large magnifying glass graphic with the text 'Subscribe Now' inside it.

IES Illuminating ENGINEERING SOCIETY

About Membership Advocacy Donate MY IES Sign In

Standards LD+A Magazine Education Events Research Resources IES Webstore

Books Individual Standards Lighting Library Subscription Research LD+A Magazine Educational Courses

Learn more about our community of lighting professionals

Join us on our journey as we share how our beliefs guide us in our mission to improve life through quality of light.

Subscribe Now

Interactive
Illuminance
Selector

Customizable
reports (PDF)

Application Task/Area	Task or Area	Veil. Risk: High Med Low	E _h C A T	E _h (Horiz.) Fc@Ft	E _h Max Avg Min	E _h Unif.	E _h Unif. Ratio Basis	E _v C A T	E _v (Vert.) Fc@Ft	E _v Max Avg Min	E _v Unif.	E _v Unif. Ratio Basis
LIGHTING OUTDOOR AIRPORT ENVIRONMENTS												
■ Aprons: Commercial, General Aviation, Cargo, Hangar ^{1,2} ANSI/IES RP-37-20 Table A-1										Room/Area: <input type="text" value="Room/Area"/>		
<input type="checkbox"/> Aircraft parking position	A		H	2@0.0	Avg	4:1	Avg:Min	H	2@6.6	Avg	4:1	Avg:Min
<input type="checkbox"/> Aircraft service area ³	A		F	1@0.0	Avg	5:1	Avg:Min	F	1@0.0	Avg	5:1	Avg:Min
<input type="checkbox"/> Aircraft stands: Group I or Code A	A		H	2@0.0	Avg	5:1	Avg:Min	H	2@6.6	Avg	5:1	Avg:Min
<input type="checkbox"/> Cargo facility loading and unloading	A		K	5@0.0	Avg	4:1	Avg:Min	K	5@6.6	Avg	4:1	Avg:Min
<input type="checkbox"/> Mechanical checks, maintenance, repair	A		H	2@0.0	Avg	4:1	Avg:Min	H	2@6.6	Avg	4:1	Avg:Min
<input type="checkbox"/> Fueling operations	A		H	2@0.0	Avg	4:1	Avg:Min	H	2@6.6	Avg	4:1	Avg:Min
■ Outdoor Electrical ANSI/IES RP-37-20 Table A-1										Room/Area: <input type="text" value="Room/Area"/>		
<input type="checkbox"/> Outdoor switchyards and substations	A		H	2@0.0	Avg	4:1	Avg:Min					
<input type="checkbox"/> Substation operating aisles	A		K	5@0.0	Avg	4:1	Avg:Min					
<input type="checkbox"/> Switch racks	T		O	20@TS	Avg	4:1	Avg:Min	M	10@TS	Avg	4:1	Avg:Min
■ Other Airside Areas ² ANSI/IES RP-37-20 Table A-1										Room/Area: <input type="text" value="Room/Area"/>		



• Why IES?

FREE Lighting Science Collection (\$249)
FREE IES Monthly Webinars (15 @ \$20 = \$300)

CEU access (as a member, there are special privileges)

LD+A (\$53)

LEUKOS (\$40/4x year, \$160)

Event Discounts (~\$200)

LC Study Group Discounts (\$100)

FREE LightFair show-floor access (\$99)

= \$1161 (w/o LC, \$1061)



Thank you!

