

# LD+A

LIGHTING DESIGN and APPLICATION

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## Design “Dreams”

Revealing the 2025 IES Illumination Award Recipients

YVES SAINT LAURENT

Yves Saint Laurent was just 19 years old when he was head of an assistant by Christian Dior in 1955. After the founder's death, he was appointed as Dior's new Creative Director. It was a considerable risk for the management of the House to entrust this great responsibility to such a young man, but the success of his first collection in 1958 confirmed the designer's talent.

His dramatic look, marked by the iconic tuxedo and the iconic silhouette of the 1960s.



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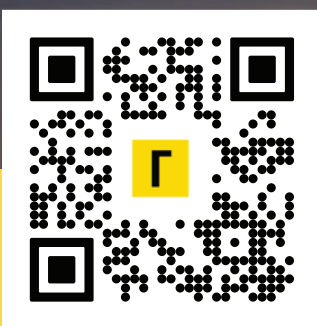
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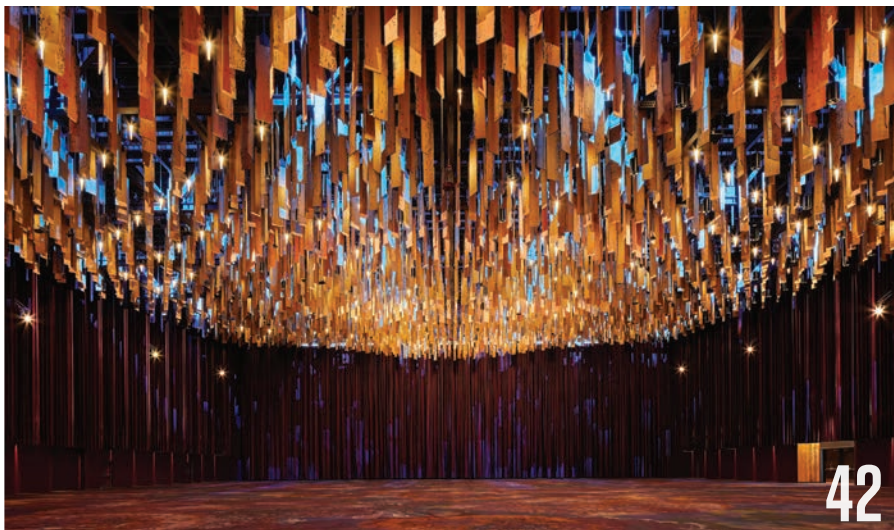


Photo: Lauren K. Davis/Feinhardt

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The IES Illumination Award-receiving "Christian Dior: Designer of Dreams" exhibit in Riyadh, Saudi Arabia. Photo: Cedric Ghossoub





## EDITOR'S NOTE

Celebrating the Present, Growing the Future

A couple of weeks ago, the 2025 IES Illumination Awards recipients were celebrated at IES25: The Lighting Conference in Anaheim, CA. It seemed appropriate that a new award category, Illumination Award for Experiential Lighting Design, sponsored by ETC, Inc., was unveiled a mere 1-mile stroll away from "Uncle Walt's" Disneyland, which changed the immersive theme park landscape forever. This month, *LD+A* casts a spotlight on the IES Illumination Awards and the people and projects that continue to move the lighting industry forward in innovative and exciting ways. We congratulate this year's awards recipients.

While the IES is recognized as the technical and educational authority on illumination, as a membership organization, its influences extend well beyond the obvious CEUs and standards development. A significant element of growing the industry and promoting its benefits is cultivating future generations of lighting designers.

A seed was planted back in March during LEDucation, where I had the pleasure of meeting EP Rachel Kim (*LD+A*, July 2025), marketing specialist at GigaTera Lighting. As anyone who has attended LEDucation knows, seating is at a premium, so Rachel and I grabbed lunch and sat on the floor—"crisscross applesauce"-style—discussing a variety of topics including her background and career aspirations as well as industry

trends. That conversation inspired me to think more deeply about the role *LD+A* can play in reaching out to more young people about the benefits of participating in industry societies and associations.

To do so, we need to make a more concerted effort to engage young people in their spaces. (At some point, that likely involves asking for their help in picking my old bones off conference hotel floors.)

To foster growth in the next generation of lighting designers, *LD+A* and the IES have partnered to offer students and EPs the opportunity to win a one-year IES Membership. Throughout 2026, one person will be selected each month to receive an award, with a total of six Student and six EP Memberships distributed. Applications are currently welcome and will be accepted on a rolling basis through September 30, 2026. The cutting-edge education, conference events, and networking opportunities that IES Membership provides are an invaluable benefit to students and EPs, so we are asking that interested students and EPs are nominated to be considered for an award. Additional details are available in the "Call for Nominations" in this issue (p. 61), and we hope to have the industry's support in both communicating this effort and offering nominations.

**Craig Causer**  
Editor-in-Chief  
craig.causer@sagepub.com



**Editor-in-Chief**  
Craig Causer

**Editor I**  
Michele Zimmerman

**Creative Manager,  
Commercial Publishing**  
Samuel Fontanez

**Senior Account Specialist II**  
Leslie Prestia

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*LD+A* is a magazine for professionals involved in the art, science, study, manufacture, teaching, and implementation of lighting. *LD+A* is designed to enhance and improve the practice of lighting. Every issue of *LD+A* includes feature articles on design projects, technical articles on the science of illumination, new product developments, industry trends, news of the Illuminating Engineering Society, and vital information about the illuminating profession. Statements and opinions expressed in articles and editorials in *LD+A* are the expressions of contributors and do not necessarily represent the policies or opinions of the Illuminating Engineering Society. Advertisements appearing in this publication are the sole responsibility of the advertiser.

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# CONTRIBUTORS



## Paul Pompeo

is president of Pompeo Group ([www.pompeo.com](http://www.pompeo.com)), an executive recruiting consultancy in lighting, electrical, and controls. **p.14**

## Brienne Willcock

is director of Education and Standards for the IES. **p.18**



## Gary Meshberg

is chair of the Lighting Controls Association (a council of NEMA) and strategic projects sales director, Building Control Systems for Legrand North America. **p.22**

## Jerry Plank

is the CEO/founder of Wilger Testing, an accredited third-party laboratory testing for product safety and performance. **p.26**



## Cristobal Correa

is a principal in Buro Happold's New York City office as well as the director of technology and a professor at the Pratt Institute School of Graduate Architecture and Urban Design. **p.62**

## John Sloane

is a senior lighting designer in Buro Happold's New York City office. Passionate about light, space, equity, and community-led design, he is experienced with execution of lighting design schemes from concept to construction. **p.62**



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Borealis Lighting Studio

**Cristian Suvagau, Ph.D.,**  
**P.Eng., LC, CEM, MCIE**  
BC Hydro

**Rebecca Stuart**  
District Lighting Group

**Javier Villaseñor**  
JVS Business Consultant &  
Counselor





**Pratibha Sharma**

is the director of Applications Research and Development at Violumas/Cofan Thermal. **p.66**

**Saya Han**

is the director of Business Development at Violumas, Inc., specializing in managing projects for high-power, industrial UV applications. **p.66**





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The IES Street & Area Lighting Conference (SALC) is the premier event that brings together decision-makers and their supporting teams from public and private sector utility companies, municipalities, and departments of transport to explore the latest developments, research, and trends in the street and area lighting industry and learn about the implementation of new technologies and solutions that will enable safer, greener, and more resilient lighting systems, at the **Hilton New Orleans Riverside Downtown, September 21-24, 2025.**

Visit **ies.org/salc** for more information.  
Registration open April 2025!





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TYK+ 10



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# INSIGHTS

Athlete Well-being • Drop in GHG • Scholarship Funds



Photo: Michael Slack, courtesy JZA+D

## Sports Health Reinforced

*A New Jersey medical facility gets an upgrade fit for Olympians*

When the U.S. Women's Rowing team left for The City of Lights for the 2024 Summer Olympics, its sports-medicine facility underwent a rebrand and refresh. The Princeton Sports and Family Care Medicine practice in Lawrenceville, NJ, which provides state-of-the-art general family practice, women's healthcare, physical therapy, and sports medicine to numerous clientele, worked with integrated architecture firm JZA+D to double the size of the original space and update its lighting scheme. Along with a fresh color palette and added logos throughout the space to reinforce the brand's identity, the center required exposed ceilings in therapy areas to accommodate fitness equipment. Thus, the lighting scheme called for a solution to ensure that fixtures without ductwork as well as other mechanical elements wouldn't cast shadows or impede medical practices. The solution: 180 2-ft by 4-ft LEDs, 40 2-ft by 2-ft LEDs, 32 4-in. by 48-in. linear LEDs, as well as a few wall sconces and pucks set to 3000K. All fixtures were carefully positioned to avoid glare for patients and staff, while the color temperature was selected for occupant comfort.





## Leviton's 37% Drop in GHG

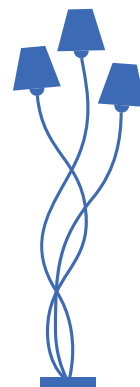
Published in late June 2025, Leviton's *2024 Sustainability Report* shows the results of the manufacturer's commitment to sustainability since 2021 via its CN2030 Program, with a focus on becoming carbon neutral company-wide by 2030. Highlights from the report include a recorded 37% drop in greenhouse gas (GHG) emissions; an 11% year-over-year reduction in CO2 emissions from 2023 to 2024; the achievement of reaching carbon neutrality at 19 company sites; and the Camargo, Mexico, facility earning The Green Building Initiative Green Globe certification after a recent expansion. Additionally, the company has launched a Zero Waste to Landfill program and increased the number of Network Solutions products with Environmental Product Declarations. To learn more about Leviton's green commitment and the report, visit <https://leviton.com/company/sustainability>.



## Besal Fund Awards Over \$100,000 in Academic Scholarships

The nonprofit trust, the Robert J. Besal Memorial Education Fund (Besal Fund), has awarded a total \$115,000 in academic scholarships for the current academic year to 12 undergraduate and three graduate students pursuing careers in the lighting industry and illuminating engineering fields from Kansas State College; Penn State University; University of Colorado, Boulder; University of Kansas; and University of Nebraska-Lincoln.

The fund was established in 1983 and has since provided over \$1.6 million in scholarships to students from accredited institutions throughout the U.S. For more information, visit [www.besalfund.org](http://www.besalfund.org).



**\$68.9  
BILLION**

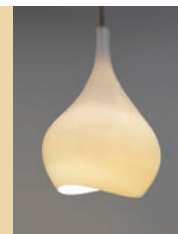
The amount  
the general  
lighting  
market is  
forecasted  
to grow by  
2029.

Source: Research  
and Markets

## MERGERS & MORE:

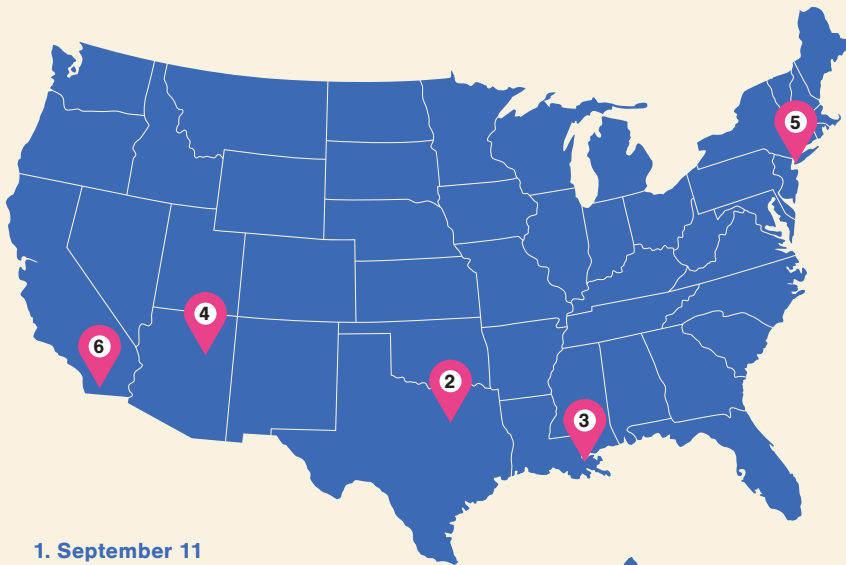
- **BrightView Technologies** has announced an expansion of its manufacturing operations in Durham, NC, to accommodate high-volume production for MLA films.
- **Keycode Media**, a Fortune 500 technology firm, is the first to install **Brightline Lighting's** new AV/720, a self-contained solution for variable white-lighting control over a single DMX cable.
- Award-winning design firm **Lighting Design Alliance** has been acquired by engineering and technical consulting services firm **Salas O'Brien**.
- **Lutron Electronics Co., Inc.** has acquired UK-based manufacturer **Orluna LED Technologies Limited**, its first acquisition outside of North America.

The non-planar, 3-D-printed Lacrimosa Pro pendant, made with



renewable, plant-based polymers enhanced with repurposed waste materials, by UK-based manufacturer LumiAdd, won the Product of the Year – Lighting title at the 2025 Mix Awards. The Mix Awards annually celebrate the best products, people, and projects within commercial interiors.

# EVENTS



## 1. September 11

The ICEL Emergency Lighting Conference will be held at the Cavendish Conference Centre in London and is designed to bring together key stakeholders across the complete supply chain in emergency lighting from manufacturer to occupier.

[www.thelia.org.uk](http://www.thelia.org.uk)

## 2. September 16–17

ArchLIGHT Summit, a commercial and architectural lighting event, will be held at the Dallas Market Center in Texas. It will showcase new products from leading commercial brands and include a full slate of accredited educational and hands-on experiential sessions facilitated by leading minds in design and lighting.

[www.archlightsummit.com](http://www.archlightsummit.com)

## 3. September 21–25

The IES Street and Area Lighting Conference will be held in New Orleans and focus on improving outdoor lighting through training classes, seminars, and networking sessions as well as an exhibit hall.

[www.ies.org](http://www.ies.org)

## 4. October 9–11

IALD Enlighten Americas 2025 will be held at The Westin La Paloma in Tucson, AZ, and feature educational workshops, seminars, and presentations by nearly 40 industry leaders and researchers.

[www.iald.org](http://www.iald.org)



## 5. October 14–15

NYControlled, a trade show and educational event by the IESNYC and DLFNY dedicated to lighting controls, will be held at the Metropolitan Pavilion in New York City. The event includes a hands-on workshop, presentations, sponsored sessions, and a full-day exhibition.

<https://nycontrolled.com>

## 6. February 5–6, 2026

Illuminate 2026, the Association of Outdoor Lighting Professionals' annual conference and expo, will be held in Carlsbad, CA (venue details to be announced). The event will include hands-on education sessions, new products and technologies, and the AOLP Lighting Awards.

<https://aolponline.org>



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① At night, LEDs cast warm-white light on the structure and through folds and perforations in the artwork's shell.

② Uplighting accentuates *The Orb's* curved form, allowing it to appear as a "coral reef in static movement."

③ During brighter hours, sunlight filters through the perforations to create an interplay of light and shadow on the ground of the open-air pavilion.

# HOW THEY DID IT

IES ILLUMINATION AWARD OF MERIT

## "The Orb"

Natural and electric lighting design by **Lam Partners** helps bring this 10-meter (~33-ft) tall, aluminum artwork on a tech campus in Mountain View, CA, to life.







# CAREERS

Paul Pompeo

## Show Up, Line Up, Clean It Up: How candidates can stand out

While it's still a candidates' market, it is a competitive one. Here are five important tips that can give you a competitive edge.

**Tip #1:** Keep your résumé/CV to one page. A recent survey by Talent Works analyzed over 6,000 job applications from over 60 industries, and the average résumé length was between 475 and 500 words. Focus your CV on the last 15 to 20 years of your job experience, because that's what matters most to hiring managers on an initial review of your materials. Limit bullet points to no more than three to five for each role, and focus on accomplishments and achievements more than duties and responsibilities. If you positively impacted your company financially by an account you landed, a cost

reduction you spearheaded, a new product you developed, or an increase in sales, this is the time to share it. Of course, use discretion not to divulge specific information that your company would not want publicized.

**Tip #2:** Add a professional photo to your LinkedIn profile. The overall quality of LinkedIn profile photos has improved over the last few years, so forego using that photo of you and a friend with a face cropped out. Also, the era of a selfie taken in front of a bathroom mirror has passed. Use a professional photographer—consider it an investment in your career—you're worth it!

**Tip #3:** Include a physical address on your résumé, not just name/phone/email. In this day of phishing and identity theft, you want to show you're a



An email takes more time to compose than a text and is a more fitting appreciation to an employer who has allocated time to meeting with you

real person living in a specific location. If you're a candidate open to relocation, the past concerns about a city/state limiting your opportunities often no longer apply in this post-COVID-19 world, where remote work is an acceptable option for many positions.

**Tip #4:** Ensure that your résumé and LinkedIn profile align and tighten up your game in terms of job stays (starting/finishing), position titles, and basic responsibilities. Some of the common errors include lighting professionals who have listed a company on their résumé that is not on their LinkedIn profile (or vice versa), detailing employment that significantly differs between résumé and LinkedIn, and/or listing varying job titles for the same position. Many hiring managers can't unsee these errors and inconsistencies, and they will bring those observations to your interview—if you're even fortunate enough to get to the next step. Many decision makers view inconsistencies as a future preview of a candidate's poor written communication, lack of attention to detail, or worse—an attempt to deliberately deceive or misrepresent one's background to an employer.

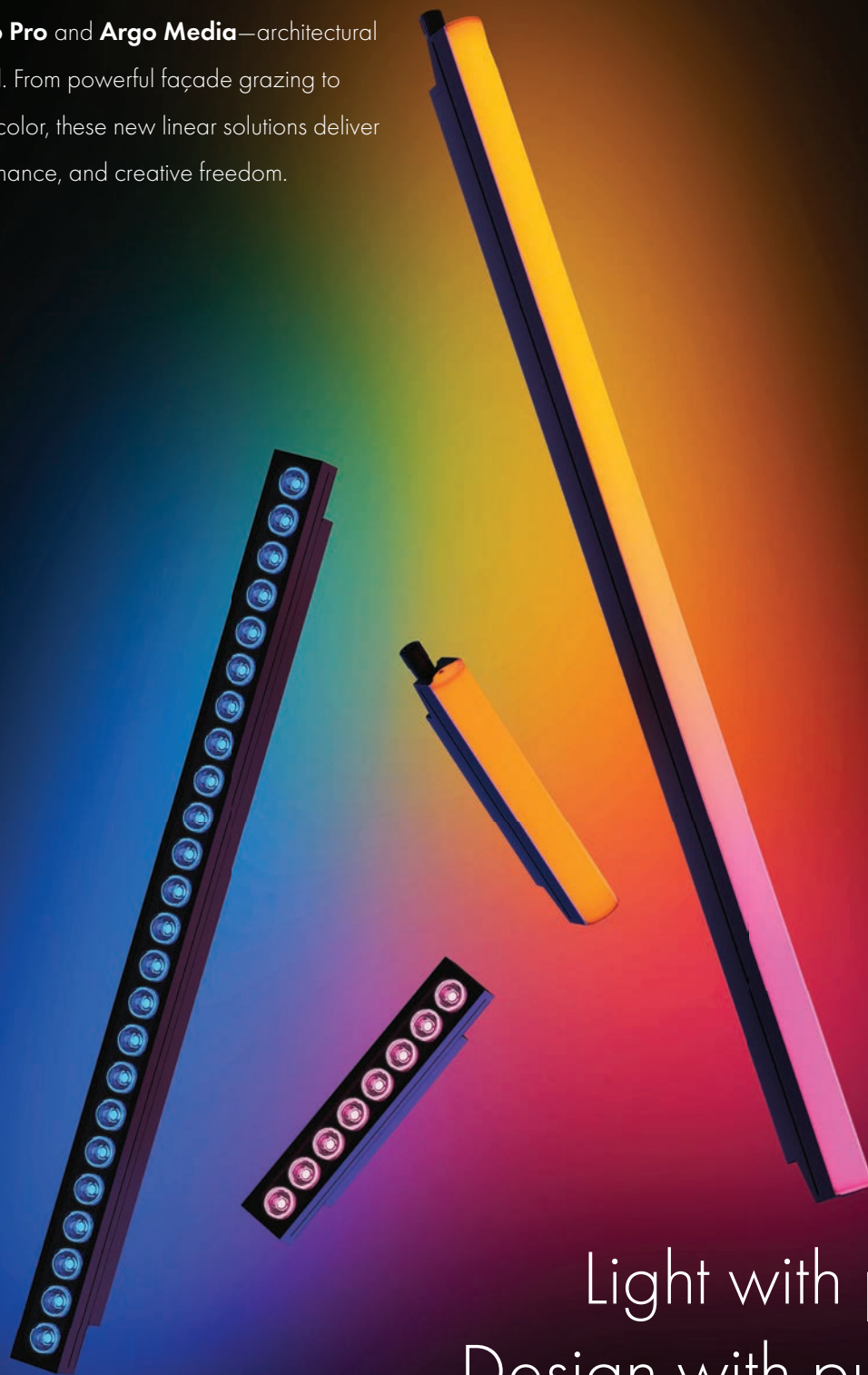
**Tip #5:** In a world where texting is part of our everyday life, thank you notes following an interview should never be sent by text. Texted notes seem a



Photo: videnc

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**IP67**





## The In-Office Advantage

Many employees in the lighting and electrical industries enjoy the benefits of working remotely, either fully or in a hybrid capacity. However, those candidates willing to work in an office full time often have several advantages over a remote employee.

- An office-based employee has a better chance of advancement than candidates working remotely. This may not be a popular concept, but high-performers have a better opportunity to demonstrate their abilities and talent in an environment where they can be seen every day.
- In-office employees often develop a quicker—and better—rapport with their manager and peers. Microsoft Teams and Zoom are amazingly helpful tools, but they don't replace the benefits of two people who are together in the same physical space regularly.
- The ability to work with peers is much more evident in a person within the same physical location, as skills are demonstrated more viscerally on a day-to-day basis.
- Staying informed about potential and/or future internal job openings (some of which may not be posted, but are discussed) is easier in the presence of your colleagues and management.
- If you're a high-producer, contributor, and play well with others, your stay at your company will often be longer than another employee with equal attributes who is working offsite. Whether fair or not, it stands to reason that in the event of downsizing, someone who is "out of sight, out of mind" likely has less job security during a period of layoffs than someone a manager sees and interacts with almost every day. (And aren't we all more charming in person?)

These advantages do not mean that remote employees cannot—and will not—excel. However, it is important to understand there are often advantages to being physically present and visible daily in the workplace.

little too casual, a bit cavalier. An email takes more time to compose than a text and is a more fitting appreciation to an employer who has allocated time to meeting with you. For something as "formal" as an interview, a texted thank you note can also feel intrusive.

Remember, the most successful candidate is not always the one whose résumé most-closely matches the job description—ultimately, it's about the person who best manages the interview process. In a competitive job searching landscape, details always matter, and these tips can help give you the edge to secure the job.

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Paul Pompeo is president of Pompeo Group ([www.pompeo.com](http://www.pompeo.com)), an executive recruiting consultancy in lighting, electrical, and controls.

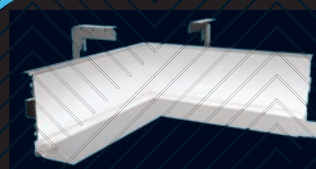


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Bringing the benefits  
of a blue sky day  
**INDOORS.**

Where others fall short of their promises, SkyView™ Tile meets all the new wellness criteria (RP-46-23, WELL, GSA P-100, and NASA).

- Patented GCO™ (Gradient Circadian Optimization) Technology
- Highest melanopic ratio (M-DER) on the market
- Meets the wellness criteria with as little as 0.4 W/ft²
- Meets RP-46-23 and WELL V2 Feature L03 (3 pts)



OFFICE APPLICATION



EDUCATION APPLICATION



Declare.







# EDUCATION

Brienne Willcock

## Shared Foundation: Science is the backbone of our industry

In my LD+A, May 2025 column I called attention to the increasingly fractured landscape of organizations in the lighting industry. Since then, the conversation around advocacy, unity, and transformation has deepened, and over the last several months of considering the many voices contributing ideas, wish-lists, criticisms, advocacy plans, and more, one essential dimension remains at risk of being overshadowed: the science of light itself.

It's vital to understand who we are—by identity, affinity, or occupation—and to build pathways for education and equity. But none of that holds without a third anchor: discovery. Lighting is a design medium, yes; it is also a science. Without the shared language of measurement and prediction, none of us—designers, specifiers, manufacturers, educators—can fully do our jobs.

Our bond isn't just in who we are or what we do, it's in how we do it. Our only true common thread is science. As we continue to rely on that bond, we can keep evolving as diverse, specialized, and interconnected professionals, but we need:

- a well-defined curriculum with science at its core
- communicable core competencies related to the science of light
- support for R&D that

advances topics like vision, color, and perception. Did you know that IES Membership now includes access to all Lighting Science standards? This benefit might go overlooked, but its implementation was a strategic message to current and future members: every “what we do” in lighting relies on a scientific foundation. Building upon the assumption of that baseline, the IES has defined six key knowledge pathways: Interior Applications, Exterior Applications, Controls, Measurement/Testing, Daylighting, and Roadway.

Since 2022, we've categorized every resource the IES develops (standards, *LEUKOS* articles, webinars, symposia, and more) across those six defined pathways. That amounts to 414 distinct assets, all organized in a dynamic knowledge matrix. Of those, 129 directly support Lighting Science, a category we further divide into subtopics like Nomenclature and Language; Physics



We can't advance lighting education or equity without anchoring both in credible, consensus-based science

and Measurement; Color, Calculations, and Vision; and Perception, Photobiology, and Health. These subtopics help us assign meaningful value to each resource and ensure a balanced, evolving body of knowledge across lighting practice.

And here's the flaw—we rarely talk about it. I don't show this matrix in presentations. We don't make it public. We don't speak to the depth of our internal efforts to structure and sustain the science that supports everyone's work.

Still, it hums in the background, both evidence of the IES's ongoing commitment to our mission and motivation to do right by the knowledge among us.

### Who We Are

Affinity groups such as Equity in Lighting, Light Justice, NACLIQ, WILD, and others are building critical cultural momentum. They reflect the lived experiences of the individuals who practice lighting, and they are essential to fostering belonging, representation, and community.

It's worth reflecting on why these groups emerged: in part, because organizations like the IES have traditionally focused on how we practice lighting and not who we are as individuals within the profession. That's not a shortcoming; it's a matter of organizational purpose. But it



Image: Olemedia

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underscores why identity-based advocacy must coexist with, and be supported by, the systems that uphold scientific knowledge and practice.

### What We Do

Whether in design, engineering, controls, sales, or distribution, all lighting professionals rely on access to standardization, education, peer networks, and recognition. These roles also depend on organizations like DLC, DSI, IALD, NEMA, and others that advocate for our areas of practice and help define the recipes of good lighting. Through them, the craft of design, the precision of execution, and the values we hold are translated into real-world impact. Their work, like that of the IES, is not just expressive and/or functional, but predictable, repeatable, and responsive to the environments and people it serves.

### What We All Rely On

Without metrics, metrology, and repeatable measurement systems, lighting would fall to guesswork. Standards like IES LM-79, IES TM-30, and file formats such as .ies and .spd allow professionals across disciplines to speak a shared language and make informed, comparable decisions. When we promote and protect these tools, we're upholding the infrastructure that makes what we do—and who we are as a profession—possible.

I've been developing a resource, *Why Predicting Light Matters*, because, in a gap not unlike our silence on content categorization, the IES doesn't currently define what an IES file

is anywhere on its own website. One of our most globally recognized contributions is something we've failed to clearly explain. Yet, at the most fundamental level, light distribution and amount—the basic performance characteristics of light—are what drive every job in this industry. They're central to our credibility.

This resource is meant to reinforce a simple but often overlooked reality: we rely on prediction. Calculations, spec sheets, photometric data; they determine how light is chosen, applied, evaluated, and sold.

### A Quiet Channel of Advocacy

As we look across the lighting industry's growing landscape of organizations, it's clear that most new groups have emerged around *who* we are or *what* we do. These organizations rooted in identity, equity, or professional function are critical to shaping culture and community. But we don't see dedicated advocacy groups for actual lighting topics: glare research, diverse visual needs, and modeling lighting, to name a few. That type of advocacy exists, but it's often integrated into the mission and funding structures of standards bodies like the IES, CIE, and others.

That's not a flaw. In many ways, it's an efficient and responsible model. But it's worth pointing out that the quietest work—building consensus around test methods, advancing human factors research, and maintaining rigorous documentation—is also the work least visible in industry-wide advocacy conversations. If we want to reinforce the value of that work, we need to make it more visible, more discussed,

and more intentionally supported across sectors.

We can't advance lighting education or equity without anchoring both in credible, consensus-based science. Photometry, spectral data, and lumen maintenance may not be trending topics, but they are the quiet infrastructure behind everything from project delivery to environmental advocacy. As we imagine centralized educational efforts, we must not treat this scientific foundation as a niche concern. It is the root system that supports the entire canopy.

Our legitimacy comes from evidence, repeatability, and a willingness to discover—not just deliver. Foundational education and standards don't belong to any one organization; they belong to the entire profession. The contributors behind those 414 assets may affiliate with any number of the 30+ lighting organizations mentioned in my previous column, but what unites them is a shared investment in defining how light works, and how we communicate that knowledge.

Since the May column, I've heard many responses on how the IES didn't show up in some of the ways the industry had hoped for in the *who* and *what*. That's fair. But it doesn't change that the IES also has quiet work to do, consistently. It also doesn't change that we haven't communicated as we could have to show that work. If we want credibility in practice, advocacy, and policy, we must protect the scientific backbone that makes all three possible.

---

Brienne Willcock is director of Education and Standards for the IES.

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# CONTROLS

Gary Meshberg

## Sequence of Operations: Making it easier

Good lighting design requires good lighting controls design. As a result, best practices are essential for lighting controls, particularly as systems become more sophisticated to meet increasingly complex requirements.

It is undeniable that, with restrictive energy codes and the expanded capabilities afforded by the inherent controllability of LED lighting, lighting control systems are becoming increasingly complex. What does that mean for the designer? It means the control system can do a whole lot more than the traditional basics of manual switching and dimming. It also necessitates a certain level of diligence to ensure the right solution is selected based on the project requirements and that the installed system performs and is maintainable in accordance with the design intent.

Communicating this design intent to the right members of the project team involves two best-practice documents defined in ANSI/IES LP-16: *Documenting Control Intent Narratives and Sequence of Operations*—the Control Intent Narrative (CIN) and Sequence of Operations (SOO). Taking the time to incorporate these documents into one's design practice can result in the selection, proper installation, and programming of appropriate control solutions, with the value increasing depending on the project's complexity.

In this column, I will explain these documents and introduce a new, free tool created by the Lighting Controls Association (LCA) to support designers adopting and using them as best practices.

### A Living Document Roadmap

Written for the owner and



Developing a repeated template can be time consuming, which is why the LCA is producing a series of CIN/SOO templates for many popular building types

design team, the CIN provides a non-technical, non-enforceable description of the project goals and what the lighting control system needs to do to satisfy the owner's requirements. In ANSI/IES LP-16, the IES outlines four major elements of a CIN: a general description of the project goals, control strategies needed to satisfy these goals, a basic description of the lighting control system, and a basic SOO for each general space type or specific space.

The CIN serves as a “living document” (amended and fleshed out over time) and the controls roadmap for the entire project team—a common guide and reference. Once approved, it serves as the basis for the SOO.

### Sequences, Trigger, and Functions

If the CIN is general; the SOO is where the rubber meets the road—converting a general description into an explanation of the control system that is specific, measurable, and contractually enforceable.

So, what does “sequence of operations” mean? A sequence is a series of events that happen one after the other. In the case of a lighting control solution, this sequence begins with a trigger (input that initiates a command) followed by enacted functions (how the lights should behave, a combination of a lighting control



Photo: pirankia

strategy and programming). One example is when someone leaves a private office (the sensor does not detect occupancy, producing a trigger), and then the lights turn off after a specific period of time. More-advanced sequences may have multiple triggers and functions that interact.

In the SOO, the designer defines these triggers and sequences for each space and control point. This may include any settings necessary to achieve the desired use of the space and other occupant needs, which are used to program the system.

There is no gold standard for an SOO, but its foundation includes the spaces defined by the CIN, triggers, and functions. The following information is also essential for inclusion in the SOO or supplemental documentation.

- Zones/groups and addresses: A zone/group is one or more lights grouped and assigned to a designated control strategy. The group may be luminaires wired together or grouped via the luminaire address in the case of luminaire-level lighting control.
- Architecture/topology: refers to the physical organization of devices and luminaires (architecture) and the connections between them (topology). Examples of architecture include networked and stand-alone devices. Examples of topology include daisy chain and mesh.
- Setpoints: parameters for

how the controls should respond. A typical setpoint in a luminaire is brightness (intensity). Another example is the sensitivity or timeout of a sensor. The SOO should clearly define the setpoints,

their intended function, and the triggers that activate them.

- Scenes (presets, cues, programs): pre-programmed functions of luminaires that are activated by triggers. The



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	OCCUPANT SENSOR (SUPERSEDES TIME-SWITCH AND DAYLIGHT)							
	TYPE	TURN ON		REDUCE / TURN OFF			NARRATIVE	
	DUAL-TECH / PIR / ULTRASONIC	AUTO / MANUAL	LEVEL	TIMEOUT (ADJ)	AUTO / MANUAL	LEVEL	TURN ON	REDUCE / TURN OFF
SPACE TYPE								
Open Plan Office (≤600-sq-ft zones)		auto	100%	15 min	auto		Upon occupancy within a control zone, general lighting in that zone will automatically turn on to Level.  In other unoccupied zones, lighting will turn on to Level.	If all occupants leave a control zone, reduce lighting after Turn off Timeout.  If the space remains unoccupied for an additional period of Timeout, turn off lighting.
Stairwell		auto	100%		auto	50%	Upon occupancy within a control zone, general lighting in that zone will automatically turn on to Level.	Turn lighting partial off in areas that are not actively in use after Turn off Timeout.
Corridor		auto	100%		auto	50%		Turn lighting off in areas that are not actively in use within 20 minutes.
Copy/Print Room		auto	50%		auto			
Restroom		auto	100%		auto			
Lobby		auto	100%		auto			
Multipurpose Rooms		auto	50%		auto			
Spaces (≤ 300 sq ft)		auto	50%		auto			
Enclosed Offices		auto	50%		auto			
Conference/Meeting Room		auto	50%		auto			
Electrical/Mech/Equip Room		manual	100%		auto			
Janitor Closet		manual	100%		auto			
Lunch Room/Break Room/Lounge		manual	100%		auto			
Interior Parking Areas		auto	100%		auto	50%		
Storage Room		manual	50%		auto		Lighting must be turned on to Level manually from local station.	

Figure 1. A snapshot of a portion of a CIN/SOO template developed for office buildings.

most common scenes identify the luminaire intensities required to create specific visual conditions, including fade rate (the amount of time needed for scene transitions). The SOO should identify how many scenes will be programmed and how they will be triggered.

### Writing the SOO

Writing the SOO involves taking the CIN and specifying and measuring its outcomes. Due to the amount of information that may need to be portrayed, it can be helpful to break it down into a format such as a matrix. ANSI/IES LP-16 provides a good example of this. Vertically, there is a list of specific spaces or

space types matched to columns identifying control strategies and components such as integration.

In **Figure 1**, there is a portion of another example SOO developed by the LCA based on the 2024 version of the International Energy Conservation Code (IECC). In the complete SOO, a matrix of office spaces, control strategies,

and minimum setpoints required by code is presented in a quick-reading visual shorthand.

As an example, in this snippet focusing on occupant sensors, we see that the 2024 IECC requires a sensor to reduce lighting to no more than 20% of maximum lighting power within 20 minutes of vacancy detection in stairwells. When the sensor detects the stairwell as being occupied, the lights will turn on to full power or raise to a predetermined occupied level.

Figure 1 is a snapshot from a new tool that the LCA is developing—a series of Excel spreadsheets offering CIN/SOO documents for many major building types covered by the IECC and populated with requirements from the 2024 version covering control strategies and scenes as well as systems integration. Written by a lighting designer, these spreadsheets are freely available at [LightingControlsAssociation.org](http://LightingControlsAssociation.org) and function as both a CIN and SOO. They are being published for educational purposes but can be used by designers as a starting point, modified based on specific project parameters. By removing the heavy lifting of getting a SOO started, it is our hope that we can accelerate the adoption of these best practices.

### Best Practices Enhance Quality

Adopting the best practices of the CIN and SOO from ANSI/IES LP-16 can facilitate appropriate control selection, smoother installation, and system programming that meets the operational intent of the space and satisfies its occupants. Developing a repeatable template can be

time consuming, which is why the LCA is producing a series of CIN/SOO templates for many popular building types based on the latest version of the most-commonly adopted energy code. Please review the new templates and let us know what you think.

Gary Meshberg, LC, CLCP, LEED-AP, Member IES, is chair of the Lighting Controls Association, a council of NEMA.



The advertisement features a large image of a modern, dark-colored light pole with a glowing globe and a traditional white globe. The background is a bright blue sky. The Hyperia logo, a red shield with a white 'h' and a sunburst, is in the top left. The text 'HYPERIA COMPOSITE LIGHT POLES' is below the logo. The slogan 'COASTAL TOUGH... BEAUTIFUL EVERYWHERE.' is prominently displayed. A section titled 'ADVANTAGES OF FIBERGLASS / COMPOSITES' lists five benefits. Two small inset photos show the poles in park settings. The bottom section highlights 'FIBERGLASS LIGHT POLES SMOOTH ROUND | DECORATIVE' and mentions they are 'Hand-crafted in New Hampshire'. The website 'www.hyperialightpoles.com' is at the bottom.

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# SAFETY

Jerry Plank

## Class 4 FMPS: What would Tesla, Westinghouse, and Edison think?

Early in the field of electrical development and distribution, three superstars in technology and trade—Nikola Tesla, George Westinghouse, and Thomas Edison—were locked in a battle for supremacy on whether AC or DC should be the prevailing current. While each camp had a strong argument about which electrical current was safer, in reality, regarding electrical shock or the subsequent propagation of flame, each type of the aforementioned electrical currents must be treated with care.

New technologies of pulsed DC current generation are currently being explored with claims of increased safety for users, along with the potential for lessening installation practices and the need for municipal electrical inspections. One of the new power technologies offered recently is the exciting field of Class 4 fault-managed power systems (FMPS), which will impact the lighting field by potentially unlocking the previous limitations imposed on Class 2 circuits. The 2023 edition of NFPA 70, the National Electrical Code, now has a new Article 726, addressing Class 4 FMPS produced by various manufacturers.

So, what is so unique about Class 4 FMPS, and why should we become knowledgeable of the intricacies of this new tech-

nology? Let's take a birds-eye view of this new and promising technology that Tesla, Westinghouse, and Edison could have never dreamed up.

To better explain Class 4 FMPS, we need to review the limitations of a Class 2 power system. Class 2 power supplies are limited by either impedance or having a fuse or resettable circuit breaker that does not allow the short-circuit current to exceed 8 amperes after one minute. Most Class 2 lighting systems, therefore, are limited to 100 volt-amperes and less than 42.4 volts peak, 30 volts RMS, or 60 volts DC. Furthermore, the distance from the power supply to the lighting product is limited by the secondary wire gauge used.

Class 4 systems, which use



The magic occurs in the claim that any shock hazard fault will shut down the circuit as the transmitter and receiver are in constant communication with each other

a pulsed or digital DC current, are allowed to be a maximum of 450 volts, and due to the circuit use special Class 4 cables that can be run thousands of feet. A Class 4 system typically comprises a transmitter that is connected to line voltage then interconnected with special power/communication cable to the Class 4 receiver, which may or may not be wired to the lighting product or other Power over Ethernet or information technology product.

Underwriters Laboratories (UL) has a published UL 1400-1: *UL LLC Outline of Investigation for Fault-Managed Power Systems – Part 1: Safety Requirements* and UL 1400-2: *UL LLC Outline of Investigation for Fault-Managed Power Systems – Part 2: Requirements for Cables*. It should be noted that the UL Outline of Investigation is not an ANSI standard, which means that the requirements may be upgraded and/or revised at a later date.

### Making Magic

So, where is the magic in a Class 4 system? The magic occurs in the claim that any shock hazard fault will shut down the circuit as the transmitter and receiver are in constant communication with each other. The test signal is reported to be sent back and forth (typically, 500 times per second) through

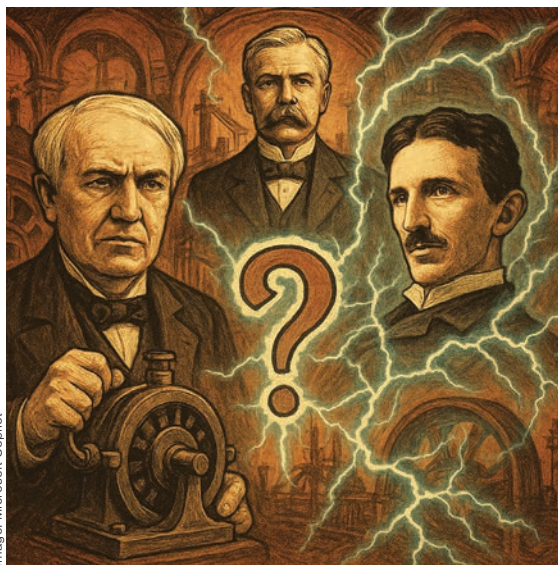


Image: Microsoft Copilot

the cable such that a fault will be detected and open the circuit within milliseconds.

Class 4 technology looks extremely promising as manufacturers' literature lays out the benefits and features such as:

1. Its ease of installation, as the product is installed similarly to IT installation practices now used.
2. Enhanced safety, as the circuitry detects potential fault conditions at which point the power will be reduced quickly to prevent an electrical shock.
3. Under fault conditions, the reduced power will lessen the chance of propagation of flame to start a fire.
4. The Class 2 limitations of power can be surpassed due to the redundancy of the safety circuit, which has a fast response time to lessen power.
5. Using the Class 4 cabling allows for longer runs of cable without compromising performance.
6. Municipalities may waive installation inspections decreasing installation time.
7. Class 4 systems can be easily integrated into energy-savings initiatives, reducing energy consumption for sustainable building designs.

As with any new technology field, experience will be pivotal to ascertain if the claims made are valid and protect users from harm. Class 4 systems are currently intended to be used in sports stadiums and arenas,

office buildings, airports and passenger terminals, manufacturing facilities, wireless access points, routers and servers, and smart displays/digital signage.

A "Safety" column update will follow with further information in the future as field experience is gained with the Class 4 systems. Additionally, local municipalities may opt to require appropriate electrical inspections until actual installations prove otherwise.

The development and implementation of Class 4 power is exciting, and many of the shortcomings using Class 2 power are mitigated. There will be arguments for and against using this new technology just like

when Tesla and Westinghouse supported AC power, while Edison backed DC power. As history tells us, both AC and DC have their place; Class 4 should prove to be an asset as we seek to conserve energy.

Finally, congratulations to both the National Fire Prevention Association Code Making Panel and UL for reacting expeditiously so that the new technology can move forward without delays due to a lack of requirements.

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Jerry Plank, LC, is the CEO/founder of Wilger Testing, an accredited third-party laboratory testing for product safety and performance.



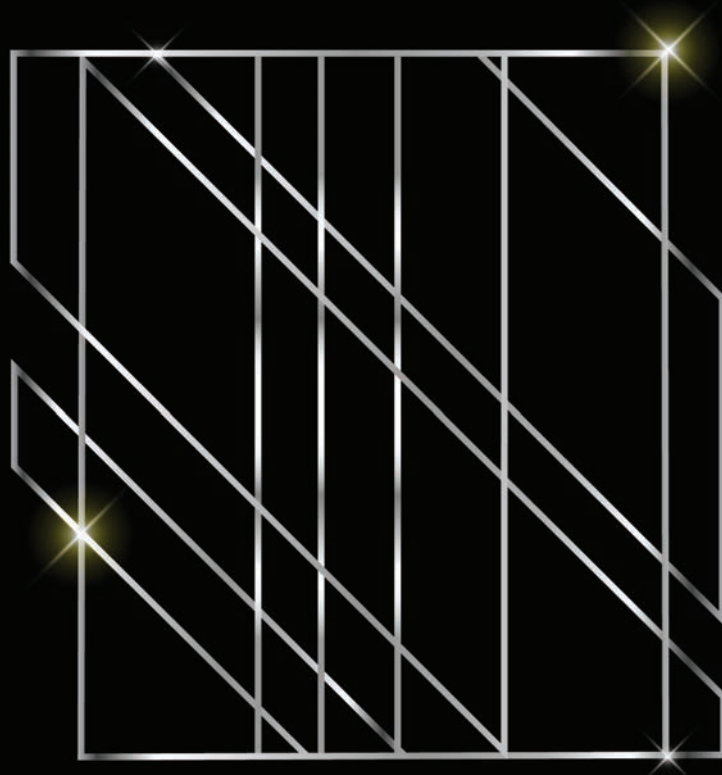
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# 2025 ILLUMINATION AWARDS

The IES Illumination Awards provide a unique opportunity for public recognition of professionalism, ingenuity, and originality in lighting design based upon the individual merit of each entry judged against specific criteria. This program is not a competition.

New in 2025 is the Illumination Award for Experiential Lighting Design sponsored by ETC, Inc. Along with the Illumination Award for Interior Lighting Design sponsored by Edwin F. Guth, the Illumination Award for Outdoor Lighting Design, and the Illumination Award for Control Innovation, sponsored by Lighting Controls Association, a Council within NEMA, these parallel programs recognize outstanding lighting design.

"We are thrilled to present the 2025 Illumination Awards, showcasing an exceptional lineup of projects that push boundaries and elevate the art and science of lighting design," said Jana Owens, chair of the IES Illumination Awards Committee. "This year's submissions reflect not only technical mastery but a deep sensitivity to how light shapes space, mood, and experience. We would like to extend our thanks to our panel of judges for their thoughtful and tireless dedication in evaluating each entry. Their pursuit of design excellence ensures that these awards continue to honor the very best our industry has to offer. It's an inspiring reminder of how powerful and transformative lighting can be."

The projects that follow represent this year's Final Awards and Merit Awards recipients.

## FINAL JUDGES 2025 ILLUMINATION AWARDS



**Ellen Kuklinski**  
Coherent Design



**Shoshanna Segal**  
Hartranft Lighting Studios



**Stephanie Wood**  
Dark Light Design

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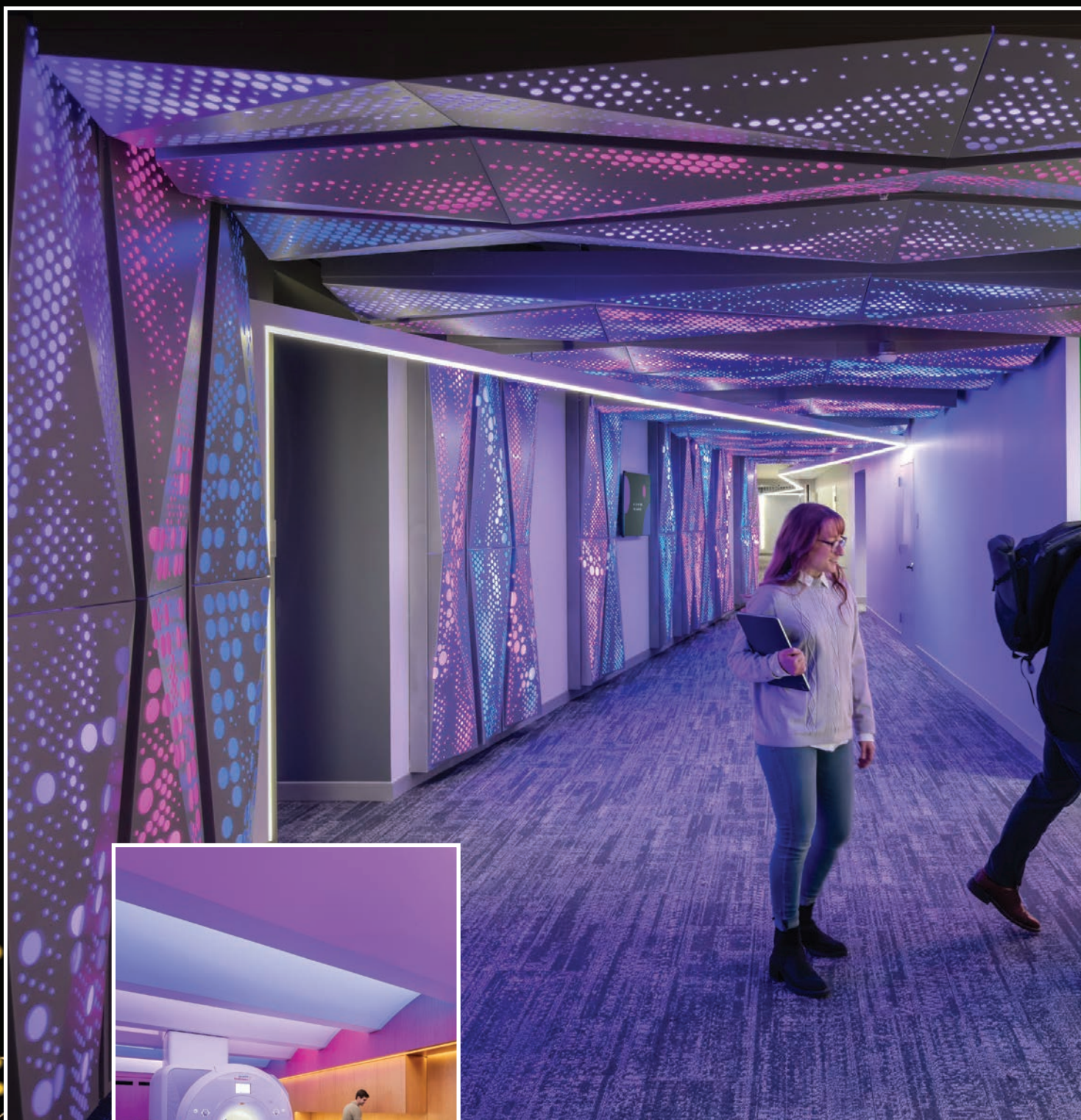
### **Paula D. Ziegenbein**

Hartranft Lighting Design



# ILLUMINATION AWARD FOR INTERIOR LIGHTING DESIGN

Sponsored by Edwin F. Guth | Special Citation for the Use of Color to Elevate and Enliven a Clinical Environment







## YALE – 100 COLLEGE STREET

New Haven, CT

**Designer:** Paige Donnell – SmithGroup

**Owner:** Yale University

**Photos:** Anton Grassl

**W**u Tsai Institute and the Departments of Psychology and Neuroscience at 100 College Street at Yale University strives to understand human cognition and explore human potential in a novel, powerful way. The lighting concept seeks to foster occupant self-revelation and “empower discovery” for students, faculty, participants, and researchers. The illumination balances serenity and technology to create comfortable, welcoming research and clinical environments that encourage participant engagement.

**All interior ambient lighting is 90+ CRI and 3500K CCT to provide high-quality color rendering, enhancing occupants’ sense of comfort in traditionally sterile healthcare and research environments.**

Indirect lighting is prioritized, and material reflectivity is curated to expand the visual field of existing ceiling constraints while mitigating reflection and glare. An RGBW backlit, dynamic art installation is curated with daily scenes that enhance intuitive wayfinding and promote information exchange. Sensory public corridors are juxtaposed with research spaces that are visually subdued. Clinic participants are greeted with colorful, immersive environments, achieved through concealed lighting treatments. Within MRI rooms, vaulted ceilings with knife-edge coves promote user control with dynamic scenes that both captivate and calm. The project reimagines healthcare and research design, enhancing the community experience, while achieving both a lighting power density 20% below ASHRAE 90.1-2019 Standards and LEED Gold certification.



# ILLUMINATION AWARD FOR CONTROL INNOVATION

Sponsored by Lighting Controls Academy, a NEMA Coalition



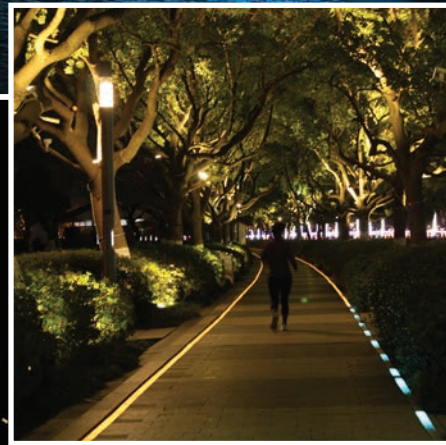
## WIRELESS LIGHT – FREE CHASE

Suzhou, China

**Designers:** Chenggu Kang, Jie Tian, Keke Shi – Huanguzhidao (HG) Lighting Technology Co., Ltd.; Weigang Xu – TP Technology Co., Ltd.; Haisheng Xu, Jieqiong Fan – TD Illumination

**Owner:** SIP Comprehensive Law Enforcement Bureau

**Photos:** Chenggu Kang



Located on the pathways along Jinji Lake—China's largest inner-city lake, which is adjacent to parks, shopping centers, hotels, and restaurants—designers upgraded the lighting facilities and control system of an overwater trestle bridge and pathways to create a continuous 15-kilometer intelligent lakeside running route and a 3.5-kilometer interactive "light-chasing" running path. Visitors can access the system via the WeChat Mini Program app for intelligent route planning, experiencing distinctive functions such as dynamic light interactions, scenic spot introductions, and AI-captured "highlight moments."

**Designers employed digital twin technology and Bluetooth beacon networks to achieve sub-2-meter positioning and multi-dimensional interactions.** User identification is managed via linked accounts, while AI cameras utilize distributed algorithms to push highlight moments. The lighting control system adopts dual-mode DMX512 and Bluetooth protocol, balancing aesthetic integration with the city's nighttime scenery and human-light interactions. Energy efficiency is prioritized through low-power Bluetooth components, standby power-saving modes, and on-demand dimming. Whether taking a leisurely stroll or heading out for a run, visitors experience the melding of innovative technology with urban nightscapes, creating a lakeside fitness environment that encourages outdoor activities and promotes healthy lifestyles.



# ILLUMINATION AWARD FOR INTERIOR LIGHTING DESIGN

Sponsored by Edwin F. Guth



## THE CATHEDRAL BASILICA OF ST. LOUIS

St. Louis, MO

**Designers:** Randy Burkett, Susan Jennings, Ron Kurtz, Steve Rohde, Carly Hofstetter – Reed Burkett Lighting Design

**Owner:** Archdiocese of St. Louis

**Photos:** Sam Fentress and Randy Burkett

For more than 100 years, the Byzantine and Romanesque style of the Cathedral Basilica has been recognized as one of the most beautiful churches in the U.S. Enhancing the presentation of the Cathedral's mosaics was a journey of discovery; the reflective characteristics of the glass tessera made lighting angles critical to revealing the richness and texture of the mosaics.

**Illuminating 22,000,000 tiles necessitated distributions, from 4 deg to 50 deg, including custom spread lenses.** Luminaires were mounted discreetly in flanking upper galleries and corner dome towers.

At the 140-ft center dome apex, an existing oculus was repurposed to accommodate an armature of narrow distribution, 200-W, LED floodlights. Each fixture is focused to a specific floor target through the aperture. The framework height was idealized to allow cross-aiming to 70% of the Nave. The design reduced power by 87% and tripled light levels to 30 footcandles. The Baldachin is adorned with mosaics atop the dome and beneath it. Existing lanterns became positions for miniature LED accents, focused to the ceiling and walls. All lighting is controlled through a DMX system using presets established for daily and special events. Docents leading tours use wireless devices to activate key lighted mosaics, enhancing the storytelling experience.



# ILLUMINATION AWARD FOR EXPERIENTIAL LIGHTING DESIGN

Sponsored by ETC, Inc.



## AT-TURAIIF

Diriyah, Saudi Arabia

**Designers:** Keith Bradshaw, Iain Ruxton, Adrien Flouraud, James Fuentes McGreevy – Speirs Major Light Architecture

**Owner:** Diriyah Company

**Photos:** Allan Toft/Martin Professional



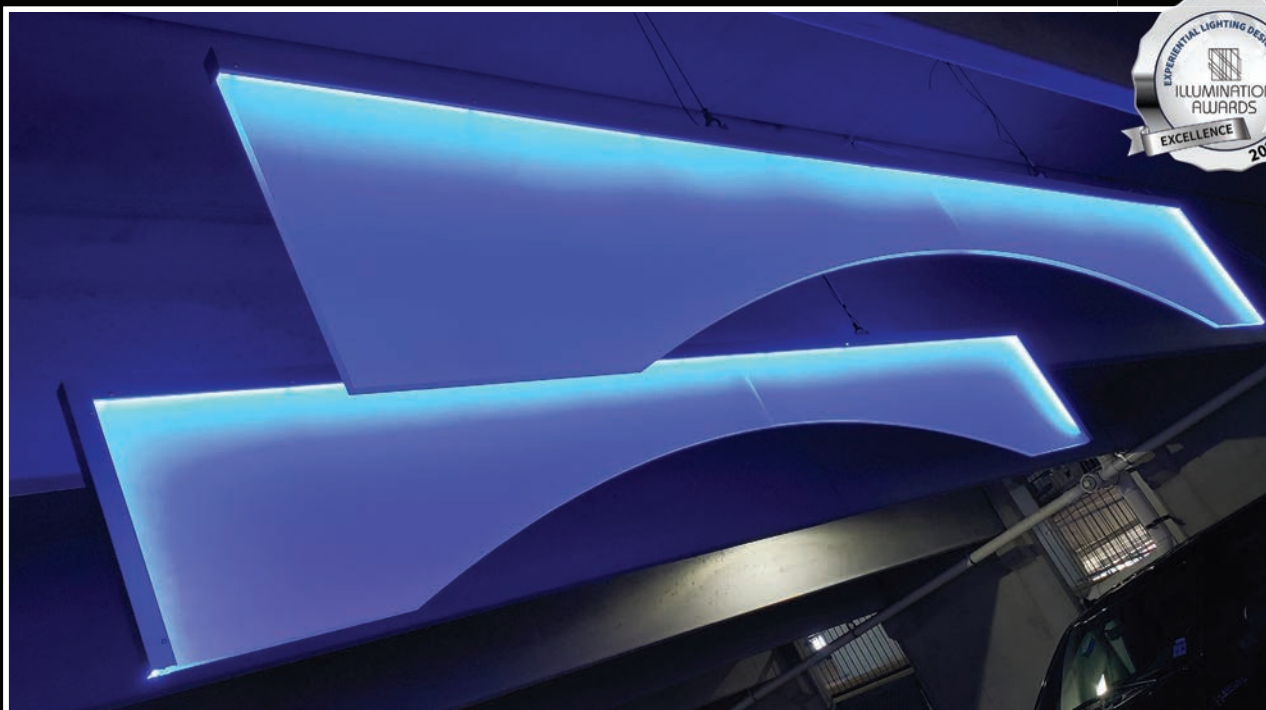
**D**ating from the 15<sup>th</sup> century, At-Turaif was the first capital of the Saudi state and is a UNESCO World Heritage site. The epic scale and historical significance of the ancient district of At-Turaif are brought to life after dark in a layered and nuanced tapestry of soft rose-gold light that reflects the spirit of this living national monument. The surfaces, façades, streets, and courtyards that shape the most important views and experiences have been articulated in a palette of varying light intensities. **The mud-brick glows, lit from below in a shade of golden light, while subtle tonal variations evoke the flickering lantern light of ancient times.**

To address the project's significant scale and consider multiple viewpoints both near and far, a full drone scan was employed alongside real-life mock-ups to model effects for approval from all stakeholders. To avoid damage and preserve the sense of authenticity, equipment is secured on semi-recessed concrete footings hidden behind color-matched shields that blend seamlessly into the building fabric. While designed with a natural, timeless feel, once per month, blue light on the exterior marks the new moon, reflecting the lunar calendar's importance in the Muslim faith.



# ILLUMINATION AWARD FOR EXPERIENTIAL LIGHTING DESIGN

Sponsored by ETC, Inc.



## COOK CHILDREN'S MEDICAL CENTER – GARAGE DROP-OFF AREA Fort Worth, TX

**Designers:** Jill Klores, Diana Niño, Andy Keller –  
Essential Light Design Studio

**Owner:** Cook Children's Medical Center

**Photos:** Roy Aguilar Photography

While children's hospitals have made significant advancements in design and lighting to alleviate fear and anxiety and create a more welcoming atmosphere, such efforts rarely extend to the parking garage. Cook Children's Medical Center sought to evoke a sense of wonder from the moment young patients arrive at the garage drop-off area. By immersing visitors in a gently shifting wash of colors, the design redirects a child's attention to the vibrant hues and movement, fostering the hope that the visit will be an uplifting experience.

**The streamlined design features two runs of singular, arc-shaped panels that serve up an implied hug.** Initially, the design team explored using 4-, 6-, and 12-in. pixels within each panel to facilitate dynamic color shows, but ultimately, a simplified solution was adopted, with each panel functioning as a single pixel. This approach was thematically effective while also offering savings in fixture and controls costs. Detailed calculations were performed to ensure proper functional lighting below, with particular attention to the placement of the UFO-style garage lighters in adjacent drive aisles and stalls, to prevent washing out the color saturation of the panels. The result provides excellent color saturation, a clean panel design, and a track method for easy alignment and spacing of the panels.



# ILLUMINATION AWARD FOR EXPERIENTIAL LIGHTING DESIGN

Sponsored by ETC, Inc.



## ENCHANTED FOREST OF LIGHT 2024

La Cañada Flintridge, CA

**Designer:** Chris Medvitz – Lightswitch

**Owner:** Descanso Gardens Foundation

**Photos:** Jennifer “Z” Zornow, Kathryn Rapier, and Chris Medvitz



To celebrate winter in Descanso Gardens, families play and explore, safely guided along by warmly illuminated walkways that provide a consistent visual reference for wayfinding while colored light visually enhances the overhead tree canopies, glowing flowers, and stream banks. Distant landscapes and sculptures draw guests through the experience where each featured plant or area requires a tailored approach. Low-glare fixtures, high overhead and at foot level, largely disappear within plantings.

Descanso Gardens Foundation required non-intrusive, temporary equipment, which led to a unique design approach for fixtures and mounting conditions. **The hidden cabling, removable mountings, and fixtures recede from public view and de-mount at season's end to minimally impact plants.** Often, a single fixture is attached to a vertical pipe and weighted base to avoid obtrusive instrument clusters. Control systems manage the theatrical sound and light programmed loops within each area, and guests are engaged in the immersive environment by using interactive elements found in multiple installations, including artist Tom Fruin's colorful house sculptures—temporarily playing with nearby fixtures' color and illumination settings, which auto-reset after one minute. The project resulted in 3,700 nightly guests enjoying nature while supporting the organization's annual revenue, membership, and educational programs.



# ILLUMINATION AWARD FOR OUTDOOR LIGHTING DESIGN



## BMO CONVENTION CENTRE – EXTERIOR CANOPY AND PAVILION

Calgary, Alberta, Canada

**Designers:** Luke Ellis, Beau Cooper, Patrick Smith, Regan Janzen, Vanessa Tang, Scott Hendrickson – Eos Lightmedia; Shannon Glover – Stantec

**Owner:** Calgary Municipal Land Corporation

**Photos:** Joel Klassen

The BMO Convention Centre canopy is rooted in Western heritage and inspired by Calgary's vast prairies and dramatic skies, and the lighting design harmonizes these elements across a multi-faceted site. The pavilions' blackened steel façade panels harken back to black smithing, with sparks of dancing, fiery light complementing that aesthetic. The solid panels with a rugged finish provide a uniquely textured surface for front light. In other areas, these same panels—backed with light boxes—house and conceal light fixtures, with linear openings recalling the light filtering through weathered barn boards at dusk.

The central sculpture, bathed in layered uplighting and precision spots, is a focal point—serene by day, radiant and ever-changing by night. Evoking the warmth of prairie campfires, the lighting palette embraces rich ambers, reds, and golds, inviting visitors into a timeless gathering place. **Luminaires rated for -40 deg Fahrenheit ensure resilience in extreme climates, while advanced controls—including an astronomic time clock—minimize energy consumption and light pollution.** The exterior lighting system outperforms code allowances by 24% and elevates the structure into an expression of the West's warmth, resilience, and spirit.



# ILLUMINATION AWARD FOR EXPERIENTIAL LIGHTING DESIGN

Sponsored by ETC, Inc.



## LUCE MEMORIAL CHAPEL

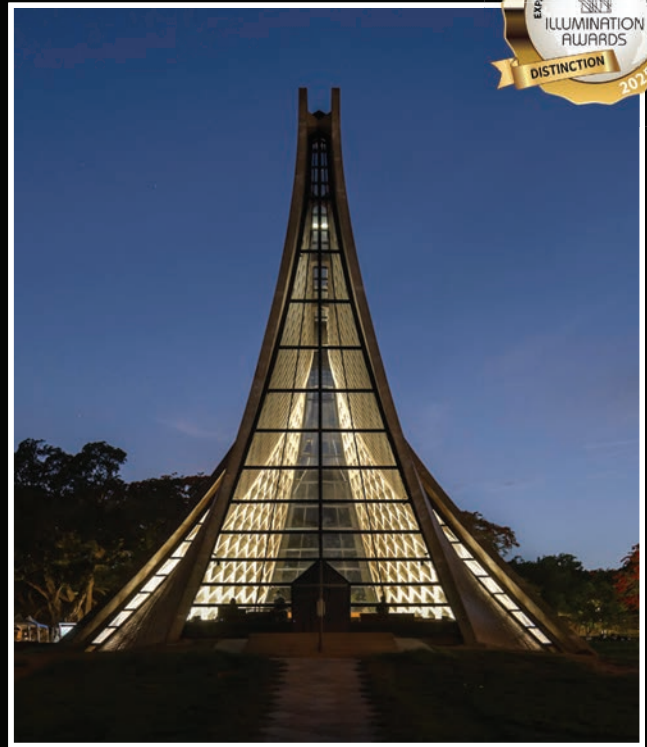
Taichung City, Taiwan

**Designer:** Ching-Yu Lin – CosmoC Lighting, Ltd.

**Owner:** Tunghai University

**Photos:** Yu-Chen Zao and Sen-Yung Liu





The lighting design of the tent-like Luce Chapel honors its more than 60-year architectural legacy and spiritual essence, blending innovation with respect for its iconic curved structure. Through the integration of contemporary lighting technologies, the design enhances both the chapel's aesthetic appeal and functional adaptability. **The interior illumination fosters reflection and connection by highlighting the chapel's curves, using indirect fixtures and reflective surfaces to amplify the interplay of light and shadow, resulting in uniform light distribution and visual harmony.** Smart lighting controls enable dynamic adjustments for diverse scenarios, such as worship, meditation, and exhibitions.

The chapel's exterior is accentuated via textured diamond-pattern tiles. Carefully positioned luminaires emphasize the structure's flow while preventing light spill, and the rooftop cross, illuminated with focused projection lighting, retains its prominence as a spiritual symbol. The result is an enhanced nighttime landmark that balances innovation, sustainability, and artistry while honoring Luce Chapel's spiritual heritage.



# ILLUMINATION AWARD FOR INTERIOR LIGHTING DESIGN

Sponsored by Edwin F. Guth



## CHRISTIAN DIOR: DESIGNER OF DREAMS

Riyadh, Saudi Arabia

**Designers:** Francois Roupinian and Maricar Bustamante – Lightemotion; Nathalie Crinière – Agence NC

**Owner:** Christian Dior Couture

**Photos:** Cedric Ghossoub



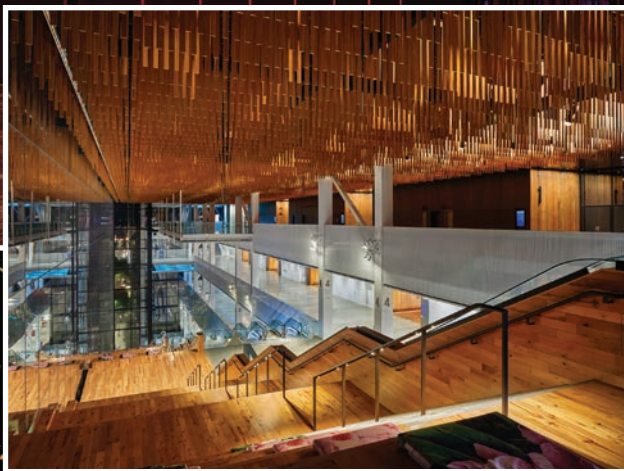
The “Christian Dior: Designer of Dreams” exhibition at the Saudi National Museum in Riyadh welcomes visitors to peruse 20,000 sq ft of themed areas displaying over 250 Dior artifacts from the 1950s to today. The illumination highlights the intricate details of each object, evoking emotions and unifying the exhibition’s distinct spaces—all while respecting the cultural and architectural context of Saudi Arabia.

Designers created an atmosphere that balanced intimacy and grandeur while maintaining a 50-lux limit to protect the artifacts from light damage. A base layer of indirect lighting from LED strips concealed within the scenography softly defines the volumes of the space, circulation, and wayfinding. **Low-voltage museum-quality fixtures—1 to 6 watts—provide precise color rendering, beam control, and ultraviolet filtration sculpting for each textile while ensuring that the light source remains invisible.** A DMX control system allows light intensity and temperature to match each thematic space within the exhibition. The project’s positive social impact is observed through cultural exchange, inspiring local creatives by showcasing the artistry, craftsmanship, and heritage of haute couture in the region’s developing fashion landscape.



# ILLUMINATION AWARD FOR INTERIOR LIGHTING DESIGN

Sponsored by Edwin F. Guth







## SEATTLE CONVENTION CENTER – SUMMIT BUILDING

Seattle, WA

**Designers:** Michael Lindsey, E. Teal Brogden, and Sam Hewett – HLB Lighting Design

**Owner:** Seattle Convention Center

**Photos:** Lauren K. Davis/Feinknopf

In downtown Seattle, the Summit Building redefines the convention experience with a vertical design that integrates architecture, lighting, and technology while reflecting the Pacific Northwest's culture and natural beauty. The 58,000-sq-ft ballroom features an undulating wormwood ceiling, evoking a luminous forest canopy. Layers of light, including digitally addressable framing projectors, add warmth and depth while remaining discreetly integrated. Precision optics and elongated louvers eliminate glare, ensuring visual comfort. A networked DMX system enables seamless transitions, eliminating the need for temporary lighting and making the ballroom a dynamic, programmable canvas.

**LEED Platinum-certified, the building exceeds Seattle's energy codes by 34% through integrated LED systems, daylight-responsive sensors, and automated controls.** Built using a complex "railroad" construction method, the project required meticulous coordination amid COVID-19 challenges. Summit stands as a beacon of resilience, artistry, and technical excellence—where lighting shapes spaces, fosters connection, and elevates experiences.



# ILLUMINATION AWARD FOR INTERIOR LIGHTING DESIGN

Sponsored by Edwin F. Guth



## SYDNEY METRO MARTIN PLACE– PEDESTRIAN LINK TUNNEL

Sydney, Australia

**Designers:** Donn Salisbury, Nick Lee, and Rosa Arcaya – Electrolight

**Owner:** Macquarie Bank Limited

**Photos:** Rohan Venn Photography





Sydney Metro Martin Place serves as the primary station for the new Metro trains network. The underground Metro station is split between the North and South platforms and linked together by a variety of connections at both the ground plane and deep within the basement levels. One of these connections includes a 70-meter-long (~230-ft) pedestrian link tunnel, which was initially constructed as a services link.

The lighting concept proposed two layers of light, paired with a series of audio soundscapes, providing an immersive experience through the space. **The lower layer includes a subtle white “carpet” of light to satisfy the technical requirements of the corridor, while the second layer transforms the upper cylindrical form of the tunnel into a dynamic light canvas.** Two bench elements allow for the concealment of continuous linear LED projectors to create a succinct layer of light to the floor plane. Above, two mirrored side “booms” conceal the dynamic lighting systems while a central boom carries the essential services. The combination of light, color, sound, and interactivity create an escape from the bustle of the adjacent platforms by providing a space of wonder, imagination, and art.





# AWARDS OF MERIT

2025

## ALBANY

REVERBERATING LIGHT

**Design Firm:** lighttexture

## ATLANTA

AMELIA GENE'S RESTAURANT

**Design Firm:** The Johnson Studio at Cooper Carry

## BOSTON

BETH ISRAEL DEACONESS MEDICAL CENTER KLARMAN BUILDING

**Design Firm:** Available Light

BOSTON BRUINS HEADQUARTERS

**Design Firm:** HLB Lighting Design

BOSTON CHILDREN'S HOSPITAL, INPATIENT RENEWAL PROJECT

**Design Firm:** CannonDesign

BOSTON CONVENTION AND EXHIBITION CENTER STAIR

**Design Firm:** HLB Lighting Design

BRISTOL MYERS SQUIBB AT CAMBRIDGE CROSSING

**Design Firm:** Lam Partners

CONFIDENTIAL TECHNOLOGY CLIENT

**Design Firm:** HLB Lighting Design

COOLIDGE CORNER THEATRE

**Design Firm:** Arup

FOUNDATION MEDICINE HEADQUARTERS

**Design Firm:** Sladen Feinstein Integrated Lighting, Inc.

GROTON HILL MUSIC CENTER (CONTROL INNOVATION AND OUTDOOR LIGHTING DESIGN)

**Design Firm:** Ripman Lighting Consultants, Inc.

HARRIET TUBMAN MONUMENT – SHADOW OF A FACE

**Design Firm:** Bartholomew Lighting

JOSIAH QUINCY UPPER SCHOOL

**Design Firm:** HMFH Architects

MARYMOUNT MANHATTAN JUDITH MARA CARSON CENTER FOR VISUAL ARTS

**Design Firm:** HLB Lighting Design

THE GOLD DOME

**Design Firm:** Evelyn Audet Lighting Design, LLC

THE FREDERICK GUNN SCHOOL TISCH CENTER FOR INNOVATION AND ACTIVE CITIZENSHIP

**Design Firm:** Lam Partners

THE ORB

**Design Firm:** Lam Partners

VIEW BOSTON (INTERIOR LIGHTING DESIGN AND OUTDOOR LIGHTING DESIGN)

**Design Firm:** Lam Partners

## CALGARY

UNIVERSITY OF CALGARY, MATHISON HALL

**Design Firm:** lightSPACE at SMP Engineering

VIVO RECREATION CENTER

**Design Firm:** DIALOG

## CHICAGO

215 N PEORIA

**Design Firm:** Aurora Lighting Design, an RBLD Studio

225 WEST WASHINGTON

**Design Firm:** Gwen Grossman Lighting Design

ADA HOTEL

**Design Firm:** Polymath Design

CONFIDENTIAL TECHNOLOGY CLIENT EVENT CENTER

**Design Firm:** Schuler Shook

FLACK GLOBAL METALS

**Design Firm:** IA

GENSLER SAN FRANCISCO OFFICE

**Design Firm:** Schuler Shook

LIGHTING THE WAY TO A SUSTAINABLE FUTURE

**Design Firm:** dbHMS

MCDONALD'S – SPEEDEE LABS

**Design Firm:** IA

NORTH SHORE CONGREGATION ISRAEL, FRANK HALL AND CROWN HALL

**Design Firm:** Gwen Grossman Lighting Design

USONA INSTITUTE

**Design Firm:** Aurora Lighting Design, an RBLD studio

VANDERBILT UNIVERSITY  
ROTHSCHILD AND CARMICHAEL  
COLLEGE

**Design Firm:** Schuler Shook

### **CINCINNATI/LOUISVILLE**

BAPTIST HEALTH HAMBURG

**Design Firm:** CMTA, Inc.

HISTORIC DAYTON ARCADE: A  
120-YEAR-OLD LEGACY AWAKENED  
WITH LIGHT

**Design Firm:** 37 Volts Light Studio

### **CLEVELAND**

COLUMBUS BLUE JACKETS

**Design Firm:** Osborn Lighting Studio

### **DALLAS/FORT WORTH**

AMERICAN BOARD OF OBSTETRICS  
AND GYNECOLOGY, DALLAS

**Design Firm:** Essential Light Design  
Studio, LLC

ASHLAND-GREENWOOD MIDDLE  
SCHOOL INTERIOR

**Design Firm:** DLR Group

COOK CHILDREN'S MEDICAL CENTER  
– GARAGE DROP OFF AREA

**Design Firm:** Essential Light Design  
Studio, LLC

RYAN TOWER

**Design Firm:** Essential Light Design  
Studio, LLC

ZAPOTAL BEACH CLUB AND FARM  
TO TABLE RESTAURANT

**Design Firm:** Granville McAnear  
Lighting Design

### **DENVER**

BETA TECHNOLOGIES  
(CONTROL INNOVATION AND  
INTERIOR LIGHTING DESIGN)

**Design Firm:** Stantec

BRIDGE HOUSE

**Design Firm:** Robert Singer &  
Associates, Inc.

DENVER MUSEUM OF NATURE AND  
SCIENCE – WEST ATRIUM LIGHTING

**Design Firm:** BCER

NORTHGLENN CITY HALL

**Design Firm:** AE Design, Inc.

PDC ENERGY (CHEVRON)

**Design Firm:** Stantec

SEATTLE CONVENTION CENTER  
SUMMIT BUILDING

**Design Firm:** HLB Lighting Design

SIPS (WITH A Z) CONVERGENCE  
STATION, MEOW WOLF DENVER

**Design Firm:** Mazzetti

UNIVERSITY OF NEBRASKA-LINCOLN  
OSBORNE LEGACY COMPLEX

**Design Firm:** illume | A Vision of ME  
Engineers

### **DES MOINES**

AMES HIGH SCHOOL

**Design Firm:** Design Engineers

DES MOINES UNIVERSITY CAMPUS –  
CLASSROOM INTERIOR

**Design Firm:** RDG Planning & Design

LA VISTA CITY CENTRE PAVILION

**Design Firm:** RDG Planning & Design

WAUKEE CSD NATATORIUM  
(EXPERIENTIAL LIGHTING DESIGN  
AND INTERIOR LIGHTING DESIGN)

**Design Firm:** RDG Planning & Design

### **DETROIT**

CADILLAC HOUSE AT VANDERBILT

**Design Firm:** SmithGroup

GENERAL MOTORS DESIGN CENTER  
WEST STUDIO BUILDING

**Design Firm:** SmithGroup

ICE PAVILION PARK

**Design Firm:** ILLUMINART, A Division  
of Peter Basso Associates, Inc.

MICHIGAN TECHNOLOGICAL  
UNIVERSITY, H-STEM ENGINEERING  
AND HEALTH TECHNOLOGIES  
COMPLEX

**Design Firm:** HED

TOM IZZO FOOTBALL BUILDING

**Design Firm:** Integrated Design  
Solutions

YALE 100 COLLEGE STREET  
RENOVATIONS

**Design Firm:** SmithGroup

### **DISTRICT OF COLUMBIA**

DMC MOBILITY

**Design Firm:** CM Kling

MARGARITTE

**Design Firm:** MCLA Architectural  
Lighting Design

MONUMENT DRIVE PARKING  
GARAGE

**Design Firm:** HGA

NATIONAL MUSEUM OF WOMEN  
IN THE ARTS

**Design Firm:** Flux Studio Ltd.

NONPROFIT HQ (CONFIDENTIAL)

**Design Firm:** CM Kling

OHIO STATE UNIVERSITY ENERGY  
ADVANCEMENT AND INNOVATION  
CENTER

**Designer:** Claude R. Engle, Lighting  
Consultant





# AWARDS OF MERIT

2025

## ST. THOMAS MORE CATHEDRAL

**Design Firm:** George Sexton Associates, LLC

## TALL SHIP PROVIDENCE

**Design Firm:** HGA

## THE ATLANTIS

**Design Firm:** CORE architecture + design

## THE AUSTRALIAN EMBASSY, WASHINGTON, D.C.

**Design Firm:** Electrolight

## VETERANS' PLAZA CANOPY (EXPERIENTIAL LIGHTING DESIGN AND OUTDOOR LIGHTING DESIGN)

**Design Firm:** Hartranft Lighting Studios

## VIRGINIA THEOLOGICAL SEMINARY WELCOME CENTER

**Design Firms:** Lam Partners (STROIK Lighting Design)

## HOUSTON

### FERMILAB NATIONAL ACCELERATOR LABORATORY

**Design Firm:** Arup

## HAIL KEII

**Design Firm:** KPK Lighting Design

## IAH AIRPORT – TERMINAL D MLIT

**Design Firm:** Arup

## INTERNATIONAL

### 1971 FERROALLOY PARK

**Design Firm:** One Lighting Studio of THAD

### A PLACE FOR EVERYONE, THE CITY OF TOMORROW

**Design Firm:** Atelier Lumenplus Co., Ltd.

### ARTYZEN NEW BUND 31 SHANGHAI

**Design Firm:** Brandston Partnership, Inc.

### AT-TURAIIF, DIRIYAH, SAUDI ARABIA

**Design Firm:** Speirs Major Light Architecture

### BEIJING WORKERS STADIUM

**Design Firm:** Brandston Partnership, Inc.

### BOUNDLESS EXPLORATION

**Design Firm:** LEOX design partnership (LEOX ART)

### CAPTION BY HYATT NAMBA OSAKA

**Design Firm:** Daiko Electric Co., Ltd.

### CHENGDU SCIENCE FICTION MUSEUM

**Design Firm:** Brandston Partnership, Inc.

### CHINA PAVILION OF 2023 VENICE BIENNALE

**Design Firm:** Brandston Partnership, Inc.

### CHONGQING SCIENCE AUDITORIUM

**Design Firm:** Beijing PRO Lighting Design Co., Ltd

### CHUO UNIVERSITY MYOGADANI CAMPUS

**Design Firm:** Nikken Sekkei Ltd.

### CLARKE QUAY, SINGAPORE

**Design Firm:** Nipek Pte Ltd.

### COMMERCIAL ENTRANCE CEILING ART INSTALLATION

**Design Firm:** RDesign International Lighting

### DOM TOWER, UTRECHT, NETHERLANDS

**Design Firm:** Speirs Major Light Architecture

### EDL LAMINATE SHOWROOM

**Design Firm:** Glint Lighting Design Pte Ltd.

### FEDERATION SQUARE LIGHTING MASTERPLAN AND STAGE 1 WORKS

**Design Firm:** Arup

### GUANGZHOU WINDOW LIGHTING DESIGN

**Design Firm:** Guangzhou Yuanse Lighting Design Co., Ltd.

### HANDCRAFTED ART EXHIBITION FOR WINERY LAUNCH

**Design Firm:** D'Alesio & Santoro

### HASSELL BRISBANE STUDIO

**Design Firm:** Aurecon

### HOBBITON™ THE MOVIE SET

**Design Firm:** Toulouse, Ltd.

### HWADAMCHAE

**Design Firm:** EONSLD

ILLUMINATING LUKANG:  
HIGHLIGHTING THE BEAUTY OF  
LUKANG CREEK

**Design Firm:** CosmoC Lighting, Ltd.

ILLUMINATING THE NATIONAL  
HISTORY MUSEUM

**Design Firm:** QLAB Laboratory of Light

ILLUMINATING THE SPIRIT OF THE  
LUCE CHAPEL

**Design Firm:** CosmoC Lighting, Ltd.

INTERACTIVE WALL LIGHTING  
INSTALLATION AT THE YIHE ROAD  
HISTORICAL AND CULTURAL  
DISTRICT

**Design Firms:** Tongji Architectural  
Design Group Co., Ltd and YD  
Illumination

KING'S TOWN CONSTRUCTION NEW  
WORLD

**Design Firm:** Art Light Design  
Consultants, Inc.

KOKO, BANGALORE

**Design Firm:** SPK VALO Lighting  
Design

KOTO DINING

**Design Firm:** Electrolight

LOUIS VUITTON ION ORCHARD  
CHRISTMAS ILLUMINATION

**Design Firms:** Auxilio Studio LLP and  
Glint Lighting Design Pte Ltd.

LUXELAKES WATER PARK

**Design Firm:** Tungsten Studio  
Lighting Design

MAHÁ DUPLEX APARTMENT BEIJING

**Design Firm:** Light Poetic International

MARITIME SILK ROAD HERITAGE /  
GUANGZHOU FOREIGN TRADE  
MUSEUM LIGHTING DESIGN

**Design Firm:** Future Lighting  
Design Co. Ltd.

MĀWHERA PA

**Design Firm:** Toulouse Ltd.

MINATO MIRAI GAKUEN  
DENTAL CLINIC

**Design Firm:** Lighting M, Inc.

MODERN COMICS MUSEUM MEETS  
ANCIENT AMBIENCE

**Design Firm:** CosmoC Lighting, Ltd.

MODERN TRANSPORT HUB IN A  
HISTORIC TOWN

**Design Firm:** QLAB Laboratory of Light

NATIONAL GALLERY OF AUSTRALIA  
LED LIGHTING UPGRADE

**Design Firm:** Steensen Varming

NEW BUND 31 PERFORMING  
ARTS CENTER

**Design Firm:** Brandston Partnership,  
Inc.

OSAKA METRO CHUO LINE  
"YUMESHIMA STATION"

**Design Firm:** Koizumi Lighting  
Technology Corp.

PATH TO SERENE LIGHT

**Design Firm:** CosmoC Lighting

PIXI RESTAURANT

**Design Firm:** Expolight

POWERHOUSE DISCOVERY CENTRE –  
CASTLE HILL

**Design Firm:** Electrolight

RESIDENTIAL COMPLEX GOODWILL

**Design Firm:** Expolight

ROAD OF LIFE

**Design Firm:** Expolight

SALOMON CHAMPS- ÉLYSÉES

**Design Firm:** Baseline Lighting Design

SANCTUARY OF OUR LADY OF  
THE IMMACULATE CONCEPTION  
OF APARECIDA

**Design Firm:** Mingrone Iluminação

SENTOSA SENSORISCAPE

**Design Firm:** Lighting Planners  
Associates

SHANGHAI GUANGMING  
HIGH SCHOOL

**Design Firm:** Tongji Architectural  
Design Group Co., Ltd.

SHANGHAI LONG BEACH  
MUSIC HALL

**Design Firm:** Tongji Architectural  
Design Group Co., Ltd.

SPECTRUM SALT GALATA

**Design Firm:** ONOFF Lighting  
Design Consultancy

STONE GLOBES

**Design Firms:** Lux Populi and V-al  
Lighting

ST. PHILLIP'S CHURCH HILL

**Design Firm:** Illuminated Design  
Australia

STRATA HOUSE

**Design Firm:** Lux Populi

SYDNEY CENTRAL

**Design Firm:** Steensen Varming

SYDNEY METRO MARTIN PLACE –  
PEDESTRIAN LINK TUNNEL

**Design Firm:** Electrolight

THE BUND CITY HALL

**Design Firm:** Tungsten Studio  
Lighting Design

THE CHURCH OF OUR LADY OF  
LOURDES, SINGAPORE

**Design Firm:** Light Collab LLP





# AWARDS OF MERIT

2025

## THE CROSS OF HEROES

**Design Firms:** Kabluka Light & Digital  
Sculptures by Expolight

## THE ELEGANCE OF BEGONIA

**Design Firm:** Art Light Design  
Consultants, Inc.

## THE GEAR

**Design Firm:** Lighting Planners  
Associates

## THE GRAND OUTLET – EAST JAKARTA KARAWANG

**Design Firm:** Mitsubishi Jisho Sekkei  
Asia Pte. Ltd.

## THE HAUNTED MANSION PARLOR

**Design Firm:** Walt Disney  
Imagineering

## THE PERMANENT EXHIBITION, “NATURE’S WONDERLAND,” THE NATIONAL MUSEUM OF NATURAL SCIENCE

**Design Firm:** Refined Lighting Design  
Ltd.

## THE RESERVE, SINGAPORE

**Design Firm:** Light Collab LLP

## THE SOUL

**Design Firms:** Kabluka Light & Digital  
Sculptures by Expolight

## TIANJIN DABEI BUDDHIST MONASTERY LIGHTING RENEWAL PROJECT

**Design Firm:** Beijing Band Lighting  
Design Co. Ltd.

## TIME HILL PET MEMORIAL HALL SICHUAN MEISHAN

**Design Firm:** LEOX Home

## TOKYO MIDTOWN YAESU

**Design Firm:** Uchihara Creative  
Lighting Design, Inc.

## TOWNSHIP LIGHT CORRIDOR OF HUWEI

**Design Firm:** CosmoC Lighting, Ltd.

## TUMBALONG SOUND SHELL

**Design Firm:** Electrolight

## TUNNEL UCKA

**Design Firm:** Skira Architectural  
Lighting

## TURK BY FATI H TUTAK

**Design Firm:** ONOFF Lighting Design  
Consultancy

## UMA NOTA PHILIPPINES

**Design Firm:** Baseline Lighting Design

## UNIVERSITY OF AUCKLAND, B201 BUILDING

**Design Firm:** Beca Design Practice

## VISITOR CENTER FOR EUROPEAN XFEL LIGHTHOUSE

**Design Firm:** ANDES + PARTNER -  
Partnerschaft mbB für Lichtplanung

## WEST BUND ORBIT

**Design Firm:** Brandston Partnership, Inc.

## WIRELESS LIGHT, FREE CHASE

**Design Firm:** Huanguzhidao (HG)  
Lighting Technology Co., Ltd.

## WNDR HOTEL

**Design Firm:** Brandston Partnership,  
Inc.

## YOKOHAMA SYMPHOSTAGE

**Design Firm:** Panasonic Corporation

## KANSAS CITY

### HOMEFIELD KANSAS CITY SHOWCASE CENTER

**Design Firm:** Henderson Engineers

## LOS ANGELES

### CARLA RIDGE

**Design Firm:** Sean O'Connor Lighting

### DELTA ONE LOUNGE AT LAX

**Design Firm:** Arup

### “DIMENSIONS” BY HYBYCOZO

**Design Firm:** Lightswitch

### ENCHANTED FOREST OF LIGHT 2024

**Design Firm:** Lightswitch

### HPS LAW OFFICE

**Design Firm:** Oculus Light Studio

### GLENDAL CENTRL LIBRARY YOUTH SERVICES RENOVATION

**Design Firm:** Darkhorse Lightworks,  
LLC

### MARIAN GARDENS AT OUR LADY OF LA VANG SHRINE

**Design Firm:** Oculus Light Studio

#### MAYOR CLAYTON'S WONDERLAB

**Design Firm:** Visual Terrain

#### PARAMOUNT LIBRARY

**Design Firm:** Oculus Light Studio

#### PASEO AND CÉNTRICO

**Design Firm:** The Ruzika Company

#### STILLWELL'S STEAKHOUSE

**Design Firm:** Lighting Design Alliance

#### SWEXAN HOTEL CONTROLS

**Design Firm:** Lighting Design Alliance

#### THE JAY HOTEL – SAN FRANCISCO

**Design Firm:** Lighting Design Alliance

#### TVS OFFICE HEADQUARTERS RELOCATION

**Design Firm:** Lighting Design Alliance

#### VITAREL

**Design Firm:** HLB Lighting Design

#### WARNER BROS. DISCOVERY SECOND CENTURY

**Design Firm:** HLB Lighting Design

### MEXICO

#### BANSI TOWER: DIGITAL MACRO CANVAS

**Design Firm:** Egea Innovation

#### CARTIER DESIGN: A LIVING LEGACY

**Design Firm:** Lightchitects Studio

#### NACIONAL MONTE DE PIEDAD – VISIÓN CELESTE

**Design Firm:** Lightteam Gustavo Avilés  
S.C.

#### PARROQUIA SAN JOSÉ

**Design Firm:** Circadia + LumLum

### MIAMI

#### MAASS RESTAURANT AT THE FOUR SEASONS

**Design Firm:** HLB Lighting Design

#### ORLANDO UTILITY COMPANY ST. CLOUD

(ENERGY AND ENVIRONMENTAL  
DESIGN AND EXPERIENTIAL  
LIGHTING DESIGN)

**Design Firm:** HLB Lighting Design

### MINNEAPOLIS/ST. PAUL

#### BOWDOIN COLLEGE MILLS HALL AND THE GIBBONS CENTER FOR ARCTIC STUDIES (CAS)

**Design Firm:** HGA

#### MINNEAPOLIS CONVENTION CENTER LOBBIES RENOVATION

**Design Firm:** HGA

### MONTREAL

#### EAST BLOCK EXTERIOR LIGHTING PROJECT

**Design Firm:** Lightemotion

#### HORIZON

**Design Firm:** INIT Development, Inc.

#### RENOVATION OF QUEBEC'S PARLIAMENT LIBRARY

**Design Firms:** Tetra Tech and STGM  
Architecture

#### THE "CHRISTIAN DIOR: DESIGNER OF DREAMS" EXHIBITION AT THE SAUDI NATIONAL MUSEUM

**Design Firm:** Lightemotion

### NASHVILLE

#### METHODIST LE BONHEUR HEALTHCARE GARDEN PAVILION

**Design Firm:** archimania

### NEW YORK CITY

#### ARTHUR M. BLANK HOSPITAL

**Design Firm:** WSP USA

#### ASTON MARTIN SHOWROOM – Q NEW YORK

**Design Firm:** Lighting Workshop

#### BUFFALO AKG ART MUSEUM

**Design Firm:** Arup

#### CASPIAN'S COCKTAILS AND CAVIAR

**Design Firm:** Celano Design Studio Co.

#### CITI FIELD LOUNGES

**Design Firm:** Reveal Design Group

#### COMMON GROUND

**Design Firm:** Arup

#### COQODAQ

**Design Firm:** L'Observatoire  
International

#### FOUNDRAE MADISON AVE.

**Design Firm:** Studio Atomic

#### GOULD MEMORIAL LIBRARY ROTUNDA RENOVATION

**Design Firm:** Cline Bettridge Bernstein  
Lighting Design

#### HSBC U.S. HEADQUARTERS

**Design Firm:** IMEG, formerly Lilker  
Associates

#### INOVA HEALTH CENTER – OAKVILLE

**Design Firm:** The Lighting Practice

#### MAINE MEDICAL CENTER, MALONE FAMILY TOWER

**Design Firm:** WSP Lighting, formerly  
AKF/Lightcraft

#### MOHEGAN SUN LOUNGE

**Design Firm:** Reveal Design Group





# AWARDS OF MERIT

2025

## MERIDIAM

**Design Firm:** Fisher Marantz Stone

## MR. H

**Design Firm:** Focus Lighting

## NATIONAL WORLD WAR I MEMORIAL AND PERSHING PARK

**Design Firm:** Fisher Marantz Stone

## OXMAN STUDIO

**Design Firm:** Tillotson Design  
Associates

## PRINCETON UNIVERSITY GEO- EXCHANGE PLANTS AND GARAGE

**Design Firm:** Fisher Marantz Stone

## RUTH BADER GINSBURG HOSPITAL

**Design Firm:** HLB Lighting Design

## SARTIANO'S

**Design Firm:** Focus Lighting

## ST. JOHN'S TERMINAL EXTERIOR

**Design Firm:** Lumen Architecture

## THE HEALING SPACE, VCU MASSEY COMPREHENSIVE CANCER CENTER

**Design Firm:** Cline Bettridge Bernstein  
Lighting Design

## THE PALACE THEATRE

**Design Firm:** Fisher Marantz Stone

## THE ROBERT WOOD JOHNSON III TOWER AND EVENT SPACE AT LIBERTY SCIENCE CENTER

**Design Firm:** Focus Lighting

## THE TRAVEL AGENCY 5TH AVENUE (EXPERIENTIAL LIGHTING DESIGN AND INTERIOR LIGHTING DESIGN)

**Design Firm:** TM Light

## THE TRAVEL AGENCY FLATBUSH (EXPERIENTIAL LIGHTING DESIGN AND INTERIOR LIGHTING DESIGN)

**Design Firm:** TM Light

## WILMERHALE

**Design Firm:** Fisher Marantz Stone

## OMAHA

1501 FAHEY

**Design Firm:** HDR

## ASTOR THEATER INTERIOR

**Design Firm:** Morrissey Engineering

## BEATRICE ELEMENTARY SCHOOL

**Design Firm:** Morrissey Engineering

## CL AND RACHEL WERNER CENTER FOR HEALTH SCIENCES EDUCATION

**Design Firm:** Morrissey Engineering

## MAYO CLINIC ANNA-MARIA AND STEPHEN KELLEN BUILDING (INTERIOR LIGHTING DESIGN AND OUTDOOR LIGHTING DESIGN)

**Design Firm:** HDR

## MEMOIR

**Design Firm:** Olsson

## NEBRASKA WESLEYAN ELDER MEMORIAL THEATRE CENTER

**Design Firm:** HDR

## ORANGE COUNTY SANITATION DISTRICT HEADQUARTERS COMPLEX AT PLANT 1

**Design Firm:** HDR

## VESTERHEIM COMMONS

**Design Firm:** Morrissey Engineering

## ORANGE COUNTY

## WASHINGTON ELEMENTARY SCHOOL (ENERGY AND ENVIRONMENTAL DESIGN AND OUTDOOR LIGHTING DESIGN)

**Design Firm:** LPA

## OTTAWA

## LE FOU FOU DINING HALL AT ROYALMOUNT

**Design Firm:** Gabriel Mackinnon  
Architectural Lighting Design

## PHILADELPHIA

## HALIDOM EATERY

**Design Firm:** BEAM, Ltd.

## HYGGE AT THE ASTRID

**Design Firm:** The Lighting Practice

## PHILADELPHIA CITY HALL

**Design Firm:** The Lighting Practice

## RESCUE SPA

**Design Firm:** Illuminate

## PHOENIX

THE ECORE BUILDING AT PENN  
STATE UNIVERSITY

**Design Firm:** Available Light

THE HEARD MUSEUM SHOP

**Design Firm:** Creative Designs in  
Lighting

## PITTSBURGH

HERITAGE CRYSTAL CLEAN

**Design Firm:** Windward Lighting  
Studio

## PORTLAND, OR

DAS

**Design Firm:** LUMA Lighting Design

SKY PRAIRIE ART LIGHTING

**Design Firm:** Left Hand Lighting

## SAN DIEGO

PITTSBURGH CULTURAL TRUST  
GREER CABARET THEATRE

**Design Firm:** DLR Group

SAN DIEGO NATURAL HISTORY  
MUSEUM

**Design Firm:** H+W Engineering, Inc.

## SAN FRANCISCO

200 PARK

**Design Firm:** HLB Lighting Design

ALAMEDA WATERFRONT PARK

**Design Firm:** HLB Lighting Design

ANCHOR HOUSE

**Design Firm:** LUMA Lighting Design

CALIFORNIA COLLEGE OF THE ARTS

**Design Firm:** PritchardPeck Lighting

CHINA BASIN PARK

**Design Firm:** PritchardPeck Lighting

JACKSON SQUARE OFFICE

**Design Firm:** PritchardPeck Lighting  
JOHN MUIR HEALTH OUTPATIENT  
SPECIALTY CENTER

**Design Firm:** Mazzetti

NINGBO GUOHUA FINANCIAL  
TOWER

**Design Firms:** WSP and Jonathan  
Plumpton

SOUTHERN CALIFORNIA BIOTECH  
CAMPUS

**Design Firm:** LUMA Lighting Design

SUNNYVALE CITY HALL

**Design Firm:** SmithGroup

## SEATTLE

ATRIUM HEALTH CAROLINAS  
REHABILITATION CHARLOTTE

**Design Firm:** NBBJ

BMO CONVENTION CENTRE  
RENOVATION AND EXPANSION  
(INTERIOR LIGHTING DESIGN AND  
OUTDOOR LIGHTING DESIGN)

**Design Firm:** Stantec

EVERETT COMMUNITY COLLEGE  
LEARNING RESOURCE CENTER

**Design Firm:** Stantec

GMO

**Design Firm:** Windward Lighting  
Studio

PORTLAND INTERNATIONAL  
AIRPORT (PDX)

**Design Firm:** Fisher Marantz Stone

ST. CALLISTUS CHAPEL

**Design Firm:** Oculus Light Studio

THE WILLIAM AND LINDA FROST  
CENTER FOR RESEARCH AND  
INNOVATION, CAL POLY SLO  
(ENERGY AND ENVIRONMENTAL  
DESIGN AND INTERIOR LIGHTING  
DESIGN)

**Design Firm:** Pivotal Lighting Design  
(AEI)

UCSF PEDIATRIC SPECIALTY CLINIC

**Design Firm:** NBBJ

UNIVERSITY OF SOUTHERN  
CALIFORNIA: DICK WOLF  
DRAMA CENTER

**Design Firm:** Pivotal Lighting Design  
(AEI)

## ST. LOUIS

CRADLE OF AVIATION EXHIBITION  
RE-LIGHTING

**Design Firm:** Reed Burkett Lighting  
Design

CRADLE OF AVIATION RE-LIGHTING

**Design Firm:** Reed Burkett Lighting  
Design

MICRON TEAM MEMBER CENTER,  
MANASSAS, VA

**Design Firm:** Jacobs

THE CATHEDRAL BASILICA OF ST.  
LOUIS

**Design Firm:** Reed Burkett Lighting  
Design

## TAMPA

ST. REGIS LONGBOAT KEY

**Design Firm:** Power Design

THE FRANKLIN INSTITUTE  
WONDROUS SPACE

**Design Firm:** EXP





# AWARDS OF MERIT

2025

## TORONTO

NOBU TORONTO

**Design Firm:** Mulvey & Banani Lighting

ROYAL DE VERSAILLES' ROLEX

BOUTIQUE TORONTO

**Design Firm:** Mulvey & Banani Lighting

SENIORS HEALTH AND WELLNESS

VILLAGE AT PEEL MANOR

**Design Firm:** Ontario Aesthetic  
Lighting Design

## RALEIGH

UNIVERSITY OF VIRGINIA CHAPEL

**Design Firm:** Available Light

USGA EXPERIENCE AND WORLD OF  
GOLF HALL OF FAME

**Design Firm:** Available Light

## VANCOUVER

BERNARD BLOCK FAÇADE  
LIGHTING CONTROL

**Design Firm:** Proxima Lighting  
Solutions Corp.

CITY OF NELSON'S HALL STREET  
PIER: A COMMUNITY LANDMARK

**Design Firm:** Prism Engineering  
Limited

ESHLHIHKW'IWS – MAKING  
CONNECTIONS

**Design Firm:** Introba Light Studio

FAIRMONT PACIFIC RIM BALLROOM

**Design Firm:** Premier Lighting Ltd.

JOEY, KING STREET

**Design Firm:** ThinkL Studio

KING TAPS, KING WEST

**Design Firm:** ThinkL Studio

RICHMOND CULTURAL  
CENTRE ANNEX

**Design Firms:** O4 Architecture and  
Mac's II Agencies

təməsewtx<sup>w</sup> AQUATIC AND  
COMMUNITY CENTRE

**Design Firm:** AES

THE STACK, 1133 MELVILLE STREET,  
VANCOUVER – EXTERIOR AND  
LANDSCAPE DESIGN

**Design Firm:** Introba Light Studio

THE STACK, 1133 MELVILLE STREET,  
VANCOUVER – INTERIOR LIGHTING  
DESIGN

**Design Firm:** Introba Light Studio

THE STACK, 1133 MELVILLE STREET,  
VANCOUVER – LIGHTING CONTROL

**Design Firm:** Introba Light

UBC MUSEUM OF ANTHROPOLOGY  
GREAT HALL

**Design Firm:** AES

## WICHITA

GARDEN CITY REGIONAL AIRPORT  
NEW TERMINAL BUILDING INTERIOR  
LIGHTING

**Design Firm:** Professional Engineering  
Consultants, PA

The **LD+A** team congratulates all of the  
2025 IES Illumination Award recipients  
for their innovative and creative work!



*Call for*

# NOMINATIONS

## **LD+A and the IES to Award Student and Emerging Professional Memberships**

**T**he 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. To foster growth in the next generation of lighting designers, *LD+A* and the IES have partnered to offer students and EPs the opportunity to win a one-year IES Membership. Throughout 2026, one person will be selected each month to receive an award, with a total of six Student and six EP Memberships distributed. Winners will be notified and announced in future *LD+A* e-newsletters.

Applications are currently welcome and will be accepted on a rolling basis through September 30, 2026. Interested students and EPs must be nominated to be considered for this award.

To apply, please submit the following to *LD+A* Editor-in-Chief Craig Causer at [craig.causer@sagepub.com](mailto:craig.causer@sagepub.com):

- A description of the type of membership for which you are applying (Student or EP) and why you are interested in becoming an IES Member.
- A 500-word letter of nomination describing why you are a suitable candidate for this award. Nominators may include supervisors, colleagues, mentors, professors, or advisors.
- Contact information including name, address, and mailing address.

To confirm eligibility for IES Membership; if selected, students will be required to submit an official school transcript while EPs must provide their resume and/or a letter from a current IES Member.

IES Student and EP Memberships offer a wealth of benefits including meaningful networking opportunities with colleagues and industry leaders, educational opportunities, and leadership development. Apply now to become a part of the IES, the recognized technical and educational authority on illumination.

*Disclaimer: By applying, entrants grant LD+A and the IES the right to publish and distribute their name, image, and entry materials in print and electronic media, including social media, worldwide, in perpetuity, without further authorization from or compensation to the entrant.*





Photos: George Lambros Photography

# SPEAKING NATIVE ARCHITECTURAL LANGUAGE

Indigenous culture, nature, and light converge at Indian Community School

**By David Shiller**





Indian Community School's lighting retrofit stands as a testament to the power of design in educational environments. Located in Franklin, WI, the school's original lighting, while functional, failed to honor the architectural language of the building and did not meet the dynamic needs of students and educators. The design challenge involved integrating advanced lighting technology within the architectural framework, enhancing both the visual narrative and the user experience throughout the 150,000-sq-ft building.

At the heart of the project is a deep respect for indigenous culture and the natural landscape. The school's architecture—crafted from wood, copper,

**Left:** Illumination in The Place of Nations provides an outdoor aesthetic.

**Right:** Square downlights in the "Feast" avoid scalloping in the ceiling grid while up/down fixtures add dimension.

and limestone—embraces its wooded hillside setting, with expansive glazing that blurs the boundary between interior and exterior. The design team's approach was to create a lighting system that would act as an extension of this philosophy, reinforcing the connection to nature and supporting the cultural narrative embedded in the building's form.

The project was led by design firm Morlighs, with the school engaging a general contractor for construction. The design process began in fall 2019 and concluded in fall 2023, spanning the challenges of the pandemic and requiring adaptive strategies to maintain momentum and design intent. Regular collaboration with educators,





administrators, and facilities staff ensured that the lighting design responded to real-world needs and preferences, empowering users to shape their environment. The team embraced an iterative approach, refining solutions in response to on-site discoveries, user feedback, and evolving project constraints.

Morlights Founder and CEO Avraham Mor shared, “Working with the mandate of ‘no exposed conduit’ and maintaining the architectural finishes, the existing track sections were extended, and Lighting Services Inc. (LSI) with Xicato Bluetooth LEDs were used to provide focus, adjustability, increase light levels, as well as add drama for other use cases. In-grade lights and landscape lights were installed to give more of an exterior feel.”

The retrofit introduced over 2,700 discrete DALI devices, orchestrated across 480 zones of control; this granular approach to lighting control ensures that every space—from classrooms to communal areas—receives tailored illumination that responds to architectural intent, user activity, and the changing qualities of daylight throughout the year.

Updated classroom lighting provides a solution that aligns with the project’s architecture.

### Gather and Learn

Central to the design is the ability to tune color temperature and dimming levels. In the main gathering spaces, Gotham Evo square downlights form a luminous grid, maintaining architectural clarity while offering a warm, inviting ambiance. Lumenwerx Squero linear fixtures accentuate the wooden slat ceilings, their up/down illumination enhancing the perception of materiality and volume.

In learning environments, Lumenwerx Squero indirect/direct fixtures were equipped with color tuning, 0.1% dimming, as well as daylight and vacancy sensing to deliver highly responsive task lighting. For example, each fixture is individually addressable, allowing teachers to modify presets and adapt lighting to pedagogical needs or specific activities. The result is a series of classrooms that each possess a distinct sense of place, defined by light as well as by architecture.

The lighting system’s backbone is a hybrid wired/wireless DALI solution, chosen to navigate the constraints of existing infrastructure and preserve architectural finishes. This system enables



real-time tuning of light levels and color temperature, informed by inputs from daylight and occupancy sensors, as well as a rooftop sensor that tracks the quality and quantity of natural light entering the building. A Crestron ColorSync sensor, positioned on the roof, continuously monitors exterior daylight conditions, automatically adjusting the CCT of interior lighting to mirror the natural environment. This creates a harmonious visual experience that evolves with the seasons and weather, deepening the building's dialogue with its surroundings.

Teachers and staff can override automated settings via a mobile app, ensuring that user agency remains central to the lighting experience. This flexibility supports a wide range of educational and community activities, from focused study to social gatherings.

Installation challenges required the adaptation of control strategy and luminaire details. "When it was discovered that some places in the tongue-and-groove ceiling were not accessible for new control wiring, many things had to shift," shared Mor. "ALW and LSI embedded Xicato Bluetooth

**Left:** Classroom lighting is automatically tuned to synch CCT with daylight.

**Right:** New indirect/direct luminaires include 0.1% dimming and vacancy sensing.



components into their fixtures, so we could control them using the Crestron system via UDP commands. Many of the Lumenwerx and Pinnacle fixtures had the same issue, and Casambi assisted by converting DALI-2 wired to DALI-2 wireless. As part of the project, all spaces now have daylight sensors and vacancy sensors."

"COVID-19 created many challenges for the project," Mor added. "This led to a number of issues through the process. In design, we had limited onsite exploratory and verification time. We had major issues getting products, causing the project to be completed over two summers, rather than one. The electrician had a difficult time getting staff to do the work, causing further delays. Of the products we received for the first summer, there were an exorbitant number of manufacturing issues such as mis-wired luminaires, incorrect drivers, incorrectly programmed drivers, manufactured 90-deg corners not being 90 deg, pinched wires in fixtures, and more."

### Highlighting Natural Materials

Despite these setbacks, the design integrity was preserved through close coordination with manufacturers and creative problem-solving on site. For example, the building's wood, copper, and limestone materials are celebrated through carefully calibrated lighting that highlights texture, grain, and color. Additionally, windows are complemented by interior lighting that transitions seamlessly from daylight to electric light, maintaining visual comfort and continuity.

Pathways throughout the building are illuminated to support intuitive wayfinding and foster a sense of community. Updated track heads by LSI replaced





HID and incandescent heads. Pinnacle Lighting was implemented in coves, as well as Pinnacle EDGE in other spaces. Wood circle luminaires from Beta Calco enhance classrooms along with pendants from ALW. Together, the lighting guides movement, accentuates gathering spaces, and delineates zones for learning, collaboration, and reflection.

In “The Place of Nations,” a central communal area, lighting accentuates native plantings, wooden artifacts, and a symbolic copper fountain representing the Mississippi River. Adjustable LSI track lighting as well as landscape-inspired luminaires create drama and flexibility, supporting both everyday use and special events. Gantom Lighting & Controls tree uplights, step lights by Bega, and paver luminaires from Filix Lighting all enhance the mood of the area.

### **DALI Does It**

The DALI protocol, which expects continuous power, was adapted through custom scripts that regularly broadcast color and intensity settings, ensuring that lights returned to the correct state after power cycling—a critical detail in maintaining the designed user experience.

The lighting retrofit achieved a 60% reduction in connected load compared to the original system, aligning with ASHRAE/IES 90.1 2019 standards. This substantial energy savings is coupled with improved visual comfort, enhanced wayfinding, and a stronger connection to the natural surroundings.

Every space is equipped with sensors that optimize energy use, dimming or switching off lights

Illumination at the puzzle stairs transitions from one academic wing to another.

when natural daylight is sufficient or when spaces are unoccupied. These systems also interface with the building’s automation system, triggering HVAC setbacks and further reducing energy consumption.

The DALI system provides real-time feedback to facilities staff, flagging issues such as lamp failures or driver errors, and enabling proactive maintenance.

The new lighting system does more than illuminate; it supports the well-being and productivity of students, teachers, and community members. Adjustable illumination levels and color temperature create environments that reduce eye strain, support circadian rhythms, and promote alertness or relaxation as needed. Each space within the school is imbued with a unique lighting identity, reinforcing the architectural narrative and supporting a variety of activities.

The Indian Community School lighting retrofit exemplifies a holistic, design-led approach to educational environments. By weaving together advanced technology, cultural values, and architectural integrity, the project delivers a living lighting system—one that adapts, responds, and evolves along with its end users.

Through thoughtful integration of control, color, and materiality, the design elevates both the everyday experience and the extraordinary moments that define community life. In doing so, it sets a benchmark for how lighting can serve as both a functional infrastructure and an expressive, human-centered element in the built environment. ©

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**THE DESIGNERS** | Avraham Mor, Member IES, is the founder and CEO of Morlights.

Zahi Barajas, Member IES, is a designer at Morlights.

Casey Diers, Member IES, is a senior designer at Morlights.

Sean Murphy, Member IES, is a senior designer at Morlights.

Kelsey Nowak, Member IES, was formerly a designer at Morlights.

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**THE AUTHOR** | David Shiller is a business development and marketing consultant to the lighting industry as well as the publisher of *LightNOW*, an online lighting industry trade publication. He is a 20+-year veteran of the lighting industry and co-chair of the American Lighting Association Engineering Committee.

# LD+A

LIGHTING DESIGN and APPLICATION

## Share Your Voice

The flagship publication of the Illuminating Engineering Society, *LD+A* is an award-winning magazine for professionals involved in the art, science, study, manufacture, teaching and implementation of lighting. In an effort to continue to provide diverse voices in *LD+A*, we are looking for **industry professionals** who are interested in telling their stories, including work on unique lighting projects, their experiences in the profession, and opinions on current hot topics in the world of illumination.



**EVERY ISSUE** of *LD+A* includes feature articles on design projects, technical articles on the science of illumination, new product developments, industry trends, news of the Illuminating Engineering Society, and vital information about the illuminating profession.



**EACH MONTHLY** issue features a unique theme such as sustainable design, retail lighting, roadway lighting, industrial lighting, hospitality lighting, or office and commercial lighting.



**ROTATING COLUMNS** cover topics including energy, green design, career issues, technology, regulations and legislation, research, and education—written by a veritable who's who of industry experts.

If you are interested in publishing an article in *LD+A*, please reach out to Editor-in-Chief Craig Causer at [craig.causer@sagepub.com](mailto:craig.causer@sagepub.com) to discuss further.





Changi Jewel.

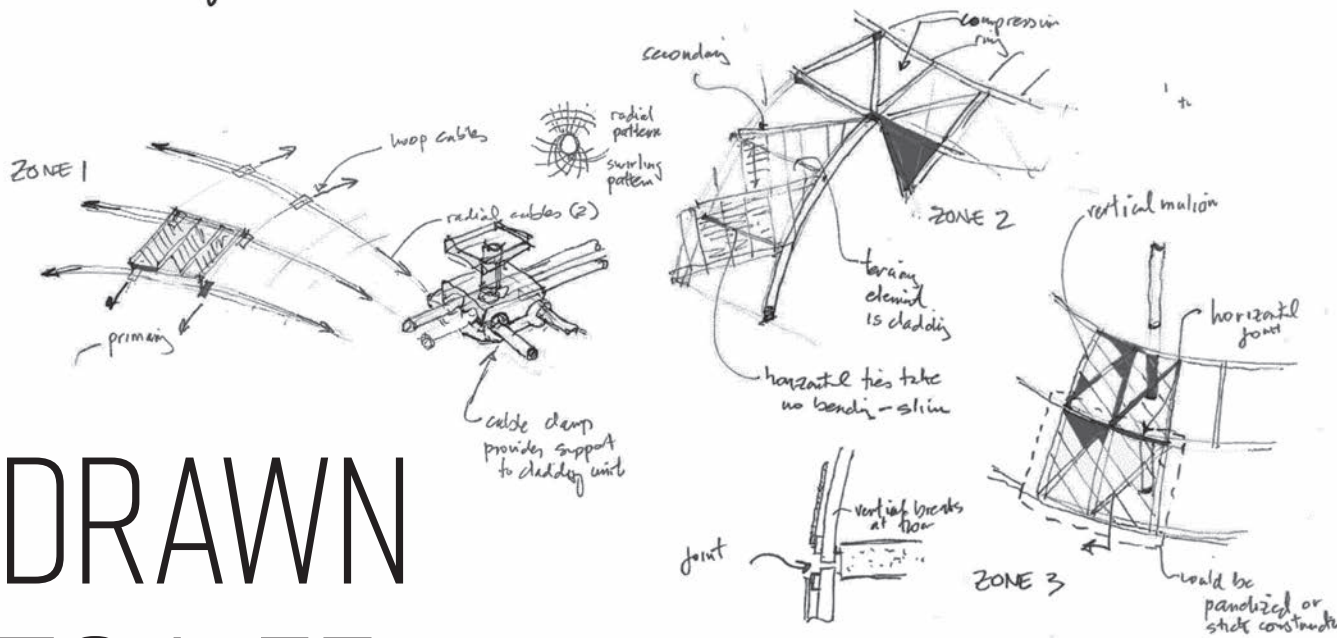


Image: Jewel Changi; sketches by Cristobal Correa, courtesy Bruno Hoppold

# DRAWN TO LIFE

Freehand sketching is a critical tool for collaboration and innovation

More than just ubiquitous, digital tools for designers have become an integral part of the building process from concept to construction and every step in between. Yet, the simple act of drawing or sketching by hand remains one of the most powerful tools of the trade. Freehand sketching is certainly an outlet for creative expression, but it also allows for quick iteration of design options to accelerate problem-solving and, perhaps most importantly, provides a critical tool for facilitating effective communication. It's informal by nature, which adds a sense of malleability to new ideas, freeing the design team to explore a wide range of options. Hand drawing has the potential to bridge the gaps between architecture, engineering, and construction (AEC) professionals and their clients, between engineers and architects, and between design teams and building trades.

Once considered to be an essential skill for any designer, the application of drawing as part of process has decreased and been replaced too often

**By Cristobal Correa and John Sloane**

by digital design software. For some, hand drawing can be intimidating. However, even the crudest sketches can convey complex details; the process can be liberating.

A fresh sheet of paper represents infinite design possibilities, and mistakes can be simply crossed out as the designer or engineer tries again, right there on the same sheet. Drawing on blank paper provides clarity of mind that assists with identifying important ideas and helps achieve a laser-focus on the problem at hand. Then the designer can break down each specific challenge into a group of manageable parts. Drawing inspires lateral thinking, and simultaneous exploration of a range of solutions.

Of course, paper is optional. Sketching by hand is often just as valuable when performed with a stylus and tablet as with pencil and paper—software like Sketchbook offers a level of freedom similar to paper. It's important to recognize, though, that utilizing a drawing function in a suite like Rhino or Sketchup places unintentional limits on that freedom: the emphasis on data and measurement starts engaging filters and inserting artificial restrictions into the creative process, and the digital environment may be filled with noise, bombarding the designer with images and icons. However, digital tools have one key advantage

over paper: they allow a team to communicate ideas and collaborate through the use of freehand drawing in the virtual space.

## Communicating Through Drawing

The process of drawing and iterating together with our project partners has led to some of Buro Happold's greatest design successes and technical innovations. Notably, our structural engineers employed this approach while working with Safdie Architects to conceive and develop Singapore's Jewel Changi Airport, with its gridshell concept for a five-story-high, toroid-shaped glass enclosure spanning 200 meters (~656 ft) with an indoor waterfall at the center of its nearly column-free interior. Collaboration with Safdie's designers included working together, trading the same piece of paper back and forth to advance concepts through multiple iterations.

Sketching together on a digital platform is valuable, too, and has become a common practice for savvy teams of lighting designers and engineers, whether working internally or with project partners. Digital sketching is intertwined with the lighting design process at our firm. Given the varying level of detail in the design process, specific types of software suites or applications are optimal depending on the location in the design process:

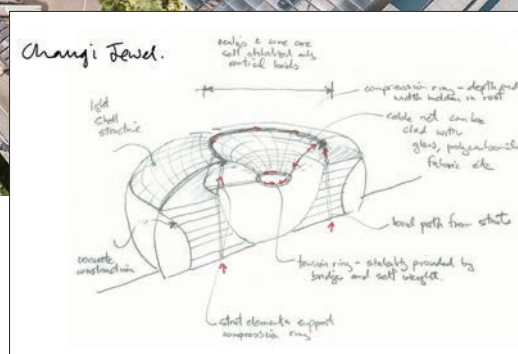
- Early on, the basic properties of a concept can be fleshed out and advanced through the simplest tools that are included with meeting platforms like Miro or Zoom.
- At the middle-level of complexity, the additional functionality found in the graphic design tools in applications like PowerPoint or Bluebeam adequately support a team's ability to communicate and move a design through iterations toward a unified idea of massing or general form.
- For presentation-quality output, Photoshop and similarly robust suites allow teams to apply gradient control, contrast of light, varying apertures, simulation of daylight, and other ways to create detail and differentiation.

Most, if not all, of the best design processes for lighting work start out with sketching. Much like a painter adds layers to create shadow, depth, and contrast, lighting designers apply light in a similar way. In person, teams work together on paper to generate initial ideas of how and where to apply the light. As they bring in more team members, they turn to PowerPoint—or Zoom, if meeting virtually—for sketching over drawings on paper, transferring



An aerial rendering of Jewel Changi Airport inspired by hand drawings made by Cristobal Correa.

**Inset:** An example of the early hand-drawing process for Jewel Changi Airport.

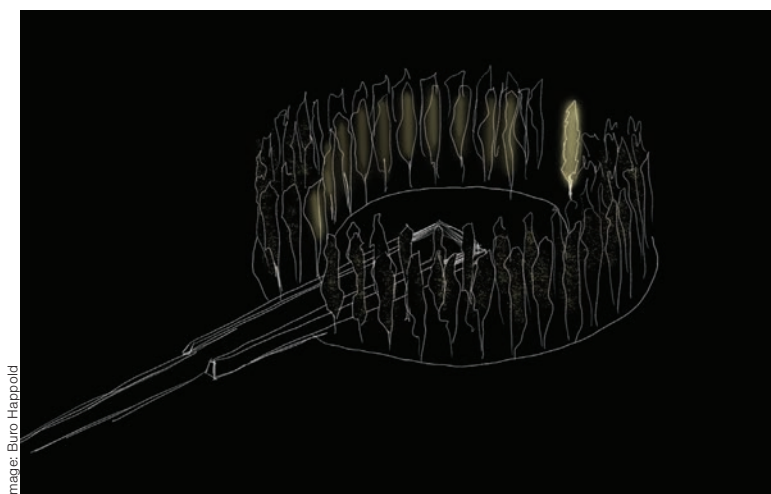


the process in this step to primarily digital tools and platforms. Whether digital or on paper, drawing does not replace other critical communication skills, but rather enhances them—where words may fail, the sketch gets the idea across. In this way, it is a critical, practical tool for effective collaboration, rallying the project team around innovating and problem-solving that leads to highly sustainable and visually impactful illumination schemes.

Although the methods of sketching vary from firm to firm, the mission is the same: to visually communicate the quality, contrast, and hierarchy of light. Many of us learned from our mentors early in our careers to use trace paper with a red colored pencil for lighting sketches—the red pencil representing the intensity of illumination. The paper drawing is then scanned and edited to read in yellow or gold as a Photoshop overlay. While this was a more important part of the lighting design process in the days before tablet and stylus, it remains an integral aspect of our process today.

Many times, we find ourselves in positions where we need to immediately react to changes





to architecture, detailing, or materiality. Sketching in real-time allows us to move at the same pace as our fellow collaborators, reinforcing the partnership with architects and consultants by responding quickly to new ideas emerging in brainstorming sessions. Establishing a common visual language opens the door to a design process filled with fresh concepts generated at a rapid pace.

### Making a Case

One example, the African American Memorial

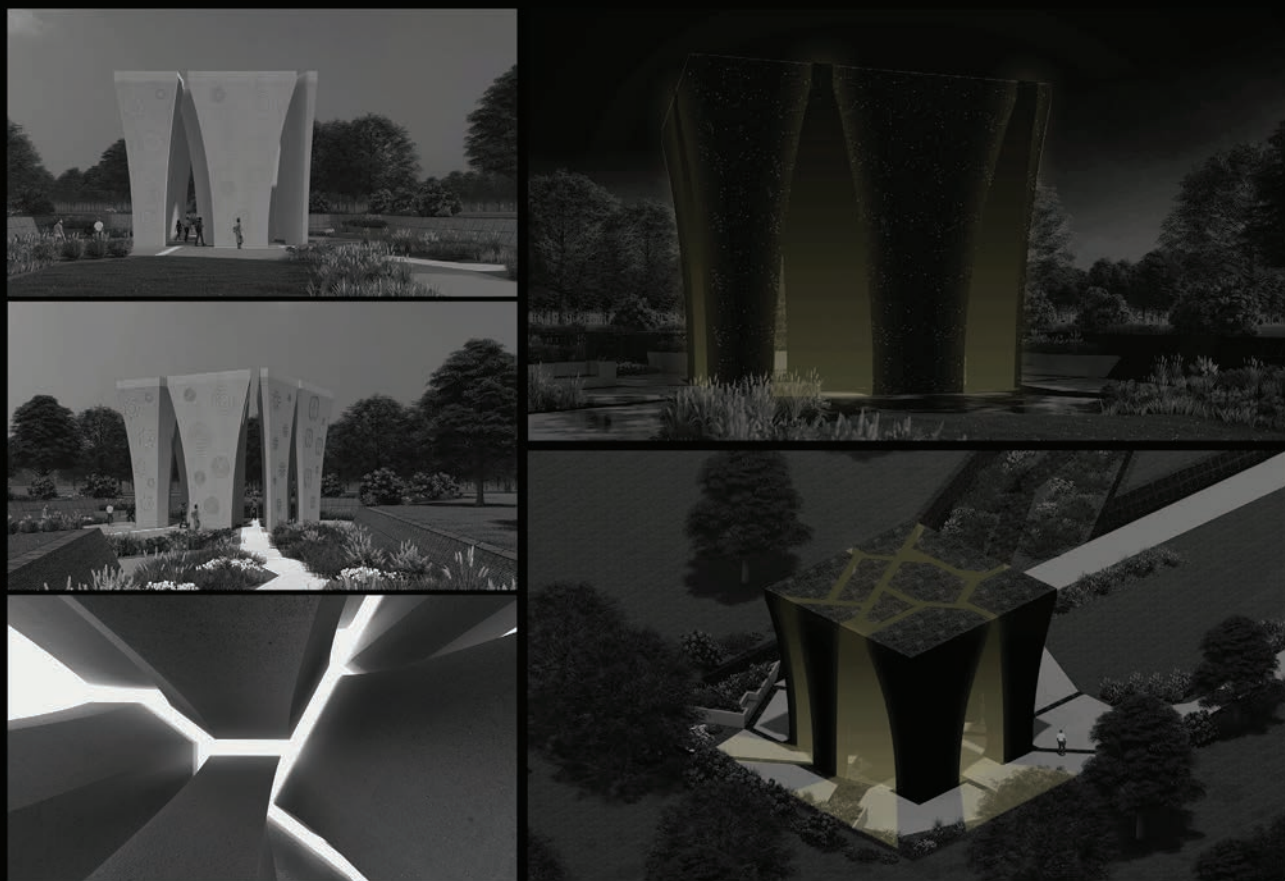
**Top:** An early concept drawing focused on deconstructing the components of fire.

**Bottom:** A process image of the the memorial gathering center.

at Bates M. Allen Park, is a large-scale public project currently under construction in Fort Bend County, TX, that offers a window into how freehand sketching enhances a process when working with architects, landscape architects, and other collaborators. Our firm was tasked with lighting design for a new exterior public space of reverence and celebration as an acknowledgment of tragic events throughout African American history. The 14-acre memorial site at Bates M. Allen Park preserves two existing historic African burial sites and creates a network of trails connecting them to each other as well as to a new three-story memorial, reflecting pond, and planned future community center. Another memorial conceived for the site commemorates the Sugar Land 95, a group of African American individuals whose remains were recently unearthed in a neighboring community, believed to have been prison inmates and subjects of an unjust convict-leasing scheme.

The architectural lighting team collaborated with design architect Daimian Hines, who has described his firm's mission as "committed to reparative justice in the global built environment." Early conceptual design meetings, which included project architect Nico Stearley and project manager Gregory Lake, led to discussions of reclaiming

Image: Buro Happold



fire—a historic tool of terror and racial violence—as a light source, inspiring our earliest concepts in which we deconstructed the components of fire as a gathering source. We were able to diagrammatically identify the central glowing ember, surrounded by a warm, radiant spill of light. These elements became the basis for our initial design presentation to Hines Architecture + Design and the full client group and project team. The hand-drawn graphics (pictured) apply this concept of a center, glowing ember surrounded by a soft glow of light at the Convict Labor and Leasing Memorial. As we moved to more-detailed design, the sketches of benches across the site helped us to understand the relationship of light to the human scale and experience. The hand-drawn elements helped us communicate clearly, bringing design ideas across to all team members and stakeholders.

Freehand sketching adds so much to the process. In addition to speed, drawing often communicates more quickly and effectively than describing with words—it facilitates the working relationship with collaborators by emphasizing the flexibility of

Digital renderings inspired by earlier hand drawings of the project in progress at Bates M. Allen Park.

the iterative process. Diagrams from drafting or rendering tools produce straight lines and focused geometry, making designs feel rigid and set in stone, as if it is finalized. Sharing drawings and sketches avoid these obstacles to a free-flowing collaboration, establishing freehand as a pragmatic tool that drives problem-solving and innovation. Embracing the flexibility and freedom of drawing by hand brings lighting designers, architects, and engineers together to shape the client's vision, ultimately leading to one-of-a-kind, beautiful spaces. ©

**THE AUTHORS** | Cristobal Correa, P.E., is a principal in Buro Happold's New York City office as well as the director of technology and a professor at the Pratt Institute School of Graduate Architecture and Urban Design.

John Sloane is a senior lighting designer in Buro Happold's New York City office. Passionate about light, space, equity, and community-led design, he is experienced with execution of lighting design schemes from concept to construction.



## Designing Custom Solutions with UV LEDs: High-density LED Arrays, Power, and Thermal Management Solutions

An effort to phase out mercury-based lamps and deploy energy-efficient UV light sources is driving considerable growth in the UV LED market.<sup>1</sup> UV LEDs are currently utilized in many single-chip or low-power applications such as point-of-use water treatment devices, sensors, and portable disinfection units. However, continued technological advancements have allowed for increased implementation in high-intensity and high-dosage applications. Improvements in UV LED efficiencies and lifetimes, particularly in the UVC range, are driving the way for the development of large systems.

The demand for such arrays arises from the need to deliver high optical power in compact, energy-efficient, application-specific systems. Unlike traditional UV lamps, which lack the design flexibility needed for system integration, high-density UV LED arrays offer superior irradiance per unit area, better spectral control, and precise positioning in a scalable format. These capabilities are essential for advanced applications including photolithography, UV curing, spectroscopy, and medical devices, where system performance, uniformity, and control are paramount. With the UV LED market anticipated to grow at a compound annual growth rate of 21.5% from 2023 to 2030,<sup>2</sup> high-density UV LED arrays are increasingly replacing incumbent technologies to meet the needs of next-generation applications.

### Understanding Customized High-Density UV LED Arrays

High-density UV LED arrays provide great flexibility to system designers in delivering concentrated light homogeneously to target areas.<sup>3</sup> While commonly available, surface-mount device products may be arranged in arrays to deliver the required flux; in many cases the LED density must be increased to achieve target irradiance levels. For these applications, chip-on-board (COB) designs are often utilized to reduce the spacing between each LED chip and increase the overall irradiance. High-density array development becomes a necessity for applications requiring multi-wavelength sources or for achieving varying beam profiles from a single source.

Several factors must be kept in mind when customizing and designing a high-density UV LED array. Some factors include:

1. Binning considerations: Binning constraints in high-density UV LED arrays arise from the need to maintain uniformity in optical

power, wavelength, and forward voltage in closely packed arrays. Forward voltage differences can lead to uneven current distribution, accelerating degradation in certain LEDs. However, binning restrictions can require multiple production rounds due to the reduced yield of specified ranks. These factors necessitate careful trade-offs between binning precision, manufacturing efficiency, and array performance stability.

- a. Voltage constraints: Voltage across LED arrays (connected across series or parallel connections) is typically limited to 60 VDC to avoid hazards. This implies that a large UV array may have to be fragmented into several arrays with its own independent circuits.
- b. Current constraints: When connecting LEDs in parallel, the maximum current in a product datasheet should

### AUTHORS

PRATIBHA  
SHARMA AND  
SAYA HAN

never be exceeded to ensure LED reliability and lifetimes. LEDs are current-driven devices and can be operated at constant current or using pulse-width-modulated techniques, the latter of which requires consideration of LED rise and fall times when selecting duty cycles/frequency.

**2. Junction Temperature control:** Junction temperature is a key factor in achieving target optical outputs<sup>4</sup> not only at the beginning of operation but also over the target lifetimes (L70). **Figure 1** shows the decrease in optical output with junction temperature at different driving currents for a 385-nm LED.

The effect of excessive heat may be more pronounced for high-density arrays if the thermal solution is not optimized accordingly. Thermistors may be mounted on the board to ensure that the temperature levels are always within range.

**3. Optical Design:** LEDs typically emit at an emission angle of 130 to 140 deg. Such angles may not be suitable to direct light to targeted areas efficiently. As a result, there is a need to utilize additional optics for many applications. There are several

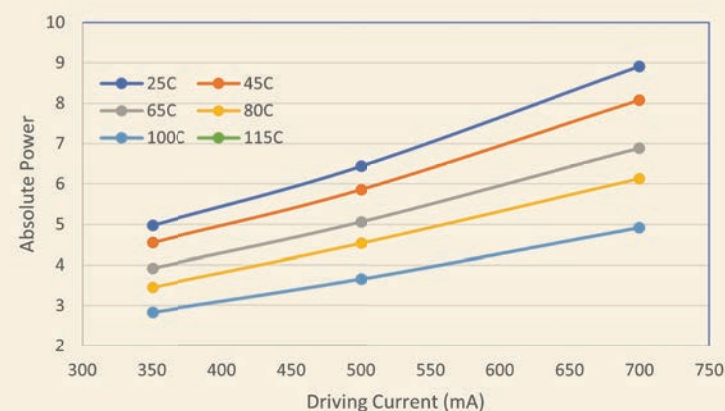


Figure 1: Effect of junction temperature on a single 385-nm LED package. The optical output drops as the junction temperature is increased.

considerations when an optic is to be selected for the UV range:

a. Material transmittance:

Standard lighting materials are unsuitable for UV LEDs, as common glass lacks UV transparency. Even UV-transparent materials can degrade over time. For UVC wavelengths, quartz or fused silica are preferred due to their high transmittance and durability.

b. LED Spacing: In high-density UV LED arrays, LED spacing is influenced by the size and mounting method of lenses or reflectors, which are typically attached using adhesives or mechanical fixtures. These components can limit how closely LEDs can be packed, reducing array density and potentially causing non-uniform irradiance

distribution across the target area. Additionally, the reliability of adhesive bonds under UV exposure is critical, as degradation can affect optical alignment and long-term system stability.

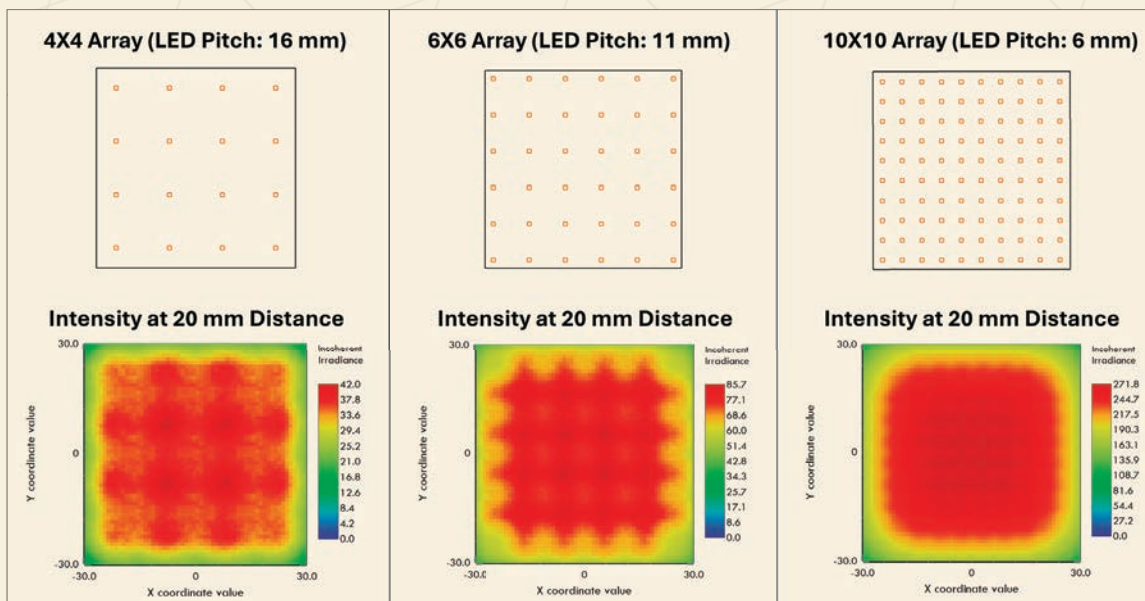
c. Use of reflective materials: Depending on the wavelength of interest, reflective materials such as aluminum or PTFE may be utilized in the system (or in an optical component such as a reflector) to improve target irradiances.<sup>5</sup>

d. Design of optics: Optical components like aspheric, TIR, and Fresnel lenses are used to control beam angles and concentrate light, with options ranging from ~10 to 120 deg.

Custom-designed UV LED arrays may even employ a variety of optics within the same



Figure 2. Optical simulations showing three individually lensed, 265-nm LED arrays (irradiance in mW/cm<sup>2</sup>) targeted to illuminate a 60-mm x 60-mm area with a focus on the 50-mm x 50-mm area for good uniformity. LED spacing (pitch) is varied along with the chip count. With an increase in the chip count hot spots can be reduced and uniformity can be increased.



array to achieve greater control of the target irradiance and uniformity. In high-density, compact UV LED arrays, flat windows or lenses may be preferred over individual optics to maintain compactness, making precision manufacturing essential for consistent performance. Optical simulation allows for cost-effective optimization of such arrays and is a proven method for selecting optical components.

**Figure 2** includes an example optical simulation of an LED array with lensed 265-nm LEDs.

#### Power Supplies for UV LEDs

High-density LED arrays require carefully selected power supply units (PSUs) to ensure reliable operation, uniform output, and thermal stability. Mismatched PSUs can lead to non-homogenous irradiance distribution, overheating, or even

system failure. Accurate matching of voltage and current of the PSU to the specific array configuration is essential, especially if LEDs of different electrical characteristics are placed on the same board. Multiple PSUs may be required if the size of the array is large.

In addition to the voltage and current values, PSU efficiency must also be looked at to reduce power loss and heat buildup, critical in dense layouts where thermal load is already high. Off-the-shelf PSUs typically have embedded overvoltage protection systems, but for sensitive systems, additional external snubber circuits may help suppress voltage transients and protect components. Commercial PSUs often support analog or resistive dimming (e.g., 0-10-V), as well as pulse-width modulation control. This

can provide an added layer of granularity in intensity required for certain specific applications. The energy consumption may also be reduced by using a combination of duty cycles and frequencies, depending on the application. Furthermore, PSU certification (UL, CSA, etc.) may be essential for compliance with safety standards, especially in regulated industries like medical device manufacturing.

#### Thermal Management Solutions

Thermal management plays a crucial role in lowering LED junction temperatures.<sup>6</sup> High junction temperatures can reduce light output and shorten LED lifetimes. While off-the-shelf thermal solutions may still be suitable for high-density arrays, most custom arrays necessitate tailored thermal approaches

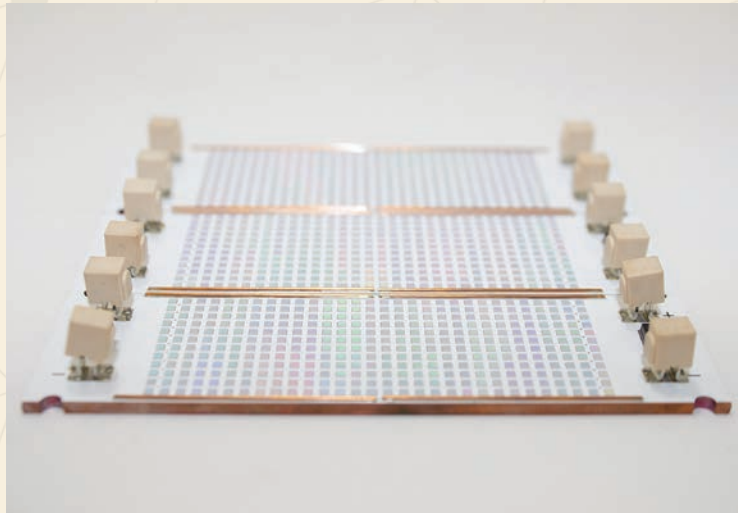
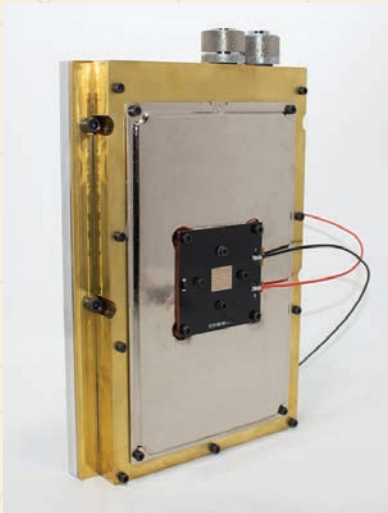


Figure 3:  
Examples of  
high-density UV  
LED arrays in a  
COB format.

to effectively dissipate heat. Minimizing the overall thermal resistance and enhancing heat extraction are the primary roles played by thermal management solutions applied at different stages in the system to dissipate maximum heat effectively.

In terms of packaging, a COB architecture inherently offers superior thermal performance for high-density arrays by eliminating individual LED packages and mounting bare dies directly onto a thermally conductive substrate. This direct interface significantly reduces thermal resistance and enables efficient heat extraction across the entire array. In high-density configurations, where thermal load is concentrated, a COB's integrated thermal path is a key advantage ensuring better junction temperature control, higher drive current capacity, and longer operational lifetime. The addition of electrically isolated thermal

pads in the LED package itself can further reduce the thermal resistance and create a direct path to dissipate heat effectively.

**Figure 3** includes examples of two high-density UV LED arrays.

Regarding substrates, for high-density LED arrays, metal-core PCBs offer enhanced thermal conductivity allowing to effectively dissipate concentrated heat generated by densely packed emitters. Incorporating thicker copper layers and optimized thermal vias further improves heat spreading and extraction from the active region, helping to maintain lower junction temperatures and ensuring consistent performance across the array.

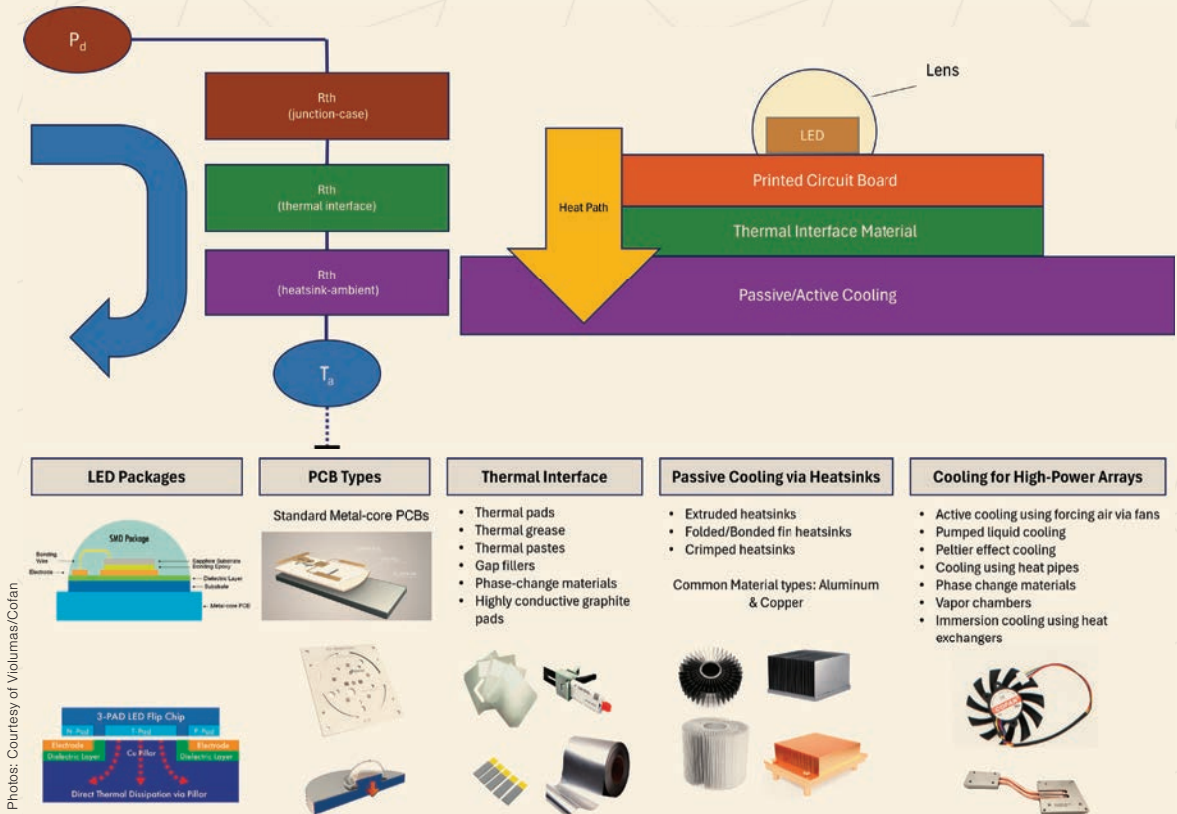
High-density LED arrays generate significant thermal loads in compact footprints, requiring advanced cooling strategies beyond passive cooling. While heatsinks with thermal interface materials are sufficient

for smaller arrays, high-density systems often rely on active cooling, such as fans or blowers, to maintain safe operating temperatures within smaller form factors. For even higher thermal demands, liquid cooling with pumped systems or cold plates provides a scalable and efficient solution. When implementing cold plate designs, careful consideration must be given to material choice, size, channel flow path, and the positioning of inlets and outlets, along with the appropriate chiller selection to ensure consistent thermal performance. **Figure 4** lists various methods which can be used to extract heat from LED arrays at each stage in manufacturing.

Thermal simulations provide a budget-friendly, accurate, and time-saving method for developing optimal thermal management strategies.



Figure 4: Methods to extract heat at different stages from high-power LED arrays.



### A Viable Alternative

High-density UV LED arrays are rapidly emerging as viable and often superior replacements for traditional UV lamps. By taking an integrated design approach and carefully balancing optical output, electrical drive conditions, and thermal management, engineers can unlock the full potential of UV LEDs in compact, efficient, and application-specific systems. Compared to legacy lamp technologies, these arrays offer improved energy efficiency, longer lifetimes, faster response times, and greater flexibility in wavelength and form factor. As the technology continues to

mature, well-designed high-density UV LED systems are not just alternatives, they are the next standard in precision UV illumination across industrial, medical, and scientific domains. ©

**THE AUTHORS** | Pratibha Sharma is the director of Applications Research and Development at Violumas/Cofan Thermal.

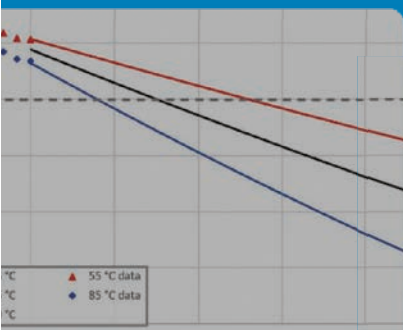
Saya Han is the director of Business Development at Violumas, Inc., specializing in managing projects for high-power, industrial UV applications.

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- 1 Yoshihiko Muramoto, Masahiro Kimura, and Suguru Nouda, "Development and future of ultraviolet light-emitting diodes: UV-LED will replace the UV lamp," *Semiconductor Science and Technology*, vol. 29, no. 8, June 2014.
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- 6 Clemens JM Lasance and András Poppe, *Thermal Management for LED Applications*, Springer: New York, NY, 2014.

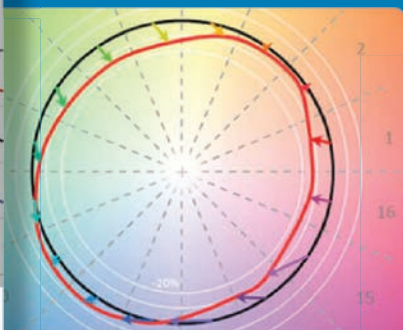
# NOW AVAILABLE!

Introducing the new IES Standards Toolbox, featuring resources and tools that support your efforts to enhance your lighting knowledge, work more efficiently and stay updated on the very latest lighting standards and guidelines.



## TM-21 Calculator

The official IES TM-21 calculator projects luminous flux maintenance based on the 2021 American National Standard, approved and maintained by the IES Testing Procedures Committee.



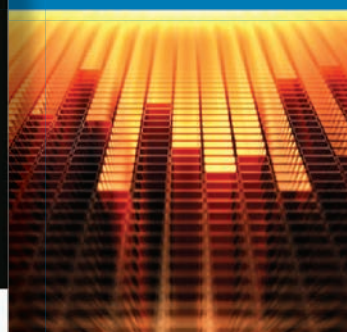
## TM-30 Spectral Calculator

The official IES TM-30 calculator provides values and creates vector graphics based on the 2021 American National Standard, approved and maintained by the IES Color Committee.



## The Illuminance Selector

The IES Illuminance Selector is a search tool developed to provide fast access to critical lighting criteria from over 25 tables published in ANSI/IES Recommended Practice Standards.



## IES Reference Retriever<sup>‡</sup>

The IES Reference Retriever is a catalogue of all documents, articles, publications and studies that are referenced throughout IES standards, searchable by title, topic, keyword, author or date.

<sup>‡</sup> Available for IES Members only.



# PROJECT IN PICTURES

## Bat-friendly Boardwalk

Completed in fall 2024, the **Canada Dock Boardwalk** in south London connects the Canada Water Tube Station to a mixed-use commercial development around the dock and provides pedestrians with a new spot to take in the city after-hours. The 170-meter (~558-ft) long boardwalk, designed by Asif Khan, protects surrounding wetlands while the lighting scheme by **Speirs Major Light Architecture** (SMLA) adds vibrancy to the site and supports the local biodiversity of bats, birds, and insects. SMLA Associate Partner Benz Roos said, “While it was a priority to ensure that pedestrians had a great experience of crossing the boardwalk, it was equally important to consider the needs of the other living inhabitants of the site. We worked hard to carefully integrate, direct, and shield the light to deliver the image, ambience, and functionality we wanted while limiting potential disruption and unwanted impacts.”

Photo: Luke Hayes and SMLA

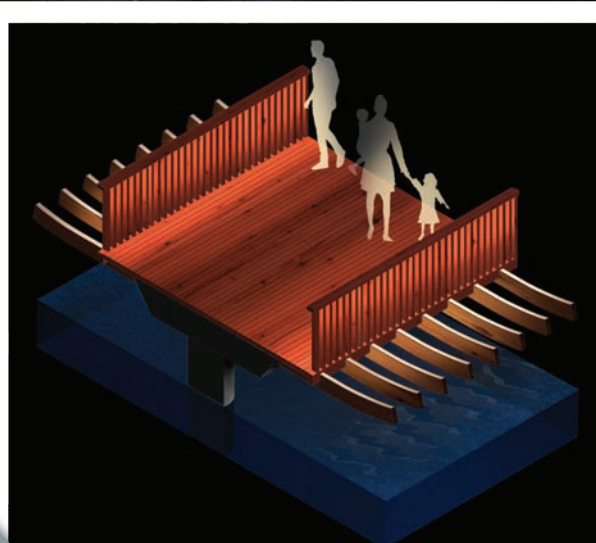
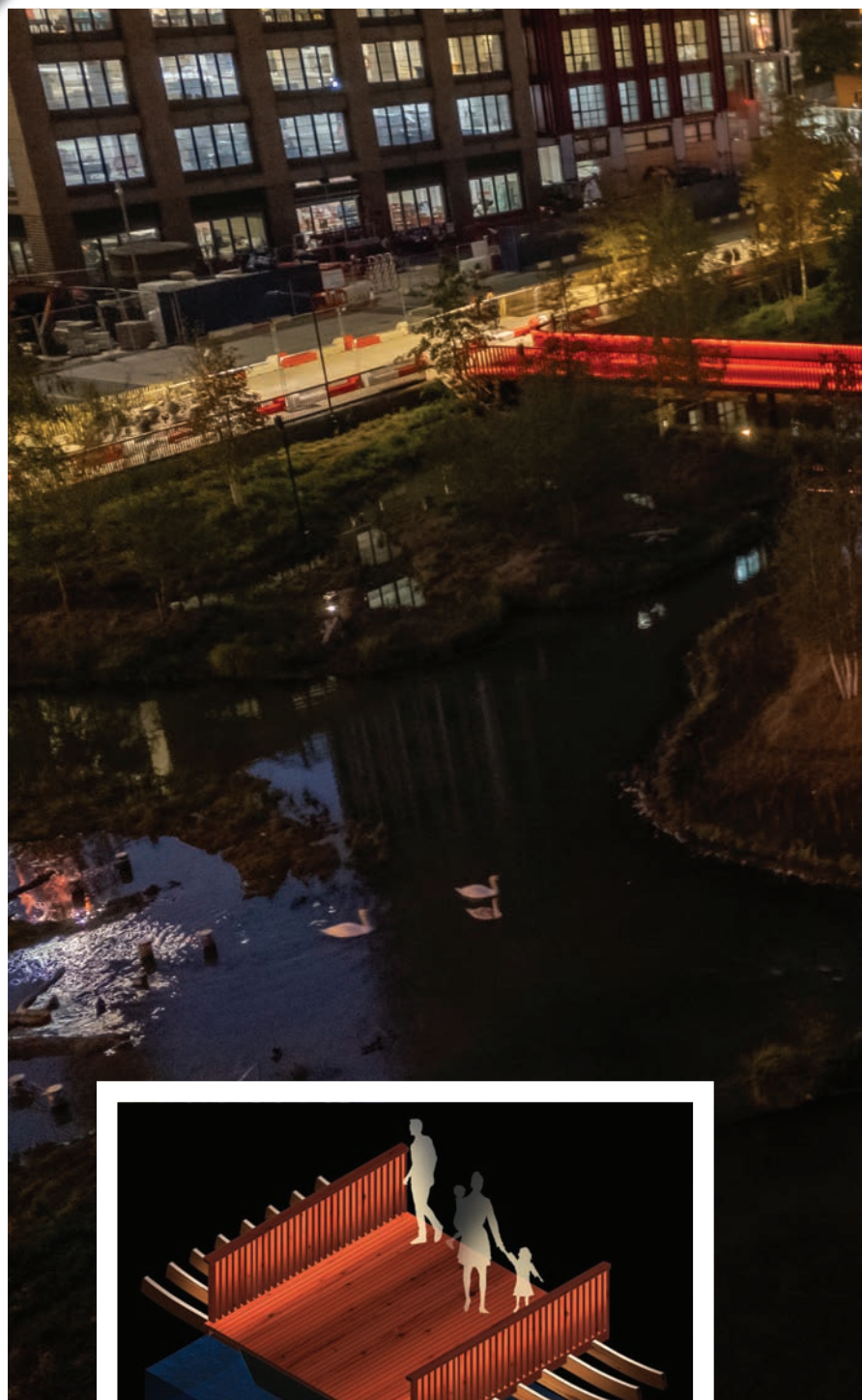


Image: SMLA

▲ **Custom louvres**, depicted in this rendering, along the balustrade limit light spill and avoid direct reflection of light sources into the water.



« Warm-white light washes the red-stained timber of the boardwalk, highlighting the structure's “ribbon-like” shape and materiality.



Photo: Luke Hayes and SMLA



^ Illumination positioned onto guard rails and exterior fins **increase the feel of pedestrian safety.**

^ SMLA worked closely with a site ecologist to design a concept with seasonal timed adjustments of light intensity and color temperature to support the bat population. **In the winter when bats hibernate, warm-white 3000K light supports commuters in the evening, and gradually becomes warmer and dimmer as night falls.** During the summer, when bats awaken, light on the boardwalk switches on at later hours and does so at a minimal brightness to reduce environmental impact.



# IES INSIDER

## IES Announces 2025 Award Recipients

The IES recognized the following members for technical and service achievements:

### IES Medal

*In recognition of meritorious technical achievement that has conspicuously furthered the profession, art, or knowledge of illuminating engineering.*



**Kevin Houser**, Oregon State University professor and chief engineer at Pacific Northwest National Laboratory, has contributed noteworthy accomplishments in teaching, research, innovation, and academic advising. He has published more than 60 articles in peer-reviewed journals and has been awarded five patents. Under Houser's leadership, *LEUKOS*, the Journal of the IES, became the highest-ranked journal in the lighting industry and increased the international reach of the Society. He has supervised seven completed Ph.D. degrees and 14 completed master's degrees; Houser's students have gone on to make significant contributions to the lighting industry. He has an impressive record of service, participating on dozens of committees for the IES, CIE, IALD, and more throughout his career.



### IES Louis B. Marks Award

*In recognition of exceptional service to the Society of a non-technical nature.*

**Charles E. "Chip" Israel**, CEO and founder of Lighting Design Alliance, is recognized for his enthusiastic support and mentoring of the lighting industry's Emerging Professionals and entrepreneurs as well as his leadership as a past president of the IES. Israel's diplomacy in both work and travel as a lighting industry spokesperson and his demonstration—through action—of the IES's mission has benefited Society Members around the world.

### IES Distinguished Service Awards

*In recognition of significant non-technical contributions to the IES mission, with at least 15 years of dedicated service.*



**Antonio Garza**, partner, Iluminación Total, is the first Mexican to serve as IES president and has played a pivotal role in globalizing the Society. His leadership in establishing the Global Development Committee and creating accessible membership rates for developing nations has strengthened the IES's international presence. During his time on the IES Board of Directors, Garza served as director at large, vice president, president, and past president and has also been a member of the Nominating, Louis B. Marks, Medal, and IES Board of Directors Strategic Planning Committees. As a bridge between Mexico, Latin America, and the IES, Garza has inspired many to follow his path, fostering a more inclusive and globally connected lighting community.



**Liliana González de la Cueva**, CEO of Luminográfica, has been a driving force in expanding the reach of lighting education beyond Mexico, integrating professionals from across Latin America into the global lighting community. Through her leadership in the IES Mexico Lighting Seminar and her active role in the Global Development Committee, she has created opportunities for knowledge-sharing, networking, and professional growth. She has held several offices for IES Mexico City including president, treasurer, director of the Communications Committee, and board member as well as played a key role in the implementation and use of social media for IES Mexico City. Her dedication has strengthened the presence of the Society in the region, fostering collaboration among emerging and established professionals, and ensuring that Latin American voices are heard on the international stage.

## Fellow Designations



**Paul Gregory**, founder, partner, and principal designer of Focus Lighting, is recognized

for his leadership in championing the role of lighting designers and advocating for a design process that enhances the quality of the built environment. He has devoted countless hours to raising funds, researching grant recipients, and managing finances, thereby enhancing the work of organizations including the IALD Education Trust, the Nuckolls Fund for Lighting Education, the Jonathan Speirs Scholarship Fund, and the steering committees for multiple IES Research Symposiums.



**Matthew Hartley**, consultant, is recognized for his long-time, broad, and continuing leader-

ship in lighting education, including developing and teaching classes, seminars, and workshops, as well as decades of mentoring. In 2004, he created three standing courses: Fundamentals of Lighting, Lighting Application, and Computer Aided Design. Hartley has led the development of a young education program for the IES Street and Area Lighting Conference and grew the membership of the SALC Education Subcommittee.



**Kimberly Mercier**, managing principal, Lighting Design Innovations, is recognized for her role

as an innovative thinker and communicator with the ability to convey technical material to her students in unique and entertaining ways. She wrote the textbook *Architecture for Light* and has served as an instructor at several institutions including Rochester Institute of Technology, The State University of New York at Buffalo, and the University of Calgary. Additionally, Mercier was a prominent organizer and author of Recommended Practice 45.

## Presidential Awards

*In recognition of member excellence*



**Amardeep M. Dugar**, founding principal, Lighting Research & Design, is recognized for

his dedication and work advancing the IES's global mission. By raising awareness and building connections across diverse regions, Dugar has significantly expanded the Society's impact.



**Antonio Garza**, partner, Iluminación Total, is acknowledged for his outstanding dedication

and selfless commitment to the IES. His leadership, responsibility, and steadfast support have been vital to the Society's success and stability.



**Billy Tubb**, theater consultant, is recognized for his exceptional dedication and willingness to

extend his volunteer role during a challenging time. When called upon to continue leading the IES through adversity, Tubb responded with resilience and responsibility, inspiring all those around him.



## Celebrating 75 Years with the IES Mexico City Section

On May 27–28, the IES Mexico City Section held its 27<sup>th</sup> Annual Lighting Seminar, where it celebrated its 75<sup>th</sup> anniversary. IES President Wilson Dau and IES Board of Directors Member Javier Villaseñor were in attendance and presented the president and vice president of the Mexico City and Monterrey Sections, respectively, with a certificate in recognition of the milestone.

Martín Hernández, current president of the IES México Section, kicked off the event by presenting the Founding Charter of the México Chapter, a 1950 document that marked the official launch of the Section. The two-day event attracted more than 180 lighting professionals, academics, and designers and included presentations that highlighted the historical significance of the section as well as the work and careers of long-standing members.



Photos: Courtesy of IES Mexico City Section

## The City of Scholarly Love

The 2025 edition of The Philaments Awards featured the IES Philadelphia Section presenting its Design with Light Awards and student scholarships. This year's event, held on June 5<sup>th</sup> at the Switch House, awarded merit-based, single-year scholarships to recognize and support potential future contributors to the lighting industry in the fields of architectural lighting, interior design lighting, industrial design, landscape lighting, and/or theatrical lighting.

Two students were selected to receive \$5,000 awards including Gergana Petkova (pictured top right) of Drexel University's Bachelor of Architecture program and Jessica Moore (pictured bottom right) of Drexel University's Bachelor of Architecture program with a minor in Sustainability in the Built Environment. Two Honorable Mention Awards, consisting of \$500, a free one-year Student Membership to the IES, and a one-year subscription to the IES Library, were presented to Sophia Mullane of Thomas Jefferson University's Interior Design program and Zachary Dutton of Thomas Jefferson University's Industrial Design program.

The evening was also the culmination of the Design with Light Competition, where students create light fixtures that are judged and awarded prizes (the recipients of which are pictured top left). All entries were displayed as the centerpieces on the tables at The Philaments Awards event dinner; two examples are pictured below.



Photos: Courtesy of the IES Philadelphia Section



# SUSTAINING MEMBERS

The following companies have elected to support the Society as Sustaining Members, which allows the IES to fund programs that benefit all segments of membership and pursue new endeavors, including education projects, lighting research, and recommended practices.\*

## DIAMOND

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## PLATINUM

Current

## GOLD

HLB Lighting Design  
LUMA Lighting Design/  
PAE Engineers  
Lutron Electronics  
Musco Lighting  
P2S, Inc.  
Rosendin Electric, Inc.  
Stantec (Toronto)  
SOSEN USA, Inc.  
USAI, LLC

## SILVER

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Affiniti Studios  
A.L.P.

BK Lighting  
Cannon Design  
ConTech Lighting  
Cree Lighting  
DLR Group  
ETC, Inc.  
Evluma  
GE Lighting, a Savant Company  
Hapco  
H.E. Williams, Inc.  
HP Engineering  
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Kurtzon Lighting  
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\*Contributor Sustaining Members are listed at [www.ies.org](http://www.ies.org).

## THE IES WELCOMES THESE NEW SUSTAINING AND UNIVERSITY MEMBERS

- Universidad Autónoma de Guadalajara

Whether you are a manufacturer, utility company, distributor, sales agency, engineering firm, architectural firm, or any other professional or technical business that engages with lighting, each organization can pick and choose levels of benefits and discounts for their company employees directly—and in certain cases, non-employees' partners, as well—furthering the reach to a larger group of professionals. The complete new Sustaining Membership structure (including the tax deduction levels) is listed at: [www.ies.org/membership/ies-sustaining-membership](http://www.ies.org/membership/ies-sustaining-membership).

Education institutions that have dedicated lighting programs as well as those higher learning institutions that focus on “lighting” in their curriculums qualify for the University Membership. For more information on program benefits go to: [www.ies.org/membership/ies-university-membership](http://www.ies.org/membership/ies-university-membership).

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# PRODUCTS



1.



2.



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4.

**1. LumenRadio** unveils MoonLite2. With its predecessor being a “fan favorite” with gaffers, the new iteration of the portable, battery-powered CRMX transceiver features DMX testing and an RDM controller. MoonLite2 also allows end users to get a charging case for their device for the first time, further allowing for the ability to charge up to eight units simultaneously.  
<https://lumenradio.com>.

**2. Lutron** introduces a bath control collection with four dimmers and switches focused on improving lighting and airflow in lavatories. The Diva LED+ dimmer offers soft-glow visibility in night mode; the

Humidity Sensor Switch, providing automatically activated exhaust fans upon detecting changes in moisture levels; the LED+ dimmer and timer dual switch offering a way to control all lights and fans in small spaces via one device; and the timer switch to automatically shut off lights and fans.  
[www.lutron.com](http://www.lutron.com)

**3. Fluence** announces SPYDR 3 for multitier cannabis production. With higher efficacy, output, and increased durability than its predecessors, the latest-generation design now offers five wattages for improved flexibility and a sealed lens design for easier cleaning. SPYDR 3 optimizes energy savings while allowing farmers to

obtain desired light levels.  
<https://fluence-led.com>

**4. DMF Lighting** expands Artafex 2-in. with new trims for versatility in high-end interiors. Made using a molecular vapor deposition to increase wear resistance and glare reduction, trims available in adjustable, fixed, round, and square configurations are now offered in premium finishes, as well as micro-Flange and Flangeless styles in decorative, hyperbolic, pinhole, standard, and wall wash formats.  
[www.dmfuxury.com](http://www.dmfuxury.com)

5.



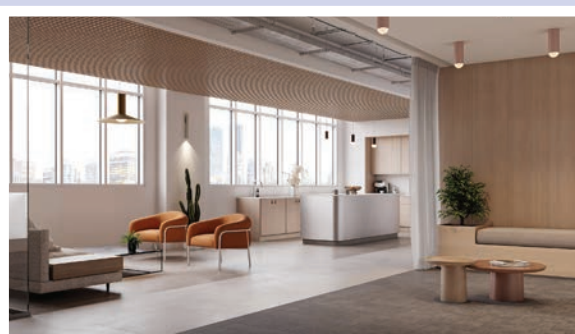
6.



**5. Ross Gardam** debuts the Solace Collection. Including table-lamp and pendant (pictured) archetypes, the collection explores a geometric form: two perpendicular, intersecting circles through luminous blown glass. Handmade in Australia, each fixture includes subtly textured glass shades, available in numerous finishes, and a brass body available in three colorways.  
[www.rossgardam.com.au](http://www.rossgardam.com.au)

**6. Prolights** introduces EclProfile CT+HP to the Ellipsoidal family of fixtures. Engineered to replace traditional HPL 750-W and 2-kW fixtures and designed for long-throw distances and high-hanging positions in large venues such as auditoriums, theaters, and TV studios, fixtures deliver 450 watts, intuitive color mixing, and precision CCT tuning.  
[www.prolights.it](http://www.prolights.it)

## SPOTLIGHT Eureka



**Eureka** announces new accessories and a new color palette for the cylindrical Scout family of luminaires. The new accessories include three diffusers and a shade that allows luminaires to take on new volumes and shapes: the Bell diffuser is translucent cloche-shape; Orb is a sleek dome, while Pebble is an oval with an ambient glow. The Flare shade can be combined with the Orb and Pebble diffusers for increased versatility of aesthetics. Available in multiple diameters and lengths, and ideal for commercial, hospitality, and office spaces, fixtures are now available in 12 premium colors, two metallics, and standard black or white finishes.  
[www.eurekalighting.com](http://www.eurekalighting.com)



# PRODUCTS

**7. Lodes** unveils A-Tube Nano Swing designed by Studio Italia Design. Building on the previously launched A-Tube Nano collection, the Swing adds a level of interaction to the illumination. Featuring 360-deg rotation and multidirectional adjustability, luminaires with 2-centimeter diameters allow end users to easily customize lighting in commercial, hospitality, and residential applications. Luminaires are available in three lengths and six finishes with each including a transparent methacrylate diffuser inside an aluminum structure to provide a soft glow of light. [www.lodes.com](http://www.lodes.com)



7.

**8. StellarPro** introduces RadiantSuite, software for Linux, Mac, and Windows hardware for colormetric, radiometric, and spectral analysis. An update to its StellarPro software line, this platform empowers engineers, manufacturing professionals, and scientists with tools for calibrating, measuring, and visualizing light. Key factors of the platform include TM-30 color rendition evaluation and multi-device synchronization to gather data in real time, among others. [www.stellarnet.us](http://www.stellarnet.us)



8.

**9. iGuzzini** launches Tack for retail spaces. Available in three sizes, luminaires can be installed horizontally and vertically on track as well as on surface-mounted or recessed bases. Additionally, Tack is equipped with two optics and features a manual switch for easy on-site adjustment of light output. [www.iguzzini.com](http://www.iguzzini.com)



9.



10.

**10. Alloy LED** announces the Mudr Wall Wash 2-in., a ceiling-mounted recessed cove channel that is available in 4- or 7-ft options as well as custom lengths. Providing soft illumination without disruption to ceiling elements, fixtures are compatible with 5/8-in. drywall and feature paintable surfaces as well as a linking system to join profile sections.

<https://alloyled.com>



11.

**11. Edison Price Lighting** announces BOLD. With a four-position adjustable LED module, fixtures allow for a glare-reducing aesthetic with lamp sources settled deeper in fixture housing, or high-performance illumination closer to the aperture. The series includes flat, round, shallow, and square downlight options in multiple color temperatures and optics.

[www.epl.com](http://www.epl.com)



12.

**12. Luminaire Authentik** debuts the Pivoine collection. Designed after its namesake flower, the Peony, luminaires offer an airy aesthetic for refined residential and commercial spaces. Pivoine is available in flush mount, pendant, and scone options that can stand alone or be arranged in clusters.

[www.luminaireauthentik.com](http://www.luminaireauthentik.com)





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# AD INDEX

COMPANY	WEBSITE	PAGE #	ADVERTISING OFFICES
ALUZ Lighting	www.ALUZ.lighting	2	<b>GENERAL OFFICES</b> LD+A Advertising Department  <b>Leslie Prestia</b> SAGE Publications 2455 Teller Road Thousand Oaks, CA 91320 Leslie.prestia@sagepub.com
Amerlux	www.amerlux.com	16	
BIOS Lighting	www.bioslighting.com	17	
Brandon Industries	www.brandonindustries.com	23	<b>NORTHEAST/ MID-ATLANTIC/WEST</b>  <b>Amy Blackmore</b> SAGE Publications 2455 Teller Road Thousand Oaks, CA 91320 C 805.559.1065 Amy.blackmore@sagepub.com  States serviced: AK, AZ, CA, CO, CT, DE, HI, ID, MA, MD, ME, MT, NC, NH, NJ, NM, NV, NY, OR, PA, RI, UT, VA, VT, WA, WY, Washington, D.C., and Western Canada
Elemental LED	www.elementalled.com	1	
Insight Lighting	www.insightlighting.com	15	
Landscape Forms, Inc.	www.landscapeforms.com	5	<b>SOUTH/MIDWEST/ INTERNATIONAL (OUTSIDE U.S. &amp; CANADA)</b>  <b>Bill Middleton</b> Middleton Media 4513 Dartmoor Drive Marietta, GA 30067 T 770.973.9190 C 404.394.7026 midmedia@aol.com  States serviced: AL, AR, FL, GA, IA, IL, IN, KS, KY, LA, MI, MN, MO, MS, ND, NE, OH, OK, SC, SD, TN, TX, WI, WV, and Eastern Canada
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Photo: Dmitry Chebanenko

A monochromatic conceptual and recreational space in Moskva, Russia, the Yellow Pavilion, relies on daylight, downlights, and flexible neon for illumination. Wedge-shaped with rounded walls, metal furnishings, and a bright color chosen to energize and inspire, the space features a zenith light for sky viewing and large vertical windows.

## LAST LOOK

We All Live in a Yellow...Pavilion

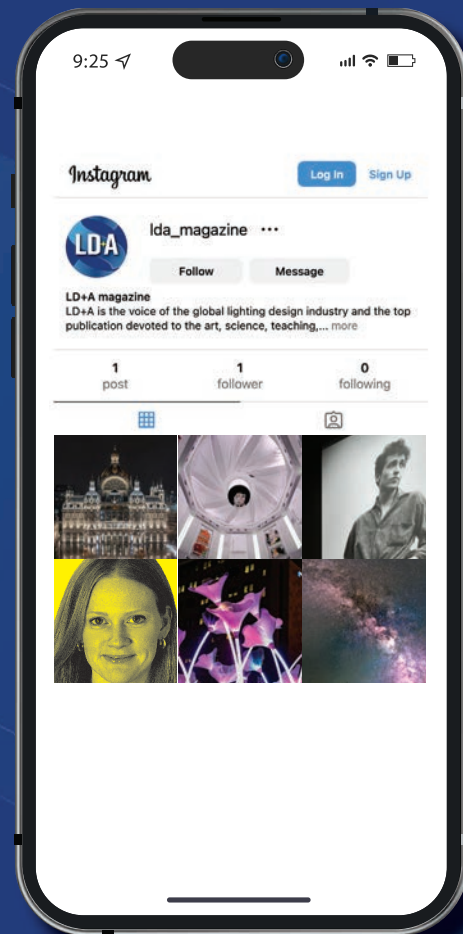
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