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APRIL 2026



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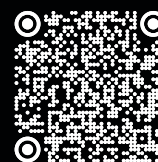
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Credit: Marlon Blackwell Architects

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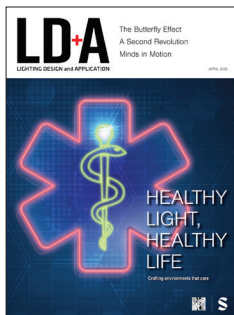
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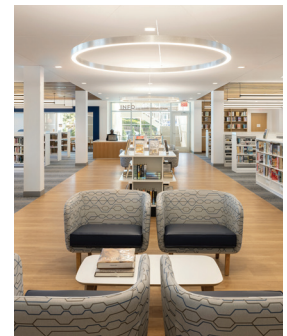
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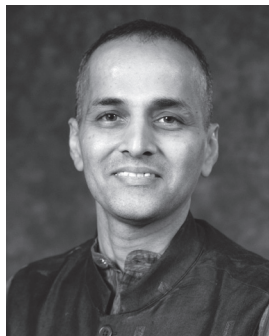
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IMPROVING
LIFE THROUGH
QUALITY OF
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EDITOR'S NOTE

Peace and Serenity in the Light

I'm not sure I've ever timed an editorial calendar better. This month's issue focuses on "Light and Wellness," and here I am, writing this column while flat on my back, five days post-surgery. If hospitals had loyalty programs like Chick-fil-A, I'd have enough points for a lifetime supply of post-surgical spicy chicken sammies (and preferably not the hospital variety).

Hospitals are homes of uncertainty. When I checked in, I didn't exactly audit Monmouth Medical Center's lighting technology. (It turns out they've made some upgrades:

a radiology suite renovation featuring a SOMATOM Pro.Pulse CT scanner with mood lighting and visual instructions to calm patients, plus a lobby makeover with brighter, more welcoming ambient lighting. Circadian lighting? Not quite yet.) Basically, I arrived, they knocked out my lights, and I woke up in recovery. Easy peasy, anesthetically pleasing.

Over the next 24 hours, darkness was my default—heavily medicated and drifting somewhere in a neighborhood on Queer Street—with only one non-pharmaceutical comfort: a rainy, gray view of the Atlantic Ocean. Honestly, the ocean is more therapeutic than any healthcare environment I've ever encountered, but there are certainly less expensive, and more serene, ways to enjoy it.

After returning to work, the experience got me thinking: if light is so closely tied to wellness, why do we so often recover in the dark? Are those of us who treat pain like an old friend and would rather keep meds locked away than coursing through IVs just retreating to our past recovery experiences? Can chronologically gifted generations visualize rooms with gentle, tunable light that mimics sunrise and sunset, easing us back into balance? In a world where we're urged to "follow the light," why does recovery so often feel like a shadow realm?

The next frontier in patient care likely isn't just better drugs or faster, more-intelligent scans—it's creating environments that heal holistically. Light isn't a luxury; it's part of a lifeline. And if hospitals ever do roll out loyalty programs, I hope the reward is a room bathed in the kind of light that reminds us that we're still very much alive and kicking (along with a few of those Chick-fil-A sandwiches).

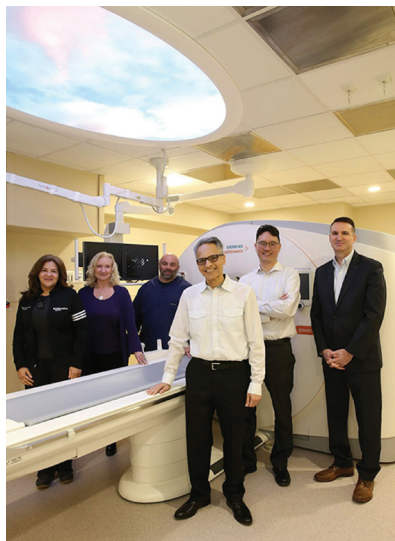


Photo: RWJBarabas Health

Monmouth Medical Center's SOMATOM Pro.Pulse scanner offers mood lighting to calm patients.

Craig Causer

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THE MAGAZINE OF THE
ILLUMINATING ENGINEERING
SOCIETY



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PRESIDENT'S PERSPECTIVE

Jared Smith

CBCL

RECENTLY, I HAD THE PLEASURE of meeting with Members of the IES Middle East/North Africa (MENA) Section, our latest addition to the Society's expanding global network. What struck me immediately was that this group wasn't forming to see whether a section might work. Momentum was already on their side—organizing, establishing processes, and elevating the conversation within their region long before coming under the IES umbrella. There was no need to convince them of the importance of lighting quality. They needed what only a professional society can provide: connection to a broader body of knowledge, a framework for strengthening regional practice, and a seat at the table where standards are shaped.

That visit left me thinking about momentum, both theirs and the Society's. What I saw there wasn't a top-down initiative; it was the natural outcome of committed professionals recognizing that the complexity and impact of lighting demand a stronger institutional foundation. That is what sustainable growth looks like.

Across our field, lighting is extending into new territories such as smart infrastructure, circadian science, environmental justice, and applications few of us imagined a decade ago. Our technical committees are fielding increasingly complex questions, and with each new area of inquiry, the gap widens between what any one individual can know and what the profession collectively requires. That gap is precisely where the IES has lived for more than a century, and why it matters that we continue to grow our reach and our relevance.

Our institutional knowledge is our greatest asset, but it only expands when the range of people contributing to it broadens as well. Right now, one of our most urgent responsibilities is ensuring that the practitioners who need the IES, and those whom the IES needs, are truly engaged. In the coming months, I'm asking each of you to bring just one new person into the IES orbit. This isn't necessarily about signing up a new dues-paying member—though we welcome that. It's about inviting participation: bringing a colleague to a section meeting, encouraging an emerging professional to explore a

technical committee, involving a manufacturer or distributor in a webinar, or forwarding an article that sparks curiosity.

Engagement is the hinge point. Membership sustains the Society—funding our publications, supporting our staff, and enabling the committees that allow us to function as more than a collection

"I'm asking each of you to bring just one new person into the IES orbit."

of well-meaning individuals. The cost is real, but so is the return: credible technical guidance, a multidisciplinary global network, and the opportunity to shape the documents that define lighting quality. People don't join institutions they've never experienced. They join because someone they respect thinks they belong there.

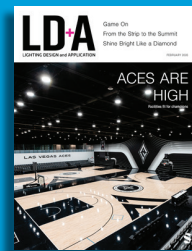
When I say we need more members, it is not for the sake of numbers. Every unchallenged perspective, every unrepresented discipline, and every absent geography limits the strength of our standards and the reliability of our guidance. The IES excels because it brings together complexity and produces clarity. Designers, engineers, researchers, and manufacturers see the world differently—and that is our advantage. A section in Colombia confronts challenges a section in St. Louis never will, and vice versa.

When all those voices contribute, our recommended practices become stronger, our blind spots shrink, and our profession becomes more credible to those who rely on our expertise, from facility managers to policymakers.

The IES MENA Section reminded me that growth doesn't begin at headquarters. It begins with professionals deciding their work deserves a stronger foundation. Our role as members is to extend that invitation wherever we have influence.

So, engage with someone who should be part of this community. For them, for the profession, and for the future we're building together. The strength of our field has always depended on shared knowledge. The IES is how we build it, protect it, and pass it forward.

One person. One conversation. One invitation. That's how momentum grows—and right now is the moment to sustain it.



LD+A

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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 to discuss further.

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Tiptoe Through Tulips



Photo: Elite Control Services

Stoke City Football Club Gets an Upgrade

A cutting-edge system improves sustainability and scene programming at Bet365 Stadium

Elite Control Services (ECS) and Midstream Lighting teamed up to provide Bet365 Stadium, the home of Stoke City Football Club (FC) in Staffordshire, England, with a championship-worthy lighting makeover. The project replaced former floodlights used since 2014 with 104 Modus S1500 luminaires; 66 Modus R1500 luminaires; 59 Modus 300 luminaires; two Robe iForte projectors; and 118 Traxon e:cue RGBW 6500K Washer Go Maxi floodlights, as well as an integrated Pharos control system. The overhaul allows for an immersive fan experience with gobo projectors displaying the club and stadium's logos on the pitch, as well as color-changing illumination across advertising boards, pitch-side screens, and under-bowl lighting. Despite its dynamism, the new scheme cuts the site's energy consumption in half while providing the stadium with Premier League-standard illumination of 1,650 lux. ECS Director Adam Hardy said, "We're thrilled to have partnered with Midstream Lighting and Stoke City FC on such a prestigious project...From concept to execution, our goal was to bring the stadium into the future, and we couldn't be prouder of the result."

MERGERS & MORE:

- **Brightline Lighting's** AV/720 low-voltage lighting system has been implemented in **Taurus Technologies'** in-house podcast studio.
- **LEDVANCE** has been awarded the Gold Medal by EcoVadis for outstanding sustainability performance.
- **Legrand's** second generation radiant Smart Lighting with Wi-Fi was selected as a Finalist for the Best of the IBS (International Builders Show) Awards in the Best Indoor Product category.
- Architectural lighting manufacturer **Lucent Lighting** has acquired lighting assembly business **Technical Assembly.**
- **Lutron Electronics Co., Inc.** has acquired **Tanury Industries,** a surface-finishing and metal-coatings company.
- **WAC Group** has launched **WAC Architectural,** a commercial specification lighting brand for project-driven applications.



A.C. Americas Names New President

North American distributor of lighting and A/V products A.C. Americas announced the promotion of Gary Aird to president following former president Jean-Louis Blanchard's transition to semi-retirement. Aird previously served as A.C. America's vice president of Finance before becoming chief financial officer. CEO of A.C. Worldwide Group Phil Capstick said, "I am honored to introduce Gary as the new president. He is a performance-focused, driven leader whose strategic mindset and commitment to excellence have consistently contributed to company-wide success."

APR
14-15

LEducation trade show and conference, presented by DLFNY, will be held at the New York Hilton Midtown, and serves as a marketplace and educational forum for solid-state lighting innovators. Attendees will engage with thought leaders, earn CEUs, and attend an exhibition hall with over 400 exhibitors.
www.leducation.org

JUN
25

The IES San Francisco Section's Light! Design Expo returns to Pier 27 on San Francisco's Embarcadero. This annual event showcases the latest in architectural lighting products and attracts a wide range of exhibitors and design professionals.
<https://lightdesignexpo.com>

AUG
13-15

IES26: The Lighting Conference, the pre-eminent conference for all things lighting, will be held at the Denver Grand Hyatt in Colorado. The event will include peer-reviewed, poster, and technical presentations; workshops; and speaker sessions.
www.ies.org



Photo: @cursetheseyes

The Nook, developed by SAMH, Scotland's first national network of walk-in mental health support hubs, features an uplifting, as well as sensory- and color-aware, track-based light scheme by Light Forms.

Seen by Staff



Photo: Craig Causer

More than 50,000 illuminated tulips stole the show at Holland Ridge Farms' Winter Wonderland in Cream Ridge, NJ.

HOW THEY DID IT

"THE ELEGANCE OF BEGONIA"

A super-high-rise apartment complex in Kaohsiung City, Taiwan, covering nearly 93,000 sq meters and located beside a yacht marina, blends into its surroundings while integrating natural light and water-like architectural forms thanks to design by Taiwan-based **Art Light Design Consultants, Inc.**

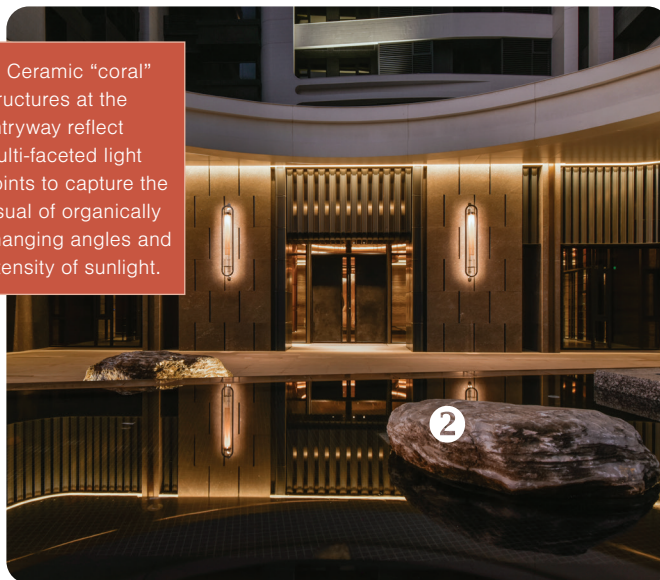


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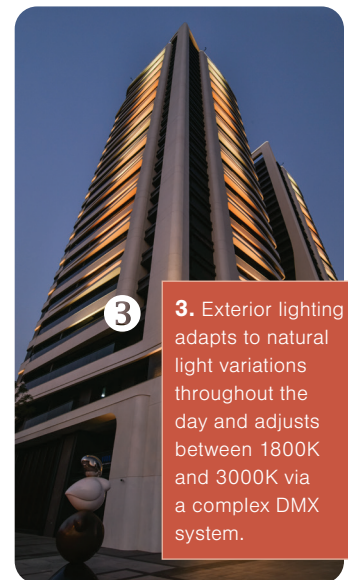
1. Refracted natural light and electric lighting create visual depth and harmony between the project's interior and exterior.

Photos: Kale Wichlinski

2. Ceramic "coral" structures at the entryway reflect multi-faceted light points to capture the visual of organically changing angles and intensity of sunlight.



2



3

3. Exterior lighting adapts to natural light variations throughout the day and adjusts between 1800K and 3000K via a complex DMX system.

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Jerry Plank

“When arc flash occurs in a panelboard, often there is a plurality of bad decisions that have taken place.”



While this column typically highlights fire and/or electrical shock hazards produced by lighting products, I want to address a hazard whose severity is frequently underestimated, despite posing a significant danger when working with electrical panelboards. Electrical panelboards are used in every lighting project to distribute power safely to products with a series of internal circuit breakers designed to protect each circuit from creating a potential fire from a short or overloaded circuit. While many of us don't install or service electrical panelboards, at some point you will be in proximity to an open panelboard being serviced on a job site and should stay alert to the extremely hazardous condition known as “arc flash.”

Arc flash occurs when an electrical fault allows current to jump from points of opposite polarity or across an air gap involving energized contacts or parts shorted to ground. The subsequent result of an arc flash produces intense light that is up to 35,000 deg Fahrenheit with an explosive pressure wave vaporizing metal, causing severe burns, burnt clothing, and destruction of the electrical panelboard or its internal components. The arc created during the electrical explosion can easily project a ball of flame as far as 3 ft. During an arc flash, man-made fabrics can become engulfed in fire, causing clothing fabric to be embedded in the skin.

Like any electrical accident, however, there is usually a series of negative actions that need to occur first. The National Transportation Safety Board, a federal agency of the U.S. that investigates airline crashes, describes an aircraft accident as rarely being caused by a single event but rather a chain of deep, underlining systemic failures, which is analogous to the field of electrical accidents. When arc flash occurs in a panelboard, often there is a plurality of bad decisions that have taken place. The latest safety advisory by the Occupational Safety and Health Administration (OSHA) now includes low voltages of 120 and 208 volts as having sufficient energy to cause harm to workers.



Image: istockphoto, Seetwo

Causes of arc flash run the gamut of loose or unsecured wires and connectors, dust collected in the equipment, improperly maintained equipment, faulty circuit breakers and/or equipment, stripped screws on terminations, missing or damaged wire connectors, conductor insulation damaged during installation, or conductive tools inadvertently shorting contacts, to name a few faults.

Safety First

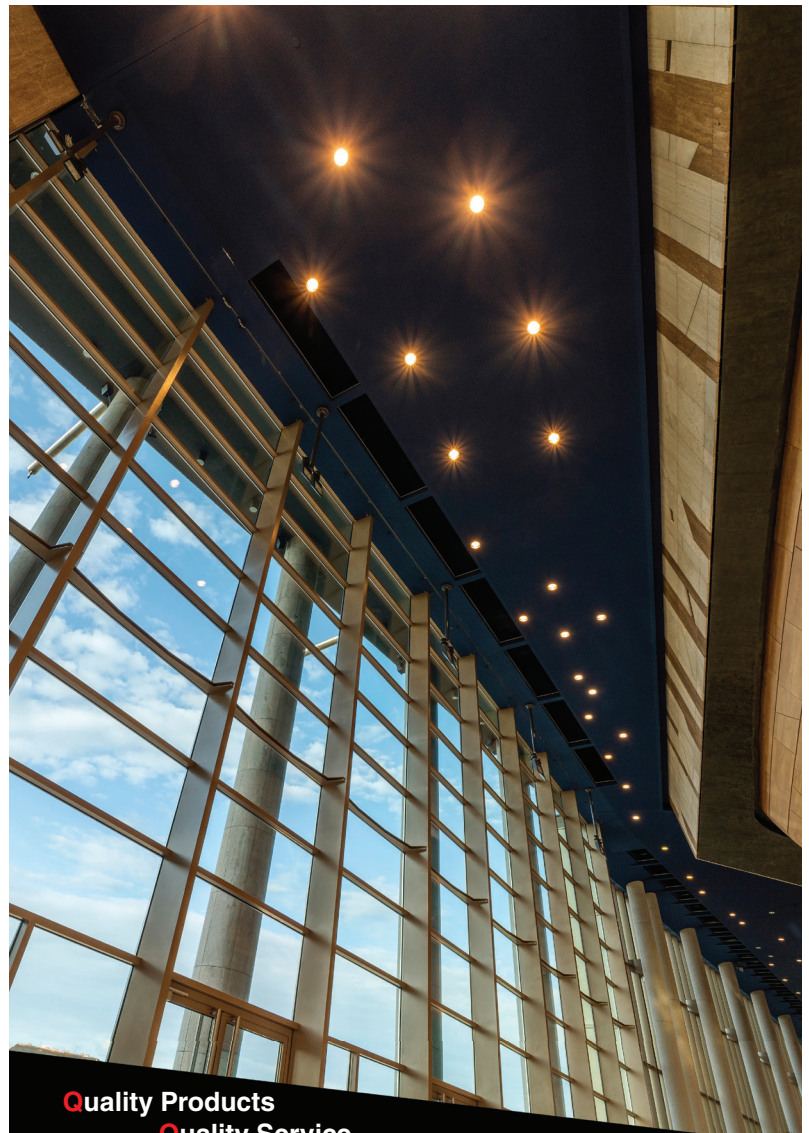
If you find yourself in proximity to an open panelboard being serviced in the field, which many of us have, the threat of being injured is possible under the right circumstances. In November 2024, OSHA issued Fact Sheet 4475 – *Electrical Safety: Common Electrical Work Myths Card*, which describes lowering the threshold to 120/208 volts, as field experience has shown that accidents have not decreased since the arc flash issue was first discussed.

A recent OSHA bulletin advises workers to de-energize panelboards; however, there are certain situations and locations that may not be easily accommodated such as in a store or hospital where normal working hours are extended. Electrical personnel should be qualified to conduct the work and wear arc-rated personal protective equipment required for the voltage present as well as use insulated tools when servicing circuit breakers or other internal electrical connections.

The good news is that panelboards manufactured since 2002 are required to be marked addressing the arc flash hazard per the National Fire Protection Association (NFPA) 70 per Section 110.16. For those made prior to 2002, there is a good chance that these older panelboards will not be labeled, but they must also be treated with the same level of caution to mitigate the arc flash hazard. A quick search on the Internet for a video showing the power of an arc flash will demonstrate just how horrific the hazard can be.

Remember: as both the system's current and working voltage increase, the intensity of a potential arc-flash event also increases. Always stay alert to electrical hazards when working around panelboards and use proper precautions to protect yourself from injury.

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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Selected Territories Open for Reps

Amardeep M. Dugar

“For the lighting profession in Asia to evolve meaningfully, DEIR needs to be more than an add-on; it must function as both a performance metric and a shared social ethic.”



IF YOU’VE EVER WALKED THROUGH A CITY at night and felt either completely at ease or quietly on edge, you already understand how powerful lighting can be. Lighting shapes how we move, who feels welcome, what feels safe, and which stories get told after dark. And lighting is never just technical: it’s social, cultural, and deeply human. For lighting professionals, this puts us at an interesting crossroads. Our work influences public life in ways that go far beyond visual comfort or energy efficiency. Who we design for, whose needs we prioritize, and whose knowledge we value all leave a lasting imprint on the built environment. This is where conversations around diversity, equity, inclusivity, and respect (DEIR) become especially relevant—not as abstract ideals, but as practical design considerations.

Much of today’s DEIR discourse in lighting and design has emerged from Western contexts.^{1,2} Yet across Asia, ideas of communal space, shared resources, and inclusive use of light have existed for centuries: embedded in urban form, craft traditions, and everyday rituals such as the courtyard-based spatial systems in traditional Chinese, Indian, and Southeast Asian homes, long-standing ritual lighting practices during festivals like Deepavali or Diwali, and communal gathering spaces in village architectures and regional rites that foreground shared experiences of light and place. Many of these practices were disrupted or erased through colonial systems,³ rapid urbanization, and globalized design standards.

Today, lighting professionals across Asia work within a complex mix of heritage, informal labor, technological acceleration, and global expectations. In this column, I will reflect on that layered history and ask important questions

such as: What might DEIR look like when viewed through an Asian lens, and how can lighting professionals actively translate these values into the way we design, specify, teach, and practice lighting?

Ancient Civilizations and Design Systems

Historical studies show that ancient Asian civilizations (e.g., China, India, and Persia) were characterized by plural cultural, linguistic, and religious communities.⁴⁻⁶ Urban planning often incorporated climate-responsive buildings and craft-led construction, alongside mixed-use layouts and shared public spaces.^{7,8} For example, archaeological studies of Harappa and Mohenjo-Daro from the Indus Valley civilization reveal that residential clustering and open spaces enabled social interaction across occupational backgrounds, suggesting early forms of spatial inclusion.⁹

Asian philosophical systems also promoted values we now associate with



Image generated by Microsoft CoPilot.

DEIR, such as collective welfare (Buddhism and Jainism), community governance (*gram sabha*, meaning “village assembly”), respect for craft knowledge passed across generations, and sustainable resource stewardship (Jainism and Taoism). Lighting in the form of daylight and fire-based systems were integrated with civic rituals, domestic routines, and ecological cycles. However, these civilizations were not free of inequity as caste stratifications hardened occupational boundaries, particularly in artisanal crafts and construction. Similarly, gender restrictions limited participation in public architecture or technical craft traditions.

Colonial Transformations and Their Legacies

Colonial rule in Asia radically changed how space was planned and built as European regimes introduced centralized planning, industrial materials, and standardized engineering methods. These changes reshaped construction industries and professional hierarchies, and are effects that still shape DEIR outcomes today. Colonial systems reinforced existing caste and class boundaries to ensure cheap labor supply. As a result, artisan-builders, balusters, lighting craft communities, and metalworkers often lost autonomy or formal recognition.¹⁰

Colonial planning also produced spatial segregation based on class, occupation, race, and policing concerns. Access to basic infrastructure and sanitation became clear indicators of privilege. Indigenous knowledge and technologies were sidelined as Western aesthetics became the norm.¹¹ Lighting design did not emerge locally as a formally taught profession until the late 20th century and remains strongly influenced by Euro-American discourse in most Asian countries.

Post-Independence Shifts: Emerging Questions

While working on a hospitality project in India, I found myself standing on-site

late one evening with a local metal artisan who had fabricated a series of decorative luminaires. She spoke proudly about techniques passed down through generations: how certain perforations softened glare as well as the manner in which specific metals aged beautifully in humid climates. Yet when the project wrapped up, her name

never appeared in the drawings, specifications, or final photography. The lighting design was celebrated internationally, but the craft knowledge that made it possible remained invisible. That moment stayed with me. It quietly revealed a recurring pattern in our industry: expertise is often present, but recognition, agency, and long-term

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equity are not always evenly distributed.

Since its independence, Asia has seen a growing professional design sector, shaped by modern construction and accelerated urbanization. The lighting industry has largely been shaped by three key dynamics: gender gaps in leadership, global standards within a local context, and informal labor economies. For example, lighting masterplans in cities like Seoul, South Korea, and Singapore highlight the potential of lighting policy to address urban inclusivity, mobility, and safety; hospitality projects in countries like India and Maldives have revived traditional craft lighting, creating economic empowerment but some inconsistency in fair compensation; solar-lighting initiatives for informal settlements in Bangladesh have improved gender safety, educational access, and disaster resilience. But key DEIR questions remain: How do we address challenges such as education barriers, low accessibility adoption, pay disparity, under-valuation of craft knowledge, and underrepresentation and leadership gaps?

DEIR as a Design Strategy

It's clear that ancient Asian civilizations held plural, diverse, and community-centred values, even while operating within hierarchical structures. Colonialism disrupted these systems, institutionalized inequity, and redefined built environments around extractive, centralized models. Post-independence progress has brought modern infrastructure, education, and professional practice, yet structural inequities remain embedded in the sectors that collectively shape the built environment. Three approaches are especially relevant: human-centred lighting, participatory design, and sustainable, ethical sourcing. For the lighting profession in Asia to evolve meaningfully, DEIR needs to be more than an add-on; it must function as both a performance metric and a shared social ethic. **Table 1** provides a practical DEIR checklist for lighting professionals.

Seamless Integration

DEIR must be integrated into design philosophies, education models, hiring

Table 1. A practical DEIR checklist for lighting professionals.

Studio/Company Policy	<ul style="list-style-type: none"> - Transparent hiring and pay structures - Diversity in leadership and project teams - Anti-harassment and well-being policies - Inclusive parental and mental-health support
Design Process	<ul style="list-style-type: none"> - Stakeholder mapping of marginalized groups - Inclusive design brief and end-user personas - Accessibility and glare sensitivity - Nighttime safety planning - Daylight equity and control accessibility
Supply Chain and Manufacturing	<ul style="list-style-type: none"> - Ethical sourcing and fair compensation - Craft partnerships with long-term contracts - Local materials and labor prioritization - Environmental justice metrics
Construction and Labor	<ul style="list-style-type: none"> - Safety training and personal protective equipment for installers - Skilled labor certification support - Transparent wages and benefits - Respectful site culture and language inclusion
Education and Advocacy	<ul style="list-style-type: none"> - Internship pathways for underrepresented groups - Scholarships and community training - Knowledge dissemination in regional languages

practices, product and technology ecosystems, project delivery frameworks, and site labor standards. As lighting professionals, we sit at the intersection of aesthetics, technology, and human well-being. The way we design lighting can serve as a tangible contribution toward more diverse, equitable, inclusive, and respectful lighted environments across Asia.

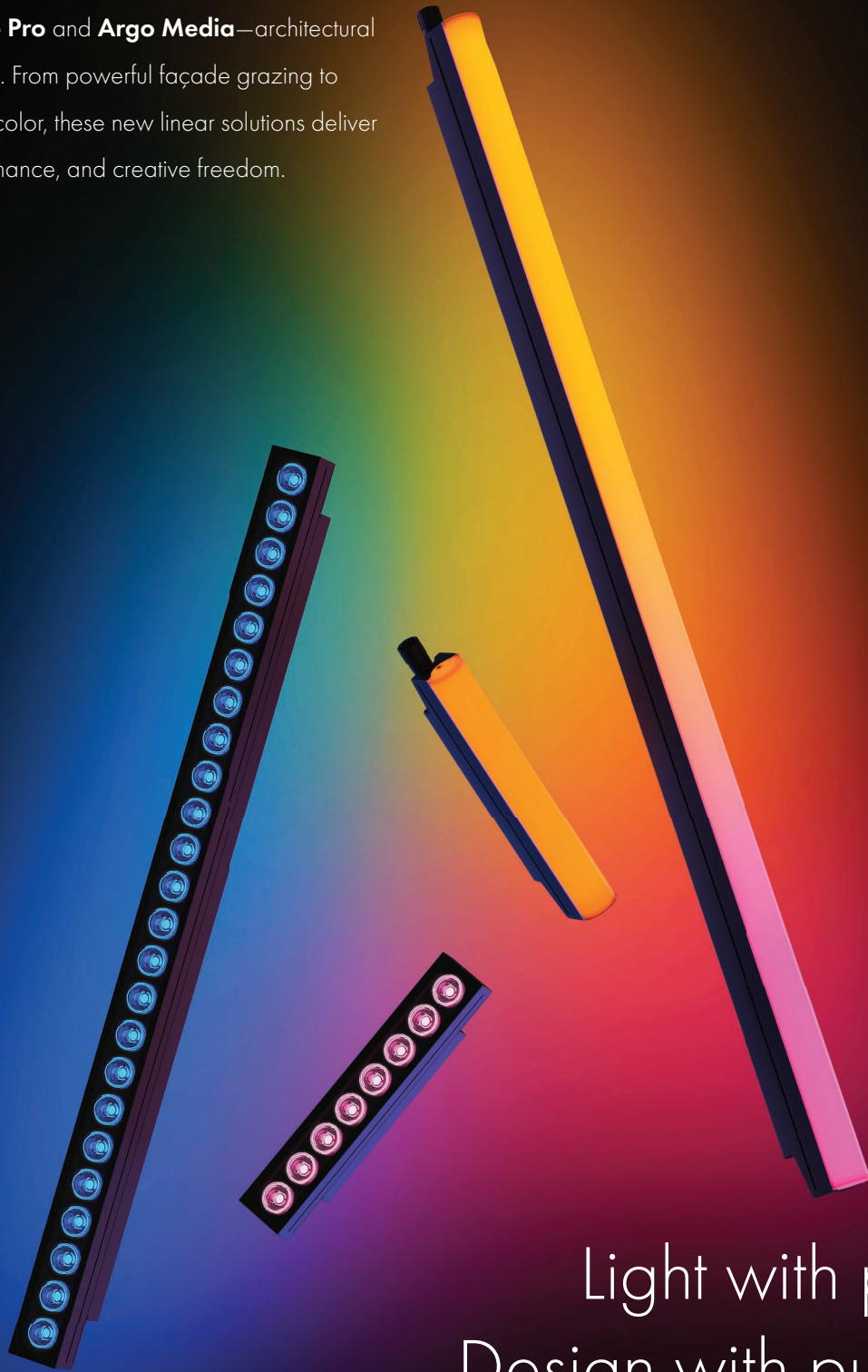
Amardeep M. Dugar, Ph.D., CLD, IALD, FISLE, FSLL, is founding principal of Lighting Research & Design. He serves on the IES Board of Directors, chairs the IES Global Development Committee, and is committed to expanding lighting education and professional engagement worldwide.

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CROSSING BEAMS | Lighting Isn't a Universal Language (Until We Learn to Translate It)

Katia Kolovea

“The stakes around lighting are rising, while the way we often describe lighting, especially to non-designers, remains stuck in the same familiar lines.”



THE MESSAGE OFTEN LANDS before the words. You are in a bar or a club, and it's late. The music is still playing, people are in mid-conversation, and then the lights come on. Bright. Unforgiving. The people in the room understand and do not need to be told: the establishment is closing, and it's time to leave.

This is a version of light as a universal language that is easy to understand. Light signals. Light directs. Light reassures. Light warns. A flashing red light warns us there's danger, a green light urges us to move, and an amber light tells us to prepare, slow down, and pay attention. On the street, flashing orange lights are often a precursor to a hazard ahead. In a building, emergency lighting shows us the exit. Across cultures, ages, and languages, the human body reads brightness, contrast, glare, rhythm, and shadow faster than it reads instructions.

In these simplest moments, light is genuinely shared. But if light is such a universal language, why do we keep struggling to explain its value—not only to those sitting at the same project table but to the wider public who live with its consequences every day?

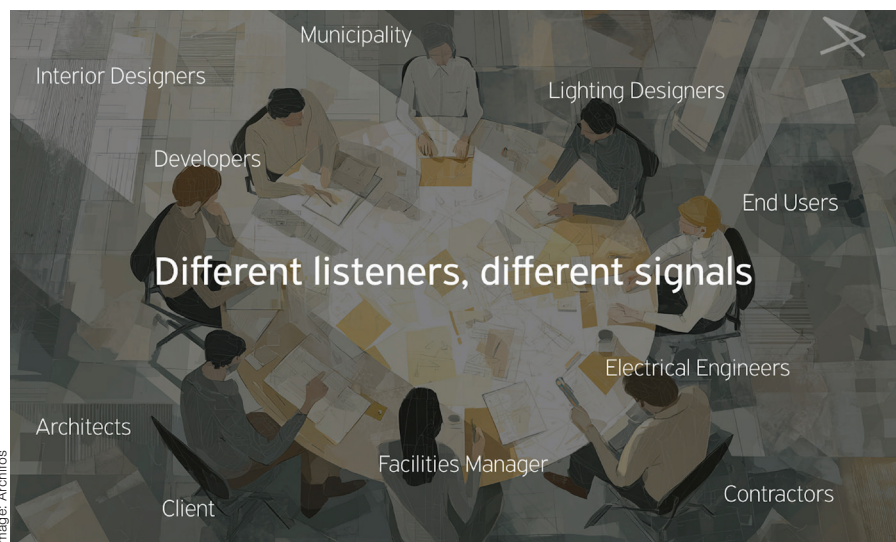
Inside our professional circle, the vocabulary is polished, familiar, and reassuring. We talk about lighting as something that enhances architecture, adds a layer, creates atmosphere, supports a narrative,

improves well-being, reveals materials, and brings surfaces to life. These phrases circulate comfortably within design conversations, particularly among lighting designers, but they do not always land in the same way with everyone else around the table.

Even within a design team, the value of light is not a given. Architects and interior designers are not immediately fluent in lighting thinking. Very often, lighting needs to be demonstrated, explained, visualized, and tested before its impact becomes clear. It requires examples, contrasts, and real references to move lighting from an abstract idea into something tangible and convincing. Language alone is rarely enough.

This is where the disconnect begins that leads to illumination being treated as an “option.” In many projects, this is why lighting designers are brought in late, after key decisions are already locked. This is also why it is often the first discipline asked to step back when budgets tighten or timelines compress.

(continued on p. 22)





CLOUD

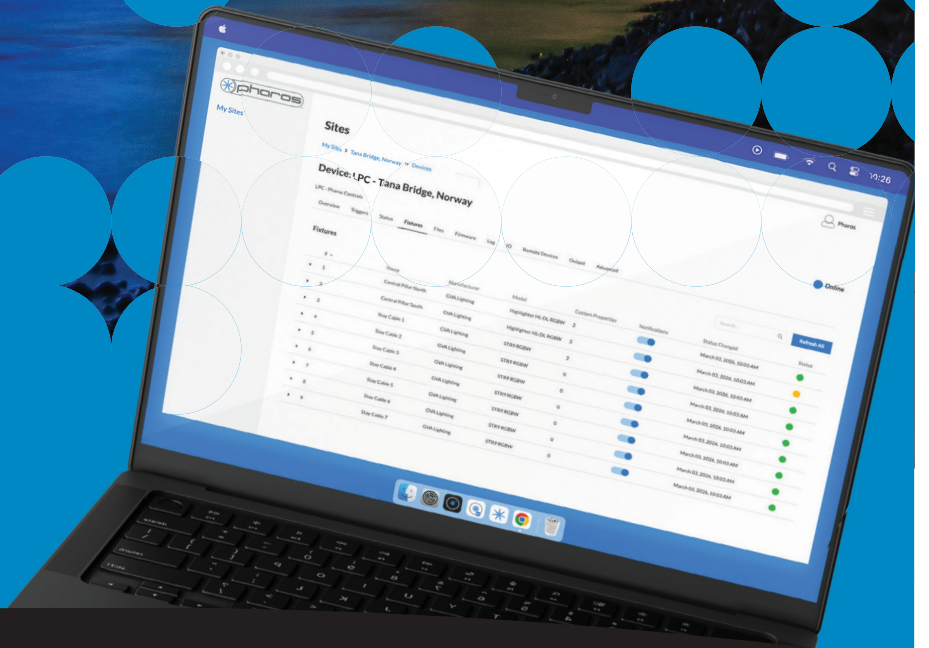
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Even when a lighting designer specifies products that are technically appropriate, tested, and carefully selected for a specific application, those recommendations are often revisited later in the process. Under financial pressure, specifications are substituted with lower quality or cheaper alternatives, without fully considering the wider impact on performance, visual comfort, energy use, maintenance, or long-term experience. What appears to be a small cost savings in isolation can quietly undermine the original intent and the quality of light people ultimately live with.

Rising Stakes

Lighting sits at the intersection of design intent and operational reality, and that intersection is becoming more demanding. Across markets, minimum energy performance requirements for lighting continue to rise, pushing efficiency, controls, and accountability higher. At the same time, discussions around light at night, glare, spill light, and visual comfort are becoming more visible, not only as environmental concerns, but as lived experience issues that directly affect how people feel in public and private spaces.

In parallel, the way light is physically integrated into architecture is changing. Luminaires are becoming smaller, embedded, concealed, or fully integrated into furniture, materials, and surfaces. Light is increasingly expected to be invisible, present without being seen, while still performing technically, experientially, and responsibly.

Meanwhile, the science around human light exposure continues to evolve. Research has shown that the timing, spectrum, and intensity of light can influence circadian rhythms and sleep, as well as that inappropriate light at night can be disruptive in certain contexts. While the application of this knowledge differs between indoor and outdoor environments, it reinforces a simple reality: light is not neutral, and its effects extend well beyond what we see.

In other words, the stakes around lighting are rising, while the way we often describe lighting, especially to non-design-



Photo: Sachin Amilhad/Unsplash

Light communicates before words. Signals such as color, brightness, and rhythm are universally recognized, guiding behavior across cultures and contexts.

ers, remains stuck in the same familiar lines. So, perhaps the real question is not whether light is a universal language but who we are speaking with when we talk about light and who we are leaving out.

Different Priorities

Outside our professional circle, the conversation is rarely poetic: it's practical, logistical, and financial. It is a story about risk, responsibility, and long-term consequences. A developer listens for program certainty, cost control, and return on investment, while the contractor focuses on buildability, coordination, substitutions, and liability. An electrical engineer is eyeing compliance, safety, loads, and emergency requirements while the facilities manager is attentive to commissioning quality, maintenance access, user complaints, and energy performance.

These are generalizations drawn from my own experience. I have seen engineers champion experience, contractors defend quality, and clients push for better



Photo: Ayumi Kubo/Unsplash

In public environments, illumination influences how people move, gather, and feel after dark, often without conscious awareness.

lighting outcomes. These perspectives are all worth sharing. The point is not to label but to recognize that people listen through the lens of an aspect of a project for which they are responsible.

And let's not forget the importance of the audience—the public—the people walking the streets, entering hospitals, waiting at train stations, or crossing dark parks and paths at night. They listen with their bodies—for comfort or discomfort, clarity or confusion, and safety or unease.

We often assume that our language travels intact across these worlds. It doesn't. Not because others don't feel the effects of lighting, but because they are listening for different signals. This isn't an insignificant problem: it shapes outcomes and perception, and the future of our profession.

Don't Just Speak: Expand and Align

Lighting designers often speak from a place of intent: how a space should feel, be perceived, and can shape experience.

(continued on p. 24)

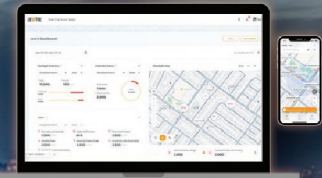
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Photo: Igor Solkin/Ursplash

Satisfying required metrics can still create glare, discomfort, or uncertainty, shaping how safe a space feels after dark.



Photo: iStockphoto/NanoStock

Projects unite people around a table, but the real differences lie not in their interest, but in what each person hopes to hear.

However, our problem begins when we talk about lighting mainly from a design perspective, assuming that its value will be self-evident to everyone else involved. When that assumption fails, lighting is often perceived as expressive but optional, atmospheric but negotiable, desirable but non-essential. This is not a failure of appreciation. It is a failure of alignment.

Across many projects and markets, lighting is asked to justify itself late in the process, once constraints are already fixed. At that stage, the conversation often shifts abruptly from intent to compromise. Decisions are made quickly, substitutions follow, and the original purpose of the

lighting strategy becomes harder to defend, not because it lacked value, but because its value was never articulated in terms others needed to hear.

Translation, in this context, does not mean simplifying or diluting the role of lighting. It means expanding the way we speak about it through examples, contrasts, and clear cause-and-effect relationships that make lighting legible to non-designers. This includes, among other things, showing how visual comfort reduces complaints and improves orientation, how glare control contributes to perceived safety, and how consistency of light quality over time protects not only

the experience of a space but also the reputation of everyone involved.

We must also talk more openly about product decisions. Product quality, longevity, and maintainability determine whether lighting performs as intended for years, or whether short-term savings lead to early failures, repeated replacements, higher maintenance costs, and unnecessary waste.

The Long-Term Consequences

When lighting is misunderstood or marginalized, the consequences rarely announce themselves immediately. They accumulate quietly across time, space, and use.

In public spaces, lighting that technically complies with standards can still feel unsafe or unwelcoming. In buildings, poor control strategies lead to confusion, frustration, and energy waste. When lighting quality deteriorates, users rarely blame the lighting strategy; the building, place, or city is at fault.

There is also a sustainability cost. Short-term substitutions often lead to premature failures and higher material waste. What appears economical at installation can become expensive both financially and environmentally over a building's lifetime.

This is not a call for idealism. Constraints are real and budgets and programs matter. But when lighting is consistently brought into the conversation too late, or framed too narrowly, the cost is paid elsewhere.

Light will always speak before words—we feel it before we describe it and react to it before rationalizing it. The question is not whether light matters, it is whether we are willing to speak about it in ways that allow others to hear it.

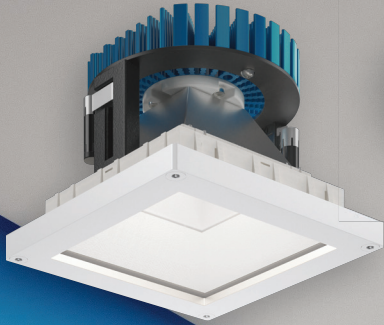
Katia Koloveva is a lighting designer and communications strategist working internationally through ARCHIFOS. Her work includes leading and contributing to global lighting initiatives such as the Silhouette Awards, The Lighting Police, Women in Lighting, and the Virtual Lighting Design Community.



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A Bluegrass Blueprint

Baptist Health Hamburg sets a new standard for Kentucky healthcare design

Just off I-75, on the outskirts of Lexington, KY, two rectangular buildings appear, awash in light. Soft bars of luminance line one edge, while torch-like posts illuminate walking trails. Venturing inside, spaces come to life with organized LED fixtures, comprising multiple Cycle pendants from Eureka, indirect cove lighting made with Kelvix Lighting's Vertex tape lights to simulate structural ceiling beams, and decorative Palma globes by Vibia, among other fixtures. Nature-themed finishes and artwork activate the public entries while Baker-Miller Pink-like lighting eases visitor anxiety in certain spaces.

While it might sound like a luxury hotel, the facility has a higher purpose: providing healthcare to the underserved residents of central and eastern Kentucky. During COVID-19, Baptist Health Hamburg took shape as a 339,400-sq-ft facility complete with a radiology clinic, cancer center, emergency department,

and specialty practices. Engineering firm CMTA supervised planning and design while collaborating with Baptist Health, focusing on occupant experience, sustainability, and efficiency.

CMTA Managing Partner and lead designer Bill Sharp shared, "The genesis of the project, from Baptist Health's perspective, was to create a more accessible hospital for not only central Kentucky, but eastern Kentucky and the underserved community out there." Located at the I-75/I-64 corridor, the cutting-edge building provides convenient, modern medical access to the community, Sharp added.

Set on a 129-acre greenfield site, the hospital's lighting design was thoughtfully crafted to support the needs of patients, clinicians, visitors, and staff alike. For example, CMTA performed detailed sunlight analyses to refine window-shading strategies in critical areas, minimizing direct sun exposure and helping maintain comfortable interior temperatures.



A circular fixture creates a focal point in the lobby while efficiently illuminating the open space.



Photos: Josh Dapp

A Bluegrass Blueprint

Top: Exterior wayfinding illumination was designed with wireless networked lighting control.

Bottom Left: Custom light covers in lobbies and elevator landings enhance architecture and reduce occupant stress while minimizing direct glare.

Bottom Right: The Emergency Department was designed with lights in each alcove, allowing staff to administer care safely and comfortably.



Additionally, in the Post-Anesthesia Care Unit and operating room corridors, the design team implemented Prudential Lighting Bionic Perimeter Cove Lights with asymmetric throws to reduce glare and create a calmer, more restorative environment. Together, these measures and others formed a comprehensive strategy in which CMTA evaluated and fine-tuned each lighting fixture to ensure an exceptional healthcare experience.

Accessibility for Appalachia

According to the Appalachian Regional Commission, Kentucky's Appalachian Region faces significant health challenges, including a heart disease mortality rate 45% higher than average, a cancer mortality rate 35% higher, and adults reporting

physical unwellness at rates 47% above the national norm.¹ As a result, the area needed a first-class healthcare facility accessible to all.

"There can be some hesitancy about going into a city when you're from Appalachia or just outside the greater Lexington area," Sharp said. "This is an open site—with walking trails and landscaping—designed to feel inviting and accessible. The goal was to extend that sense of care out into the community."

Once patients arrive, they encounter exterior lighting refined during hours-long critiques, wellness-oriented walking trails, and LED fixtures with advanced dimming controls that enhance each space. The team used building-mounted Ecosense L50 luminaires for façade grazing and



Kelvix Signwave 3 fixtures for direct-view continuous framing. Both are controlled via Acuity nLight networked lighting control relays. US Architectural Razar luminaires with wireless nLight Air controls provide site lighting, with integrated vacancy sensors for reduced light levels when the site isn't in use.

The interior of the project benefits from ample natural daylight, courtesy of large exterior windows that work in concert with solar shelves, photosensors, and roller shades to adjust artificial lighting, improving comfort and reducing glare. The general lighting allows visitors to move around the facility, but there are also wayfinding and experiential moments provided by Ecosense L50 luminaires and Kelvin Signwave 3 exterior lighting, as well as US Architectural Razar pedestrian and parking fixtures when drivers are passing by on the interstate.

Regarding the project's challenges, Sharp noted, "It's a highly coordinated building. We had the advantage of a greenfield site, but as lighting technology evolves, it becomes more intelligent—and more complex—with far more options. There was a lot of late-night and early-morning work adjusting fixtures to achieve the right wall-wash and grazing effects. The biggest challenge was

coordinating final placement across the spaces in a way that allowed the lighting to support an inviting, accessible atmosphere for patients."

To Soothe and Protect

Visiting a healthcare facility can be stressful; patients require care and reassurance as they navigate health challenges, and friends and family members benefit from soothing and calm environments as they support loved ones. Physicians and staff also perform their best in optimized spaces. However, traditional settings may not account for the patients themselves. For example, traditionally, patients may experience direct glare while passing through corridors or resting in recovery areas. To address this, CMTA implemented Prudential Lighting Bionic Perimeter Cove Lights with asymmetric throws.

"We tried to make the lighting as user-friendly, patient-friendly as possible," Sharp explained. "If you're on a stretcher going back to the O.R., we removed the direct-light sources and put them into indirect coves, so while you're on your back, you're not looking straight up at standard troffers in a corridor."

User-friendly design extends into imaging rooms, which utilize Kelvix RGBW Color Changing Tape Light with 90+ CRI



Top: P-618 "Baker-Miller Pink" clinically reduces stress in radiology rooms.

Bottom: Nature-inspired visuals counteract the negative associations often linked to medical environments.

A Bluegrass Blueprint

Cove lighting around the cafe minimizes glare and allows for a more enjoyable experience for patients, visitors, and staff.



for enhanced color rendering. The system emits stress-reducing Baker-Miller Pink, a specific pastel shade, which offers a touch of calm for nervous patients.

On the other hand, in the operating room, Vyv VSG LED surgical troffers with an integrated ceiling design provide bright, precise illumination for procedures. Once an operation is finished and the room is unoccupied, the system's UV-free antimicrobial feature automatically engages, targeting viruses, bacteria, and yeast. This system supports infection control efforts and helps maintain the room's cleanliness and sterile conditions between cases.

Real Impact

The project anchors its design in sustainability, beginning with lighting systems that dramatically exceed code. CMTA addressed sustainability goals with all-LED fixtures (Focal Point Seem, Gotham Evo, WAC Lighting Tesla, and more) that achieve 0.52 watts per sq ft—approximately 56% higher than the maximum code allowance. The facility also operates at 117 EUI, placing it among the most energy-efficient hospitals in the nation. (By comparison, the median U.S. hospital operates at 234 EUI.) Even the outdoor fixtures meet night-sky requirements, reducing both light pollution and energy consumption.

CMTA's 2025 IES Illumination Award of Merit recognizes a solution that balances comfort, clarity, and efficiency—thoughtfully

tuned to the needs of caregivers and patients. By mapping the full user journey, the design team shaped every space with purpose, from calming imaging suites to intuitive circulation and recovery areas.

Ultimately, the project does more than illuminate a facility—it forges a modern and welcoming path for the communities it serves. For patients across Kentucky, the hospital now stands as a place where thoughtful design supports healing at every step from admission through recovery. **S**

THE DESIGNERS

William (Bill) Sharp, Member IES, is a managing partner at CMTA.

Jonathan Walton, Member IES, is an electrical engineer at CMTA.

THE AUTHOR

Mark Reif holds a B.S. degree in Industrial Design from Virginia Tech and completed the Postgraduate Program in User Experience Design at the University of Texas at Austin. He is a writer, designer, and poet whose work explores travel, the outdoors, and design.

Reference

¹ Appalachian Regional Commission. *Key Findings: Health Disparities in Appalachian Kentucky*. Washington, DC: Appalachian Regional Commission, 2020.

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The Butterfly Effect

Supporting health, safety, and dignity
in senior living

Peel Manor Senior Health and Wellness Village in Ontario, Canada, was designed according to the Butterfly Model, an approach to dementia care that transforms long-term institutions into vibrant, home-like environments. Bedrooms are organized into pods that branch off from shared spaces, allowing residents to move freely within a familiar layout that supports autonomy, safety, and person-centered care, while the main floor functions as a community hub that includes an integrated care clinic, fitness room, dining room, and gathering areas.

Illumination is of particular importance in this environment. The effects of lighting are magnified for seniors—age-related changes in vision increase sensitivity to glare and low illumination, and lighting misaligned with circadian rhythms can disrupt sleep, mood, and cognitive function. Dawn Brown, owner and principal designer at Ontario Aesthetic Lighting



Photos: Tom Ridout/Industryous Photography

Design, worked in collaboration with Montgomery Sisom Architects to fully integrate lighting design into the facility so that when the first residents moved into the village in November 2024, they entered a long-term care residence where “every light and lighting device had been selected and positioned with purpose and meticulous care.”

Designing for Aging Eyes

To deliver enough light to support vision while carefully managing glare, Brown used layered lighting strategies. In the main dining hall, Louis Poulsen Patera pendants provide volumetric ambient light to the vertical plane, Spectrum Lighting downlights wash out shadows and enhance task illumination at tables, while Visa Lighting’s Wrap sconces accent columns and add visual interest. The result is a space that feels bright and welcoming without harshness, one that delivers the “positive psychological impact of quality

aesthetics” and “encourages social interaction for optimal wellness and vitality.”

Upstairs in Resident Home corridors, surface-mounted drum fixtures by Brownlee are aligned with bedroom doors, while additional downlights and sconces sit between. This configuration allows the drums to be switched off at night while intermediate lighting is dimmed, minimizing light spill into bedrooms and supporting rest in rooms where doors are often open.

Reinforcing Natural Rhythms

Circadian lighting is a critical component of dementia care, directly influencing sleep quality, daytime alertness, and even the reduction of nighttime wandering and sundowning.

On the main floor, large windows in the dining room overlook the terrace and atriums cast light into the lobby on sunny days. For older adults, light doesn’t reach the retina as easily to trigger a melanopic response, and electrical lighting is needed

to reinforce natural circadian rhythms. Brown sought lighting options that would give a needed boost to a resident’s “daytime” signal, particularly on cloudy days and throughout winter months.

She looked to BIOS Lighting, a NASA spinoff formed in 2014. Its SkyBlue LED technology uses a spectrally optimized output with a strong peak around the sky-blue 490-nm wavelength, which means the system can deliver biologically effective light that supports alertness during the day without relying on the high-frequency, short wavelength blue energy that causes visual stress. In the evening, the spectral distribution of the light shifts to promote rest. At 3500K, the BIOS chip offered an M/P ratio of 0.84, higher than other available options at the time. “This allowed us to reduce overall light levels while maintaining circadian effectiveness, and also helped manage perceived brightness and energy use,” said Brown.

With budget constraints, BIOS



Left: Dust-repelling Louis Poulsen Patera pendants provide volumetric ambient light to the vertical plane.

Right: Drum fixtures along resident corridors turn off at night as other lighting dims to code minimum.

The Butterfly Effect

Table lamps in private bedrooms were customized with DALI drivers and integrated into the room lighting scenes. Downlights illuminate vertical surfaces.



Engineered optics and biologically engineered LEDs enhance the vertical illumination in an activity room.



technology could not be used universally. Instead, it was deployed strategically in all ambient lighting within the common areas on the first and second floors.

As one of the first projects of its size to use BIOS technology, the project required close collaboration between Brown, manufacturers, and local sales agents. Brown encountered an unexpected hiccup when the initial supplier backed out, but Brownlee stepped in and connected with BIOS to install BIOS A21 LED lamps in the first-floor drums.

Living Color

Color plays a deliberate role throughout the facility. Each residential floor includes subtle variations, and within each wing, bold, high-contrast colors from lime green to bubblegum pink help residents identify and remember their home areas.

This approach responds to age-related changes in photoreceptors that make it difficult to distinguish between colors of similar hue.

Brown selected the Xicato Artist series LED chip, an artist-grade light source, for downlights within the Resident Home areas. These high-CRI light sources, reaching up to 98 CRI in key areas, were selected not only to render these colors accurately but also to improve overall visual acuity: “This helped support vision and enhanced the vibrant colors used by the architect to support the needs of the residents, many of whom suffer from Alzheimer’s and dementia,” explained Brown. She found that as the color quality of the light sources improved, so did the circadian lighting design.

Nighttime lighting presented a complex challenge. Brown intentionally avoided traditional nightlights near doors or sinks as non-uniform lighting can seem unsafe for someone who is afraid of falling. Instead, she maintained night lighting within the overhead system by dimming the downlights to low levels. Careful placement of the downlights meant light was directed onto vertical surfaces at standard eye level in a way that defines the room boundaries: downlights placed close to washroom walls help residents orient themselves, judge depth, and safely navigate from bed to bathroom. “This not

only saved cost, but it also lit the vertical surfaces and the space in a way that was familiar to them and that helped provide them with reassurance,” said Brown.

In the washroom, Visa Lighting’s Viola fixtures combined with Spectrum Lighting’s 3-in. downlights gently illuminate the vanity. The downlight above the toilet is positioned close to the wall to avoid casting a shadow over the commode while in use.

The nighttime goal was not complete darkness, which is rarely achievable in a care environment, but what Brown describes as “biological dark”: lighting that is minimally stimulating while still supporting safe movement. To this end, the high-CRI sources also supported nighttime navigation. As residents move from scotopic to mesopic vision when waking, improved spectral quality supports earlier activation of retinal cone photoreceptors, enhancing depth perception and spatial awareness.

The Peel Manor project began in 2018, prior to the publication of the CIE S 026 standard and the daylight equivalent illuminance metric. Therefore, Brown relied on equivalent melanopic illuminance (EML) to evaluate daytime conditions and Circadian Stimulus (CS) to assess nighttime impact. “EML was useful for evaluating sky-blue content during the day,” Brown explained, “but it didn’t indicate how stimulating the light would be at night. CS helped evaluate nighttime stimulation, but not sky-blue content.”

Average daytime EML levels exceeded 180, surpassing the project target of 150. At night, with lighting dimmed to meet IES recommendations for bedrooms, CS values were approximately 0.03, well below the target threshold of 0.1.

Controls and Customizable Consistency

Achieving these outcomes required a sophisticated yet intuitive control strategy. Thousands of control groups were programmed using the Eaton Fifth Light control system, with DALI drivers specified wherever feasible. The strength of the Eaton platform, said Brown, lies in its ability to support future upgrades. “We chose a hardwired, hybrid system with a DALI backbone and a range of protocol converters,” Brown noted. “This approach reduced the capital costs by allowing the fixtures to be initially ordered with 0–10-V,



DALI control allows for optimization of the dimming range of each fixture type.

ELV, or phase-dimming drivers. Over time, the owner can replace the 0–10-V drivers with DALI.”

This control system allowed bedrooms to feature three-button keypads with customized amber indicator lights and preset high and low scenes. “The simple interface allows staff to spend less time fiddling with switches and dimmers and more time providing care,” said Brown. Bedroom lighting can be adjusted to suit an individual’s needs while remaining consistent day-to-day, a concept Brown describes as “customizable consistency.” Bedside lamps from the Visa Unity series were modified by Visa with remote DALI drivers and quick-connect cabling, allowing them to be fully integrated into room scenes.

In common areas, lighting automatically transitions through morning, daytime, evening, and night scenes by transferring intensity from the ambient fixtures to the downlights, and then dimming. Manual overrides allow staff to temporarily shift modes during emergencies and easily return to automatic operation. Outdoor lighting dims from midnight to 6 a.m. in accordance with ASHRAE 90.1 and DarkSky principles. The system is fully zoned by home area and room, enabling staff to make adjustments without specialized training, and mobile access supports ease of use.

Lighting as Care Infrastructure

Throughout the project, lighting

decisions were guided by practical restraints but mainly by empathy and research. Fixture selections, from dust-repelling pendants to glare-free downlights in memory boxes outside bedrooms, reflect a deep understanding of how lighting supports daily life.

At Peel Manor, lighting functions as part of the care infrastructure. Each fixture and control is part of a system that enhances safety, supports circadian health, and reinforces the person-centered environment of each common area, corridor, and bedroom. The lighting supports the safety, health, and dignity of all, reinforcing that thoughtful design can meaningfully shape how residents experience their environment, hour by hour, day and night. **S**

THE DESIGNERS

Dawn Brown, Member IES, is the owner and principal designer at Ontario Aesthetic Lighting Design.

Michel Ouellet is senior electrical designer at EXP.

THE AUTHOR

Katianne Williams, co-author of the STEM guide *Count Girls In*, enjoys writing about innovative projects and inspirational people.

An Infusion of Comfort

Wireless lighting controls elevate a California outpatient facility

As Mazzetti Associate Principal and Healthcare Lighting Lead Lauren Schwade's father-in-law, along with a close family friend, were both undergoing chemotherapy, she was designing the lighting system of San Francisco, CA's, John Muir Health outpatient specialty center—a facility with a cancer treatment focus. "I think for a lot of us, work like this hits too close to home sometimes," said Schwade. "The infusion spaces were my baby: I wanted nice clean ceilings, not too busy. And if we're going to go with a large fixture, it had to be soft and smooth, regressed, and not appear heavy over a patient's head." Though she cited the infusion bays as an aspect of the project she is particularly proud of, they are merely one small piece of the puzzle that is the finished product of her team's work on the \$250-million, LEED Gold-Certified, and Illumination Award of Merit-winning project.

Housed in the Behring Pavilion on the Walnut Creek Medical Center campus, the John Muir Health Jean and Ken Hofmann Cancer Center offers a wide range of diagnostic and treatment services pertaining to patients with

cancer, breast-health and more types of imaging, genetic counseling, oncology/infusion, pulmonary function, digestive health, wound and post-trauma care, pediatrics, as well as clinics and various support spaces. The center opened to the public in 2024, roughly six years after its conceptual design phase began in the first quarter of 2018. Having previously designed the campus's Central Utility Plant, the San Francisco-headquartered firm Mazzetti was a natural fit to lead the new project. The firm's scope included MEP engineering, IT consulting, medical equipment planning, and the lighting scheme for the 155,000-sq-ft outpatient facility. The working relationship between the facility's owners and the design firm remains active today, as Schwade cited she is currently working with them on a microbiology lab.

With the goal of creating a tranquil space meant for sustained patient and staff well-being, the team set to work on cost analysis—"a very long process of evaluation [that went on] for almost a year," said Schwade. "Originally, [project owners] didn't want to be the first to engage in an innovative controls approach.



Photos: Kyle Jeffers, <http://www.kylejeffers.com>

We worked through cost comparisons between distributed lighting controls and a full wireless system extensively with the architect, client, and contractor, including the addition of RTLS [real-time location systems] into one floor as a trial concept. We came up with new standards, a training document, and checklist for the client, which in the end, moved us all to the next level of design."

The Results

Continuous coordination with all build teams and project stakeholders ultimately resulted in a combination of a detailed nLight control system, regressed panels to emulate skylights, daylight harvesting, and decorative fixtures to function as way-finding (in addition to the required task



illumination fit for a healthcare center).

The control system was selected for its straightforward installation as well as its level of ease for end users, in addition to its ability to tie into an RTLS such as Acuity's Atrius—of which the project was granted a trial run, allowing the team to work through pros and cons in a real-world setting. A technical behind-the-scenes image of the wireless control system's various tags displays the scheme's complexity: "When we realized we were moving to a wireless system, we wanted our control devices to clearly show that they were wireless in type and description," noted Schwade. "We soon realized that not all fixtures would need the same sensors and added tags to tell the contractors when it was an occupational sensor, emergency

battery, etc. Since working on this project, we have elaborated and now show relay devices and drivers within our new standards depending on the project."

Regressed panels, or "sky panels," provide the healthcare facility with the appearance of skylights, without the cost of actual skylights. The team implemented 4-by-4-ft panels by Prudential Lighting above areas such as Schwade's highlighted infusion bays and imaging suites to provide diffused light that reacts to daylight harvesting/time-of-day, or scenes of nature, which are dimmable from the patient's chair. Schwade noted the regressed depth and trim of the panels were more visually convincing of skylights than flush LED panels. "We wanted a visual distraction for the patients to take

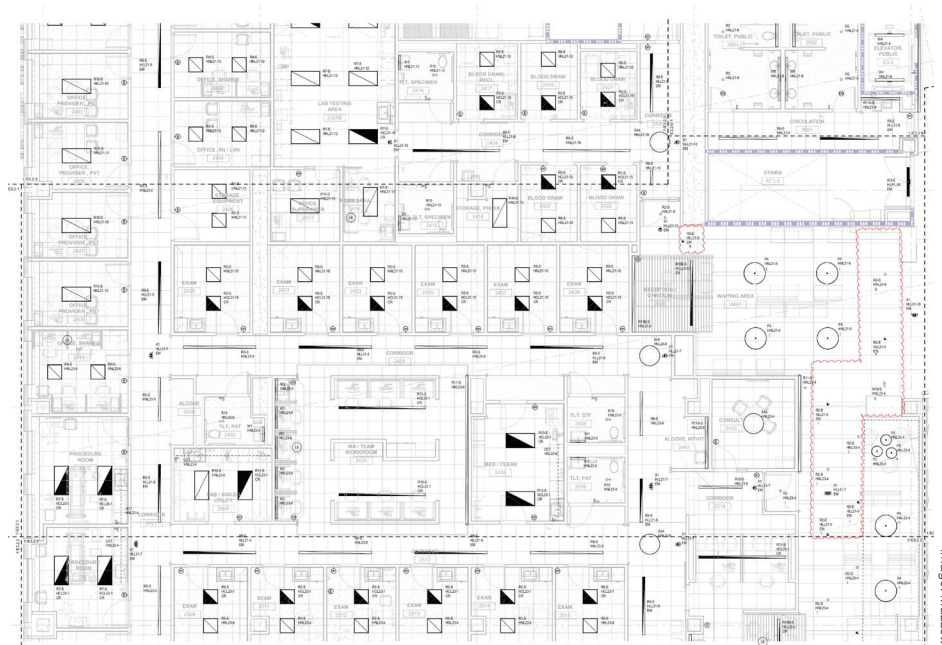
"Sky panels" offer patients scenes of nature to take their minds off procedures.

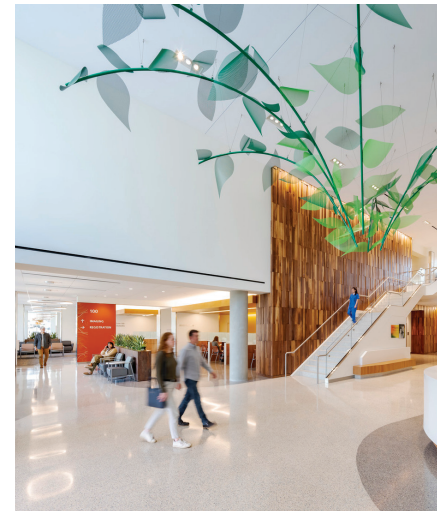
An Infusion of Comfort

Diffused, dimmable ceiling panels provide a patient-centric experience.



The plan depicting various tags within the project's wireless controls system/RTLS.





Daylight is abundant in public and circulation spaces throughout the facility.

their mind of the procedure,” she said. Though the project isn’t host to legitimate skylights, daylight served as the facility’s first layer of light: sunlight is abundant throughout public and circulation spaces, and daylight harvesting was laid out with intentional zones.

In procedural spaces, electric light is set to a utilitarian 4000K, but in other areas such as general and exam rooms, illumination is a comfortable 3500K, with backlighting on mirrors set to 3000K, to give the facility more of a “home-like” feel. Additionally, the team “mixed layers of light to highlight vertical surfaces with task light and sparkle,” said Schwade. Samples of cove lighting and decorative details were presented to project owners for approval, as fixtures needed to be durable enough to withstand wipe downs—

an important element to a facility serving immunocompromised patients. Finally, linear recessed lighting (by Mark Lighting) was selected to house occupancy sensors in corridors throughout the project.

Conversation, collaboration, and detailed planning is what allowed this outpatient facility to come together to provide a smooth experience for patients, their loved ones, and the staff who care for them. “I think the owners were impressed that we took the time to bring up technology options, didn’t force anything, and took a long time to investigate controls and cost,” noted Schwade. “We felt like true partners that were not trying to sell them anything, but instead help them with future proofing.” **S**

THE DESIGNERS

Lauren Schwade, Member IES, served as the lead lighting designer on the project and is associate principal and healthcare lighting lead at Mazzetti.

Brennan Schumacher, Member IES, served as the lighting controls lead on the project and is a practice lead and principal at Mazzetti.

Mia Curtic, Member IES, is a senior lighting designer at Mazzetti.

Winston Ho is an electrical engineer at Mazzetti.

Anjali Wale is an associate principal and senior electrical engineer at Mazzetti.

Kait Mendenhall, Member IES, was previously a lighting designer at Mazzetti.

A Second Revolution in Light and Health

Reshaping our understanding of illumination and well-being

There is growing evidence that a second revolution in light and health is brewing. The first revolution started about 25 years ago as we began to learn how daily light exposure impacts circadian health: that light exposure at night can cause sleep disruption, while bright light during the day can promote alertness and robust circadian rhythms. We learned that blue wavelengths were particularly potent in signaling the circadian system, and that time of day of exposure mattered a great deal in terms of outcome. People in the lighting industry started to use unfamiliar medical terms like “melatonin” and “cortisol,” and acronyms like SCN and ipRGC. This emerging knowledge ushered in new product concepts, such as “dynamic lighting” and “human-centered lighting design” and eventually formed the basis for a new IES document, RP-46-25: *Recommended Practice: Supporting the Physiological and Behavioral Effects of Lighting in Interior Daytime Environments*.

The second revolution now afoot may have an even more profound impact on

the luminous environment and where we focus our priorities for better human health. New biological pathways, independent of vision and 24-hour circadian rhythms, are being investigated. Fueled by new scientific capabilities, access to massive health databases, and fresh ideas about how light interacts with living tissue, researchers are proposing radical new hypotheses about the relationship of light to human health.

At the largest scale, epidemiological studies of large populations are providing growing evidence that more light during the day results in better overall health. A recent series of studies looking at the long-term health outcomes of tens of thousands of people included in the UK Biobank database have found that the 25% of adults with the brightest light exposure during the day had the fewest psychiatric diagnoses,¹ least cardiovascular disease,² lowest cancer rates, and lowest mortality rates over the course of several decades. Despite fears of increased skin cancer, more sunlight exposure for this UK population even predicted lower skin-cancer rates.³

While the light exposure metrics used in these studies are far too generalized to support any conclusions about the specific characteristics or timing of “bright light,” they are strongly suggestive that there is something about “more bright light during the day” that is protective against many adverse health outcomes. An obvious guess might be that “more bright light during the day” is a result of more time spent in daylight.

For decades, researchers assumed that the many health benefits of sunlight exposure could be attributed to higher levels of Vitamin D, as measured in a blood sample. However, when multiple trials of Vitamin D nutritional supplements showed no similar benefits, the theory began to shift to assuming that perhaps there were other sunlight-linked mechanisms at work. Could high levels of Vitamin D be better thought of as a biomarker of greater sunlight exposure?⁴



To put these findings in context, a recent pilot study looked at indoor daylight exposure during regular office hours. Thirteen older diabetic adults were recruited to work for two weeks in a corner office. In randomized order, the room was flooded with daylight from corner windows one week, while the windows were blocked with opaque blinds the other week. The subjects were tested for detailed metabolic indicators before, during, and after each week. After 4.5 days of exposure, the test results showed subtle, but significant, improvements in metabolic health indicators.⁵ Again, the study provides no characterization of optimum dosage; only comparing an office environment lit solely with overhead luminaires to one also with large daylight windows. Even so, it was remarkable to detect measurable changes in metabolic health after spending only one work week in a daylight office.⁶

Near-Infrared Light

In the past decade or so, medical devices have been proliferating for sale on the Internet promising to use red and/or near-infrared light (NIR) to treat a



A daylit classroom at Plains Elementary School in South Hadly, MA.

Photo: Jones Whitsitt Architects

wide array of maladies. The use of such devices applied directly to the body is often referred to as photobiomodulation, or low-level red-light therapy. A recent survey of the field described applications ranging from hair growth, wound healing, head trauma, cancer treatments, and eye health. The range of clinical uses would seem to make NIR therapy a miraculous cure-all, but there is very little research exploring the underlying biological mechanisms, or limits on safe and effective dosage. The same review also expressed concern about “consumer-grade devices whose commercial expansion outpace translational validation.”⁷

Research has also lagged in delineating normal environmental NIR exposures. To date, only a handful of studies have examined the health effects of ambient level exposures of NIR in indoor environments. Two recent studies stand out:

- A 2024 study tested 151 undergraduates from the University of British Columbia. In randomized order, each worked for one hour in a lab cubicle illuminated with normal LED white light, and the same condition supplemented

with NIR. The total NIR radiant energy was gauged to be about halfway between normal outdoor NIR levels and that of incandescent lighting indoors. The subjects reported no perceptible differences between the two conditions. However, after one hour of NIR exposure, the researchers detected significant improvements in both cardiovascular and emotional function, which persisted for at least another hour.⁸ Thus, the study demonstrated that ambient levels of NIR irradiation can have demonstrable physiological and psychological effects.

- Another research group at University College London has been conducting a series of experiments, first on animals and then humans, to understand the effects of ambient NIR exposure from sunlight, incandescent, and LED sources. The group has documented NIR transmission deeper through human tissue than previously assumed, and improvements in general health outcomes from small dosages of NIR to various parts of the body. The team leader is a professor of ophthalmology

and neurology and has thus used retinal health tests as a sensitive indicator of metabolic impacts. In 2025, the team published the remarkable study, “Longer wavelengths in sunlight pass through the human body and have a systemic impact which improves vision.”⁹

NIR transmission “through the human body” may seem improbable to many, but many organic materials are translucent to a variety of NIR wavelengths. Likewise, much of our clothing is also semi-transparent to NIR, typically transmitting 60 to 80% of the original source energy. The denser the fabric, the darker the color, and the more layers, the less the transmission, as shown in **Figure 1**.¹⁰

Together these studies and others suggest that NIR exposure may be an important component of a healthy indoor environment. However, over recent decades, indoor NIR exposure has been greatly reduced via two major technological changes:

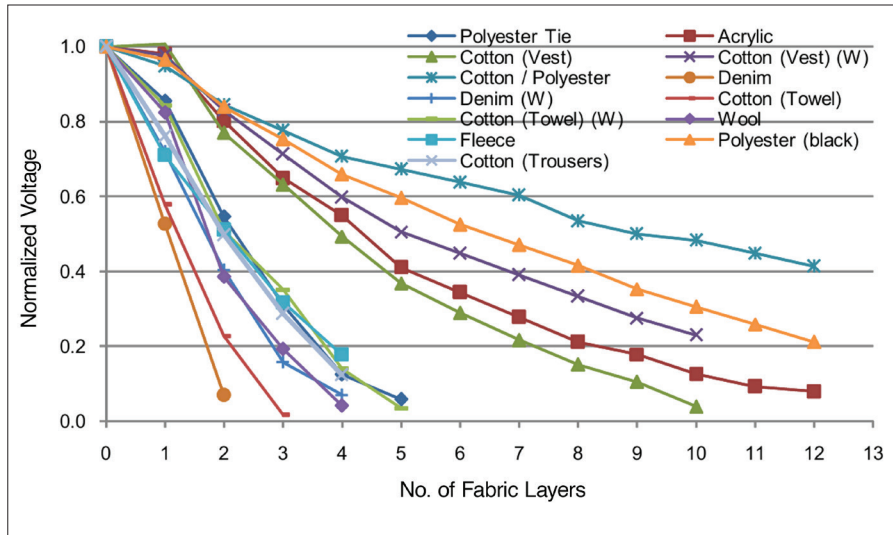
1. a reduction in the use of incandescent light sources, including candles and fires, which naturally emit NIR; first in favor of fluorescent sources and more recently in favor of LED sources
2. growing use of low-e (low-emissivity) coatings on windows which narrow the spectrum of daylight that passes through them.

The change in electric lighting sources has sparked a controversy across the Internet as to whether LEDs should be reformulated to produce more substantial NIR output. Similarly, a controversy is arising as to whether energy-efficient windows should be reconsidered to allow more of the solar spectrum to pass through.

Ultraviolet Light

It is only recently that people have begun to consider the potential health consequences of reducing our indoor exposure to solar wavelengths beyond the

Figure 1. A point measurement showing drop in NIR intensity across multiple fabric layers, tested with an 850-nm narrow-band light source. (W) signifies wet samples.



visible spectrum. It is not only NIR that is a potential concern but also very short wavelengths up into the ultraviolet range.

Beginning in the 1980s, and accelerating in the 2000s, North American homes and workplaces began to be fitted out with new, more energy-efficient windows featuring low-e coatings. These transparent coatings, largely formulated from silver oxides, optimize light transmission centered around 550 nanometers (nm) within the human visible range, while reflecting other solar wavelengths, especially in the NIR and ultraviolet ranges, as unnecessary “waste energy.” **Figures 2(a)** and **2(b)** illustrate the spectral transmission of several low-e product lines, some more aggressive than the others. The spectral transmission properties of a given glazing system are also affected by the number of glass layers, tint, thickness, and chemical composition. The net result of current energy-efficient windows, however, has been to exclude 50 to 95% of both incident NIR and UV solar radiation from the inside of buildings.

One of the most concerning consequences of reduced light exposure indoors may be a reduction in childhood visual development. Normal fetal development leads to functional eyes at birth that progress to perfect 20/20 vision within the first few years of life. But something has started to go very wrong with children’s eye development, such that more children are becoming myopic, i.e., nearsighted. Instead of reaching a perfect shape for clear vision, a myopic eye continues growing and elongating, making it ever more difficult to focus far

away. In the U.S., 35 to 40% of children now become myopic for the rest of their lives, compared to 2 to 5% a few generations ago. In Asia, the problem is even worse, affecting up to 90% of adolescents in some of the larger cities. Given the fast generational change, this is clearly a disease with an environmental cause.¹¹

Myopia is typically a children’s disease and ceases progressing during late adolescence or early adulthood. Many people quickly jump to the conclusion that the current global “myopia boom” must be related to increased screen time for children. However, one of the first signs of the myopia epidemic was among Inuit tribes in Canada, who the government aggressively moved into westernized homes and schools in the 1940s and 1950s. Thus, these Indigenous people moved from living predominantly outdoors, even during the long twilights of arctic winter, to indoors under incandescent and fluorescent lighting. By the 1970s, opticians were finding that Inuit children were developing myopia at alarming rates, compared to the negligible rates of their grandparents,¹² showing that the myopia epidemic was detected long before computers and cell phones became pervasive in modern life.

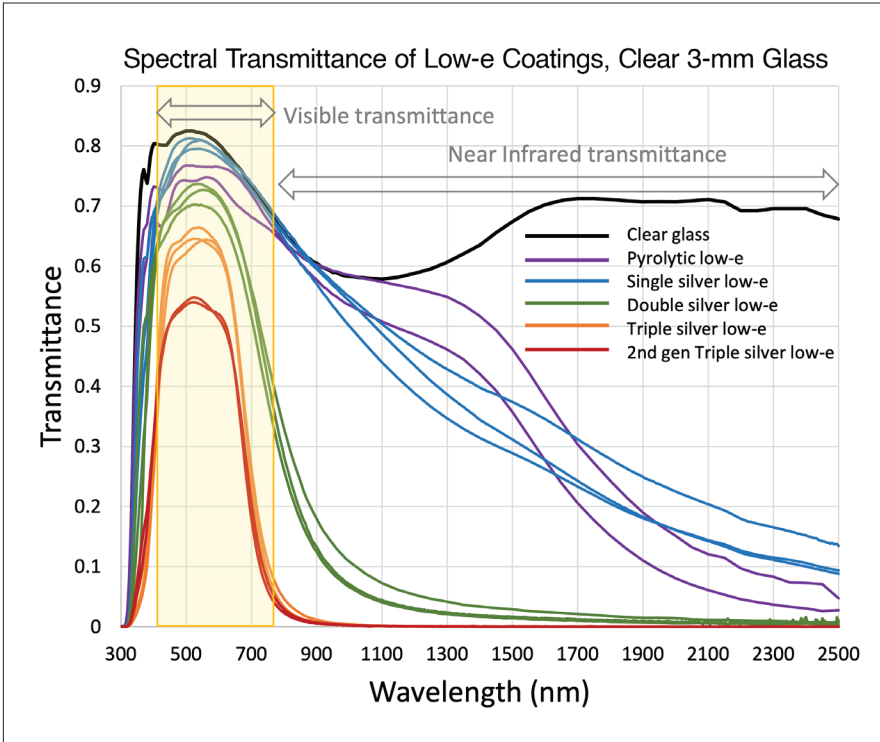
Since then, epidemiological studies provide clear evidence that children living in rural areas fare better than those growing up in cities. Lower risk for myopia has also been conclusively tied to children who spend more time outdoors, whether in active sports or quiet reading. This suggests that there is something about the visual environment outdoors that is protective of

normal eye development. One hypothesis that has received attention is that it is the spectrum of daylight that provides the protective effect, especially via wavelengths outside of the visible spectrum.¹³ Experiments conducted with both animals and humans, using both NIR and violet light sources, have shown promising results. It is unclear at this point if one or the other type of light is more effective in promoting optimum vision in children, or if perhaps they work in concert, as a daily symphony.

Pieces of the Puzzle

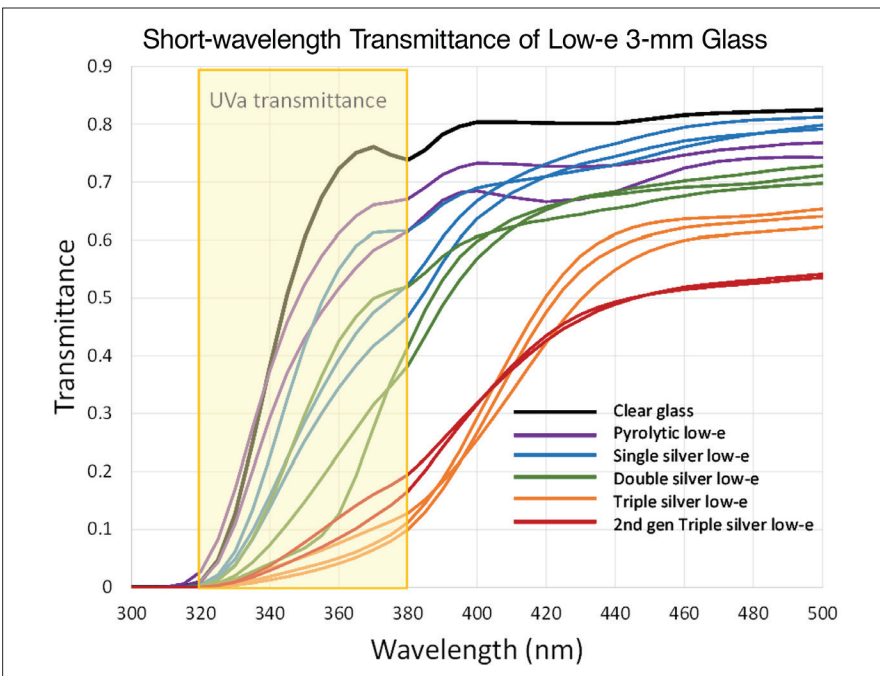
Many pieces of the puzzle are still missing, but we are beginning to fill in a framework suggesting that light, and especially the natural patterns of daylight, has a more profound influence on our long-term health than previously thought. Of course, sunlight has long been considered a force for human health, with roots in the medical practices of ancient civilizations such as Egypt, India, Greece, and Rome. In the 1850s, Florence Nightingale, founding mother of modern nursing, showed that sunlight exposure sped wound recovery and reduced contagious diseases among soldiers fighting in the Crimean war. Throughout the 19th century, sunlight was a recognized treatment for the global scourges of tuberculosis and rickets. In 1903, Niels Finsen was awarded the Noble Prize in Medicine for the discovery that ultraviolet-light exposure improved tuberculosis recovery and that smallpox scarring could be reduced with red-light exposure.

Today, scientists are beginning to delve deeper into the molecular mechanisms at



Top: Figure 2(a). Typical low-e glazing products transmittance by wavelength.

Bottom: Figure 2(b). An expanded version of Figure 2(a), showing short-wavelength transmittance in greater detail, for a variety of low-e coatings on 3-millimeter double glazing with clear glass.



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work and to map their evolutionary history across species. Projects have also been launched to collect detailed light-exposure data from diverse groups of people across continents to better understand what real-life light exposure looks like.¹⁴ Soon, perhaps, we will be able to provide a more precise prescription for daily light exposure to keep people healthy. Until that point is reached, the best current advice may be to simply spend more time outdoors in unfiltered daylight. **S**

THE AUTHOR

Lisa Heschong, Fellow IES, was a founding principal of the Heschong Mahone Group and a licensed architect for 30 years. She is an IES Medal recipient and has served on the IES Board of Directors, the IES Daylight Metrics Committee, and as chair of the IES Medals Committee.

LIGHTING DESIGN HAS TRADITIONALLY FOCUSED ON visual performance, safety, and aesthetics. Yet advances in our understanding of the nonvisual effects of light clearly indicate that lighting must also support a fundamental biological function: alignment of the circadian system. Misalignment of circadian rhythms is associated with impaired sleep, mood disturbances, cognitive dysfunction, and metabolic disruption. For lighting professionals, this presents a valuable opportunity to use light to improve human health, particularly for vulnerable populations such as those living with neurodegenerative diseases.

Beyond Visibility

The 24-hour light-to-dark cycle is the primary zeitgeber (“timegiver”) that synchronizes the human circadian pacemaker located in the suprachiasmatic nuclei of the brain. Proper alignment of this system supports daytime alertness and facilitates restorative sleep at night. The characteristics of light that regulate circadian rhythms differ markedly from those required for visual functioning.

The human circadian system is most sensitive to shortwavelength light, peaking near 460 nanometers,^{1,2} and requires substantially higher light levels to shift its timing than those needed for vision. Evening and early night light exposure produces phase delays, while morning and early afternoon light produces phase advances.³ To manage this balancing act and thereby achieve better health, we need robust, bright light signals during the day to anchor our clock and minimal, dim light signals at night to facilitate the body’s transition into sleep.

To translate the science into lighting specifications, our team developed a model of human circadian phototransduction that led to the creation of the circadian stimulus (CS) metric,^{4,5} which quantifies the photic stimuli to the biological clock, characterizing the spectral and absolute sensitivity of the human circadian system to retinal light exposures. But, as described in the UL 28440 guideline,⁶ any metric can be used if you simply deliver “bright days, dim evenings, and dark nights.”

The CS scale ranges from below threshold (CS = 0 to 0.1, typical of outdoor environments at night) to a saturation point of CS = 0.7 (outdoor environments

during the day) (**Figure 1**). Critically, the lighting that is typically found in homes and nursing homes often hovers close to a CS of 0.1. This level is often too low to effectively activate the circadian system, leading to a state of chronic circadian misalignment that can exacerbate the symptoms of neurodegenerative diseases.

Tailored Lighting Intervention

Our research has focused on developing and testing a tailored lighting intervention (TLI) designed to deliver a daytime CS of at least 0.3—a level proven to be effective in clinical trials—while ensuring the evening CS remains below 0.1. This intervention is best delivered daily for at least 1 hour within 2 hours of waking,

providing the strong morning signal necessary for circadian entrainment.

For lighting designers, the TLI shows that strong biological effects don’t require bright, uncomfortable light. Because the TLI targets the photoreceptors in the eye relevant to the circadian system, it achieves the needed CS at only 300 to 400 lux—far lower than traditional 10,000 lux light boxes, which are often glaring and hard for patients to use.

Furthermore, the TLI uses warm color light sources, such as 3000K. Although aging reduces short-wavelength sensitivity due to lens yellowing, our model compensates by adjusting light levels accordingly, preserving CS while maintaining preferred warm light (**Figure 2**). But remember: what matters is light at the eye—not horizontal illuminance on the workplane.

Light for Alzheimer’s Disease and Related Dementia Patients

The need for circadian-effective lighting is perhaps most acute in long-term care facilities. If you have visited a nursing

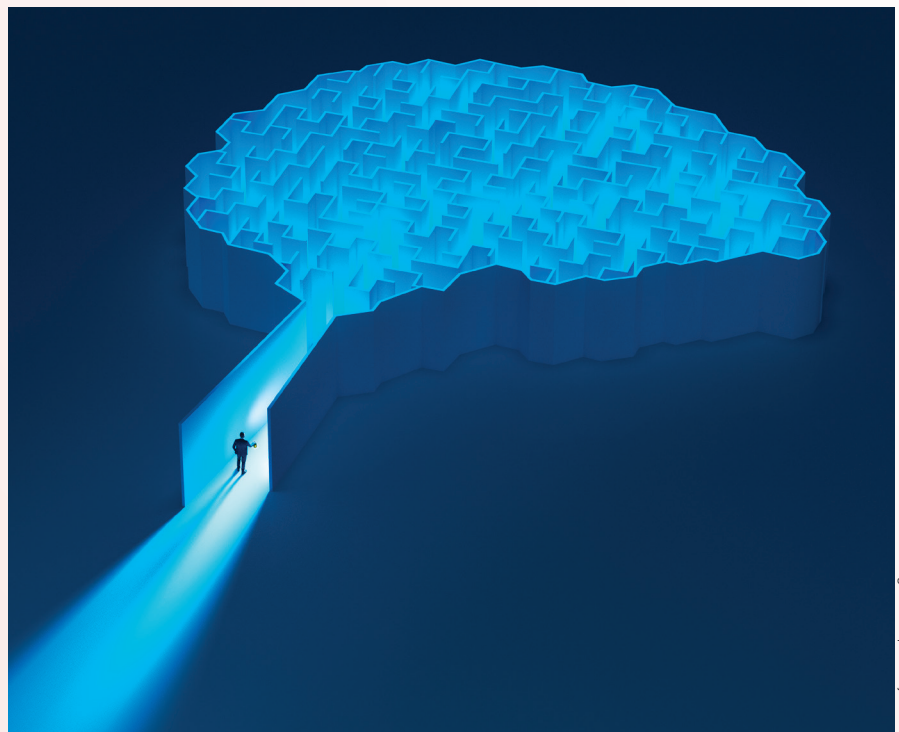


Image: iStockphoto/ryolan

home, you have likely observed that the “bright days, dim evenings, dark nights” ideal is rarely met. Instead, the lighting is typically low and constant throughout the day and night, exacerbating circadian misalignment.

Our earlier studies conducted in nursing homes demonstrated the profound impact of the TLI on individuals with Alzheimer’s disease and related dementias. The TLI significantly improved sleep quality, mood, and behavior.⁷ Remarkably, we showed that the impact of light on these outcomes was cumulative; the greater the duration of the TLI (i.e., up to 6 months in our research), the greater the observed improvements (Figure 3).⁸ These results were consistent with those from Eus van Someren and colleagues, who showed that daytime bright light exposure (>1,000 lux at the eye) consolidated rest-activity rhythms,⁹ improved cognition, and reduced depression over a period of 3.5 years.¹⁰

Recently, we recruited 60 participants with mild cognitive impairment (MCI) living in their own homes, rather than in controlled environments. Given the strong link between sleep and cognition, we evaluated whether our TLI would also improve cognitive performance. Using the Alzheimer’s Disease Assessment Scale-Cognitive Subscale, a standard neuropsychological assessment, we found significant cognitive improvement after 6 months of TLI, with effects becoming evident after 3 months. In another cohort of 35 individuals with MCI, exposure to 2 months of TLI improved glucose tolerance—a noteworthy finding, as elevated glucose levels are considered a potential risk factor for Alzheimer’s disease, even in nondiabetic individuals.¹¹ This suggests that the benefits of light extend beyond the brain, impacting systemic metabolic health.

Rescue and Recovery Workers, Volunteers, and Parkinson’s Patients

The TLI’s benefits extend beyond older adults and those with dementia, underscoring the broad importance of circadian alignment for brain health. Rescue and recovery workers from the World Trade Center remain especially vulnerable to circadian disruption and neuroinflammation due to extreme stress and environmental exposures during

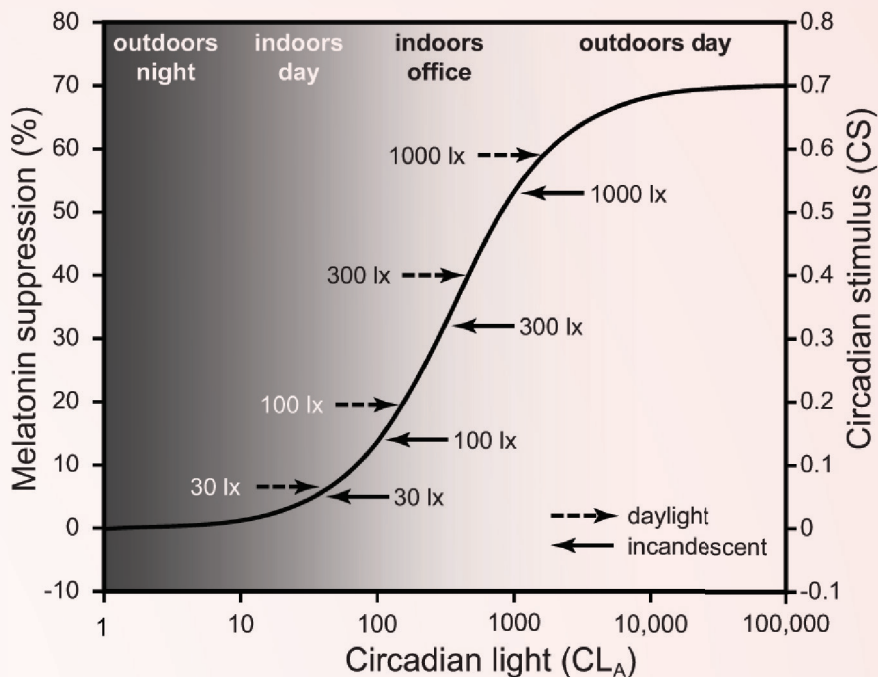


Figure 1. CL_A along the horizontal axis depicts the circadian weighted irradiance at the eye. CS along the secondary vertical axis shows the absolute sensitivity for the human circadian system as characterized by light-induced nocturnal melatonin suppression (primary vertical axis).



Figure 2. The TLI can be delivered via simple table and floor lamps.

Photo: Light and Health Research Center

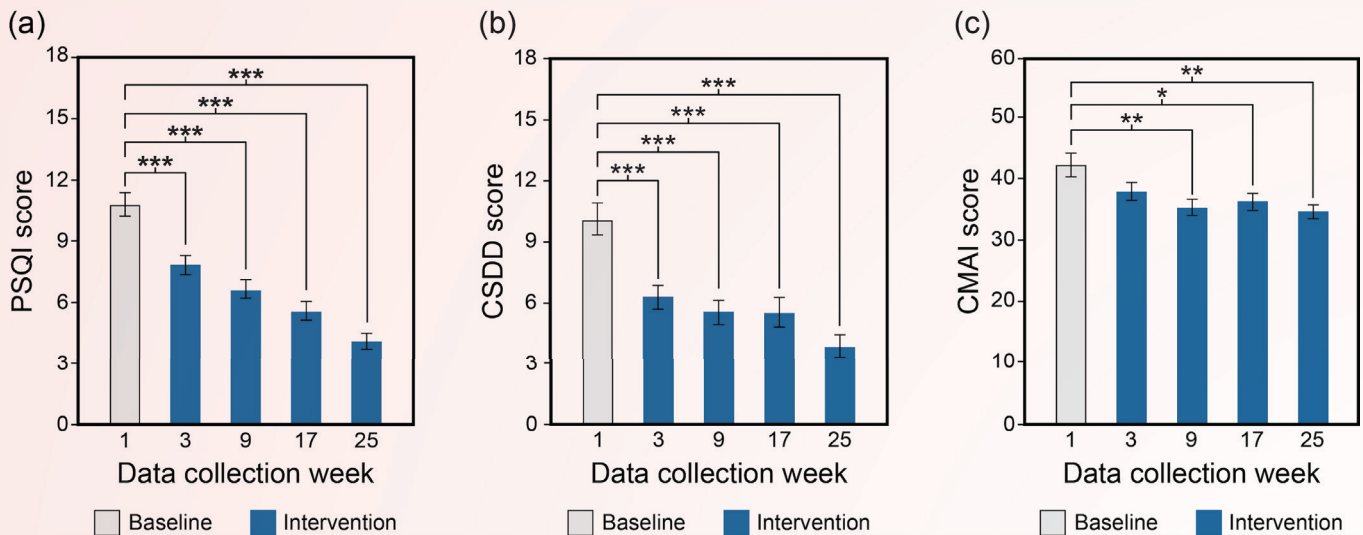


Figure 3. The cumulative impact of light among patients with Alzheimer’s disease and related dementias on (a) sleep (Pittsburgh Sleep Quality Index [PSQI]), (b) mood (Cornell Scale for Depression in Dementia [CSDD]), and (c) behavior (Cohen-Mansfield Agitation Inventory [CMAI]), by study week. Statistical significance: * = $p < 0.05$; ** = $p < 0.01$, *** = $p < 0.001$.

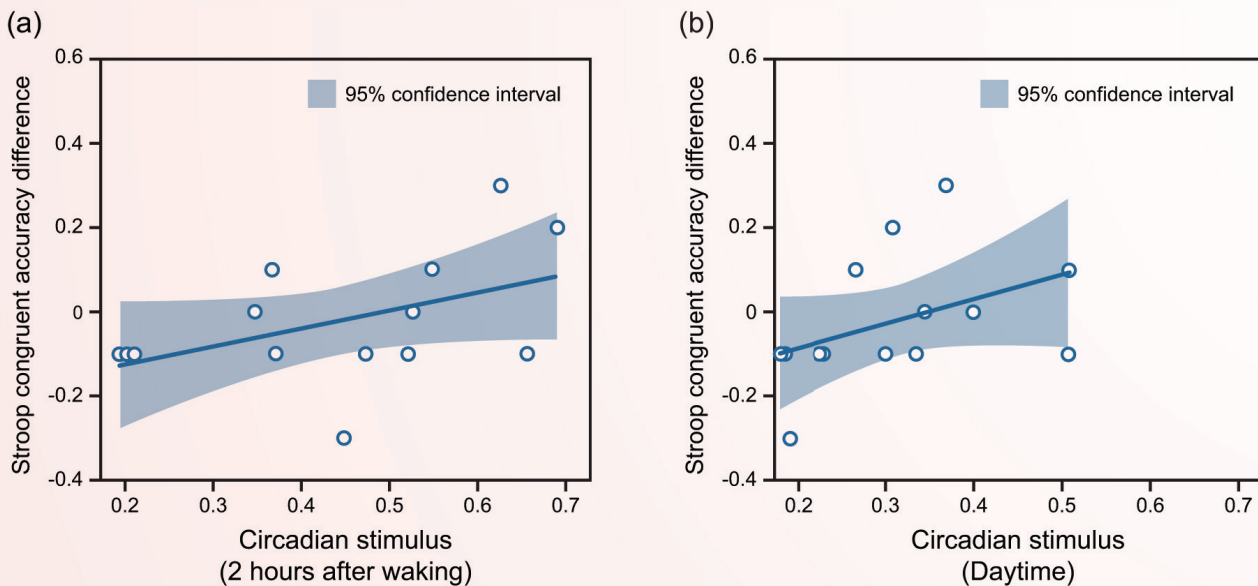


Figure 4. The association between CS values and cognitive scores (Stroop congruent accuracy task) recorded for World Trade Center rescue and recovery workers (a) 2 hours after waking (which included the 1-hour intervention) and (b) during the daytime. The shaded area in each panel represents the 95% confidence interval of the linear regression line. Stroop congruent accuracy is reported as a decimal ratio.

9/11, and many still experience cognitive impairment and poor sleep.

Our research showed that a 2-month daily TLI intervention—1 hour within 2 hours of waking—significantly improved sleep and cognition in this group.¹² We observed a clear correlation (Figure 4):

higher morning exposure to circadian-effective light predicted better cognitive performance. These findings suggest that light therapy may offer a noninvasive way to support long-term cognitive and sleep health in individuals affected by severe trauma and environmental stress.

Parkinson’s disease (PD) patients frequently experience motor and nonmotor symptoms, including common sleep disturbances often linked to circadian disruption. Fatigue is another challenging symptom with limited evidence-based treatments.

We enrolled 45 PD participants who

were exposed to TLI—again for 1 hour within 2 hours of waking—for 4 weeks. Actigraphy showed a significant 20-minute increase in sleep duration, and fatigue scores significantly improved by 3.4 points. It remains unclear whether reduced fatigue resulted from improved circadian alignment or better sleep, but replicating fatigue benefits previously seen in cancer patients highlights light as a powerful, versatile tool for managing the complex non-motor symptoms of PD.

Moving Beyond the Metric Debate

The scientific community has, at times, been preoccupied with the debate over which metric is superior—CS, melanopic equivalent daylight illuminance, or Equivalent Melanopic Lux. While these discussions are vital for scientific rigor (and healthy debate is welcome), they can sometimes obscure the core message for the lighting industry and the design community. Over the past 5 years, rather than wasting our efforts discussing what metric to use, the Light and Health Research Center has focused on advancing the science and application of light and health through pragmatic, impactful studies that provide designers with the data they need to implement healthy lighting.

Our work confirms that light positively impacts human health in ways we had envisioned, and in ways we had only previously imagined. For lighting designers, the key insight is not the choice of metric to use, but the proven benefits of a validated, nonpharmacological intervention that improves sleep, mood, behavior, and cognition in vulnerable populations. The challenge now is to move past the debate and focus on implementation. “Circadian lighting” is not a niche or premium product, it is a fundamental requirement for the design of a healthy built environment. The future of lighting is not just about seeing; it is also about providing “bright days, dim evenings, and dark nights” to support human health and well-being.

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Illuminating
ENGINEERING SOCIETY

PROJECT IN PICTURES Supporting the Local Library

Elisabeth Martin and USAI Lighting | Photos: Robert Lowell Photography

Bookworms in Oceanside, NY, can rejoice with the completion of the updates to the **Oceanside Library**, which serves over 25,000 registered cardholders and offers more than 258,000 items. The design by architect **Elisabeth Martin**, principal at MDA Designgroup, with lighting fixtures by **USAI Lighting**, makes this state-of-the-art community hub a sustainable, supportive space for end users. The combination of biophilic design-inspired materials and finishes, abundant natural illumination, and electric light with high CRI values and dimming capability earned the project a Lighting Design Award from the Long Island Chapter of the American Institute of Architects; the lighting scheme not only showcases the library's resources, it "enhance[s] what we call 'people space,' and support[s] staff work needs," said Martin.

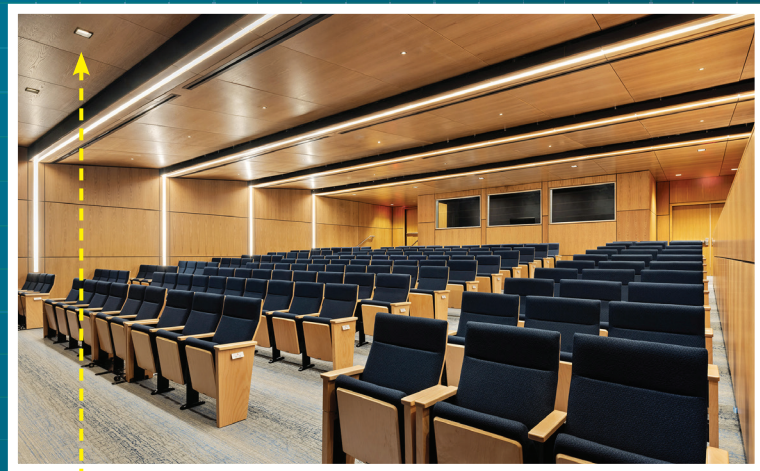


Powerful, even illumination throughout the project makes it easy for guests to read book covers and spines.

Curvy accent lighting at the welcome desk allows the project to avoid the typical utilitarian aesthetic of libraries-past, while BeveLED 2.2 fixtures fill out the space and avoid "dead zones."



In the site's "Main Spine," a cozy area with armchairs, a mix of BeveLED 2.2 fixtures, Micro Multi-Cell fixtures in wood ceiling slats, linear pendants, and circular accents, provide ample and comfortable illumination.



Inside the library's theater, where events like the "Monday Movie Matinee" take place, LittleOnes Micro 1.25-in. square fixtures with black millwork trim are placed into large wood panels to provide soft illumination, while another use of BeveLEDs provides additional lighting at the point of egress.

Spectral Science and Residential Application



As the lighting community continues exploring the connections between spectral science and everyday practice, the IES is offering two timely learning opportunities that bridge research and real-world application. From a comprehensive look at how different wavelengths shape human perception, biology, and design, to a practical, evidence-based deep dive into residential illumination, these sessions will equip professionals with the knowledge needed to enhance both human health and the built environment.

Light for Life: Exploring the Lighting Spectrum

This two-day virtual symposium, from April 29 to April 30, 2026, will examine the science and stories behind the light used every day. While some sessions focus on specific wavelength ranges from ultraviolet to infrared, others step back to explore how the spectrum functions as a whole, shaping perception, biology, and design decisions. Presentations will include:

- **Ultraviolet:** germicidal UV implementation, and blacklight in performance and art
- **Violet:** the edge of perception and the short-wavelength influence on alertness and circadian rhythm
- **Blue:** non-visual effects of light, melanopic content, and balancing circadian support with comfort
- **Green:** spectrum tuning and lime LEDs, photosynthesis and the perception of white light
- **Yellow:** amber light, skyglow, and ecological considerations for flora and fauna
- **Orange/Red:** red and near-infrared light in therapy and wellness applications, TM30 hue bin 1 and beyond, and the psychology of warmth and perception in hospitality.

Participants receive 8 CEUs plus a unique *Understanding Color* bundle of IES standards (TM-30-24, LP-30-25, and LS-5-25), as well as archive access to the entire program. For more information, visit <https://ies.org/events/light-for-life-home/>.

The Art and Science Behind Beautiful Kitchens: Evidence-Based Lighting That Performs



This in-depth webinar will be held on May 28 and offers residential designers, architects, and remodeling professionals a research-backed look at how to create kitchens that are both beautiful and properly illuminated. The session, worth one IES CEU, addresses a persistent industry challenge: Most American homes remain dramatically underlit, and building codes do little to improve the situation.

Presenting the session is Doug Walter (pictured), AIA, CMKBD, a Denver-based architect with 46 years of experience in residential remodeling and a national reputation for his work in lighting and daylighting. Informed by over a decade of original research and volunteer work with both

the IES and the National Kitchen & Bath Association (NKBA), Walter will break down the inconsistencies and misconceptions that have long shaped kitchen lighting practices. His presentation features real-world case studies from award-winning kitchens nationwide, illustrating practical interventions that improve both the quality and quantity of light.

Attendees will explore a wide range of lighting strategies—from simple lamp replacements to more-advanced techniques such as indirect lighting, in-cabinet and toe-kick lighting, valance and surface lighting, backlit slabs, recessed lighting layouts, and ways to enhance natural daylight. These approaches share a common goal: creating spaces with more usable illumination while reducing glare and improving energy efficiency.

The webinar will also introduce a low-cost demonstration kit that designers can assemble for under \$100. Comprising a clamp-on light holder and an assortment of lamps with varying lumen outputs, beams, sizes, and color temperatures, the kit allows clients to experience lighting options before permanent installation—making it easier to make informed choices early in the design process.

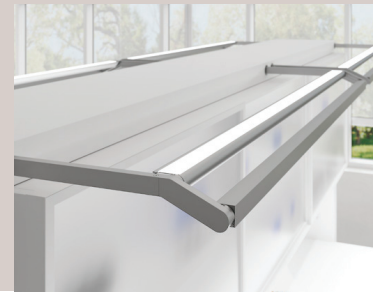
With wellness emerging as a major frontier in residential lighting, Walter will highlight research from healthcare and educational settings, exploring new adjustable lighting products designed to better support circadian rhythms and overall human health. Attendees will also gain guidance aligned with NKBA's latest design guidelines and IES recommended practices (RP11 and RP28), helping them deliver optimal illumination across a range of budgets, ceiling heights, and renovation scopes.

Registration is free for IES Members and \$29 for non-members; and registration closes May 28, 2026, at 12 p.m. ET.

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HISTORY | Honoring the Past, Shaping the Future: The Story of IES Awards

THIS YEAR THE IES CELEBRATES ITS 120th ANNIVERSARY It is the recognized technical and educational authority on illumination, with a mission to improve the lighted environment by bringing together those with lighting knowledge and by broadening that knowledge into actions that benefit the public. To recognize the exceptional technical accomplishments and service of its members, the IES bestows four prestigious awards: the IES Medal, the Louis D. Mothé Award, Fellow Designation, and Distinguished Service Award (DSA). These IES awards are a testament of excellence and recognition, and reflect the Society's values: technical rigor, significant impact and innovation, and continuous service (Table 1).

"Since its inception, over 70 individuals were awarded the IES Medal and over 400 were Distinguished Fellows."

LDA LIGHTING LEDGER

January 2026

Access to LD+A's Lighting Ledger—a treasury of our monthly "insight" news piece. The Lighting Ledger news, used announcements, and technical advice available to some paid-up members to come on-line for the first time.

GAMMALUX

Precision Features | Performance Lighting

Nucakko Fund Welcomes New Board Member

The Nucakko Fund for Lighting Education, which supports college-level lighting programs, has welcomed Sarah Manning to its Board of Directors in a meeting on October 14th at the University of Colorado Boulder. Manning is the Lighting Program Manager at the University of Colorado Boulder and also serves as an advisor to the Nucakko Fund. In addition to supporting the Archival of Lighting and Illumination program for IES, Manning is also a member of the IES Board of Directors. Manning is the Assistant Professor of Lighting Education, Research and Practice at the Nucakko Fund. Manning's previous position was Director of Lighting Education at the Nucakko Fund. Manning is a member of the IES Board of Directors.

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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



PLATINUM

Current

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

SILVER

Acclaim Lighting
Affiniti Studios
Albert Chong Associates
A.L.P.
BK Lighting
BR&A Consulting Engineers
Cannon Design

ConTech Lighting
Cree Lighting
DLR Group
Duke Energy
ETC, Inc.
Evluma
Fisher Marantz Stone, Inc.
GE Lighting, a Savant Company
Hapco
H.E. Williams, Inc.
HP Engineering
iGuzzini Lighting USA
IMEG Corp
Integrated Design Solutions
Kenall Mfg. Co.
Kurtzon Lighting
L Design Studio, LLC
Landscape Forms
Legrand/Wattstopper
Leotek Electronics, LLC
Lighting Services, Inc.
LMPG

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RAB Lighting, Inc.
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Seminole Pole
SOSEN USA, Inc.
Spitzer Lighting
Targetti USA, Inc.
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*Bronze Sustaining Members are listed at www.ies.org.



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INDUSTRY

PROGRESS

REPORT

2026 Submissions Open April 17

Save \$100! **Early Bird Deadline April 26**

Final Deadline: May 8

Start your submissions at progress.ies.org

PRODUCTS



SABIN,

a Chicago-based acoustic-lighting solution manufacturer, debuts LAYER, an acoustic planar series of four shapes for commercial interiors, especially those with lower ceilings. The series includes DISC, OBROUND (pictured), TRIANGLE, and RECTANGLE, each made with two layers of 9-millimeter PET felt with a finished 1.5-millimeter subtly regressed sewn edge.

<https://sabin.design>



CORONET

introduces Teek, an indirect/direct architectural pendant available with either a rigid pendant stem (pictured) or flexible cord mounting. Minimalist pendants, with 6-in. diameters, utilize 90+ CRI LEDs and offer reduced glare as well as remote dimmability and a 5-year warranty.

<https://coronetled.com>



ALLOY LED

debuts the VariTune 4.3 COB Tunable Tape Light. Designed to provide dot-less illumination, the 24-V tape is ideal for cove lighting and custom millwork and provides CCT ranging from 2700K to 6500K and a 90+ CRI. The tape has a 20-ft maximum run length and is field-cutable at designated points every 1.04 in.

<https://alloyled.com>



iGUZZINI

announces Ribeira, designed by David Chipperfield, for outdoor applications in hospitality and residential environments. Using a miniature Opti Diamond optic for uniform illumination and made of 90% recycled die-cast aluminum, the fully recyclable luminaires are available in ceiling, wall-mounted (pictured), or bollard forms.

www.iguzzini.com



LEDVANCE

expands its emergency lighting portfolio with the Emergency Twin Spot luminaire (pictured) and the Wallpack Combo IP65. The former allows installers to adjust the spotlights and direct light where it is needed in warehouses, parking lots, escape routes, and any application where high visibility is required. The latter is designed to be a “plug-and-upgrade” luminaire: it can be installed as a standard luminaire and emergency functions may be added later if required. The wallpack is designed for projects where emergency requirements are apt to change or for use in phased designs.
www.ledvance.com



Hydrel

announces the Ridge luminaire for projects of all sizes including bridges and high-rise buildings. With 18 mounting options, a low-profile linear form, IK10 and IP67 ratings, as well as certified 3G and 5G vibration levels in specific configurations, Ridge is available in 1-, 2-, 3-, and 4-ft length options. The static-white version of the fixture delivers up to 2,100 lumens per ft, while the RGBW fixture provides up to 1,700 lumens per ft.
www.hydrel.com



CERNO

presents Catalina, an architectural linear pendant for residential and commercial spaces. Offered in warm-dim and tunable-white, luminaires with optional direct or indirect lighting are available in 46-, 70-, and 94-in. length options as well as six metal and three natural wood finishes.
<https://cernogroup.com>



LEDCONN

introduces LUXCANVAS SLENDER P80 to the existing LUXCANVAS system. Designed for retail and architectural environments, the suspended fabric light box series offers a more refined 3.14-in. profile as well as clean-white, color-changing, or color-tuning finish options.
www.ledconn.com

PRODUCTS



GASPARE ASARO

unveils the Orchid Collection of three ceiling lights and one sconce along with the studio's hand-painted Verde Pietra finish. The collection is inspired by orchids in Thailand, with a metal body emulating organic branches, while the new patina finish takes design cues from 1600s Japanese architecture with a natural, weathered appearance. Ceiling lights are available in forms with three, five, or eight (pictured) light sources.

<https://gaspareasaro.com>



KENALL

debuts the MedMaster Pillow and Pillow Slot luminaires for patient rooms. The tunable-white Pillow fixture (pictured left) for overbed applications has a concave lens for a smooth gradient of light and is available in 2-by-2- and 2-by-4-ft sizes. Pillow Slots (pictured right) are made to stand alone or pair as light sources on either side of patient beds or in slat ceilings and offer clean lines of light; Slots are available in 4- and 6-ft lengths. Luminaires have UGRs ranging from 10 to 14 as well as IP64 and NSF2 listings to support infection protocols in healthcare settings.

<https://kenall.com>



ETC

unveils MegaPix and GigaPix (pictured), pixel wash fixtures backed by a

Fresnel lens system for indoor and outdoor stage lighting at festival rigs, summer theaters, and similar events. Using a patented Integrated Fresnel Lens System for increased output, fixtures feature custom RGBL LED engines and a 2000K to 10000K CT channel as well as an IP54 weather rating to protect against dust and rain. MegaPix weighs 20 lbs, has a 10,000-lumen output, and a zoom range of 4.5 to 50 deg, while GigaPix weighs 30 lbs, has a 17,000-lumen output, and a zoom range of 4.5 to 55 deg.

www.etcconnect.com



EUREKA

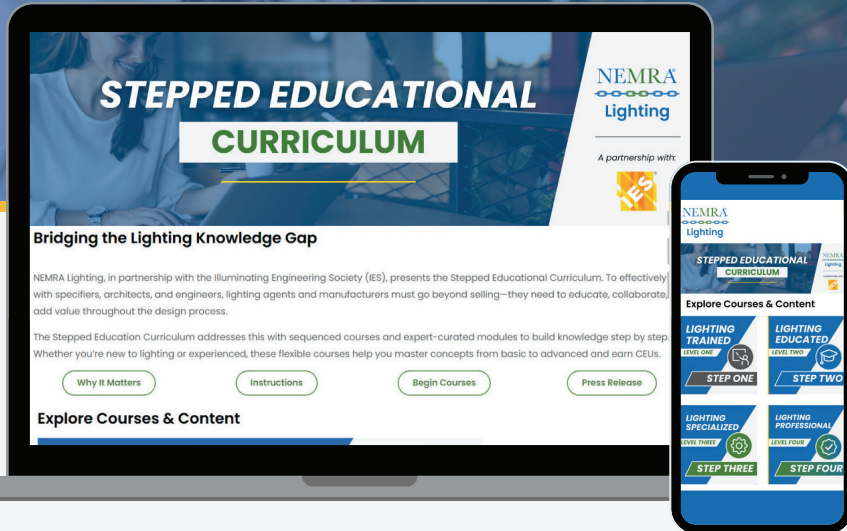
launches the Jarry family of luminaires. With pre-configured ball-and-tube designs, luminaires ranging from 1 to 8 ft in length are available as ceiling-mounted fixtures, pendants, and wall sconces; all can be installed horizontally, vertically, or at an angle. Fixtures can accommodate up to 12 silicone globes and are offered in 16 finishes, including metallic and faux wood. Jarry's output options include dim-to-warm and static white, while each globe delivers up to 515 lumens.

www.eurekalighting.com

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IES ILLUMINATION AWARDS

2026 CALENDAR

DEC 1-21 | EARLY SUBMISSION

Deadline 11:59pm EST (Early bird submission fee: Members \$265 / Non-Members \$365)

DEC 21-JAN 30 | REGULAR SUBMISSION

Deadline 11:59pm EST (Regular submission fee: Members \$320 / Non-Members \$420)

FEB 4-18 | SECTION IA CHAIR PROCESSING

- Section IA Chairs will review submissions for compliance of rules and guidelines
- Projects that comply with the rules of the program will move onto Merit Judging

MAR 4-APR 5 | ONLINE MERIT JUDGING

- Eligible projects receiving sufficient scores during online judging receive an Award of Merit
- Projects receiving exceptionally high scores will move to final, society level judging

MID-APRIL | LIVE FINAL ROUND JUDGING

- Eligible projects passing the online phase are judged during live, society level final judging
- Final judging determines the highest level of Society awards including Special Citation, Award of Excellence, or Award of Distinction
- If projects do not score high enough at this level, they retain their Award of Merit

MAY/JUNE | AWARD RECIPIENT NOTIFICATION

Local Section Judging will be conducted at the discretion of Section IA Chair timeline.



ILLUMINATION
AWARDS

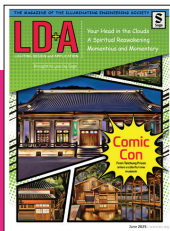
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Insight Lighting	www.insightlighting.com	19
Landscape Forms, Inc.	www.landscapeforms.com	7
Ledra Brands, Inc.	www.ledrabrands.com	25
Leotek Electronics USA Corp	www.leotek.com	23
Lucetta Lighting	www.lucettalighting.com	1
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Last Look | Heart of Copper

Specially designed luminaires by Estereotomia Architects hover above tables inside Masa House, a sushi restaurant celebrating both culinary arts and architectural intrigue, in Mexico City. The handmade AYOTLI luminaires comprise wood, gold leaf, silver

leaf, and interior “hearts” of copper leaf; the blend of materials is reflective of the restaurant’s interior, which combines metal and wood to create an elevated, warm experience for guests.



Photo: Jaime Navarro

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