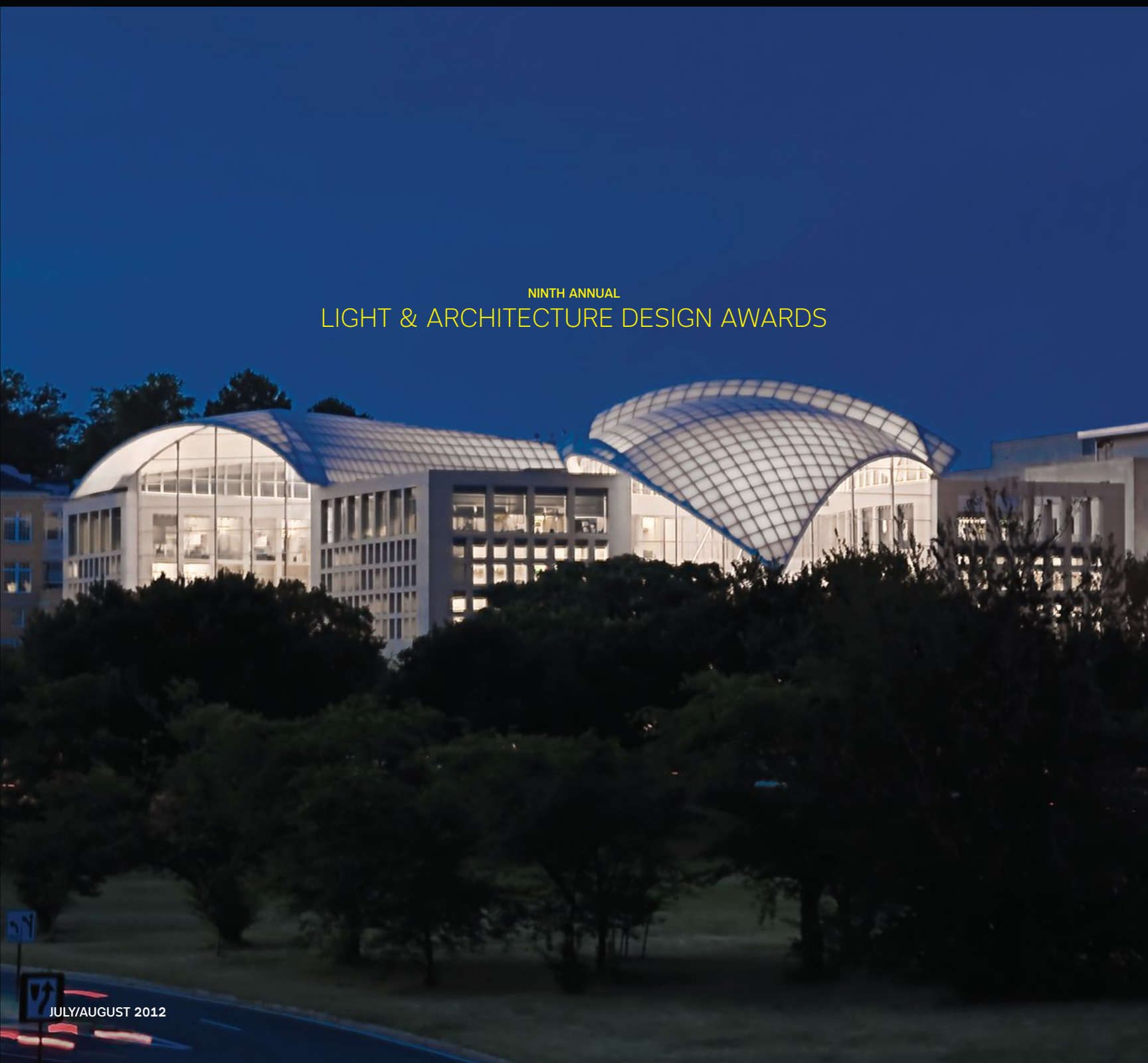
A·L
ARCHITECTURAL LIGHTING

hanley wood

INSIDE: INTELLECTUAL PROPERTY LAW • FLUORESCENT AND HID LAMPS • LIGHTING SOFTWARE • LIGHTFAIR PRODUCTS • ONE-ON-ONE: BARBARA HORTON

NINTH ANNUAL

LIGHT & ARCHITECTURE DESIGN AWARDS



JULY/AUGUST 2012

NEW! CREE® SR6 LED SIX-INCH ARCHITECTURAL DOWNLIGHT:

Up to 1800 lumens at 75 LPW | 90+ CRI | CCT 3000, 3500, 4000K
Designed to last a minimum of 75,000 hours | 0-10V dimming to 5%
30° or 45° shield angles and matching wall wash options

TIMELESS AESTHETICS MEET PROVEN PERFORMANCE

MORE THAN A LUMINAIRE—IT'S STYLE REDEFINED.

CREE
TRUE WHITE
TECHNOLOGY

The SR6 is powered by Cree TrueWhite® Technology, a new way to generate beautiful, energy-efficient white light.

Architectural design shouldn't have to compete with the light that illuminates it. That's why we created the SR6™ LED architectural downlight—to preserve your vision.

With its revolutionary new Light Source-Reflector Unity™ design, the SR6 delivers superior control and aperture aesthetics for a smooth transition from ceiling to light source.

The SR6 is available with a palette of premium polished or satin anodized aluminum reflectors with multiple shield angles to complement the style of any interior.

Become an LED revolutionary!
Visit www.cree.com/lighting to learn how the SR Series can light your design.

CREE®

Circle no. 61 or http://archlighting.com/productinfo

Small Package.
Big Performance.

GET A FREE SAMPLE IN YOUR HAND & SEE FOR YOURSELF
VISIT RABLED.COM

5W LED Flood Precision Engineered to Deliver Stunning Output

The new RAB LFLED5 is proof that great things really do come in small packages. Designed with a special microprismatic lens, it produces a smooth, even light distribution that replaces 35W halogen fixtures without the excessive heat that can damage plants. Its industry-leading thermal management technology keeps both the LED and driver cool to ensure optimum performance. Plus, with its optional spot reflector (NEMA Type 2H x 2V) you get highly versatile landscape lighting in a palm-sized package.

RAB®
LIGHTING

Circle no. 219 or http://archlighting.com/productinfo

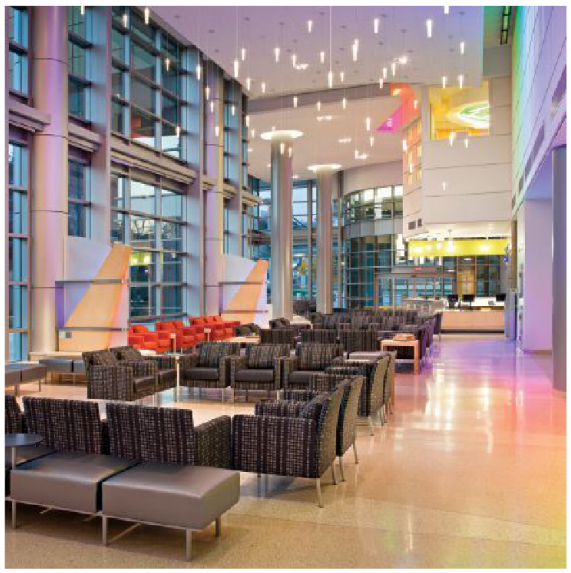
WE REGISTER EVERYONE FOR THE SAME THING: SUCCESS

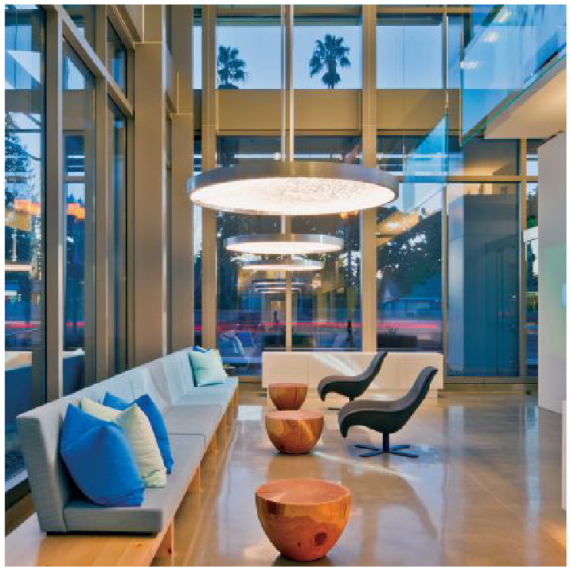
ARCHITECT | BUILDER | CONTRACTOR | REMODELER

For designers and construction pros who want to stay competitive in today's market, there's always more to learn. Hanley Wood University is your destination for easy and convenient learning: simply register online, find a course, and discover the latest tools, techniques, and trends in all areas of remodeling, commercial and residential construction, and design.

We offer comprehensive training for builders, architects, masonry contractors, lighting designers, and many other professions. And we partner with the country's top associations to ensure you obtain or maintain your memberships and certifications. Expand your expertise and create new revenue opportunities today at **hanleywooduniversity.com**.

hanley wood
UNIVERSITY
Building Knowledge **24/7**





C.S. Mott Children's Hospital at University of Michigan
Specifier: HKS Architects
Photography: Blake Marvin Photography

Nokia Corporate Headquarters
Interior Design: Gensler
Lighting Design: Birkenstock Lighting Designs
Photography: Nic Lehoux

Fort Belvoir Community Hospital
"Photo courtesy of HDR Architecture, Inc.; © Ari Burling

The Absolut Spirits Company, Inc.
Lighting Design: HDLC Architectural Lighting Design
Photography: CMZ Photographics

Circle no. 36 or http://archlighting.com/productinfo

JULY/AUGUST 12
VOL 26, NO 5

A·L
ARCHITECTURAL LIGHTING

archlighting.com

hanley▲wood
One Thomas Circle, N.W. Suite 600 Washington, DC 20005

A+L ARCHITECTURAL LIGHTING (Vol. 26, No. 5 USPS 000-846, ISSN 0894-0436) is published seven times per year (bimonthly, except monthly in May and June) by Hanley Wood, LLC, One Thomas Circle, N.W., Suite 600, Washington, DC 20005. Periodicals postage paid at Washington, DC, and additional mailing offices. Printed in the USA. Postmaster: Send changes of address to ARCHITECTURAL LIGHTING, P.O. Box 3494, Northbrook, IL 60065-9831.

Canada Post Registration #40612608/G.S.T. Number: R-120931738. Canadian return address: Pitney Bowes Inc., P.O. Box 25542, London, ON N6C 6B2.

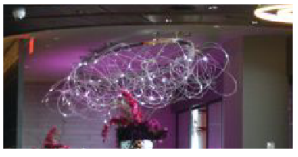
Distributed free of charge to individuals or firms engaged in the specification of lighting products in the U.S. Publisher reserves the right to determine recipient qualification. Per year, all other U.S. subscriptions $48; Canada, $60; Foreign, $96. Payable in U.S. dollars. For subscription inquiries, address changes, and single-copy sales ($10 in the U.S., $15 in Canada, $20 for other countries, payable in advance) write to ARCHITECTURAL LIGHTING, P.O. Box 3494, Northbrook, IL 60065-9831 or call 847.291.5221 or toll-free 888.269.8410.

VQL
CUSTOMLIGHTING

CUSTOMLIGHTING for CUSTOMMINDS

VISION QUEST LIGHTING




Vision Quest Lighting fabricates fixtures ranging from simple, functional designs to the most complex fixtures. A combination of artistry and engineering is the key to our competitive advantage. We take your ideas and engineer them to become safe, quality, reliable lighting products. An emphasis on clean design infused with positive energy is what makes VQL the company of choice when it comes to custom and decorative lighting.

Circle no. 201 or http://archlighting.com/productinfo

90 13th Avenue, Unit 1
Ronkonkoma, NY 11779

T 631-737-4800
F 631-737-2808
E INFO@VQL.com
W VQL.com

MADE IN THE USA | 15 YEAR ANNIVERSARY | VQL CUSTOMLIGHTING

A·L
ARCHITECTURAL LIGHTING

Harbor Street Bridge, San Diego, CA
Lighting Design: **Syska Hennessy Group**
Photography: **Brett Drury**
Cooper Lighting io line 2.0

Innovation you can rely on™

Innovation. Reliability. Those are the two sides of the Cooper Lighting story. We are committed to creating new technologies that improve efficiency, reduce costs, enrich the quality of life, and protect the environment. **Innovation you can rely on** is our promise to provide innovative LED, lighting and controls solutions that meet or exceed your needs every time. To learn more about our products and services, go to **www.cooperlighting.com**.

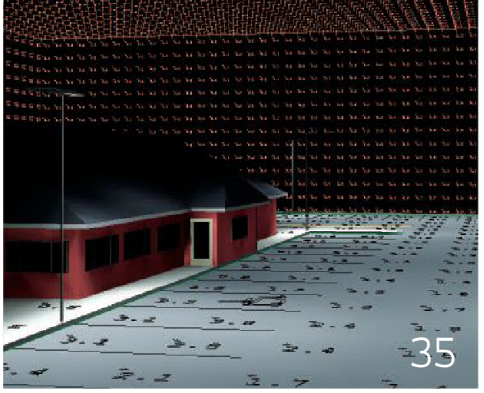
More designers are recognizing the innovation and reliability of Cooper Lighting products every day. We congratulate the following firms who used Cooper Lighting products in their winning designs for the 9th Annual AL Light & Architecture Design Awards:

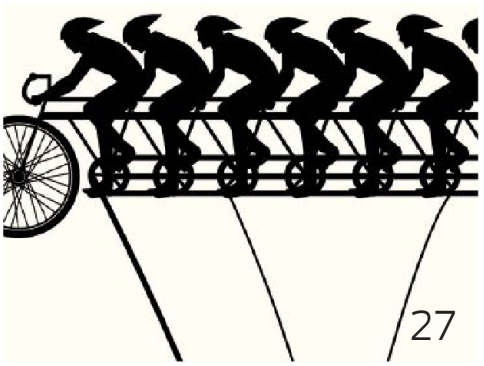
Arup, New York, NY
Auerbach Glasow French, San Francisco, CA
Lam Partners, Cambridge, MA
Schuler Shook, Chicago, IL

Innovation you can rely on™

COOPER Lighting

Circle no. 25 or http://archlighting.com/productinfo





• CONTENTS

• FEATURES

Ninth Annual Light & Architecture Design Awards

• FRONT

• DEPARTMENTS

DESIGN

TECHNOLOGY

BACK

ARCHLIGHTING.COM For expanded article content, the latest news, calendar listings, and blogs. Also, read e-notes and ARCHITECTURAL LIGHTING's digital edition.

Online this month:
AL Light & Architecture Design Awards
Slide shows Additional coverage and images of each of the 15 winning projects.

Technology Additional coverage of software programs for designers who work with light.

Glenn Heinmiller/Lam Partners (cover); David Morris Photography (left); courtesy Lighting Analysts (top right); Tang Yau Hoong (bottom right)

lumenpulse™

Project: General Motors' Renaissance Center Headquarters
Lighting Design: Yesco
Product: Lumenbeam™ LBX RGB

Circle no. 197 or http://archlighting.com/productinfo

IN PRAISE OF THE CONSULTANT

"The antiquated design process and document delivery system … casts off consultants as second-class design citizens instead of seeing them as the specialists they are and celebrating them for the specific body of knowledge and expertise that they can bring to the table."

It is a scenario that is all too familiar to the myriad consultants that are part of an architectural project team: You're asked to join the project once the basic design concept has already been established and everything is under way. With the design and budget set, there is little room to participate and feel like your contribution is anything other than a stopgap measure to fill in the empty spaces between point A and point B. Now, we all know that depending on the project, there might not be a need to enlist every specialty consultant at the very beginning. But certain core areas, such as lighting, will help to create a better project if they are brought into the mix as early as possible.

The problem stems from an antiquated design process and document delivery system in which design is compartmentalized between the realm of the architect and the realms of the various consultants. This system casts off consultants as second-class design citizens instead of seeing them as the specialists they are and celebrating them for the specific body of knowledge and expertise that they can bring to the table. Furthermore, it creates a hierarchy, valuing some consultants over others.

But there are signs that the old ways are changing, and that the marginalization of the consultant might come to an end. In our fast-paced world, where project schedules are being consolidated into ever-tighter time frames, designers are beginning to think differently about the structure of the project team, and they are coming up with new and better ways to share information.

Clients are also demanding a more complex set of project deliverables. The long, slow economic recovery that we have been living through no longer allows enough time for different specialties to work independently of one another. Instead, design has never been more of a team effort. One tool that is helping to enable better communication and coordination is Building Information Modeling (BIM). With this software, all team members can work on an uploaded set of drawings in real time, and potential conflicts can be more readily uncovered.

While technological tools are one option to create a more cohesive project delivery, another is the way a firm is organized. The sluggish economy has created an environment ripe for mergers and acquisitions. One of the advantages of partaking in this is that architecture and engineering firms can acquire or otherwise add their own in-house design specialties, such as a lighting division. Having all of these design specialities under one roof, literally or figuratively, allows for greater and more frequent communication.

Still, building trust among colleagues does not happen overnight. More than likely, it is the result of an architect and lighting designer working together on several projects, learning each other's expectations and how one another thinks and designs.

The success of a project and a project team starts by establishing clear definitions of roles and responsibilities. It might even include knowing when to walk away from a project if need be. (Yes, even in this economy.)

Looking at the projects in this issue—our ninth-annual Light & Architecture Design Awards—it is clear that the success of the designs started with a successfully integrated project team.

Design is about collaboration, and collaboration requires mutual respect between all of the team members. If the structure of the design process continues to relegate consultants to a secondary design role, more than just the future of the profession is at stake—so is the very process by which we design and build.

Elizabeth Donoff
Editor

square peg round hole

LX2045	LED WALL WASH	50,000 HOUR LIFE
	Lumen Output: 1100	Wattage: 21
	Color Temperature: 3000K	High CRI: 97
	Seamless Wash of Light	No UV or IR

The LumeLEX 2045 LED Series is an elegant, stem mounted wallwash fixture powered by Xicato XLM Artist Technology. It is the latest addition to the LumeLEX family of Cylinders, which provide a coordinated design to maintain the symmetry of your environment. Utilizing a computer designed, highly specular asymmetric reflector, the LumeLEX 2045 produces 1100 lumens of a seamless, even wash of light. All LumeLEX fixtures feature a discreetly hidden driver making it appear no different than a traditional halogen source.

Not all LEDs are created equal, the LumeLEX Series is the best for light sensitive materials.

Lighting Services Inc The premier specialty lighting manufacturer.

Lighting Services Inc 800 999-9574 www.LightingServicesInc.com

Circle no. 176 or http://archlighting.com/productinfo

JONATHAN SPEIRS, 1958–2012

The global lighting community loses one of its most talented and highly-respected stars.

text by Elizabeth Donoff
photo courtesy Speirs + Major

On June 18 lighting designer and architect Jonathan Speirs lost his two-year battle with cancer. He was 54.

A versatile and talented designer who was comfortable working across design fields, Speirs studied architecture at the Scott Sutherland School of Architecture in Aberdeen, Scotland, and the Edinburgh College of Art, in Edinburgh, Scotland. As a primary school student, he developed a passion for music and theater, a passion that would come into focus during his time in architecture school. In a 2011 interview with ARCHITECTURAL LIGHTING, he said, "I was into music, but equally I was always interested in productions. I took that with me in terms of considering light when I was studying architecture. I wrote my thesis for my degree about architects using stage lighting techniques and technology to create atmosphere in buildings."

The combination of architecture and lighting design in a multidisciplinary practice was unheard of in the United Kingdom in the early 1980s, and there was nothing like a lighting consultancy when Speirs graduated. So, in 1984, soon after he qualified as an architect, he cofounded the Lighting Design Partnership (LDP) with lighting designer Andres Tammes. In 1992, he left LDP and formed Jonathan Speirs and Associates in Edinburgh. The following year he formed a working partnership with Mark Major in London, which developed into Speirs + Major.

Speirs helped grow Speirs + Major into one of the most highly respected lighting design practices in the world, working with prominent architects such as Richard Rogers, Norman Foster, and Wilkinson Eyre Architects. (Major and firm codirector Keith Bradshaw continue that work today.) In 2008, 2009, and 2010, the firm won the International Association of Lighting Designers (IALD) Radiance Award, the IALD's highest award, an unprecedented three successive times. Most recently, in March 2012, the firm received the Design Practice of the Decade at the 10th-annual Lighting Design Awards, which was held in London.

Throughout his career, Speirs received considerable recognition for his work. His highly successful collaborations with architects and fellow lighting colleagues includes an impressive portfolio that lists some of the most notable projects of our time: the Barajas International Airport in Madrid, the Sheikh Zayed bin Sultan al Nahyan Mosque in Abu Dhabi, the Burj al Arab in Dubai, and the Copenhagen Opera House. No matter the project scale, or the project program, Speirs's work was infused with creativity and elegant technical solutions.

Education and teaching were key to his thinking and design process. He lectured widely, both in academic and professional settings. In 2005, with Mark Major, the duo conceived of and created "Made of Light: The Art of Light and Architecture" an educational project that explored "important elements about architecture and light." The 17-minute-long projection show was first exhibited at the Royal Institute of British Architects in London. The exhibit also featured a companion book of the same name, co-authored by Speirs, Major, and Anthony Tischhauser.

Active in the architecture and lighting communities, Speirs was a member of a number of professional organizations, including the Royal Institute of British Architects and the Professional Lighting Designers Association. He was also a fellow of the Royal Incorporation of Architects in Scotland, an honorary fellow of the Society of Light and Lighting, and an honorary fellow of the IALD. In October 2010, he received the Royal Incorporation of Architects in Scotland's Gold Medal, which is the highest honor that can be bestowed upon a Scottish architect. That year he also received an honorary doctorate from Heriot-Watt University in Edinburgh. In 2011 Speirs was presented with the Lifetime Achievement Award from *Professional Lighting Design* magazine.

A fitting tribute to this talented designer and most generous of individuals will be the establishment of the Jonathan Speirs Scholarship Trust, the goal of which is to provide financial support to aspiring young architects interested in entering the lighting design profession, just as he did. Details about the fund will be made available on the Speirs + Major website—speirsandmajor.com. On the firm's site, you will also find a visual tribute and remembrance by Mark Major.

Ever the consummate professional, and a man devoted to his family—wife Liz and two daughters Lucie and Erin, plus his sister, brothers, and father—and friends and colleagues, Jonathan Speirs's is a legacy of creative genius and excellence. As he remarked during the aforementioned 2011 interview with us, "Design and creative thinking are fundamental to what gets us out of bed in the morning, what drives us to work stupid hours and sit on planes going to far distant lands. It is about creativity and the idea." •

2012 LUMEN AWARDS

Ten projects are recognized for design excellence at the IES New York City Section's annual award gala.

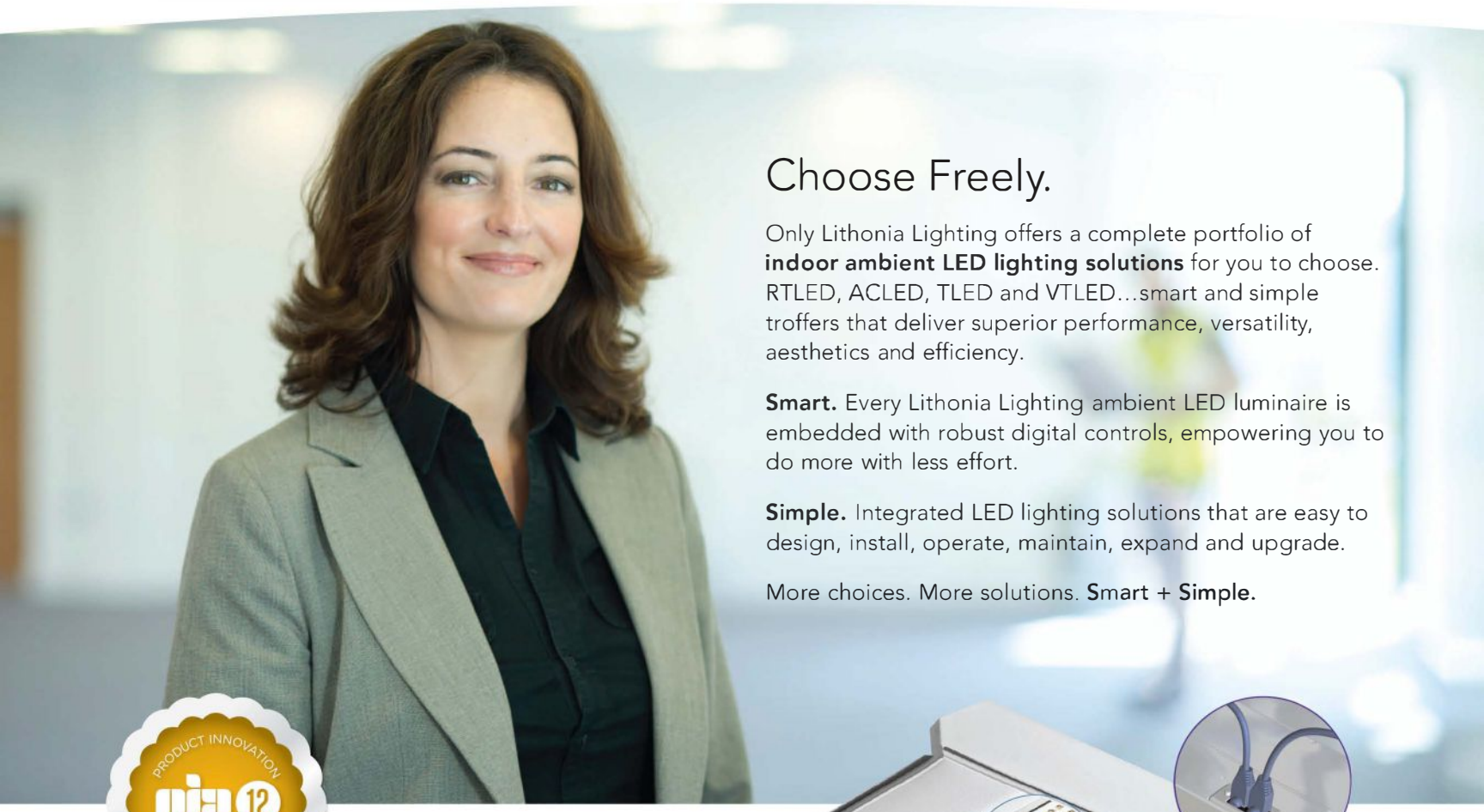
text by Elizabeth Donoff
photos courtesy IESNYC

The New York City Section of the Illuminating Engineering Society presented the winners of its 44th-annual Lumen Awards Gala on June 21 at Pier Sixty in New York. More than 600 lighting design and lighting industry professionals gathered to celebrate the work of their peers. Ten awards in three categories were presented:

Two Awards of Excellence:

- The National September 11 Memorial, New York; lighting designer: Fisher Marantz Stone, New York
- The Rookery Building, Chicago; lighting designer: Office for Visual Interaction, New York

The Great Thing About Choices...
Is Having Them.



Choose Freely.

Only Lithonia Lighting offers a complete portfolio of **indoor ambient LED lighting solutions** for you to choose. RTLED, ACLED, TLED and VTLED...smart and simple troffers that deliver superior performance, versatility, aesthetics and efficiency.

Smart. Every Lithonia Lighting ambient LED luminaire is embedded with robust digital controls, empowering you to do more with less effort.

Simple. Integrated LED lighting solutions that are easy to design, install, operate, maintain, expand and upgrade.

More choices. More solutions. **Smart + Simple.**

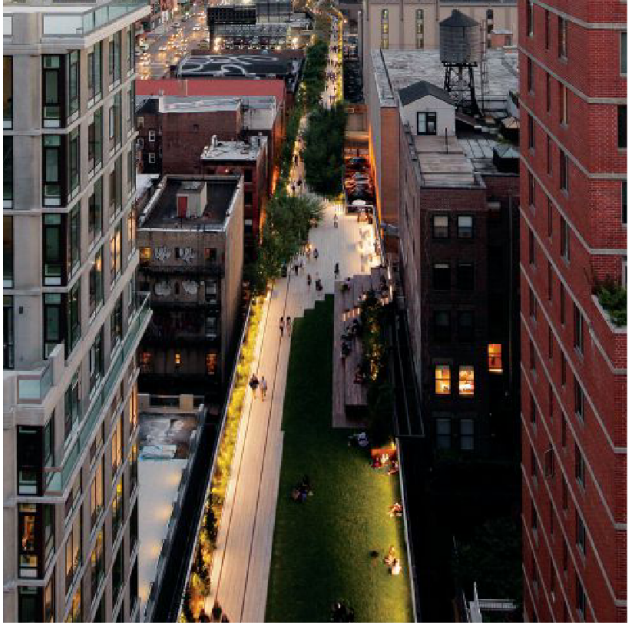
PRODUCT INNOVATION pia 12 AWARD WINNER

Next Generation 2012 LUMINAIRES

Visit www.lithonia.com/smartandsimple to learn more.

LITHONIA LIGHTING®
An AcuityBrands Company

Circle no. 44 or http://archlighting.com/productinfo



Award of Merit winners: Cité de l'Océan et du Surf Museum (previous page, top); Yotel (previous page, bottom); the High Line: Section Two (this page, top), and the Claremont University Consortium (this page, above).

Six Awards of Merit

- Cité de L'Océan et du Surf Museum, Biarritz, France
- The High Line: Section Two, New York; lighting designer: L'Observatoire International, New York
- Claremont University Consortium, Claremont, Calif.; lighting designer: Lumen Architecture, New York
- Elizabeth Arden Offices, Stamford, Conn.; lighting designer: RS Lighting Design, New York
- Martin Luther King, Jr., National Memorial, Washington, D.C.; lighting designer: David Mintz with Randy Burkett Lighting Design, St. Louis
- Yotel, New York; lighting designer: Focus Lighting, New York

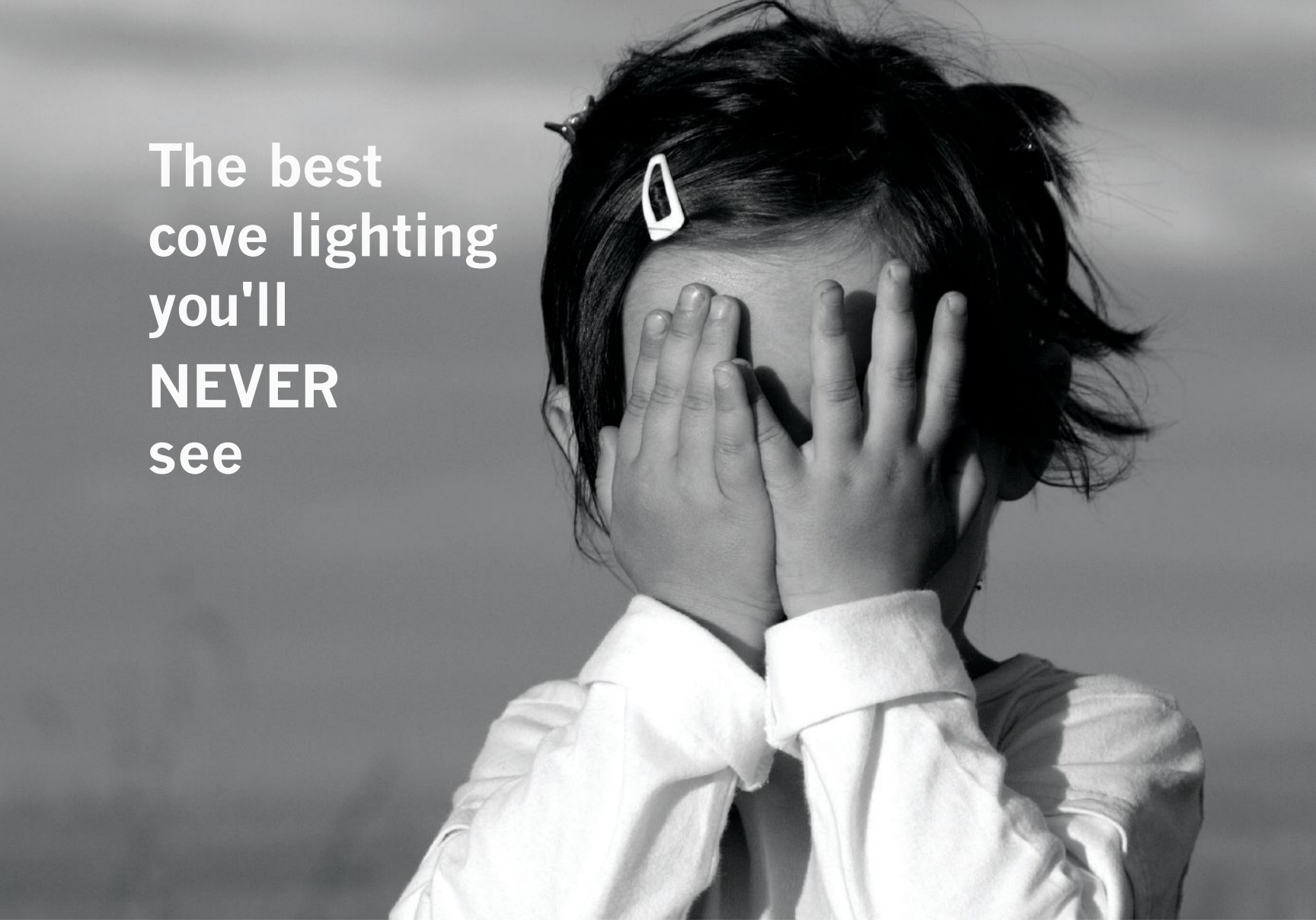
One Citation for Lighting that Supports the Architecture

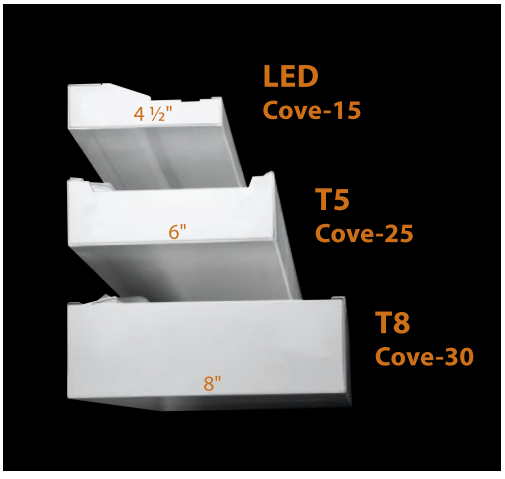
- Milstein Hall, Cornell University, Ithaca, N.Y.; lighting designer: Tillotson Design Associates, New York

One Citation for Integration of Daylighting and Electrical Lighting

- The Sidwell Friends Meeting House and Arts Center, Washington, D.C.; lighting designer: Arup, New York. •

BRIEFS





Litecontrol LED Cove

The new LED Concealed Cove-15 offers high efficiency and high performance in a compact cove lighting solution. This is exactly what you would expect from the pioneer in perimeter lighting systems.

Whether your project calls for a fluorescent or LED solution, with Litecontrol you know you are getting the performance you need to highlight the architecture and illuminate the space.

Visit litecontrol.com/ledcove-15 for details.

lighting facts
LED Product Partner

Congratulations to all the 2012 A•L Light & Architecture Design Awards competition winners!

LITECONTROL
making light work™

Circle no. 27 or http://archlighting.com/productinfo

PROFESSIONAL PRACTICE

DESIGN OWNERSHIP

Understanding intellectual property law—from a design perspective.

text by Peter J. Lamont

illustration by Headcase

Peter J. Lamont is a business and commercial litigation attorney nationally recognized in a wide variety of highly specialized areas within the kitchen, bath, lighting, construction, and design industries. He routinely represents various national and international companies within the design sector, and has achieved the highest rating in both legal ability and ethical standards as awarded by AVVO (avvo.com).

Intellectual property laws can be challenging for even the most sophisticated business person. This is due to the confusing nature of U.S. intellectual property statutes and the fact that many of the protections often don't follow common sense thinking. Intellectual property issues become even more convoluted when they relate to the lighting design field. Lighting designers create a lighting scheme or design from intangible resources; ideas and thoughts generated from years of experience and training. As a result, designers believe, sometimes erroneously, that their cognitive creations belong to them.

Generally speaking, intellectual property is an area of law that deals with products and creations of human ingenuity and creativity. Also, it is important to note that intellectual property protection is country specific. If a designer has availed herself of the protections afforded under U.S. intellectual property laws, it does not mean that she has been provided protection in any other country. For the purposes of this article, I will discuss only the protections provided under U.S. intellectual property laws.

The three main areas of intellectual property law that commonly arise in the lighting design process are patent law, copyright law, and trademark law. In order to understand how and when intellectual property laws work, it is first critical to understand the basics of each of these common areas.

Patent Law

A properly obtained U.S. patent gives its owners the right to stop others from using or claiming ownership of the particular invention that is the subject of the patent. Patents also have very strict filing requirements. While there are several types, the most commonly issued are utility patents, design patents, and plant patents.

The invention or process used must be new and cannot be a modification of a previous invention. A patent application also must be filed for an invention within one year of the first commercialization or public disclosure of the invention. If a proper application is not filed within this one-year period, the inventor will lose her patent rights to the invention forever.

A utility patent protects the functional aspects of an invention or the process by which it is made. It generally permits its owner to exclude others from making, using, or selling the invention for a period of up to 20 years from the date of the application filing and is subject to the payment of maintenance fees to keep the paperwork current and maintain the active status of the patent. In an average year, approximately 90 percent of all filed patents are utility patents, and the average cost to file one of these is $7,000.

A design patent generally protects the aesthetic or ornamental aspects of an invention. It is issued for a new, original, and ornamental design for an article of manufacture and permits its owner to exclude others from making, using, or selling the design for a period of 14 years from the date that the patent is granted. Design patents are not subject to the payment of maintenance fees, and the average cost to file one of these is $5,000.

A plant patent is issued for a new and distinct, invented or discovered, asexually reproduced plant. It permits its owner to exclude others from making, using, or selling the plant for a period of up to 20 years from the

Indy's unique hyperbolic reflector... light without source.

Think **LED**...
Think **Juno Lighting Group**

What's quieter than a "quiet" ceiling? Introducing the **silent ceiling™**... exclusively from Indy

Indy's unique **hyperbolic reflector** produces so little glare that ceilings are no longer just "quiet"... they're absolutely "silent." And it's available exclusively on Indy's Performance Series line of commercial LED downlights.

In addition, Indy Performance Series LEDs feature the industry's broadest range of lumen packages, from 800 to 2,700 delivered lumens, and **efficacies up to 70 lm/W**. But there's so much more to the story ... please visit our web site, junolightinggroup.com/silentceiling for all the details.

Sign up at junolightinggroup.com/LED2012 for a chance to win an Apple® iPod touch® and to learn more about Juno Lighting Group Commercial LED lighting.

JUNO LIGHTING GROUP
by **Schneider** Electric

Shine On.

Patents protect ideas, but not all ideas can be patented. Most important to you, patent law does not, in general, provide protections for the creations and designs of lighting designers.

date of patent application filing. The average cost to file one of these patents is $5,500, and they are not subject to the payment of maintenance fees.

Patents protect ideas, but not all ideas can be patented. Most important to you, patent law does not, in general, provide protections for the creations and designs of lighting designers.

Copyright Law

Copyright laws protect any original work of authorship and allow the owner of the protected work to prevent others from copying, publicly displaying, making derivative works, or unfairly using the work. Copyrightable works may include architecture, architectural drawings, and lighting designs. But the law protects the tangible work, not the ideas, facts, or conclusions contained in that work. For example, while a particular lighting scheme may be copyrighted, the protections prevent another designer from the unauthorized reproduction of the design itself but do not prevent someone from implementing the design plan contained in that scheme.

Copyright protection attaches to work automatically, meaning that once the design is put to paper, that paper cannot be infringed upon by another. However, this protection only allows its author to file a lawsuit for injunctive relief against an infringer. Basically, the owner of the work can file a lawsuit asking the court to issue an order preventing the infringer from using the protected work. The owner of the work is not entitled to any monetary damages.

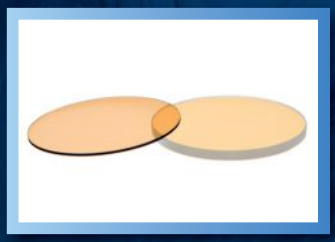
An owner of a particular piece of writing can recover monetary damages if she registers her work with the U.S. Copyright office. There is typically a fee of around $350 to do so.

Trademark Law

A trademark is anything that is used to distinguish the goods or services of one person or entity from those of another. For example, a word, phrase, or logo can be trademarked. Trademark issues rarely arise in the lighting design world. The only time that they are relevant is when a company seeks to protect its corporate logo or catchphrase. Similar to a copyright, trademark protection automatically attaches through the use

LEE Filters
Dichroic Polycarbonate

Presenting the new 0.03" thin Dichroic Polycarbate Filter. An optimal solution for color correcting LED light sources.



Polycarbonate 0.03" thick vs. glass 0.13" thick

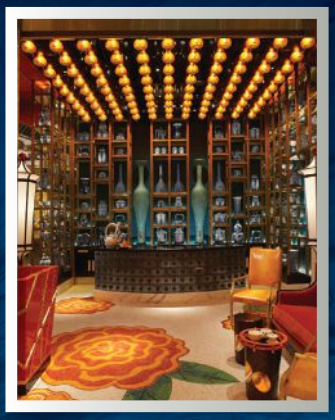


Photo Credit: Russell MacMasters

LEE Filters

T: 800 576 5055 leefilters.com/architectural

Circle no. 240 or http://archlighting.com/productinfo

BRUCK Chroma LEDbay
1000 Lumens
Blue or White Cased Glass,
Metal Shade

LEDRA by WILA 608 Series
Up to 3000 Lumens
Pendant (rigid or cable) or
Surface Mount

BRUCK Chroma Z15 Spot
1000 Lumens
Line Voltage Track, Monopoint Canopy,
Surface Mount, or Pendant

BRUCK.

LEDRA

WILA

LED Lighting with Chroma Technology

- Industry Best Color Consistency (+/- 50 Kelvin)
- Up to 3000 Lumens
- 95+ CRI with 96 R9 Value
- Xicato® Cold Remote Phosphor
- 5 Year Warranty Including NO COLOR SHIFT

Bruck - Full Range of Spots, Surface Mounts and Pendants
WILA - Full Range of Performance Downlights

BruckLighting.com
LedraLighting.com
WilaLighting.com

P: 714.259.9959 Email: info@brucklighting.com

Circle no. 208 or http://archlighting.com/productinfo

Signcomplex

Wi-Fi Controllable PlayLED™ Set

Compatible with 5V-24V RGB digital strips.
Users can download the software to IPhone /IPod/IPad for controlling the color, brightness and changing modes of the digital strip.

SIGNCOMPLEX LIMITED

TEL: +86 755 2760 8650 FAX: +86 755 2750 8651 Email:info@signcomplex.com Web:www.signcomplex.com

Circle no. 163 or http://archlighting.com/productinfo

GYLED

Shanxi Guangyu LED Lighting CO.,Ltd.
Address: Shanxi Guangyu Industry Garden, Yaomiao District, Linfen City, Shanxi Province, 041000, China
Email: sales@gyledlight.com Http://www.gyledlight.com

Sales Centre
Tel: 86 10 62113630 Fax: 86 10 62153948

Circle no. 249 or http://archlighting.com/productinfo

> Any work prepared by an employee, including a lighting design or scheme, which is within the scope of his or her employment, is considered a "work made for hire" and belongs to the employer.

of a particular mark, but greater protections will be afforded if the mark is registered.

Employer–Employee Ownership

It would seem to make sense that the individual who created a particular design should be the rightful owner of the work. However, as we said at the beginning of this article, intellectual property statutes do not follow common sense. Many lighting designers have misconceptions about the ownership of their work as it relates to their employer, and they erroneously apply seemingly straightforward logic. For instance, they might think: "I created the design, so it must be mine."

To the contrary, any work prepared by an employee, including a lighting design or scheme, which is within the scope of his or her employment, is considered a "work made for hire" and belongs to the employer. Conversely, if the work is created by an independent contractor, such as a lighting design consultant, the employer typically does not retain any rights to the work, unless agreed upon in the contract.

For employers, protecting their intellectual property rights is one of the most important precautionary measures they can take. They have a clear financial interest in protecting their employees' creations, but few employers take the necessary precautions to secure and protect their company's rights.

Lighting design firms who utilize independent contractors can protect their intellectual property rights by including a provision in the contract clearly stating that all designs and related work created by the independent contractor are the property of the lighting design firm. So, while an independent contractor usually has ownership rights over the designs she created while retained as an independent contractor by a design firm, the parties can agree to transfer those rights.

Design firms whose employees generate intellectual property (i.e. lighting designs and schematics), should have their employees enter into a written transfer and confidentiality agreement for the practical purpose of confirming that the employees understand that such "work made for hire" is the exclusive property of the firm. It may be helpful to have a section of the employee handbook or manual dedicated to an explanation of "work made for hire," but it is always better for the employer to have the employee sign a specific agreement separate from this. It is easier for a jury to conclude that an employee did not read the handbook and was therefore unaware of the policy than it is to believe that same employee when she has signed a specific agreement.

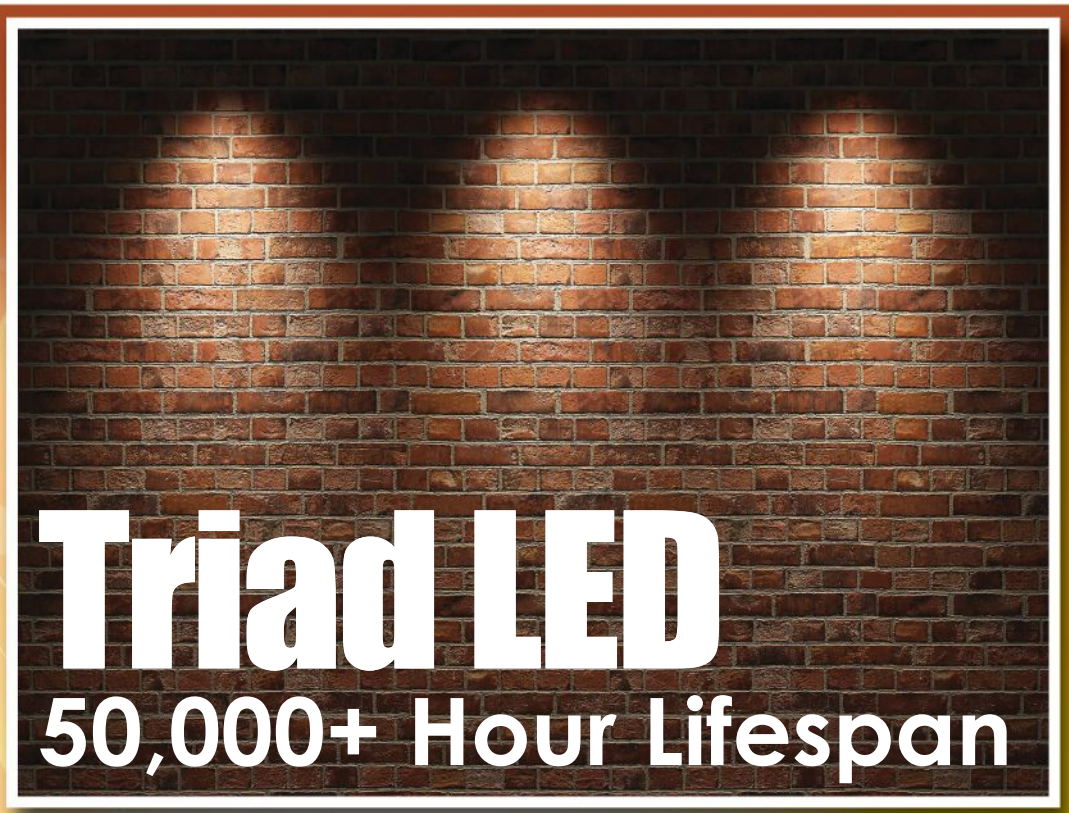
Client–Designer Ownership

The most common claims when it comes to litigation over intellectual property ownership rights between lighting designers and their clients involve a client using the designer's designs for additional areas of a particular project or when the designer is fired from the job, yet the client wants to move forward with the implementation of the designer's drawings.

Clients often feel that since they paid the designer to create a lighting plan or drawings that they automatically own those. The fact

DuraGuard
PRODUCTS INC®
A QSSI Company

5 Locations
Tampa, FL
Cerritos, CA
Vancouver, WA
Walden, NY
Memphis, TN



•Wall Pack

•Sconce

•Area Light

East Coast Sales:
813-792-3527

West Coast Sales:
800-736-7991

www.duraguard.com

The custom in the architectural design profession, which can be extended to lighting designs, is for the designer, and not the client, to retain ownership of the drawings and plans.

is that they may not. Generally, copyright protection extends to the author of the work, unless there is a written agreement to the contrary or the job is a "work for hire." But lighting designers are usually independent contractors and rarely employees.

As demonstrated by various court decisions throughout the country, if a designer is an independent contractor, and there is no express agreement stating that the lighting design plans are "works for hire," the designer is considered the author and copyright protection for the plans is extended to her.

Courts have established that designers hired by clients for individual projects will not be considered to have produced "works for hire." The custom in the architectural design profession, which can be extended to lighting design, is for the designer, and not the client, to retain ownership of the drawings and plans.

A designer can assign or otherwise transfer her ownership in a copyright pursuant to 17 United States Code § 201(d). Written agreements between designers and their clients may alter the ownership of copyrights. Thus, if a designer or a design firm is interested in retaining copyright protection over their designs, it is important to include a provision in any contract which explicitly states that retention of ownership.

Oftentimes, a designer or design firm is hired as a subcontractor and is required to sign the architect's or general contractor's agreement. Almost every subcontract offered to a lighting design firm contains a clause which requires the designer to transfer all intellectual property rights to the architect, general contractor, developer, or property owner. Depending upon the architect or general contractor, a lighting designer may be successful in negotiating for a provision to maintain ownership of her designs. But when a designer transfers or waives her rights to a design, the client is then free to modify it or to use it for additional projects beyond the scope of the designer's original intention.

If, however, the designer maintains ownership rights and the client is found to have infringed upon her copyright, the designer may successfully obtain an injunction. If the designs were registered with the copyright office, she may even be entitled to monetary damages. As a practical matter though, direct evidence of copying or infringement is rare. Courts will require evidence that the client had access to the copyrighted work—and thus the opportunity to copy that work—and will want to see that there is a sufficient degree of similarity between the two works in order to successfully argue for an inference of copying.

As you can see, the laws that govern intellectual property rights can be very confusing and complex to navigate. The general rules for ownership of a lighting design and the relationship between employees and clients are important to keep in mind when starting any project. And it might be wise to have any contract or subcontract that you have to sign for an architect or general contractor reviewed by an attorney who is well-versed in intellectual property laws before you put your mark on the dotted line. •

seem™ 4

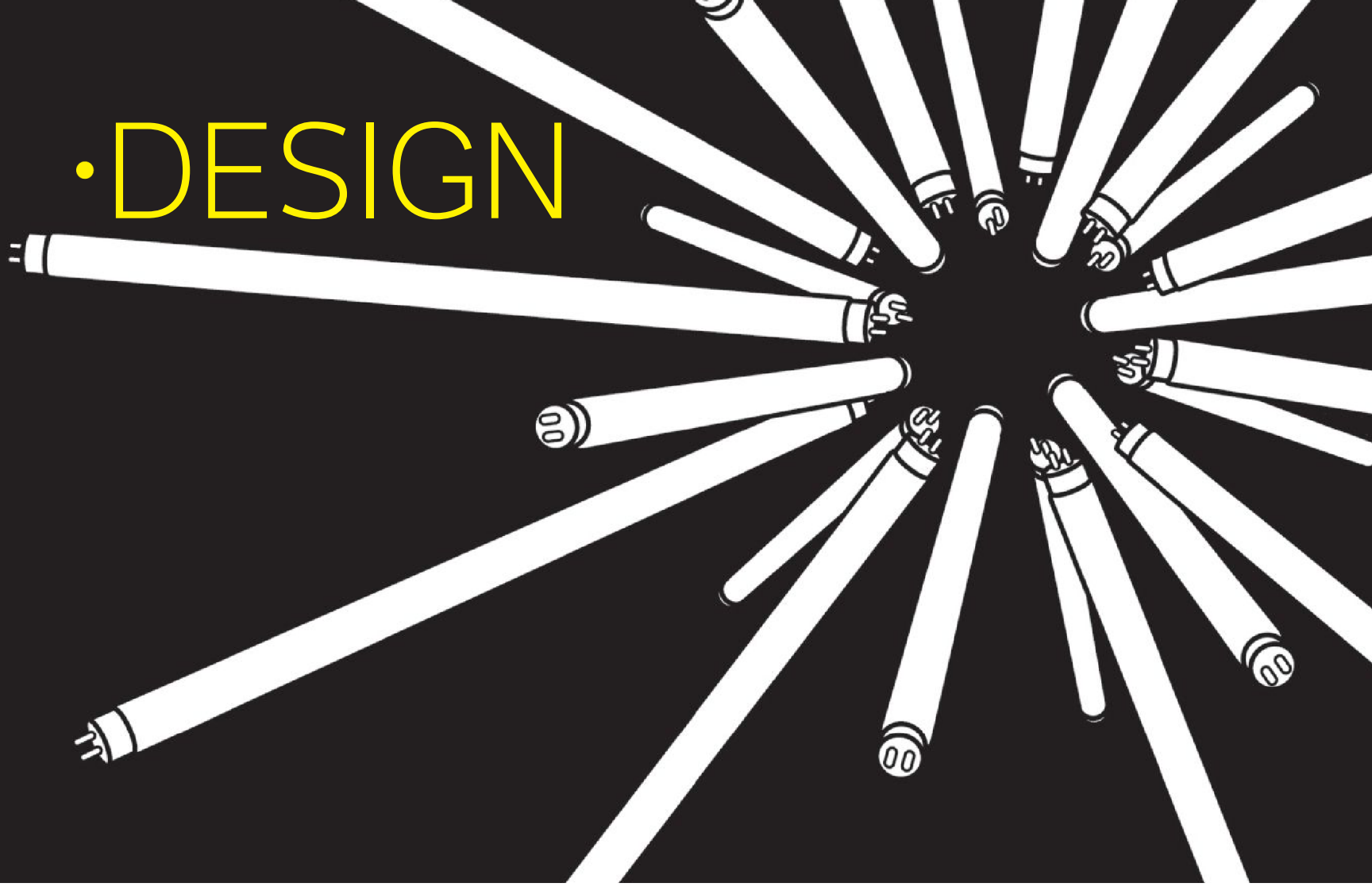
Non-stop light with non-stop style. A family of sleek 4" lines delivers endless application possibilities with recessed, suspended, surface mount and wall mount designs.

Simply bold, simply effective, simply Seem.

FOCAL POINT®

THE ART OF LIGHT®

Circle no. 49 or http://archlighting.com/productinfo



REPORT

FLUORESCENT AND HID: ALIVE AND KICKING

Driven by energy codes, legislation, rebates, and owner needs, lamps and ballasts are becoming more efficient, have longer life, and are more controllable.

text by Craig DiLouie
illustration by James Provost

Although LEDs have been dominating new product development, 99 percent of existing installations in the U.S. are serviced by traditional sources, according to the Department of Energy (DOE). The innovations having the most immediate impact in nonresidential buildings are in fluorescent and high-intensity discharge (HID). These technologies are seeing continual advances in efficiency, service life, and controllability. And all of this is being driven by energy codes, utility rebates, LEED, and regulation that is steadily removing the least-efficient, lowest-cost products from the market.

Linear Lighting

Fluorescents dominate linear lighting, and the past 10 years have seen a major shift from T12 to T8 lamps, with T5 lamps a small but rapidly growing segment. The efficacy of lighting in commercial buildings increased from an average of 50 lumens/W to 70 lumens/W, according to the DOE, and this is largely attributable to the shift in technology.

The biggest issue now is the phaseout of 4-, 8-, and 2-foot (U-shaped) T12 lamps. By 2014, even the exemptions will be eliminated. This has serious implications for existing building stock, as there are approximately 550 million 4- and 8-foot linear T12 lamps in the industrial and commercial building sectors, most of which will require replacement.

Recently, the DOE introduced even tougher standards that will go into effect in November 2014. These standards cover T8 and T5 ballasts, as well as T12 ballasts, including earlier T12 exceptions such as those for residential and sign ballasts. Ballast Luminous Efficiency (BLE) is a new metric that supersedes Ballast Efficacy Factor (BEF), and it removes the lamp load as a variable. Dimming ballasts and some others are exempted from the new rules. Many products already comply, such as a majority of high-efficiency ballasts (for example, NEMA Premium). Others will need to be reengineered or discontinued. At greatest risk are T12 electronic ballasts, outdoor sign ballasts, residential ballasts, and T8 and T5 programmed-start ballasts that lack a cathode cutout design.

In step with the next round of lighting regulations, manufacturers have already

REGISTER EARLY AND SAVE!
www.aecEcobuild.com

ecobuild® america

Sustainable, High Performance & Technology Solutions for the Built Environment

December 3-7, 2012

Exhibition: December 5-6, 2012

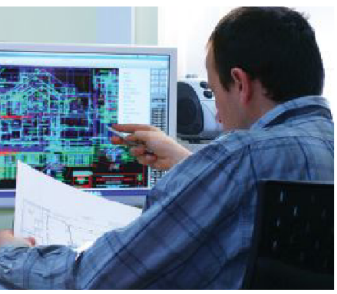
Washington Convention Center

Washington, D.C.

High Performance Through High Technology

The conference and expo to help AEC professionals design and construct our built environment better:

- Building Information Modeling (BIM)
- Energy-Efficiency
- Facility Management & Performance
- Geographic Information Systems (GIS)
- Green Building, Design & Construction
- Sustainable Infrastructure
- and more




Incorporating:

THE FEDERAL DESIGN & CONSTRUCTION OUTLOOK CONFERENCE®

NATIONAL BIM CONFERENCE

THE NATIONAL HIGH PERFORMANCE BUILDING CONFERENCE®

NATIONAL SPECIFIERS CONFERENCE®

Media Sponsor:

hanley wood · A+L · ECO-STRUCTURE · ARCHITECT · Metalmag · Public Works

Produced by:

AEC Science & Technology®

Questions, call 800-996-3863. Use discount code HW12 at www.aecEcobuild.com

> The supply crisis in rare earth materials has shifted investment and demand from value-added products to basic products with a lower cost.

introduced T8 lamps in energy-saving wattages of 25W, 28W, and 30W (and 32W high-lumen) as well as 23W. A significant number of energy-saving T5 lamps are available, including 25W or 26W replacements for 4-foot 28W T5 lamps; 44W to 51W replacements for 4-foot 54W T5HO lamps; a 35W replacement for 3-foot 39W T5HO lamps; and a 21W replacement for 2-foot 24W T5HO lamps.

To maximize savings, all linear fluorescent lamps should be paired with a high-efficiency electronic ballast wherever possible. T8 high-efficiency electronic ballasts are easily identifiable via NEMA Premium on the label. The National Electrical Manufacturer Association (NEMA)'s Premium program does not cover T5s, but these are marketed as "high efficiency" if they have an efficiency of 90 percent or higher.

Some ballasts are available in nonstandard factors such as 0.50 and 0.70, which enables designers to satisfy precise load calculations for energy-sensitive projects by tuning the load and light output closer to required levels. Some programmed-start electronic T8 and T5HO ballasts also can operate lamps in parallel, ensuring that the other luminaires will work when a single lamp on the ballast has failed.

Advanced lighting controls have an impact on lamp and ballast design. Lamps are available that provide longer service life at frequent switching cycles and programmed-start ballasts that turn on lamps more quickly, which increases compatibility with occupancy sensors. Ballasts are available that offer step or continuous dimming, from lower-cost load-shedding and economy continuous-dimming models to digital ballasts that can act as the controller in a network. Of note, NEMA revised it's LL9 standard last year, and ballasts designed to LL9-2011 provide sufficient cathode heating down to about 10 percent of full output. (This is down from 35 percent in the previous version of LL9.) Although LL9-2011 will go into effect in 2015, some manufacturers are already in compliance.

Also of interest is the supply crisis in rare earth materials, which has shifted investment and demand from value-added products to basic products with a lower cost. Five rare earth elements are used in phosphors for energy-efficient and high-color-rendering fluorescents. China, the largest supplier of these metals, has restricted exports over the past few years. In response, lamp manufacturers announced steep price increases last year. Although new supplies are being developed outside of China, europium, terbium, and yttrium—which are used in fluorescent lamp phosphors—will continue to face uncertainty in supply and cost.

This issue has had an impact on 700 Series T8 lamps, which are scheduled to be phased out in favor of 800 Series T8s. The 800 Series, however, use 30 percent more rare earth content. Several lamp manufacturers—Philips, Osram Sylvania, GE Lighting, and Halco Lighting Technologies—requested, and were granted, a two-year reprieve from this transition.

Another option is to replace lamps less frequently, which would increase demand for long-life lamps and LEDs. Extended-life T8 and T5HO lamps offer up to 60,000 hours of rated service life. One lamp, the Sequoia T8, which was recently introduced by Kumho Electric, is rated at 75,000 hours when operated at three hours per start on a programmed-start ballast.

High-Intensity Lighting

Over the past decade, there has been a major shift from mercury vapor to metal halide. Innovation in this sector has focused on energy efficiency, longer life, and controllability among higher-wattage lamps, as well as miniaturization and improved color performance among lower-wattage lamps that compete with halogen.

Legislation has banned mercury vapor ballasts (except specialty ballasts) and regulated ballasts sold as part of 150W to 500W metal halide luminaires. The latter requires luminaires in these wattages to have pulse-start ballasts. California tightened these rules, requiring an electronic ballast or either an occupancy or photosensor control. The DOE is working on new regulations that appear to be aimed at eliminating probe-start lamps (expected to become effective in 2016), and for ballasts sold in metal halide luminaires, which may expand wattages beyond 150W to 500W while nudging current efficiency levels even higher (expected to become effective in 2015). Since ballasts below 150W are already pulse-start, if the DOE covers these wattages, it is possible that it will establish standards at a level where only electronic ballasts can comply.

Congress is also considering regulating outdoor lighting through bills such as the Outdoor Lighting Efficiency Act. This bill would cover outdoor luminaires such as area, roadway, high-mast, dusk-to-dawn, and decorative post top, requiring that these types of lighting achieve certain levels of efficiency, provide bilevel control (except for roadway luminaires), and satisfy certain ratings for backlight, uplight, and glare. It would also set efficacy standards for high-output, double-ended halogen lamps and ban the manufacture of mercury vapor lamps starting in 2016.

Meanwhile, codes have had a meaningful, if not greater, impact on HID lighting. California's Title 24, in particular, requires bilevel outdoor lighting. ASHRAE/IES 90.1-2010 has a similar requirement.

For metal halide, strides have been made in pulse-start lamps, ceramic arc-tube lamps, and HID electronic ballasts. Pulse-start lamps offer longer lamp life, faster lamp start and restrike, and improved lumen maintenance.

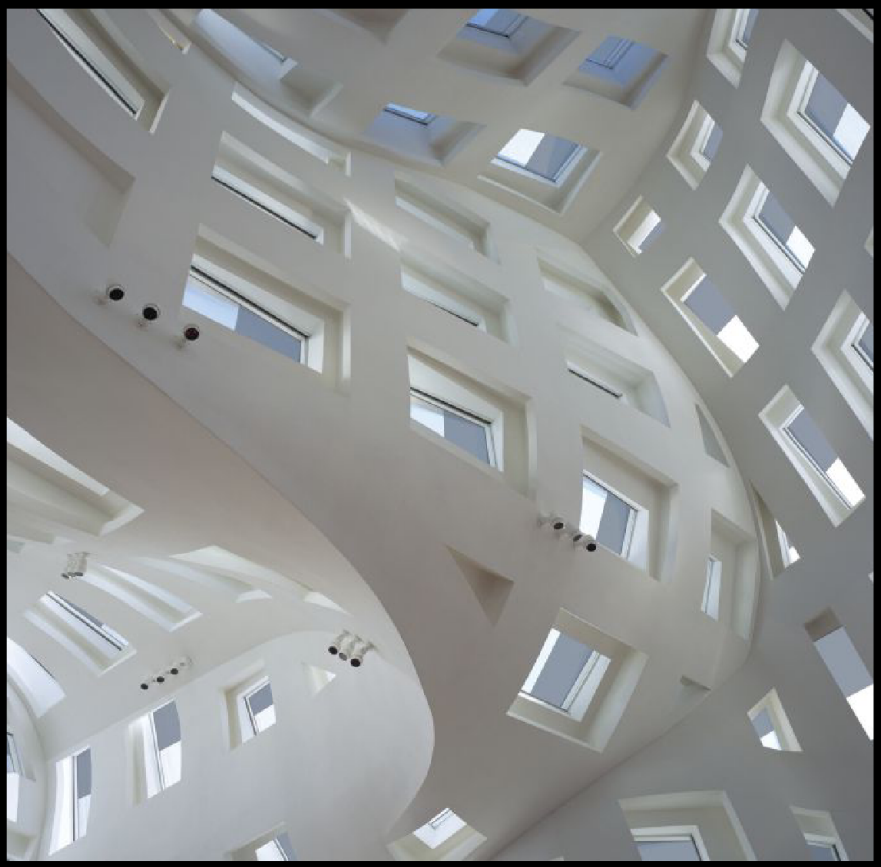
With ceramic pulse-start lamps, there are two more trends: miniaturization and improved rendering of red. Ceramic metal halide systems are now offered in wattages as low as 15W, which can replace a 12V 50W MR16 for a savings of up to 32W per lamp. These lamps also have an improved ability to render reds with an R9 greater than 40, commonly used in retail.

On the ballast side, most innovation is occurring in electronic ballasts. Besides generating some energy savings, these offer lighter weight, a smaller size, improved lumen maintenance and life, and better power regulation which results in better color consistency. They are available for 15W to 750W lamps, both metal halide and high-pressure sodium systems, and have the ability to join zero-to-10V DC, DALI-based, and proprietary controls. Most products offer dimming to satisfy codes such as Title 24, usually down to about 50 percent. Others connect to zero-to-10V DC or DALI-based controls. A significant breakthrough is having the low-frequency, square-wave shape for higher wattages. This produces less wear and tear on the lamps and improves performance.

What's Next

Although there is a great deal of innovation occurring in fluorescent and HID lamps and ballasts, these are mature technologies that in the long term will face a general slowdown in development. LED technology, meanwhile, is expected to become the dominant light source in nonresidential applications by 2030. As technologies evolve and LEDs make a run at fluorescent and HID market share, one thing is certain: Fluorescent and HID will not go down without a fight, and we should see many years of innovation in this segment. •

No, it's not by Photoshop; it's by Frank Gehry.



Proof that we can solve any window-covering problem.

A unique automated shading solution and interior lighting function in tandem.

We know there are a lot of strange windows here. And no two are the same. That's why Frank Gehry + Partners chose us to solve the difficult window-covering problem of the Lou Ruvo Center for Brain Health.

Our custom-made solutions included:

- Roller shades that function within a unique tracking system for the structure's more than 200 windows.
- Occupant protection from Las Vegas's intense solar heat and glare.
- Exterior views of the sky.
- Our cutting-edge SolarTrac System, which integrates sunlight with appreciable HVAC energy savings.

And nobody else could have met the challenge.

SolarTrac®

MechoSystems
Design with light.®

T: +1 (800) 437-6360
F: +1 (718) 729-2941
E: marketing@mechosystems.com
W: mechosystems.com

Circle no. 78 or http://archlighting.com/productinfo

A·L
ARCHITECTURAL LIGHTING

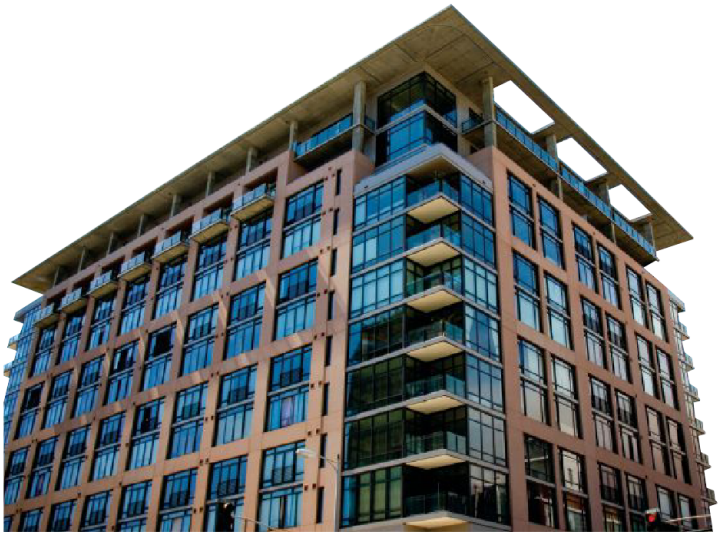
STAY CONNECTED

A•L e-Notes is a monthly e-newsletter designed to keep subscribers informed with coverage of relevant industry news as it is happening. Also included are blog posts from A•L's editors and industry leaders.

Make sure to Sign up for the **A•L e-Notes** so that you receive breaking news between issues.

SIGN UP TODAY!

www.omeda.com/alit/1M1ENBD



PERFECT YOUR SPECS FOR LEED® PROJECTS

Writing Solid Specs for LEED® Projects: An Introduction to LEED Requirements

Hanley Wood University has partnered exclusively with Walsh Sustainability Group to create experience-led education programs around several LEED related topics. The first program, Writing Solid Specs for LEED Projects, will guide inexperienced LEED teams through the components of the LEED green building rating system that must be addressed in the drawings, specifications, and documentation process.

The program will discuss how to select an appropriate LEED Rating System; identify what requirements make LEED specs different from business as usual; and review common oversights made while writing LEED specs that Walsh Sustainability Group has seen over the years as LEED Consultants and project administrators.

CREDIT: 1 GBCI CMP hour, LEED Specific BD+C and 1 AIA HSW/SD hour

Enroll today to help tune up the LEED requirements in your specs for better bids, streamlined construction administration, and most importantly, successful achievement of LEED credits.
http://tinyurl.com/leed-specs

Look for more LEED-related and LEED-specific courses from Walsh Sustainability Group on Hanley Wood University in the near future.

Sponsored by:

InPro Corporation

Walsh Sustainability Group

hanley wood UNIVERSITY
Building Knowledge 24/7

Continuing Education AIA

GBCI CMP

INTRODUCING

FINO

Stunningly THIN

No downlights need apply

Indirect • 5/8" deep • 5w/ft

Experience precision as never before, with Fino, our new, stunningly thin indirect LED lighting solution. Designed to promote a crisp, comfortable work environment, Fino runs seamlessly across the walls without interfering with wall studs, leaving your ceilings pristine clean.

Add our 10 year limited warranty, and Fino is the LED fixture you've been waiting for.

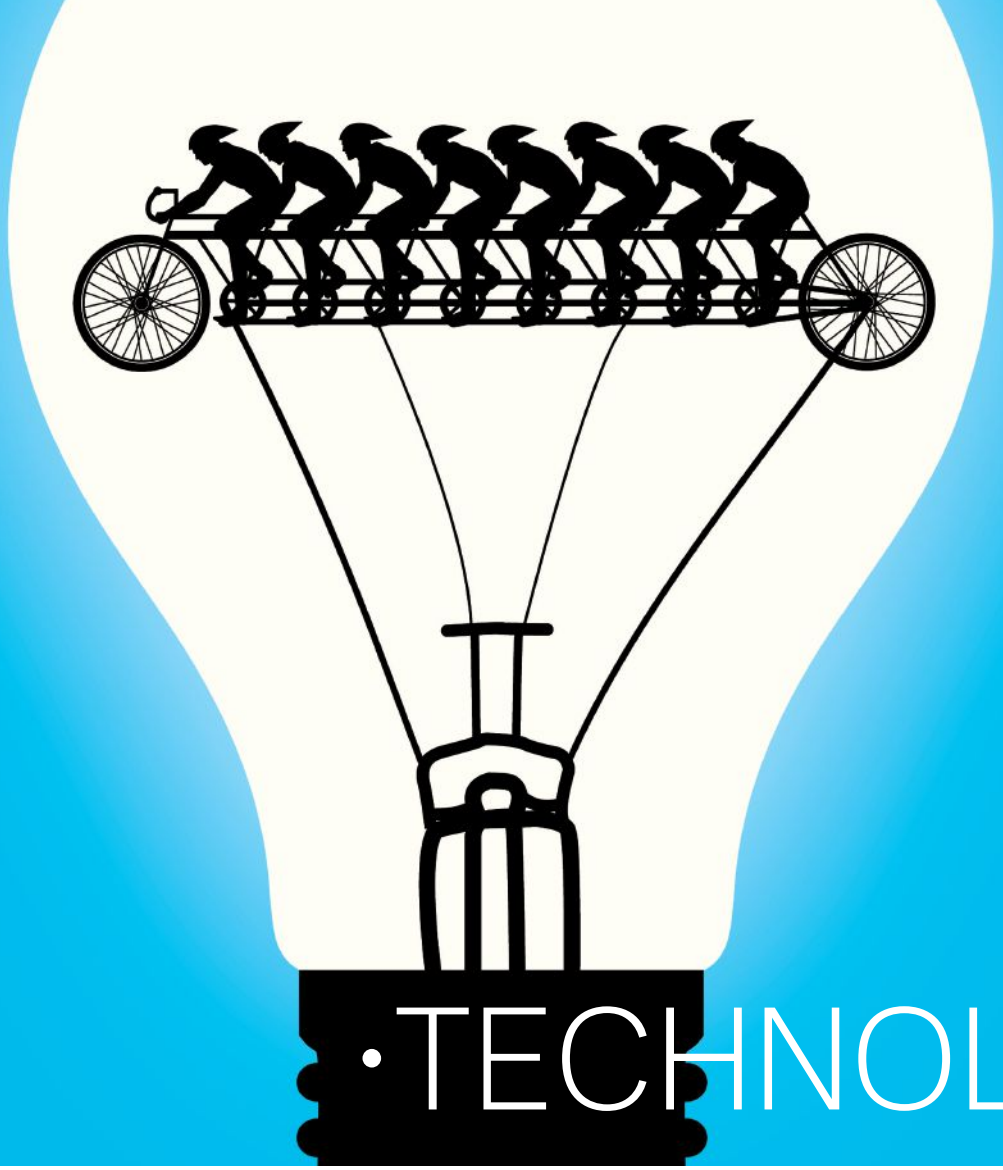
The Fino LED was introduced at Lightfair 2012.
For more information contact **info@amerlux.com**.
Or, call Amerlux at **973-882-5010** to learn more.

So thin. So precise. So Fino.

10 year limited warranty
AMERLUX LED

amerlux

Circle no. 99 or http://archlighting.com/productinfo



TECHNOLOGY

READY, SET, UPDATE

An overview of the latest versions of software programs available for designers who work with light.

text by Wanda Lau

illustration by Tang Yau Hoong

Computer-aided design has elevated lighting design into a realm of automation and visualization that was unimaginable just a few decades ago. Still, many lighting designers reach for an old standby when beginning a project. "We start off with hand calculations using our good old Texas Instruments calculators," says New York–based Brian Stacy, Arup's lighting leader for the Americas.

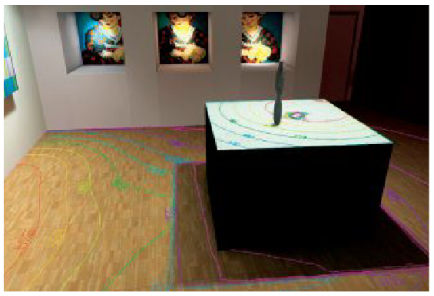
The time away from the mouse doesn't last long, though. Lighting designers soon return to the computer and a number of software options to produce the lighting reports that building officials require and the photorealistic renderings that win over clients.

Stacy, for one, proceeds to SketchUp to trade early ideas with the architect. From there, he boots up AutoCAD or Rhino to create 3D models that will serve as the base geometry for importing the building into a lighting analysis program such as Radiance or AGi32. Next, Stacy's team uses production programs to lay out the 3D model in construction documents and fixture schedules. And, finally, specifications and presentations require a combination of Adobe Creative Suite and Microsoft Office.

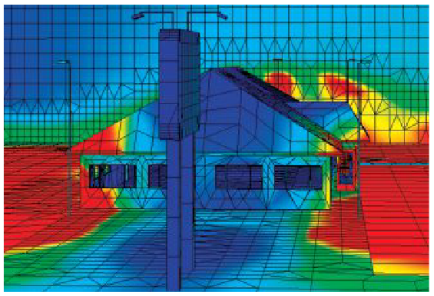
But not all lighting firms enjoy the luxury of having multiple programs at their disposal. And even this abundance of choice can prove to be a mixed blessing, if you consider how often new software versions are released and how quickly costs can add up. As a result, design firms must weigh which software programs and program updates are worth the price.

The following pages provide an overview of some of the popular lighting software and the salient features introduced in the latest releases. If you're looking for more, we cover additional programs and updates on archlighting.com.

Even with the array of programs available, Stacy says that the lighting industry is still missing "the one end-all, be-all software package" that can robustly handle modeling, visualization, and analysis. And, as you may guess, every program comes with quirks. "There are technical shortcomings when dealing with each program," Stacy says—which explains why his calculator remains closely at his side.

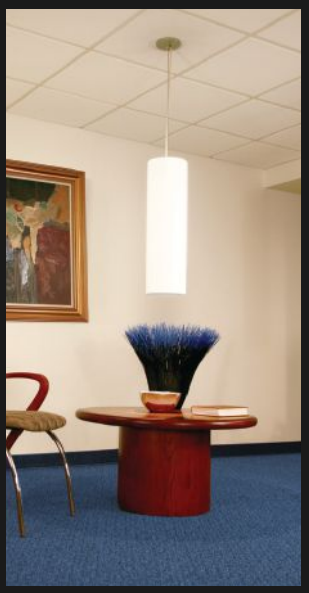


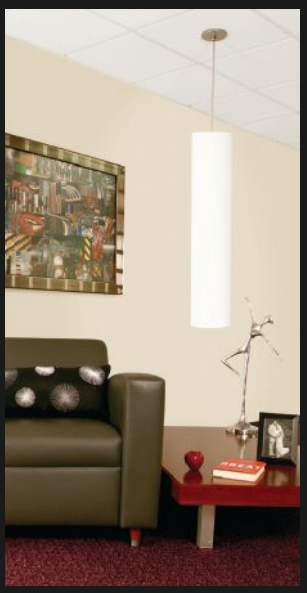
Program: DIALux **Website:** dial.de
Provider: DIAL, a German software developer
Latest Release: evo beta (will replace version 4) **Cost:** Free
Operating System: Windows Vista, XP, or 7
Overview: DIALux is a planning, visualization, calculation, and documentation program for lighting that is supported by more than 160 luminaire manufacturers whose lighting catalogs are integrated into the program for quick product insertion. Users can create models of single rooms to whole buildings from scratch, or they can import 2D drawings and 3D geometries from other CAD programs. DIALux output options include 3D renderings, detailed lighting reports and diagrams, and energy analyses.
Selected New Features:
- Allows the planning of whole buildings and outdoor spaces, merging indoor and outdoor light design.
- Real-time tuning of lighting scenes, including the adjustment of dimming values and RGB values, after running calculations.



Program: AGi32 **Website:** agi32.com
Provider: Lighting Analysts
Latest Release: 2.3 **Cost:** $895
Operating System: Windows Vista, XP, or 7
Overview: AGi32 is a lighting calculation, modeling, and rendering program for designing interior and exterior environments, and analyzing illuminance values from both electric and natural light sources. The CAD program allows users to place and aim luminaires, and check design compliance to several lighting standards. It generates a virtual, photorealistic model of the proposed design that shows the interaction of light and surfaces.
Selected New Features:
- Calculation engine with multiprocessor, multicore support that significantly reduces the computing time in geometry parsing, radiosity calculations, and photometric calculations.
- Dynamic or nodal editing to move or modify shapes of rooms and objects in plan and isometric views.

LARGE VENUE OFFERING EXPANDS





SEQUENCE™ & AIR FOIL™

NOW AVAILABLE 2' & 3' HEIGHTS

INTRODUCING PARALLEL™

4", 8" AND 12" SQUARE
2', 3', 4' AND 8' HEIGHTS
WHITE ACRYLIC OR LUMICOR® SIDES

Congratulations to Mark Horton / Architecture
House of Air San Francisco, CA

www.VisaLighting.com

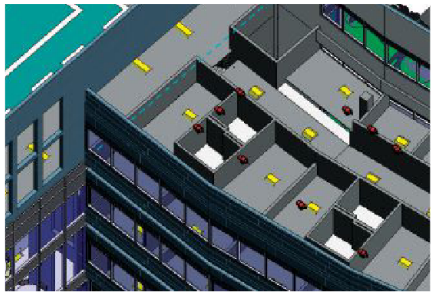
800.788.VISA

VISA LIGHTING
An Oldenburg Group Company

INSIDE AND OUT™

Circle no. 38 or http://archlighting.com/productinfo

Program: Radiance **Website:** radsite.lbl.gov
Provider: Greg Ward Larson and Lawrence Berkeley National Laboratory
Latest Release: 4.1 **Cost:** Free
Operating System: Any Unix-like operating system (e.g., Mac OS X, Linux, FreeBSD)
Overview: Radiance is an open-source, physical- and reality-based, ray-tracing, and lighting simulation and visualization program. The simulation engine numerically determines luminance and spectral radiance, irradiance, and glare indexes from electric light and daylight. Instead of a graphical user interface, it runs on programming commands or scripts. Radiance supports complicated geometries and a variety of reflectance models, and can build on geometries from other CAD programs to generate renderings, numerical values, and contour plots.
Selected New Features:
- Ability to simulate optically complex fenestration systems using bi-directional scattering distribution functions.
- Ability to simulate the performance of specularly redirecting window systems, such as Lightlouver, and microprismatic refraction films, such as 3M daylight redirecting film.



Program: Revit MEP **Website:** autodesk.com
Provider: Autodesk
Latest Release: 2013 **Cost:** $5,495
Operating System: Windows XP SP2 or later, and Windows 7
Overview: Revit is a design and modeling program that can handle complex projects from conceptual design to construction documents. It combines CAD and BIM tools and offers plug-ins for numerous trades. Revit MEP supports the design, modeling, visualization, simulation, energy analysis, and documentation of MEP systems. Its models and geometries can serve as the basis for downstream lighting analysis programs.
Selected New Features:
- Ray tracing enables interactive real-time rendering and rich photorealistic content rendering in viewports. Users can customize ghost surface and transparency overrides with each building element.
- Enables user edits to room-calculation points inside lighting fixture families and values to be reported as part of the space. •

Engage. Connect. Succeed.

Seize the opportunity and see what happens.

When you become a member of the American Institute of Architects, you immediately expand your professional network to include over 80,000 colleagues.

Through our national allied membership category, if you are in a position allied to the field of architecture, such as engineering, construction, and interior design, you're eligible to join. Not only will membership help you build relationships with architects, you will also get resources to build your business too—including the Architecture Billings Index, a leading economic indicator for nonresidential construction, and discount pricing on AIA Contract Documents.

THE AMERICAN INSTITUTE OF ARCHITECTS

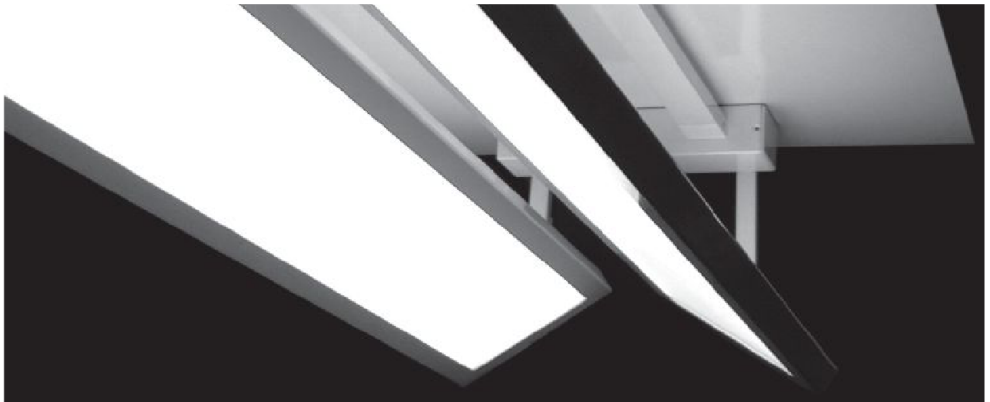
www.aia.org/join

SELECT SHOWSTOPPERS

At Los Vegas in May, Lightfair showcased some brilliant advances in lighting controls and solid-state lighting.

text by Wanda Lau

Sensor Switch, an Acuity Brands company • Specializing in occupancy-sensor products and technologies for lighting controls, Sensor Switch recently introduced nWiFi (shown), which enables wireless communication for the devices in its nLight system. The digital architecture and network technology behind nLight and nWiFi enable the integration of wired or wireless, time-based, daylight-based, sensor-based, and manual lighting controls. As a result, digital devices, including occupancy sensors, photocells, wall switches, dimmers, and luminaires, can make their own intelligent control decisions without having to rely on relay-only devices, such as room controllers and panels. • *sensorswitch.com* • Circle 125



VoksLyte, Cathode Lighting Systems (CLS) • An extension of CLS's custom fluorescent manufacturing business, VoksLyte designs and manufactures high-end, nontraditional fixtures that use solid-state or traditional lighting sources. The new product lines feature cold-cathode light sources, flat-panel elements, curved illuminated forms, and mechanical elements that allow users to field adjust the light for functional or decorative purposes. For example, the dimmable Aerial LED ceiling luminaire (shown) has two-sided light panels that can be rotated up to 135 degrees. Additionally, the support arms for the light panels can be fixed at zero degrees, or 45- and 90-degree positions from the horizontal. • *vokslyte.com* • Circle 126

Warm Dim Technology, USAI Lighting • The typically cool output of LEDs is warmed with USAI's new patent-pending dimming technology, which will be available later this year. With Warm Glow Dimming, the company's BeveLED recessed downlights follow the curve of the black body locus to emulate the warm look of incandescent lamps during dimming. The 24W LED fixtures dim from 2700K at 100 percent light output down to 2250K at less than 1 percent, and produce 51 lumens per watt. The technology follows a two-step MacAdam Ellipse for fixture-to-fixture color consistency. • *usaillumination.com* • Circle 127

SR6, Cree • Part of Cree's SR Series, the SR6 LED architectural downlight uses 85 percent less energy than comparable incandescent lighting and is designed to last up to 30 times longer, according to the company. The SR Series uses Cree's Light Source-Reflector Unity optical system to reduce glare and optical reflections. It also uses Cree's TrueWhite Technology, which provides a color temperature range of 3000K, 3500K, and 4000K, all with a CRI exceeding 90. The dimmable, 6-inch SR6 (shown) uses anodized aluminum reflectors with either a 30- or a 45-degree shield angle, and a wallwashing option is also available. • *cree.com* • Circle 128

Acrylite LED, Evonik • The Acrylite LED series consists of transparent molding compounds and acrylic sheet products designed specifically for illumination by LEDs. Embedded with colorless particles that diffuse light forward, the acrylic sheets redirect edge-lighting to the surface to produce uniform illumination. An abrasion-resistant coating on one or both sides of the sheet reduces the potential for scratches during subsequent fabrication. The Acrylite LED series includes four grades—LD12, LD24, LD48, and LD96—with respective light ranges of 12, 24, 48, and 96 centimeters, as well as two translucent white colors for backlit applications. • *evonik.com* • Circle 129

Spectra, Reggiani • The subtle curve of this suspended luminaire features more than 600 45W 3900K LEDs—with a CRI exceeding 85—behind frosted-acrylic lenses with optical films designed to focus the light beam. Housed in an extruded aluminum body with a metallic gray powdercoated finish, Spectra has an arc height of 3 1/2 inches, a length of 63 3/4 inches, and a width of 2 5/8 inches. Its constant current driver is housed in the ceiling. • *reggiani.net* • Circle 130

Lumentalk, Lumenpulse • With seven issued or pending patents, Lumenpulse's Lumentalk technology can convert conventional lighting systems to LED systems without requiring extensive rewiring or invasive renovation of a building. The technology turns existing AC power lines into a stable, noise-free, high-speed data communications link. Subsequently, LED fixtures from any manufacturer can be digitally dimmed and controlled using only the existing electrical wiring. Compatible with 100V to 277V systems, Lumentalk is protocol independent and works with a number of traditional dimmers and control systems. • *lumenpulse.com* • Circle 131

Industry Best
10-Year Warranty
High Performance Recessed LED

FINELITE
Better Lighting

- Up to 105.7 — Lumens Per Watt
- 100% Serviceable from Below
- Proper Thermal Management
- L90 — 90% Light Output at 100,000 hrs
- 10 100 — Dimming Standard
- Buy American Act of 2009 Compliant

Finelite's High Performance Recessed LED (HPR-LED) collection includes a 10-year warranty on the full family of indoor recessed LED luminaires. The warranty covers the driver, light engine, and luminaire housing. Isn't it time you saw it for yourself?

Visit **www.fineliteled.com** to get more information.

HPR-LED Collection Includes:

Scan This Code

INDUSTRY BEST 10 YEAR WARRANTY HPR-LED

PRODUCT INNOVATION pia 12 AWARD WINNER

DESIGNLIGHTS CONSORTIUM
Qualified Luminaires

Circle no. 430 or http://archlighting.com/productinfo

NINTH ANNUAL A·L LIGHT & ARCHITECTURE DESIGN AWARDS

Text by Elizabeth Donoff

Looking at this year's winners, the power of light and its ability to define, highlight, and transform architecture continues to be impressive. On the following pages, you'll find a diverse group of 15 projects that represent every sort of lighting challenge a designer could face. They had to navigate strict program requirements, codes, and budgets, and their work shown here is anything but simple.

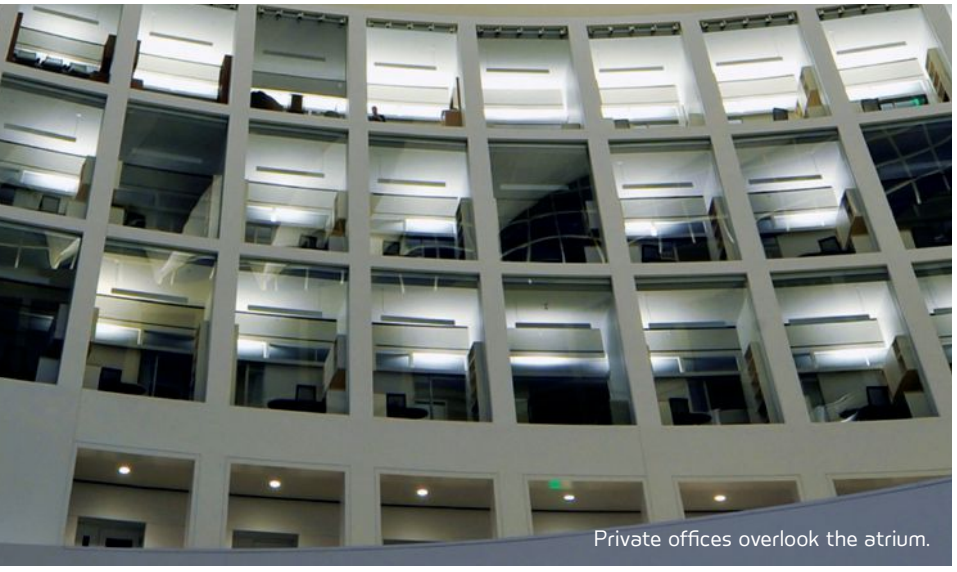
In each project, the lighting is carefully considered, and in the hands of the talented lighting designers and architects behind them, technical and aesthetic achievements are brought together. To manipulate light in such a way as to simultaneously evoke subtlety and complexity requires a serious understanding of light. This year's work shows moments of articulated restraint as well as moments of exuberant celebration. In the process, the designers never loose sight of the people that they are designing for and they give voice to light's singular ability to create a vocabulary all its own.

For additional coverage and slide shows of each winner, go to archlighting.com.

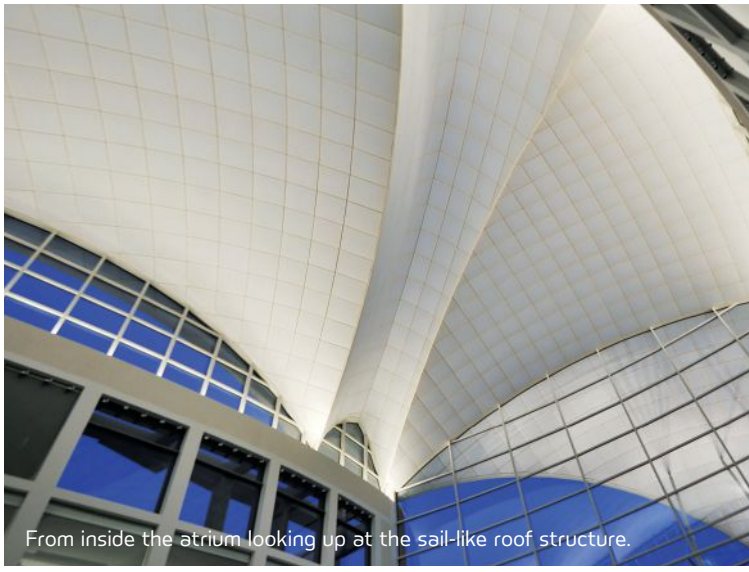
Photo: Connecting stair at the United States Institute of Peace, Glenn Heinmiller/Lam Partners

2012 DESIGN AWARDS
OUTSTANDING ACHIEVEMENT

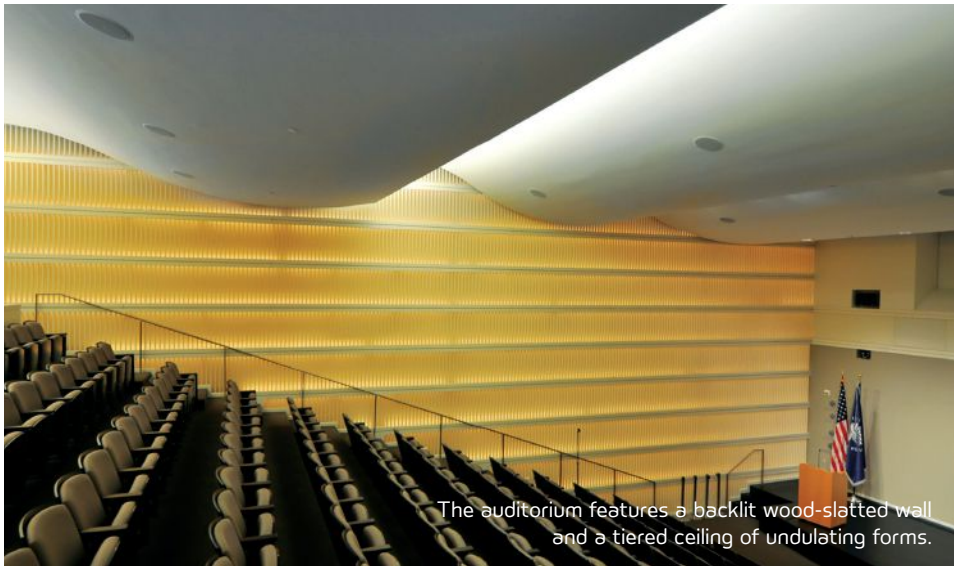
At night, the building glows from within, doubling as exterior as well as interior illumination.



Private offices overlook the atrium.



From inside the atrium looking up at the sail-like roof structure.



The auditorium features a backlit wood-slatted wall and a tiered ceiling of undulating forms.

Category: Whole Building • Project: The United States Institute of Peace, Washington, D.C. • Entrant: Lam Partners • Jury Comments: Beautifully done. • The lighting of the roof structure is a technical feat.

Details

Architect: Safdie Architects, Somerville, Mass. • Lighting Designer: Lam Partners, Cambridge, Mass. • Photographer: Bill Fitz-Patrick/USIP (bottom left), Glenn Heinmiller (all others) • Project Size: 150,000 square feet • Project Cost: $110 million • Watts per Square Foot: Not subject to local building jurisdictions or energy codes due to project's foreign nation status. • Manufacturers: Bartco Lighting, Bega, B-K Lighting, Celestial, Corelite, Con-Tech Lighting, Cooper Lighting, Edison Price, Engineered Lighting Products, Eureka, Kramer Lighting, Lam Lighting, Linear Lighting, Lithonia (Acuity Brands), LSI Industries, Lutron, Focal Point, Philips Day-Brite, Philips Lightolier, Shaper (Cooper Lighting), Selux, Spring City, WattStopper, Wila Lighting, We-ef

Sited adjacent to the Lincoln Memorial, the United States Institute of Peace boldly makes its mark on the Washington, D.C., skyline with a white luminescent roof, whose curving, steel-framed form evokes a dove in flight. The roofs shelter the building's three wings—which encompass 150,000 square feet—as well as two soaring atria. Lam Partners delivered a subtle lighting design that focuses attention on the structure's clean, minimalist architecture with nary a hint of a fixture in view.

The roof sections are composed of a white-fritted outer-glass shell and an inner-white fabric membrane that sandwiches the steel framing elements. During the day, sunlight transforms the roofs into brilliant umbrellas. To create a similar effect at night, the designers placed T5HO forward-throw cove fixtures at the tops of the atria walls. Digitally controllable ballasts allow light output to be tuned along the roof's perimeter and dimmed overall, subtly accentuating the roof's curvature. This single source simultaneously creates interior ambient lighting and the beacon-like glow of the exterior.

The designers made ample use of daylight in the office wings as well. Perimeter offices are fully daylit, and the natural light is supplemented with T5 linear pendant downlights. In the corridors, clerestories bring in daylight and T5 strips integrated into the bases keep the passageways' ceilings pristine. • AARON SEWARD

2012 DESIGN AWARDS
OUTSTANDING ACHIEVEMENT

Category: Whole Building • Project: The Kauffman Center for the Performing Arts, Kansas City, Mo. • Entrant: Lam Partners • Jury Comments: The lighting cohesively brings all the different spaces together. • The lighting of the back façade is particularly dramatic.

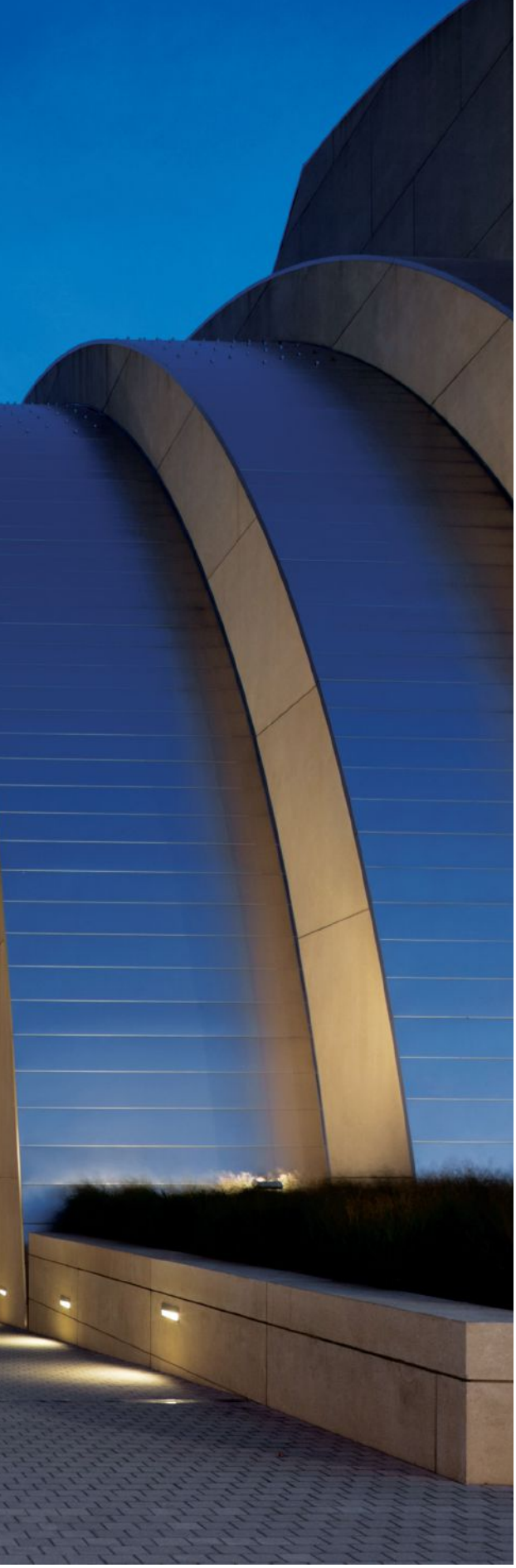
Details

Architect: Safdie Architects, Somerville, Mass., with BNIM, Kansas City, Mo. • Lighting Designers: Lam Partners, Cambridge, Mass., with Derek Porter Studio, Kansas City, Mo. • Photographer: Michael Spillers • Project Size: 356,000 square feet • Project Cost: $304 million • Watts per Square Foot: Missouri has no energy code • Manufacturers: Acolyte, Alcko, Bartco Lighting, Baselite, Bega, C.W. Cole, D'ac, Dasal Lighting, Designplan, Eureka, Engineered Lighting Products, Edison Price, Elliptipar (the Lighting Quotient), Erco, Finelite, Focal Point, Halo (Cooper Lighting), H.E. Williams, Hubell, Intense Lighting, Insight Lighting, Jesolo, Litecontrol, Louis Poulsen, Lucifer Lighting, Lumiere (Cooper Lighting), New Star, Osram, Philips Capri, Philips Day-Brite, Philips Lightolier, Philips Omega, Rezek, RSA, Selux, Tivoli, We-ef

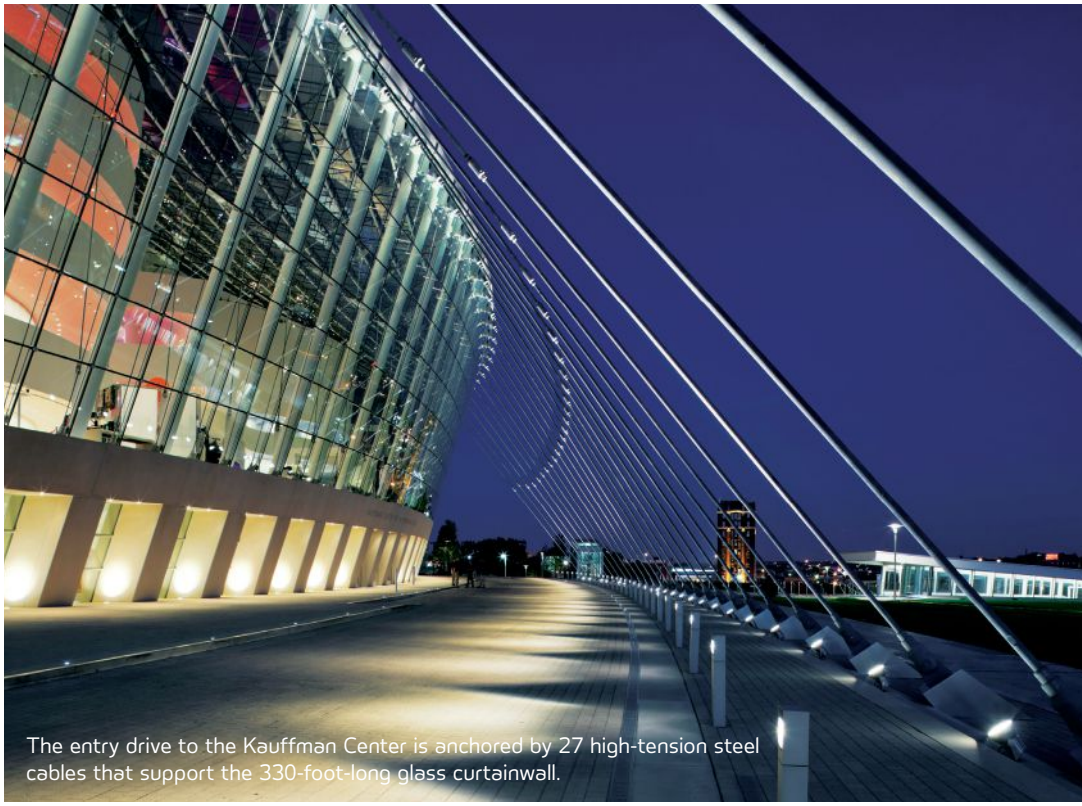
Designed by Safdie Architects, the Kauffman Center for the Performing Arts sits confidently on the Kansas City's horizon, and its unique architectural form—a ribbed, helmetlike shape—gives the city a notable landmark. While the building as a whole has a sizeable urban presence, the real cause for celebration is its technical prowess, most of which is hidden in its structure, acoustical performance, and lighting. The center is actually several structures in one, wrapped in an envelope of metal and glass. It has two main performance halls—Helzberg Hall and the Muriel Kauffman Theater—each of which is structurally independent of one another as well as the main glass-enclosed lobby area known as Brandmeyer Hall.

Lam Partners, with the assistance of local firm Derek Porter Studio, have lit the interiors and exteriors in a seemingly simple, yet technically sophisticated, way. For example, five different luminaires work in concert to illuminate the entry drive and its architectural features. In Brandmeyer Hall, PAR38-IR spotlights are mounted directly to the tubular steel beams and provide the space with complementary lighting at night, which otherwise relies on daylight. Despite the scale of the building, the lighting provides an intimate feel and sets the stage for the spectacle within. • ELIZABETH DONOFF

The north entry to the Kauffman Center features the dramatic ribbed forms of the stainless steel–clad structure of the performance halls.



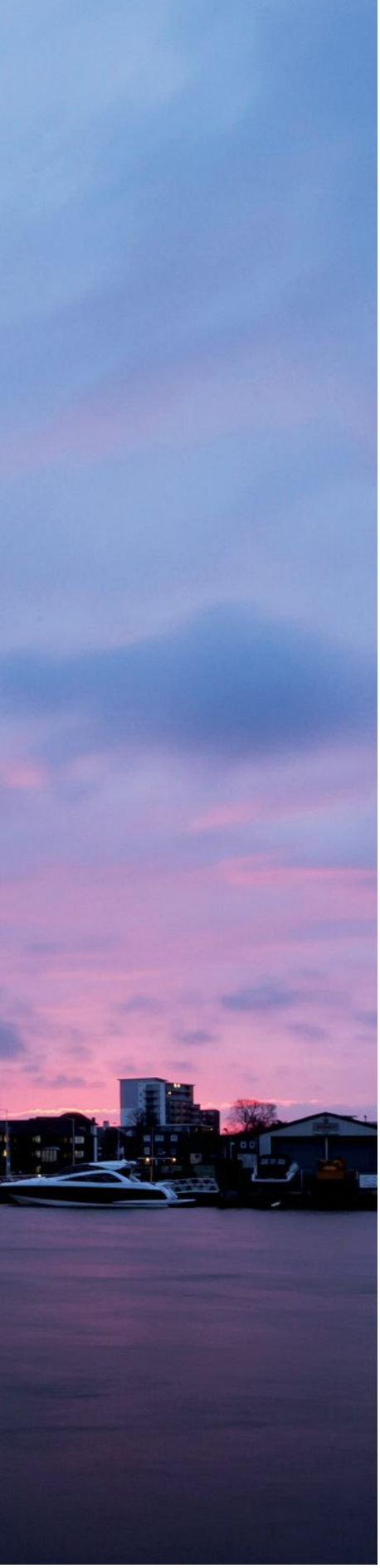
Helzberg Hall, the Kansas City Symphony's new concert hall.



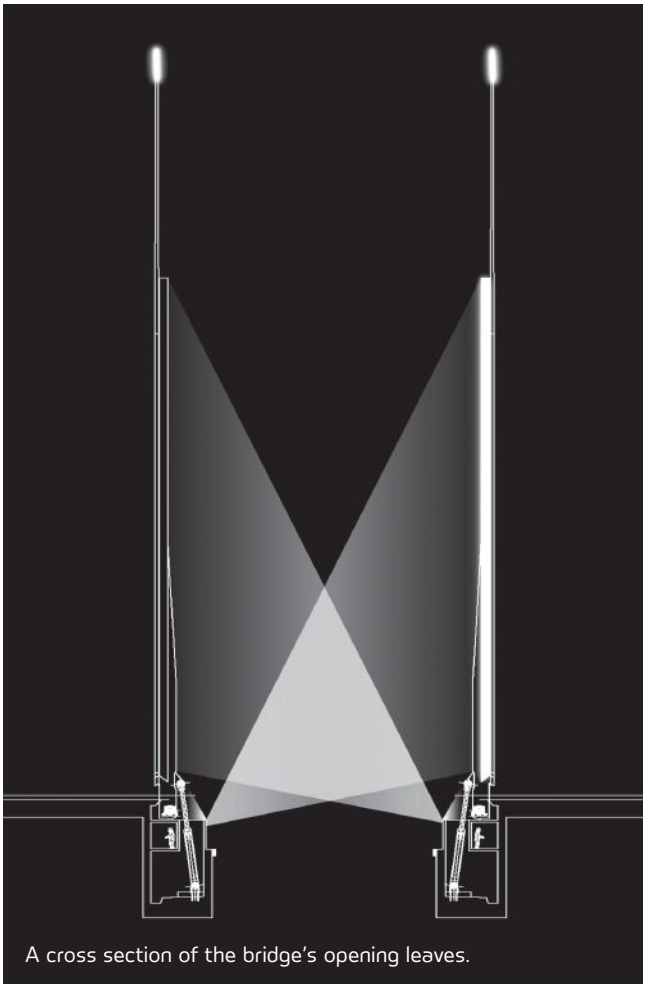
The entry drive to the Kauffman Center is anchored by 27 high-tension steel cables that support the 330-foot-long glass curtainwall.

2012 DESIGN AWARDS
OUTSTANDING ACHIEVEMENT

Twin Sails Bridge is a new crossing point for the Borough of Poole in England. The lighting changes color—from white to red—to signal when the bridge is closed (leaves down) or when it's open (leaves up).



In the closed position, the bridge is illuminated by white light, which highlights the structural ribs and handrails.



A cross section of the bridge's opening leaves.

Category: Exterior Lighting • Project: Twin Sails Bridge, Poole, U.K. • Entrant: Speirs + Major • Jury Comments: A fantastic project • The split of the roadway on the diagonal is extremely clever. • A great use of color to highlight the bridge structure and mast and to produce striking reflections on the water.

Details

Architect: Wilkinson Eyre Architects, London • Lighting Designer: Speirs + Major, Edinburgh, Scotland, and London • Photographer: Dave Morris Photography • Project Size: 456-feet-long by 35-feet-wide (bridge dimensions) • Project Cost: £37 million ($57.9 million), £18.5 million ($29 million) for the bridge • Watts per Square Foot: Not available • Manufacturers: Crescent Lighting, Encapsulite, iGuzzini, Metamont/Abstract AVR, Mike Stoane Lighting, Sill Lighting

A decade in the making, the Twin Sails Bridge connects the Borough of Poole to the nearby town of Hamworthy. Both communities saw the new crossing as a catalyst for development as well as a necessary addition to alleviate traffic congestion on the nearby Poole Bridge.

The lighting was designed under the direction of Jonathan Speirs, and key to the project brief was the mandate to create a nighttime icon, one that would create an experience for driver, pedestrian, cyclist, and mariner alike. At the heart of that experience is a bridge that transforms into a sail-like structure. The middle segment—the asphalt roadway and metal-grate pedestrian walkway—pivots open and is cut on the bias. As the leaves raise up to full vertical, the two segments stand in opposition and it appears as if two sailboats are passing.

In its closed position, the bridge is illuminated with white light. Metal halide sources uplight the underside of the bridge and its structural ribs. LEDs are integrated into the pedestrian handrail and at the tip of each mast. The lights along the pedestrian zone change from white to red to alert those on the bridge that it's raising or lowering. Red lights in vertical "totem-like structures" along the bridge begin to flash, and then a wash of red color rolls out like a carpet along the pedestrian path. The animation is perfectly timed thanks to a control system with time clock, photocell, and link to the bridge's mechanical operating system. With its nod to nautical motifs, the lighting design celebrates the water and the sensation of motion. • ED

2012 DESIGN AWARDS
OUTSTANDING ACHIEVEMENT

Category: Exterior Lighting • Project: National September 11 Memorial • Entrant: Fisher Marantz Stone • Jury Comments: The project shows the perfect amount of restraint and makes a very complex set of project criteria and conditions appear straightforward. • The development of the specialty luminaire at the waterfalls is impressive.

Details

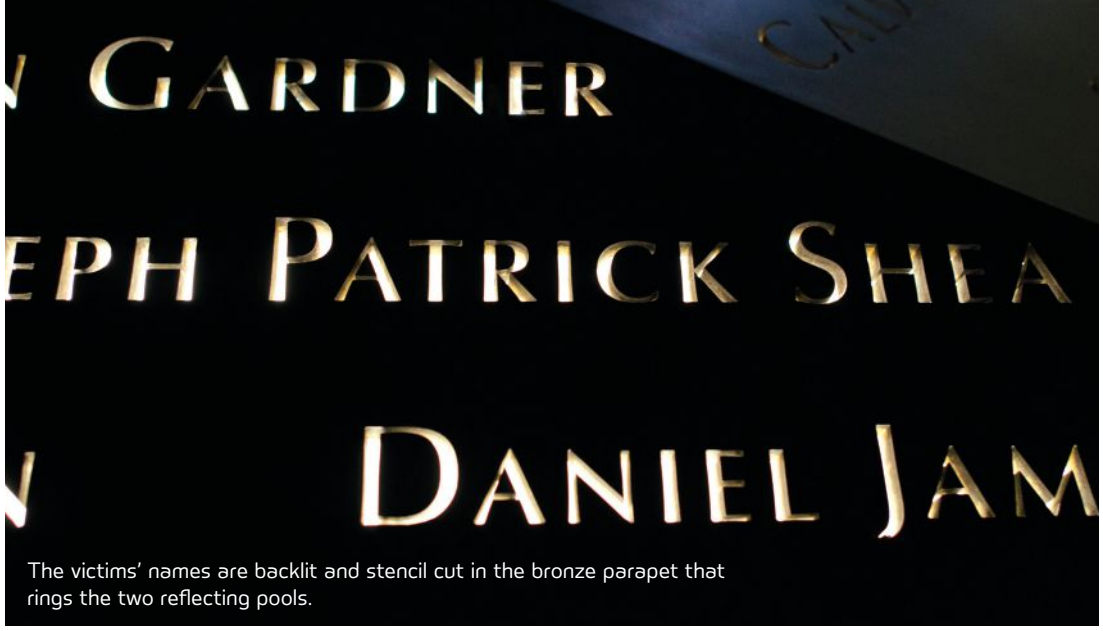
Client: National September 11 Memorial and Museum • Architect: Michael Arad, New York • Landscape Architect: PWP Landscape Architecture, Berkeley, Calif. • Lighting Designer: Fisher Marantz Stone, New York • Photographers: Caridad Sola Studio (bottom left); the Port Authority of New York and New Jersey (far right); Fisher Marantz Stone (top left) • Project Size: 16 acres (entire site) • Project Cost: $110 million • Watts per Square Foot: 0.5 • Manufacturers: Selux, Winona Lighting (Acuity Brands)

The 16-acre site in lower Manhattan known as ground zero is arguably the most emotionally charged site of our time. It is the location of the Sept. 11, 2001, and Feb. 26, 1993, terrorist attacks, where 2,984 people lost their lives. Creating a commemoration that recognizes all the victims at the World Trade Center site, the Pentagon, and Shanksville, Pa., where flight 93 crashed, has been an important part of the rebuilding efforts.

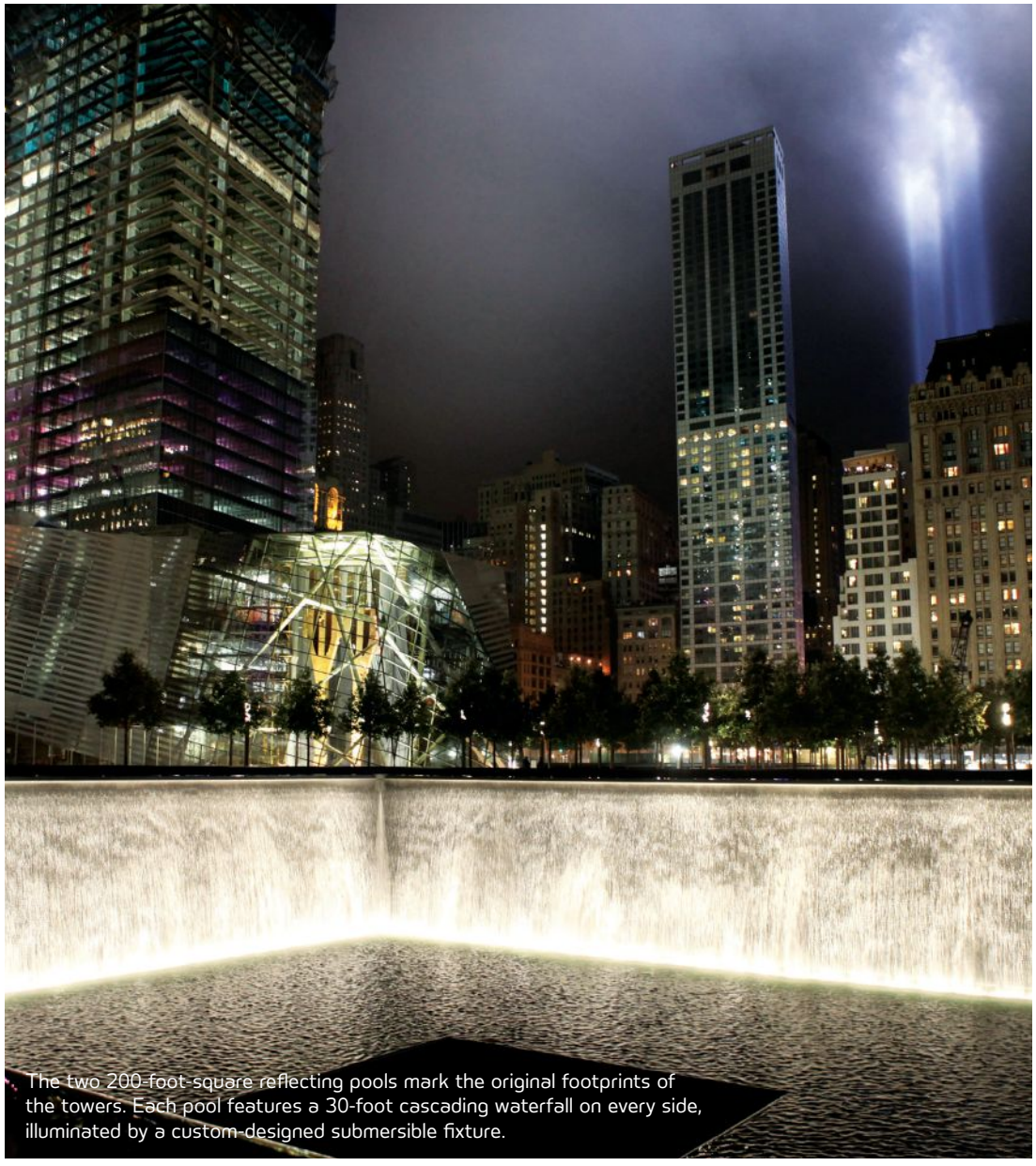
The lighting design employs just three fixtures—light columns on the plaza, a submersible LED luminaire at the waterfalls, and an LED striplight to backlight the names on the parapets—and each of them responds to challenging design, maintenance, and public-safety criteria, while breaking new ground technologically.

One of these technical achievements occurs at the central feature of the memorial's design, the two reflecting pools, each measuring 200 by 200 feet. The technical challenge here was how to create something that would be bright enough and withstand the constant volume of water from the 30-foot cascading waterfall. The code dictated that a submersible fixture run on 25V or less, but no such luminaire existed. FMS worked with Winona Lighting who developed a water-cooled fixture to meet all the conditions.

Lighting plays a key role in realizing the memorial's design and in creating a place for healing and renewal. And during that process, design pushed technology to new bounds. • ED



The victims' names are backlit and stencil cut in the bronze parapet that rings the two reflecting pools.


The two 200-foot-square reflecting pools mark the original footprints of the towers. Each pool features a 30-foot cascading waterfall on every side, illuminated by a custom-designed submersible fixture.

An aerial view of the World Trade Center site.

2012 DESIGN AWARDS
COMMENDABLE ACHIEVEMENT

Category: Whole Building • Project: University of California, Berkeley, School of Law South Addition, Berkeley, Calif. • Entrant: Auerbach Glasow French • Jury Comments: A beautiful job that shows a deft understanding of light and is well orchestrated throughout. • Nice to see LEDs used architecturally.

Details

Architect: Ratcliff, Emeryville, Calif. • Lighting Designer: Auerbach Glasow French, San Francisco • Photographer: Tim Griffith Photography • Project Size: 150,000 square feet • Project Cost: $60 million • Watts per Square Foot: 1.0 • Manufacturers: Bega, Borden Lighting, Elliptipar (the Lighting Quotient), Focal Point, Forms+Surfaces, iLight, io LED (Cooper Lighting), Louis Poulsen, Mark Architectural Lighting (Acuity Brands), Peerless (Acuity Brands), Philips Color Kinetics, Philips Lightolier, Selux, Zumtobel

To remain competitive in the drive to attract the brightest students and the best faculty, the University of California, Berkeley, School of Law knew it needed to expand its facilities. Inserted into the school's existing courtyard, the new addition houses a café, library stack space, reading and seminar rooms, computer labs, library staff offices, and collection services on four floors. Large skylights and open stairways bring abundant daylight into the addition's two subterranean levels, while the roof garden provides outdoor seating with a connection to the library's main reading room and a footbridge to the Steinhart Courtyard. The architects, Ratcliff, charged Auerbach Glasow French with designing a lighting scheme that would use low-maintenance sources in an unobtrusive way to create a comfortable environment for students.

Throughout the project, the designers combined LED accents with fluorescent fixtures to provide general illumination and highlight certain architectural elements. For example, in the lower-level reading rooms, CFL pendants and recessed T8s create an inviting study environment, while LED strips graze a terra-cotta feature wall. In a central glass-enclosed staircase, which is lit with LED handrails and frosted glass, light wells are backlit with dimmable fluorescent fixtures. Photosensors and programmed presets enable the LEDs to change color and intensity as the day progresses, drawing all eyes to this feature. • AS

The reading room, which sits below grade.

The library entrance and atrium at night.

Category: Whole Building • Project: The Tenley-Friendship Library, Washington, D.C. • Entrant: Horton Lees Brogden Lighting Design • Jury Comments: A complete examination of how light and architecture can work in unison. • Love the way the vertical fins are turned into an architectural feature, while still serving as a principal lighting device. • Excellent use of daylighting.

Details

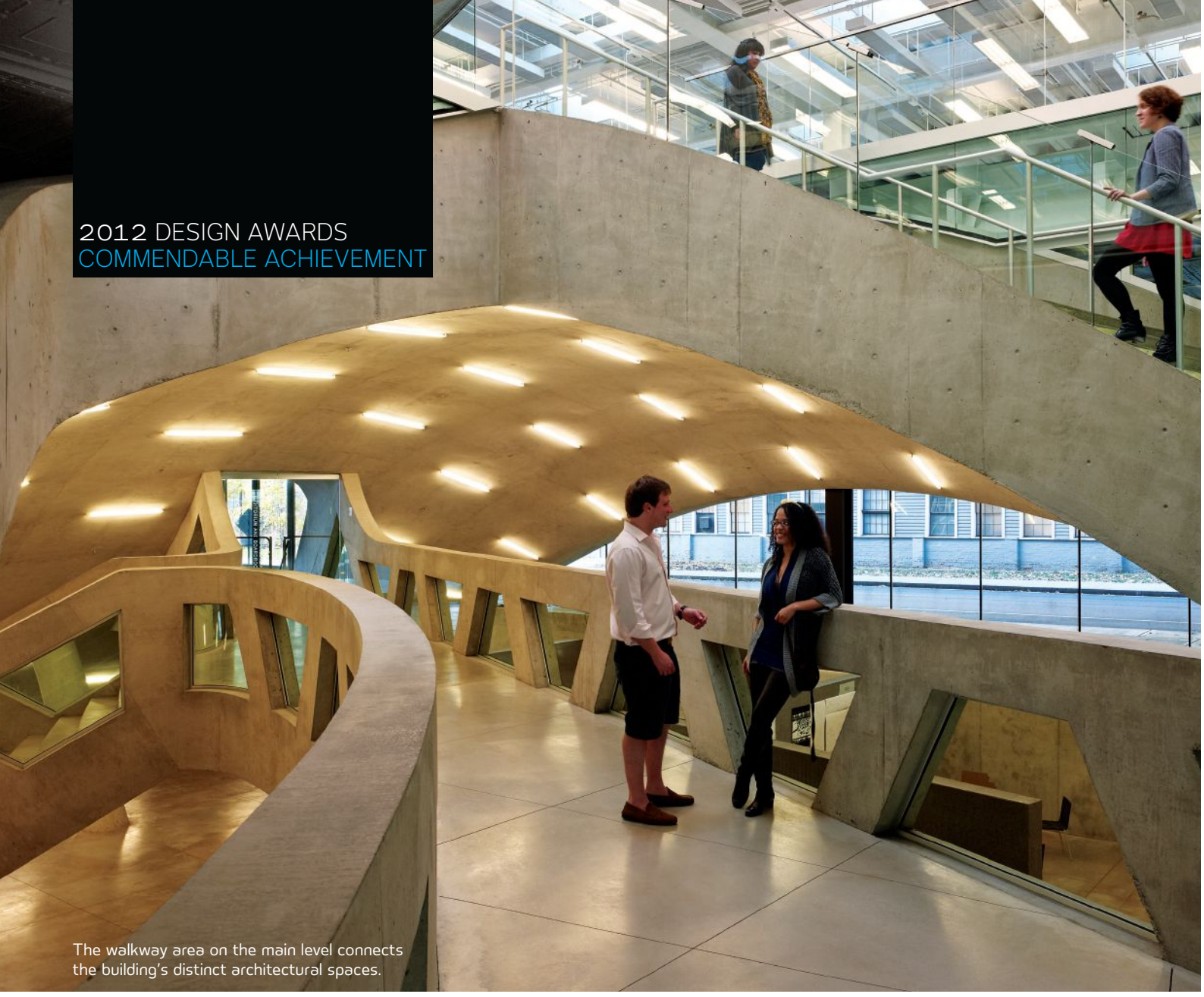
Design Architect/Architect of Record: The Freelon Group, Research Triangle Park, N.C. • Associate Architect: R. McGhee & Associates, Washington, D.C. • Lighting Designer: Horton Lees Brogden Lighting Design, Culver City, Calif., and New York. • Photographer: Mark Herboth Photography • Project Size: 21,472 square feet • Project Cost: $10.2 million • Lighting Cost: $500,000 • Watts per Square Foot: 1.023 • Manufacturers: a•light, Bega, Hydrel (Acuity Brands), Lutron, Philips Lightolier, Prudential, Selux, Spring City

The Tenley-Friendship Library, part of the DC Public Library system, was designed inside-out by way of a collaborative process. The Freelon Group and Horton Lees Brogdon Lighting Design worked together to develop architectural, electric lighting, and daylighting systems with an eye toward creating a healthy building that consumes 31 percent less energy than is standard for a 21,472-square-foot structure. The project focuses on connecting visitors to the community with exterior views that bring the diurnal cycles of light inside the library.

The design team conducted extensive sun angle studies to develop a system of external vertical fins that protect the otherwise transparent insulated glass enclosure, allowing controlled daylight to filter into the interior while cutting down on heat gain. The central circulation spine also makes ample use of natural light with a glass roof that directs sunlight onto an interior feature wall of the same copper color as the external fins.

The daylighting scheme is supplemented with T5 fluorescent fixtures set on photo-activated dimmers. The T5s are set in coves to maintain a constant level of light, day or night. In the stacks, the T5s are integrated with the flange of the exposed-steel structural members, where they uplight the ceiling. The stacks themselves feature T5s in cantilevered fixtures that provide focused downlighting to the bottom shelf.

During most days, the daylighting is sufficient to keep 70 percent of the electric lights dimmed all the way down, a factor that contributed to the project's LEED Gold certification. • AS



The walkway area on the main level connects the building's distinct architectural spaces.

Category: Whole Building • Project: Milstein Hall, Cornell University, Ithaca, N.Y. • Entrant: Tillotson Design Associates • Jury Comments: A gutsy building to which the lighting design responds in kind. • Clever detailing and integration of the lighting into the architectural structure, especially the expanses of concrete.

Details

Architect: Office for Metropolitan Architecture, Rotterdam • Lighting Designer: Tillotson Design Associates, New York • Photographer: Iwan Baan Photography • Project Size: 47,000 square feet • Project and Lighting Costs: Not available • Watts per Square Foot: 1.2 • Manufacturers: Bartco Lighting, Custom Metal Craft, GE Lighting, Philip Omega

The team of Office for Metropolitan Architecture and Tillotson Design Associates has created an inspiring place for aspiring architects, using elegantly simple fixtures to light three distinct spatial conditions within the College of Architecture, Art, and Planning's new studio building on Cornell University's campus. The building's lighting design reinforces the architects' ambition of floating a studio space above an inhabitable plaza by contrasting the brightly lit studio with low light levels for the pedestrian area below. A raised concrete bump separates an auditorium and outdoor plaza at ground level from a subgrade gallery with a pin-up space—and the school's main studios are on the upper floor.

In the upper-level studio space, an alternating pattern of chilled beams and custom luminaires of six-lamp indirect/direct T8 pendants provides ample light for late-night model-making. Three façades of floor-to-ceiling windows and 41 skylights provide even illumination across the studio during the day, and photosensors adjust electric light output based on available daylight.

In the pedestrian plaza, Tillotson Design Associates cleverly integrate lighting elements into the architecture, embedding lensed, linear LED luminaires into the storefront glazing mullions to provide visual interest and increase vertical light levels at night. Programmable LED fixtures housed in translucent seating pods activate the space atop the bump by changing colors to indicate different events and activities during the school year. Beneath the bump, a frosted acrylic lamp sleeve helps to mitigate direct glare from the lamps as well as reflections from the gallery's polished concrete floor. • DEANE MADSEN

The building entrance and atrium beyond.

2012 DESIGN AWARDS
COMMENDABLE ACHIEVEMENT

Category: Whole Building • Project: Frick Chemistry Laboratory, Princeton University, Princeton, N.J. • Entrant: Arup • Jury Comments: The lighting is very in-step with the architecture. • It shows a clear understanding of light and how to use illumination to differentiate architectural space.

Details

Architects: Hopkins Architects, London, in collaboration with Payette, Boston • Lighting Designer: Arup, New York • Photographer: Warren Jagger Photography • Project Size: 265,000 square feet • Project Cost: $278 million • Lighting Cost: $4.36 million • Watts per Square Foot: 1.22 (labs); 0.85 (offices) • Manufacturers: Axis Lighting, Edison Price, Illumivision, io LED (Cooper Lighting), Selux, Sill, Visual Lighting Technologies, Wila, Zumtobel

The Frick Chemistry Laboratory at Princeton University rationally organizes office and laboratory space on either side of an open, central atrium topped by 216 photovoltaic-equipped skylights. The architecture indulges its mechanistic aspects with exposed-steel structural members and mechanical ducting, while also providing warmer touches in the form of wooden screens on the interior. Arup's lighting design complements this orderly and stratified arrangement.

In the public areas, the lighting designers subtly soften the rectilinear vocabulary of the building by using round-shaped fixtures. The corridors are illuminated by recessed CFL downlights, while in the atrium, custom bracket-mounted CFL luminaires fall into the rhythm of the facility's staircases and bridges. The office and lab wings feature linear T5 luminaires in both uplight and downlight applications. Arup further emphasized the difference between the spaces by using warmer 3000K lamps in all of the round fixtures and cooler 3500K lamps in the linear ones.

While these two luminaire types shoulder the bulk of the project's electric lighting scheme, the designers took further measures to emphasize the architecture. LED fixtures accent every third column along the atrium colonnade, both exterior and interior. The designers also used LEDs for the laboratory tasklighting and LED strips to backlight artist-designed glass installations in the office corridors. • AS

2012 DESIGN AWARDS
COMMENDABLE ACHIEVEMENT

Category: Exterior Lighting • Project: Martin Luther King, Jr. National Memorial, Washington, D.C. • Entrant: David Mintz in association with Randy Burkett Lighting Design • Jury Comments: The lighting is approached like a theatrical performance, setting scenes and activating the public space in a way not expected. • Love the way the lighting creates a dramatic effect.

Details

Architect of Record and Construction Manager: McKissak & McKissack, Washington, D.C. • Lighting Designers: David Mintz in association with Randy Burkett Lighting Design, St. Louis, Mo. • Photographer: Hochlander Davis Photography • Project Size: 400,000 square feet • Project Cost: $125 million • Lighting Cost: $500,000 • Watts per Square Foot: 0.3 • Manufacturers: Bega, Elliptipar (the Lighting Quotient), Philips Color Kinetics, Winona Lighting (Acuity Brands)

Located on the northwest edge of the Tidal Basin, which is part of the National Mall in Washington, D.C., the Martin Luther King, Jr. National Memorial sits directly on the axis between the Jefferson Memorial and the Lincoln Memorial. This tribute to King, which opened in Fall 2011, celebrates the ideals that he stood for—freedom and justice.

To light the most recognizable feature of the site, the Stone of Hope—the three-dimensional form of King that looks out over the Tidal Basin—the lighting designers, David Mintz with Randy Burkett Lighting Design, chose 150W T6 ceramic metal halide precision spotlights. The fixtures are mounted on two 45-foot-tall poles, one on each side of the sculpture, and include custom glare-shields, spread lenses, and neutral density filters to optimize the beam distribution and light intensity. To capture the appropriate facial expression and to provide the definition of the shadows that the team desired, the lighting designers knew that they had to set the light at a higher mounting height than the statue itself. Hence the poles, which are nestled into the cherry tree groves along the site.

Given the unique setting, the designers were aware of how this project related to the city and the network of public spaces, monument, and memorials at the National Mall. Whereas the Jefferson and Lincoln Memorials are about lighting a statue within a structure, the Martin Luther King, Jr. National Memorial had a different goal—to illuminate King's ideas. • ED

Martin Luther King Jr.'s figure emerges from the Stone of Hope and overlooks the Tidal Basin across from the Jefferson Memorial.

2012 DESIGN AWARDS
COMMENDABLE ACHIEVEMENT

The spa's stainless steel swimming pool is accented with LED uplights.

Category: Interior Lighting • Project: ESPA Life at Corinthia, London • Entrant: Lighting Design International • Jury Comments: Clean, careful work. • Elegant details that pay attention to the richness of the materials and provide a hierarchy to the space. • Uplight on the pool is impressive.

Details

Client: Corinthia Hotel and ESPA, London • Architect: Sigma, London • Interior Designer: G|A Design International, London • Lighting Designer: Lighting Design International, London • Photographer: Lighting Design International • Project Size: 3,300 square meters (approx. 23,680 square feet) • Project Cost: Not Available • Lighting Cost: £520,000 (approx. $812,864) • Watts per Square Meter: 20.6 (Lighting Energy Numeric Indicator [LENI] was calculated at 95 and is within benchmark values of European Standards) • Manufacturers: Cube, KKDC, Light Graphix, Roblon

Situated on four floors of the Corinthia Hotel in London, ESPA Life offers just what it promises: a next-generation spa experience. The client asked G|A Design International to deliver an intimate, elegant, and decadent setting in which its guests could indulge in the luxuries of top-notch health treatments, personal training, and grooming. The firm responded with a layered approach, crafting four distinct experiences, one for each floor. A polished marble staircase connects each of the spa's levels and is lit with linear LED fixtures. As the spa descends from the first floor to the subterranean levels, the finishes become darker. Lighting Design International's challenge was to develop complementary lighting schemes for each of the project's varying settings.

The designers took an integrated approach to the lighting scheme, relying entirely on LEDs as a light source. Throughout the spa, linear fixtures housed in ceiling coffers produce a warm, indirect glow. Concealed linear luminaires graze the wall surfaces, making use of both uplight and downlight applications, which accentuate the rich textural nature of the finishes—finishes that include hand-cast resin panels, rusticated stone, marble, and fabrics.

The only daylight comes through a domed glass-and-silver-leaf roof at the juice bar on the first floor. In contrast, the finishes for the spa's lowest level are almost entirely black. The darkness creates a dramatic setting for the stainless steel swimming pool. The space is lit entirely with LED uplights, embedded either in the floor or in the pool itself, where they shine through the water, creating mesmerizing patterns on the white ceiling. • AS

2012 DESIGN AWARDS
COMMENDABLE ACHIEVEMENT

Category: Interior Lighting • Project: Cranbrook Art Museum and Library Renovation/Collections Building Addition, Bloomfield Hills, Mich. • Entrant: SmithGroupJJR • Jury Comments: The luminous ceiling is beautiful and the restoration of the coffers is well done. • Nice job of balancing the amount of illumination in the space so that the lighting doesn't compete with the art.

Details

Architect, Lighting Designer, and Structural, Mechanical, and Electrical Engineers: SmithGroupJJR, Detroit • Photographer: James Haefner • Project Size: 97,000 square feet (museum and library renovation: 60,000 square feet; Collections Addition: 37,000 square feet) • Project and Lighting Costs: Withheld • Watts per Square Foot: National Historic Landmark Exempt • Manufacturers: Bega, Lighting Services Inc, Philips Color Kinetics

Built in 1942 on the campus of Eliel Saarinen's Cranbrook Academy of Art, the Cranbrook Art Museum houses a permanent collection and plays host to traveling exhibitions. In the mid-2000s, however, outdated mechanical systems threatened both the museum's accreditation status and the art. SmithGroupJJR was hired to renovate the structure and add a new building for storage of the museum's growing collection.

When lighting designer Jeff Gerwing, principal of the firm's in-house lighting group, visited the museum, the lights were turned off and the coffers were compromised by secondary tracklighting. After a visit to Cranbrook's archives to look at the original documents, Gerwing discovered that Saarinen had installed the newest lighting technology for the time—fluorescent tubing—into a custom-designed luminous ceiling.

Like Saarinen, Gerwing and his team used the latest technology available when they started the project in 2008. They wanted the coffer system to be dimmable. LEDs were the solution, both for their lumen output and efficacy, as well as from a conservation standpoint. At the time, though, an off-the-shelf linear white-light LED solution didn't exist. They worked with Color Kinetics to design a new fixture that provided a diffuse light. In selecting a secondary layer of light, the designers channeled the legendary architect, choosing a cylindrical trackhead with a simple stem and no yoke—a minimalist look that the modernist would have liked. • ED

The renovated galleries with the signature coffered ceiling.

2012 DESIGN AWARDS
BEST USE OF COLOR

The dynamic nature of the façade and the play of color engages with the plaza and transforms it at night.

Category: Color • Project: Ryerson Image Centre, Ryerson University, Toronto • Entrant: Diamond Schmitt Architects • Jury Comments: It's a great use of color that is not gratuitous in any way. • The scale of the panels is really clever. • There's a rich quality to the color and the way in which the edges of each panel blend into the next. • The reflections on the water are fantastic.

Details

Architect: Diamond Schmitt Architects, Toronto • Lighting Designer/Electrical Engineer: Consullux Lighting Consultants/Crossey Engineers, Toronto • Photographer: Tom Arban Photography • Project Size: 12,500 square feet (expansion); 35,000 square feet (renovation) • Project Cost: $30 million • Lighting Cost: $550,000 • Watts per Square Foot: 11.0 (exterior LED façade luminaires) • Manufacturer: GVA Lighting

Faced with the challenge of housing their newly acquired Black Star Collection of nearly 300,000 images from noted 20th century photographers, Ryerson University converted a former brewery building into the new Ryerson Image Centre. Toronto-based Diamond Schmitt Architects replaced a bland brick façade with one that would draw attention to both the collection and the university through a dynamic lighting scheme. The original brick was re-clad in translucent white glass panels, giving the Image Centre a fresh and modern look. Not content to be another architectural white box, however, the Ryerson Image Centre truly comes alive at night, when programmable LEDs backlight the panels, transforming the building into a pixelated, Technicolor beacon.

After extensive on-site testing with full-scale mock-ups, the architects arrived at a system of using white ceramic-fritted glass panels hung from the original structure. These panels are covered in a reflective white stucco and act as lightboxes thanks to their internal LED system. The lightbox testing ensured a uniform glow without any shadows cast by the LEDs and their components, thanks to their precise placement. The lightboxes provide an opaque counterpoint to the transparent glazing at ground level by day, and a scrim-like surface for colorful light shows at night. Programming controls allow for the display of simple, monochromatic, static colored lights, as well as highly animated, soft-pixel multicolor shows; passersby can control the lighting via mobile devices.

By incorporating the color-changing lit panels into the new façade, Ryerson University updated their image with an additional media layer appropriate to its field of specialization. • DM

2012 DESIGN AWARDS
BEST LIGHTING DESIGN ON A BUDGET

A view of one of the trampoline practice areas.

Category: Budget • Project: House of Air, San Francisco • Entrant: Mark Horton Architecture • Jury Comments: A fun project that makes the most of limited resources. • Using the linear fluorescent lamps in a vertical position is a nice way to reinforce the activity that is taking place here—jumping. It provides a nice visual cue.

Details

Architect: Mark Horton Architecture, San Francisco • Lighting Consultant: Associated Lighting Representatives, Oakland, Calif. • Photographer: Ethan Kaplan Photography • Project Size: 21,440 square feet • Project Cost: $150 per square foot (includes hazmat remediation, historical restoration, and structural stabilization) • Lighting Materials Cost: $7.50 per square foot • Lighting Installation Cost: $1.88 per square foot • Lighting and Electrical Subcontractor Cost: $20.25 per square foot • Watts per Square Foot: 0.91 • Manufacturers: Finelite, H.E. Williams, Philips Omega, Sengo, Solis, Visa Lighting

This former biplane hangar is being given a second chance to become airborne in its new incarnation as the House of Air. The 21,440-square-foot trampoline facility is located in San Francisco's Golden Gate Park on the historic Crissy Field landing strip. The original 1920s structure required extensive seismic upgrades, leaving little remaining budget to deal with any architectural improvements. These economic constraints challenged Mark Horton Architecture to find creative solutions for the lighting as they worked the design into the building's retrofit. By installing off-the-shelf fluorescent strip fixtures between translucent blue polycarbonate walls, the architects found an inventive and cost-effective solution to light two spaces at once with a limited palette.

The House of Air capitalizes on the lengthy spans of the hangar to house a large field trampoline, a side trampoline which doubles as a dodge-ball court, and three performance trampolines. The performance trampolines provide a training location for competitive skiers, snowboarders, and wakeboarders to practice their tricks. The facility also contains locker rooms and meeting facilities, as well as a small café and lounge, with structural-steel catwalks providing spectator vantage points.

Vertical deployment of the luminaires echoes the motion of the trampoline users and also creates a dynamic visual impact in both the main acrobatic arena and the perimeter spaces. Pivoting panels mounted in the walls allow views into the trampoline areas when open and privacy for those inside when closed. This innovative solution using materials unifies the project, and the emphasis on verticality reinforces the House of Air branding. • DM

2012 DESIGN AWARDS
BEST USE OF DAYLIGHTING

The Robert L. Smith Meeting Room at the Sidwell Friends School seats up to 600 people.

Category: Daylighting • Project: The Sidwell Friends School Meeting House and Arts Center, Washington, D.C. • Entrant: Arup • Jury Comments: A lot of thought went into the articulation of the space and how it would be lit. • It's refreshingly simple, but it doesn't mean it isn't a complex lighting design.

Details

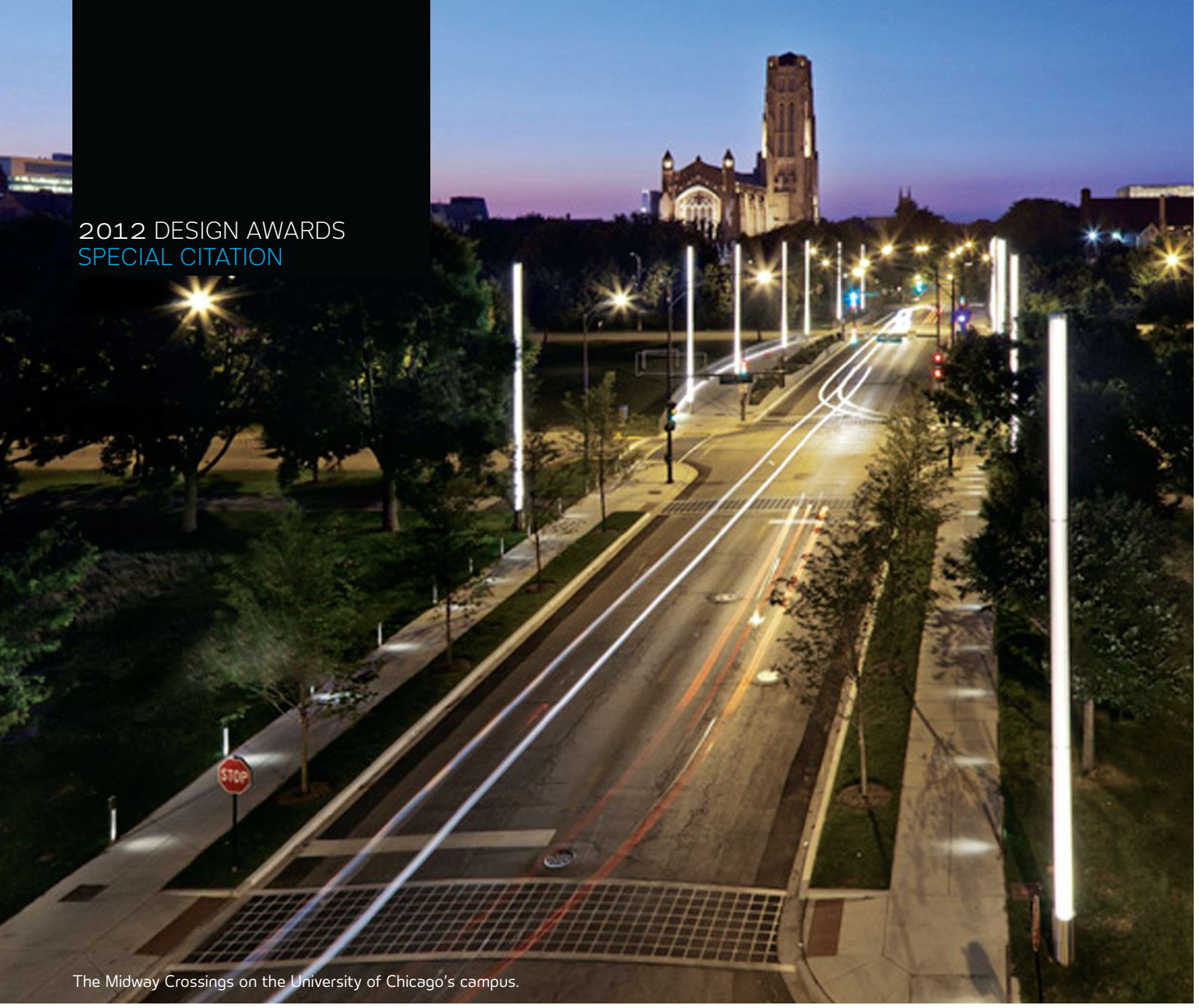
Architect: KieranTimberlake, Philadelphia • Lighting Designer: Arup, New York • Photographer: Michael Moran Studio • Project Size: 33,027 square feet • Project Cost: Not available • Lighting Cost: $330,000 • Watts per Square Foot: 1.9 • Manufacturers: Corelite (Cooper Lighting), Focal Point, Neoray (Cooper Lighting), Pinnacle, RSA (Cooper Lighting)

A Quaker institution, the Sidwell Friends School wanted to transform an old gymnasium into a meeting and worship space. The school hired architects KieranTimberlake to deliver a design that would embody the Quaker ideals of light and simplicity. The architects in turn worked with Arup to develop a lighting scheme that would balance daylight and electric light to create a pristine and spiritual environment.

The architecture consists of a series of flat, white planes cut with reveals and openings to create a sense of depth throughout the project. The lighting designers took advantage of these pockets in the planar surfaces to conceal the luminaires. In the hallways and lobby areas, angled asymmetric T5HO covelights complement the dropped ceiling panels, providing balanced interior illumination. PAR30 halogen tracklighting, also concealed within the cove, directs attention to student art that is displayed on the walls.

The lighting scheme for the Quaker meeting room, which is the building's largest space, centers around a skylight framed by floating ceiling planes. The large volume, once the gym, also features a clerestory and vertical window in one corner, which allows in additional daylight. T5HO fixtures integrated in the room's wall monitors give these apertures a presence at night. Additional T5HO fixtures concealed behind the scrim walls highlight the intersecting planes and cast light into the lower reaches of the room, where daylight can't extend. • AS

2012 DESIGN AWARDS
SPECIAL CITATION



The Midway Crossings on the University of Chicago's campus.

Category: Special Citation for Light as an Urban Connector • Project: Midway Crossings, the University of Chicago, Chicago • Entrant: Schuler Shook • Jury Comments: An inventive solution, beautifully done. • The integration of the fixtures creates a sense of place where once there was none.

Details

Architect: James Carpenter Design Associates, New York • Landscape Architect: Bauer Latoza Studio, Chicago • Lighting Designer: Schuler Shook, Chicago • Lighting Integrator: Square One Precision Lighting, Stone Park, Ill.• Photographer: Tom Rossiter • Project Size: 76,000 square feet • Project Cost: $7 million • Lighting Cost: $2.5 million • Watts per Square Foot: 0.25 • Manufacturers: i2Systems, Insight Lighting, Lumiere (Cooper Lighting)

The University of Chicago's historic north campus is separated from its new south campus by the Midway, a green expanse that dates back to the 1893 World's Columbian Expedition. While pleasant parkland during the day, at night the area presented the perfect environment for illicit activity. To remedy this, the university wanted to establish a safe and inviting passage across the expanse that would connect the two campuses and protect its students. It hired a consortium of designers—including James Carpenter Design Associates, Bauer Latoza Studio, and Schuler Shook—to provide a secure, light-filled crossing.

The team developed a series of vandal-resistant, custom-designed stainless-steel masts, handrails, and sidewalk luminaires that form a procession across the Midway. In the base of the 40-foot-tall masts, 3000K 315W ceramic metal halide T9 lamps direct light through 360-degree light pipes. These masts are constructed from stainless-steel rings that disperse light outward. The designers manipulated the rings to create a variation in the intensity of the light along the elevation of the mast that goes from light to dark and back to light again. The rings are more densely spaced at the bottom of the masts, providing visual comfort for pedestrians, and less densely spaced at the top to create the illusion of equal illumination at both ends. Reflectors at the top of the masts maximize efficiency and cut down on light pollution.

The handrails conceal 4W-per-linear-foot LED strips, and 12W LED fixtures at the sidewalk base uplight hammered-reflectors that create pools of light marching down the path. • AS

2012 DESIGN AWARDS
JURY MEMBERS





Daniel Bedell

David Clinard, Assoc. IALD, IES, Principal and Founder, Clinard Design Studio, New York
With more than 18 years of experience as an architectural lighting designer, Clinard has worked on a wide variety of public and private projects including museums, educational and healthcare facilities, corporate interiors, and residences. He has also served as the in-house lighting designer at the American Museum of Natural History in New York, designing permanent and temporary lighting design systems. His work has received a number of lighting design awards from the AIA, IES, IIDA, and ARCHITECTURAL LIGHTING. He has taught lighting design studios in the Masters of Fine Arts in Lighting Design program in the School of Constructed Environments at Parsons The New School for Design and has been a guest lecturer at several lighting design and museum conferences.

Christopher Steffens, IES, Principal, Lightmill Design, New York
With more than 10 years of industry experience that includes collaborations with architects, engineers, luminaire designers, arts organizations, and developers, Steffens's project portfolio includes a variety of work focusing on electric lighting, daylighting, and energy and controls consulting services. He holds a master's of Fine Arts in Lighting Design from the School of Constructed Environments at Parsons The New School for Design, where he is also an adjunct faculty member. Recently, he advised on the New School and Stevens Institute of Technology's "Empowerhouse" entry for the U.S. Department of Energy's 2011 Solar Decathlon, which received the jury's highest lighting design score and won the competition's Affordability contest. He is a board member of New York Passive House, where his current interests include the development of lighting quality metrics and energy monitoring initiatives for buildings employing Passive House design principles. He is also a Certified Passive House Consultant by the Passivhaus Institut in Germany.

Faith Baum, IALD, IES, Principal and Founder, Illumination Arts, Bloomfield, N.J.
Baum has been practicing architectural lighting design for more than 25 years, and her work, which has been featured in number of publications, including ARCHITECTURAL LIGHTING and *LD+A*, covers a wide range of project types, from corporate interiors to signature bridges and synagogues, around the globe. Baum was selected as one of the NJBiz 50 Best Women in Business in 2009, which recognized both professional accomplishments and community service. She currently serves on the aesthetics subcommittee of the Transportation Research Board's Structures Committee and is on the advisory board of the Women's Center at the New Jersey Institute of Technology. She has also served on the IALD's membership committee, the DLFNY's board of directors, and the IES New Jersey Chapter's board of managers.

Richard Renfro, Assoc. AIA, IALD, IES, Principal, Renfro Design Group, New York
Renfro has been practicing architectural lighting design for more than 30 years. He received his B.Arch degree with honors from the University of Arkansas, Fayetteville, in 1979. After graduation, he moved to New York where he worked for Jules Fisher and Paul Marantz, and then became a principal with Fisher Marantz Renfro Stone. In 1998 he set out on his own and established Renfro Design Group. His award-winning résumé includes lighting design for some of the most notable museum, cultural, educational, and civic projects, including the McKim Building renovation at the Morgan Library and Museum in New York, the Bloch Building addition to the Nelson-Atkins Museum of Art in Kansas City, Mo., and the Battery Park Ferry Terminal in New York. He has also served on the advisory board of the University of Arkansas School of Architecture.

Steven Rosen, IALD, IES, Principal, Available Light, Salem, Mass.
Rosen, founding principal of Available Light, with offices in the Boston area and New York, has enjoyed a multifaceted lighting design career that spans more than 30 years and crosses the disciplines of architecture, museum exhibition, and corporate events design. He received his Master of Fine Arts in Stage Design from New York University in 1984. He has taught at New York University and Emerson College in Boston, and has lectured at a number of lighting conferences around the world. In 2003, Rosen received the IALD's Radiance Award for his work on Building 7 at the Massachusetts Institute of Technology. He is also the recipient of the 2002 LDI Lighting Designer of the Year Award and the 2011 Redden Award for Lighting Design Excellence. Rosen serves on the board of the IALD Education Trust Fund, and is also a principal at Radiance Resources, a software company devoted to helping lighting manufacturers develop Revit families.

congratulations

TO HANLEY WOOD'S JESSE H. NEAL AWARD WINNERS

Hanley Wood is committed to publishing quality content that serves the information needs of construction industry professionals. Our editors have once again been honored by the most prestigious editorial awards program. **Join us in congratulating them.**

2012 WINNERS

BUILDER | Best Instructional Content

POOL & SPA NEWS | Best Technical Content

REMODELING | Best Instructional Content

2012 FINALISTS

ARCHITECT | ARCHITECTURAL LIGHTING

AQUATICS INTERNATIONAL | BUILDER | ECOHOME

ECO-STRUCTURE | MULTIFAMILY EXECUTIVE

PROSALES | REMODELING | RESIDENTIAL ARCHITECT

The following Hanley Wood brands have been recognized over 85 times for editorial achievement.

AFFORDABLE HOUSING FINANCE

APARTMENT FINANCE TODAY

AQUATICS INTERNATIONAL

ARCHITECT

ARCHITECTURAL LIGHTING

BIG BUILDER

BUILDER

CUSTOM HOME

ECOHOME

ECO-STRUCTURE

MULTIFAMILY EXECUTIVE

POOL & SPA NEWS

PROSALES

PUBLIC WORKS

REMODELING

REPLACEMENT CONTRACTOR

RESIDENTIAL ARCHITECT

THE JOURNAL OF LIGHT CONSTRUCTION

TOOLS OF THE TRADE

hanley wood

CSI CERTIFICATION PROGRAM

Fall National Exam:
October 1 - 27, 2012

Early Registration Deadline:
August 3, 2012

Final Registration Deadline:
August 31, 2012

Register online at
www.csinet.org/certification

CSI is the construction community's authority on communication and construction documentation.

Through CSI's Certification Program, you can develop a conceptual understanding of the entire construction process and concrete skills in:

- Construction documentation development and administration
- Specification writing and enforcement
- Product research and sourcing
- Communication with the design and contracting teams

CDT

CSI's CDT program has provided foundation training in construction documentation for architects, contractors, contract administrators, specifiers, and manufacturers' representatives for decades. As the cornerstone of CSI's certification program, it's also prerequisite to CSI's advanced certification exams.

Getting your CDT means:

- Understanding how a project unfolds from conception to delivery
- Understanding the documentation involved

CCCA

A CSI Certified Construction Contract Administrator (CCCA) develops, administers and enforces construction documentation.

Getting your CCCA means:

- Developing an in-depth understanding of quality assurance and quality control
- Having advanced skills in bidding and negotiating procedures
- Developing skills in construction observation and inspection
- Understanding Division 01, General and Supplemental Conditions, agreements, and all other documents related to the project
- Understanding enforcement and liability

CCS

A CSI Certified Construction Specifier (CCS) is a skilled product researcher who knows how to investigate and identify cost-effective, efficient solutions, and then communicate those solutions through the specifications.

Getting your CCS means:

- Developing an in-depth understanding of agreements, conditions of the contract, Division 01, and their relationships to specifications
- Having advanced skills in specification development, enabling you to use spec-writing software more effectively
- Understanding how to research and source products

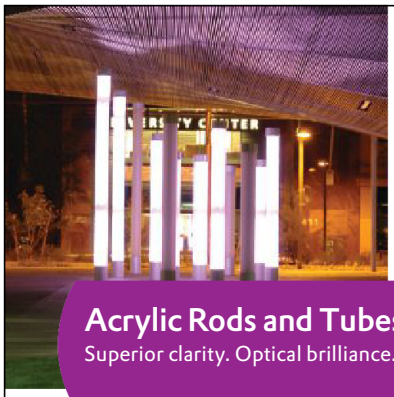
CCPR:

A Certified Construction Product Representative (CCPR) is a valued resource called upon by the design team again and again.

Getting your CCPR means:

- Making sales calls, presentations, construction meetings, and product shows more effective
- Knowing the key parts of product binders and other marketing collateral
- Understanding roles and responsibilities of everyone involved in the project, and how and when to communicate with them
- Understanding all phases of the construction documentation, and your role in each phase
- Speaking the same language as the design and contractor teams

The Construction Specifications Institute
110 South Union Street, Suite 100 • Alexandria, VA 22314
800-689-2900 • Fax 703-236-4600 • email csi@csinet.org • www.csinet.org



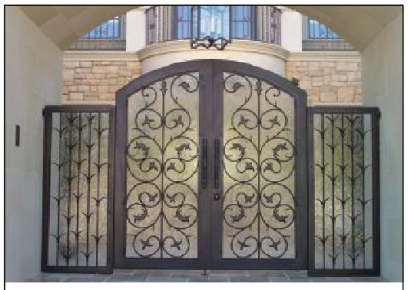
Acrylic Rods and Tubes
Superior clarity. Optical brilliance.

ACRYLITE®
High Impact Acrylic Glazing

ACRYLITE® delivers superior clarity, light transmission and light diffusion properties for a large variety of indoor and outdoor lighting applications. Call 1.888.233.4527 or visit **www.acrylitebuildingproducts.com**

EVONIK INDUSTRIES
Evonik. Power to create.

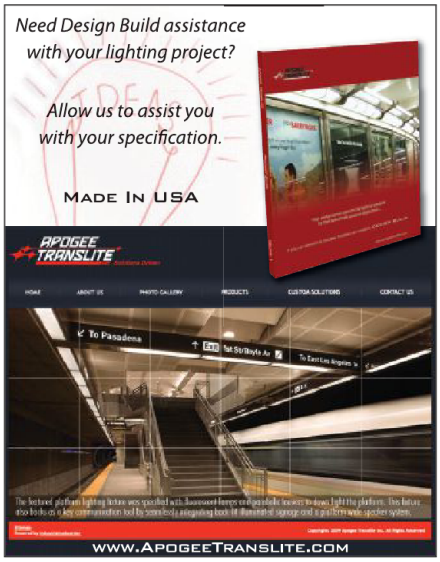
Circle no. 11
or http://archlighting.com/productinfo



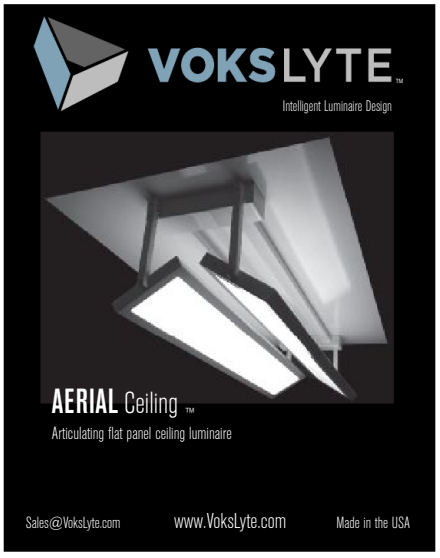
BLACKSMITHING
Custom ornamental metal work. Functional art for homes and businesses. Specializing in custom light fixtures, iron furniture, and hardware. Also, architectural elements, fireplace accessories, sculptures, railings, etc. Work in any style from Traditional to Contemporary, Art Deco, Art Nouveau, Gothic, South West, Western, and Lodge.
For more information, contact Mike at 1-800-481-8326

Circle no. 16
or http://archlighting.com/productinfo

FOR INFORMATION
on how to advertise in the next ARCHITECTURAL LIGHTING MAGAZINE
contact Kent Brooks at
202.729.3453 or
kbrooks@hanleywood.com
hanley▲wood



Circle no. 12
or http://archlighting.com/productinfo



Circle no. 13
or http://archlighting.com/productinfo

Circle no. 14
or http://archlighting.com/productinfo

DIALux evo — the next generation of lighting design

DIALux evo offers a completely new approach to specifiers. Room-based light planning is no longer up to date. Now the building in its entirety including the effect from outside is taken into account. And as always: the complete software package is absolutely free of charge.

Get your free copy at www.dialux.com.

Circle no. 15
or http://archlighting.com/productinfo

BARN LIGHT ELECTRIC
American-Made Lighting

BARN LIGHT ELECTRIC
1.800.407.8784
barnlightelectric.com

Circle no. 17
or http://archlighting.com/productinfo

EYE LIGHTING INTERNATIONAL

CMH Technology

EYE Cera Arc lamps, available in 100W and 150W models, offer superior maintained lumens resulting in significant energy savings compared to traditional pulse start Metal Halide lamps. Rated lives up to 24,000 hrs help reduce maintenance costs as well.

Medium & mogul base versions available.

2011 PROGRESS Report SELECTION

www.eyelighting.com

EYE Cera Arc -
2011 Progress Report Winners
Continued Innovation Success

Circle no. 18
or http://archlighting.com/productinfo

AD INDEX

PAGE	ADVERTISER	CIRCLE NUMBER
20	AAMSCO	215
32	AL ENewsletter	–
34	Amerlux	99
39	American Institute of Architects	–
16	AYRE	241
6	Barn Light Electric	171
30	Barron Lighting	162
22	BK Lighting	66
21	Bruck Lighting Systems	208
24	Cathode Lighting Systems	234
67	Construction Specifications Institute	87
7	Cooper Lighting	25
C2	Cree	61
43	Davis/Muller Lighting	195
43	DelRay Lighting	68
14	DIALux	29
23	DuraGuard	178
28	Ecobuild America	–
41	Engineered Lighting Products	73
44	Finelite	430
26	Focal Point	49
66	Hanley Wood Jesse H. Neal Award	–
2	Hanley Wood University	–
33	Hanley Wood University/Leed Projects	–
29	Intense Lighting	58
19	Juno Lighting Group	93
13	Kim Lighting	167
21	Lee Filters	240
4	Lighting Analysts	36
C3	Lighting Science	169
11	Lighting Services Inc. (LSI)	176
17	Litecontrol	27
15	Lithonia Lighting	44
9	Lumenpulse	197
C4	Lutron Electronics	37
31	MechoSystems	78
38	Neo-Neon LED	165
1	RAB Lighting	219
25	SELUX	53
21	Shanxi Guangyu LED Lighting	249
21	Signcomplex	163
41	Tivoli	199
36	Verbatim	248
37	Visa Lighting	38
3	Winona Solutions+Light	30
5	Vision Quest Lighting	201

Barbara Horton

interview by Elizabeth Donoff
photo by Sioux Nesi

"The design process is about listening and engaging your senses at every level about what the client needs, what the architect needs. It's about putting your finger on the pulse of what's driving the lighting idea, what's important to the project."

Ask Barbara Horton how she became an architectural lighting designer, and she'll tell you that it was completely by accident. After graduating from the Fashion Institute of Technology in New York in the late 1970s, she went to work as an interior designer. A chance lighting course with legendary lighting designer Jules Horton led to a freelance drafting assignment in his office that was only supposed to last three weeks. When that was finished, and with no interior design jobs on the horizon at the beginning of the 1980s, she decided to stick with lighting as a way of building the foundation she'd need for a future interior design career. That was more than 30 years ago. During her lighting career, she's been one of the driving forces in continuing the legacy of Jules Horton, and has grown the firm—Horton Lees Brogden Lighting Design—into an internationally recognized practice, while serving as an inspiring mentor to countless young designers.

What fascinates you about light?
It's transformative. Daylight, electric light, and control—all three of these things are constantly changing the environment and the spaces we are designing for.

How has lighting design changed since you first started working?
Today we have a much greater social responsibility—and not just in terms of energy and sustainability, but in terms of creating spaces and environments that provide safety and can enhance people's everyday lives.

How do you start the design process?
It's an outgrowth of listening to the client, but it's also a hands-on world. I'd much rather test something visually, or do a mock-up to determine if a design idea will work.

As the profession moves forward, do we need to reconceive of what it means to be a lighting designer?
You can't just rely on being an artist and a creative person, you have to have an incredible amount of business acumen, an understanding of technology, and a comprehension of people and psychology in order to run a company and keep it going. The profession's going to change considerably in the way that we do business, rather than what we deliver. The delivery process of design services is still very archaic.

Where do you see lighting heading?
We are in a new world. I'm in a third era of lighting technology, and the tools we have today are providing the lighting designer with some of the greatest opportunities I've seen in my career.

DISCOVER THE **BROADEST SELECTION** OF HIGH QUALITY, **ENERGY EFFICIENT** LED PRODUCTS ON THE MARKET.

- Widest Variety of Color Temperatures and Beam Spreads
- Extensive Range of ENERGY STAR Qualified Products
- Up to 85% Energy Savings Over Traditional Sources

LightingScience®
Welcome to the Light Ages™

1227 South Patrick Drive Building 2A | Satellite Beach, FL 32937
Phone: 321.779.5520 | www.lsgc.com

Circle no. 169 or http://archlighting.com/productinfo

The world's highest performance buildings use **Lutron® complete solutions**

Conference room in Ben Franklin Technology Partners of Northeastern Pennsylvania

photos © Barry Halkin Photography

Only Lutron offers complete solutions for light control, shading, and energy management to provide optimal performance and savings.

- A single manufacturer ensures clear accountability and simplifies the design process
- Digitally addressable products allow for easy reconfiguration of the space without rewiring
- A broad range of wireless devices (sensors, keypads, and load controllers) allows for seamless future expansion

Specify Lutron on your next project – visit **www.lutron.com/commercial**

Ben Franklin Technology Partners of Northeastern Pennsylvania

Winner of the U.S. Environmental Protection Agency 2011 Energy Star Challenge—utilizes Lutron shades

Architect: Spillman Farmer Architects

LUTRON®

save energy with Lutron™ ®

Circle no. 37 or http://archlighting.com/productinfo