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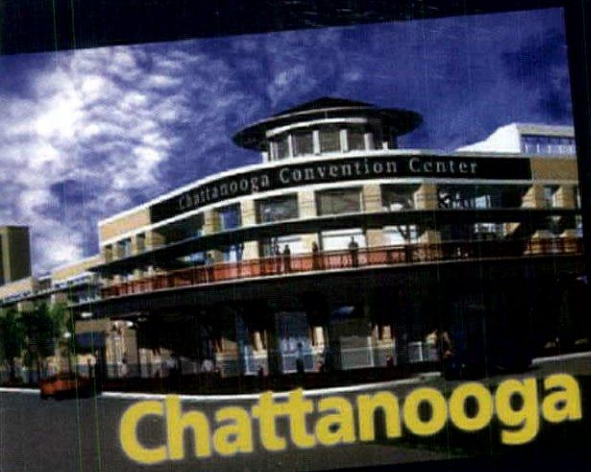


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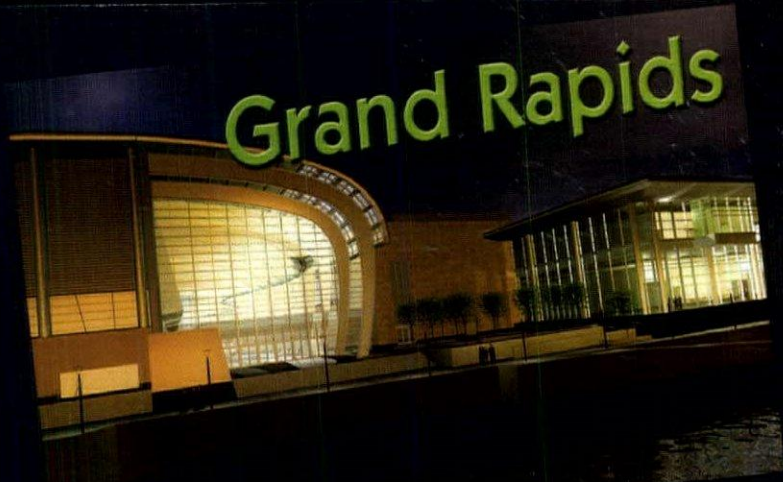
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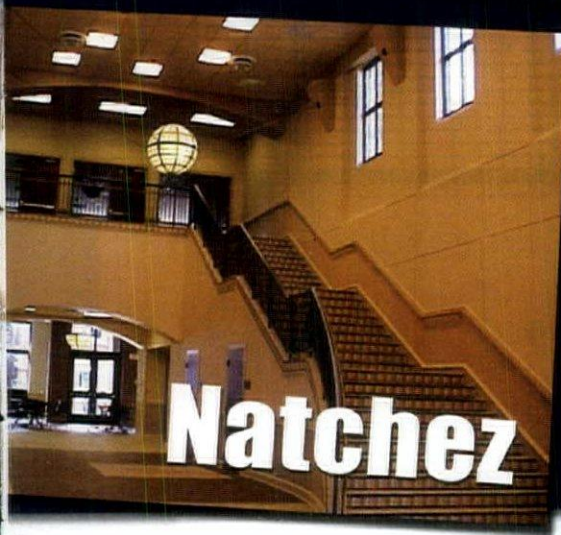
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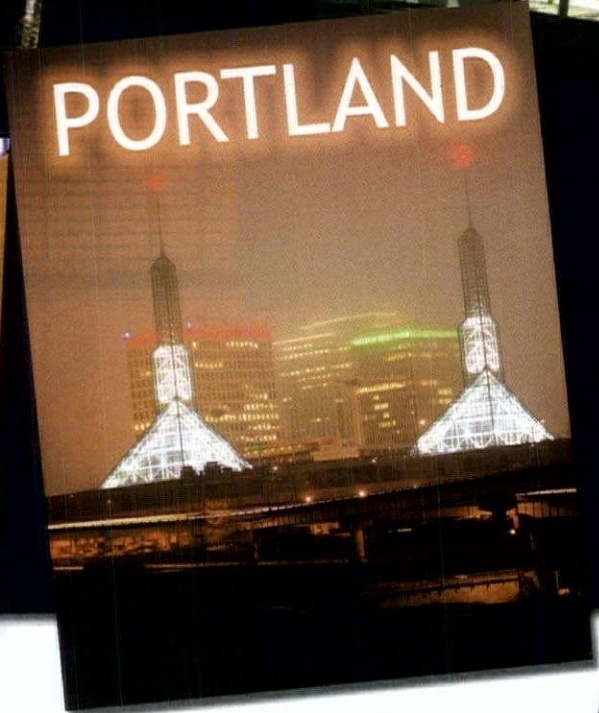
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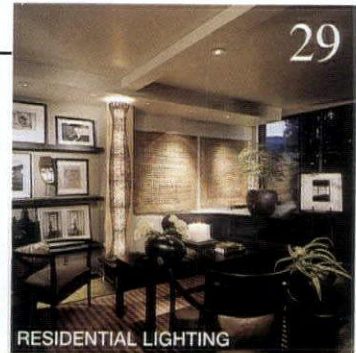
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RESIDENTIAL LIGHTING

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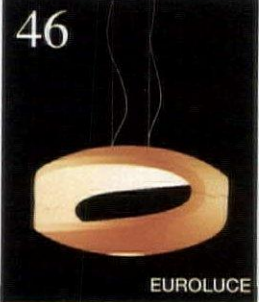
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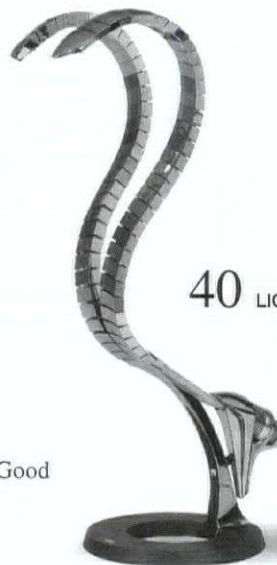
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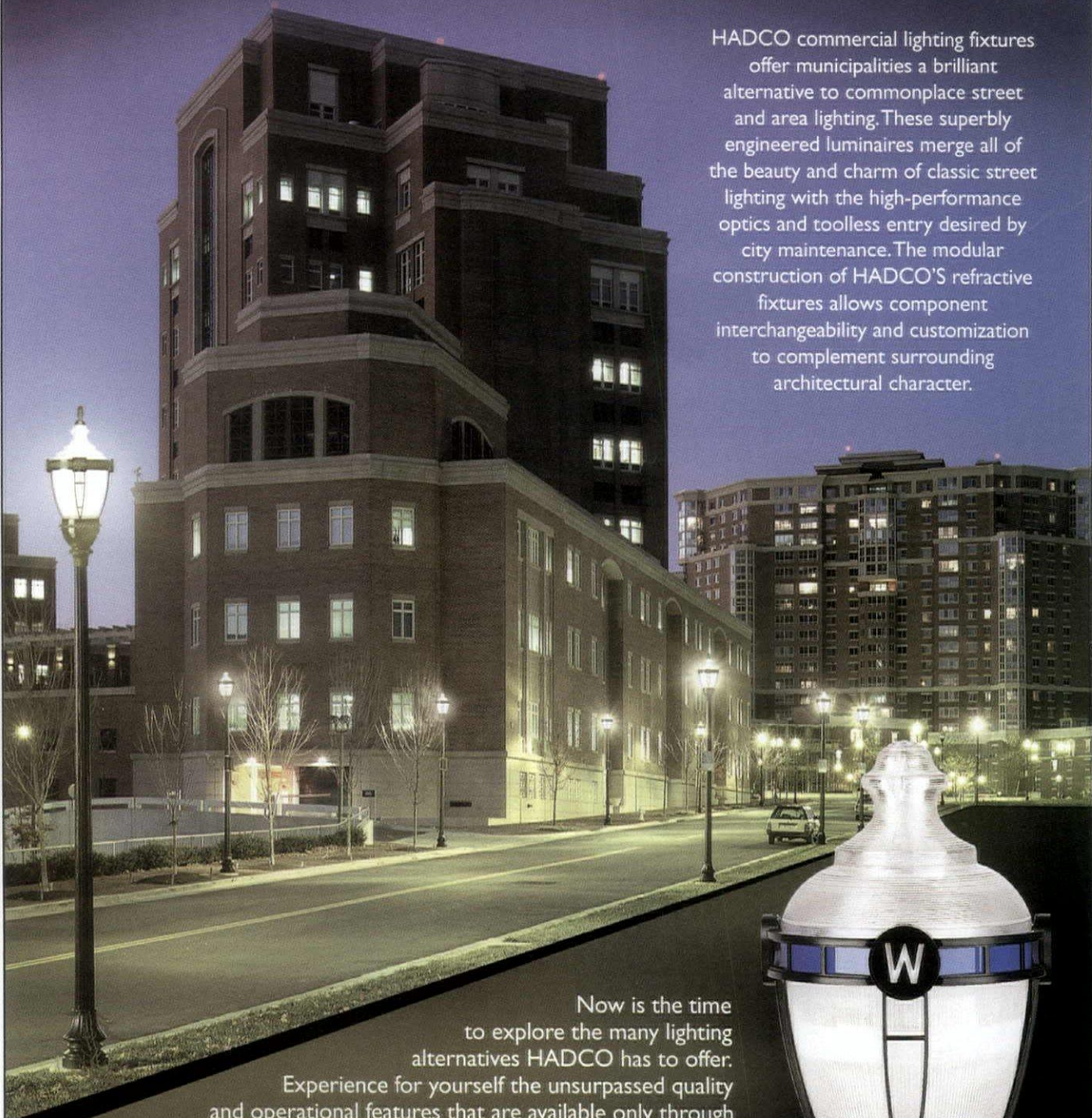
## 40 LIGHTFAIR NEW TECHNOLOGY

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the primary focus of my professional life? Well, those of you who know me well—and there are a few of you out there—will surely agree it's usually difficult for me to express in few words just about anything (I can see some heads nodding in agreement!) but especially something that has touched me so greatly ...and this is no exception.

My years at *Architectural Lighting*—starting from my first stint on staff fresh out of college to my return mid-'90s as editor-in-chief—have provided me with absolutely invaluable experience, inspirational challenge, lasting relationships and definitely, fond memories. I'm leaving *Architectural Lighting* to pursue a tremendous opportunity and an offer I couldn't refuse, but make no mistake about it, as I've told my staff repeatedly and say here now to you, my loyal readers: It was a decision made with my head, not my heart (which, for me, is probably a first!).



Christina Trauthwein,  
Editor-in-Chief

You know, I've been told many times in many places by many people over many years that "once lighting grabs you, you're caught." I always thought it amazing, and even admirable, that the members of this fine profession had such dedication and pure passion for this industry—an incredibly important but often misunderstood field. But how true that statement is. Lighting, the technology, design and application, is quite captivating and once hooked, it's hard to leave. I mean, just look at the lighting industry. We all joke about it: People continuously move around *within* the industry manufacturer to manufacturer, design firm to design firm, manufacturer to design firm, vice versa and back again. In fact, I've often thought it would be fun to play "six degrees of separation" (aka the "Kevin Bacon game" for those of you who know what I talking about) in the lighting industry. Start with two seemingly unfamiliar people and I promise in six moves, you'll be able to connect them to each other! I swear, the only other industry I know that shares this same level of "closeness" is publishing.

Well, I was caught, too. Without a doubt. I was so inspired by this thing called light, an intangible medium that has the power, through thoughtful placement and design, to transform its environment, from monolithic structures to intimate spaces. Yes, from a very basic, functional perspective, lighting is a necessity. But I've learned that lighting reaches far beyond need to that something called desire—the desire to create mystery, drama, excitement, tranquility and ultimately an experience for the occupant or passerby. Rest assured, through all of the meetings, seminars, interviews and discussions we've had over the years, you've made at least one "regular gal" aware of good lighting design. I can promise that I will, in my daily travels, forever be wowed by the truly phenomenal lighting designs out there (and quietly disappointed by the poor examples that continue to exist).

Many of my relationships in this industry have grown past the role of editor/reader or editor/advertiser. Many of you have become my friends—and I will even go so far to say my extended family. *Architectural Lighting* is the leading magazine it is not only because of its incredible and talented editorial and sales staffs, but because of all of you reading this right now. You have been my supporters when I needed encouragement, mentors when I required training, educators when I sought information, cheerleaders when I was challenged, critics when I goofed, directors when I fell off course and saints when I tried your patience by not responding as soon as possible (which my voicemail message promised)! Without naming names, but confident that you know who you are, there are those of you who have lent your guidance and stuck by *Architectural Lighting* through thick and thin. You've made a lasting impression on me, whether or not you even realize it. And I thank you for that.

I would be entirely remiss if I didn't take the opportunity here to say another big thank you to the most amazing staff an editor-in-chief could ever hope to have. For those of you fortunate enough to have contact with them, you know what I'm talking about. We've been a small team, which I'm always surprised to find out people don't realize, but an absolute powerhouse. The tireless effort, dedication and enthusiasm from the *Architectural Lighting* team is truly unparalleled and I never could have accomplished any of my plans or goals, nor achieved the professional success I have, without them. Working with my "AL buds" is what, I think, I will miss the most.

Now, didn't I mention earlier that people in publishing seem to remain in the same circles, or that if they leave, they return? Well, I'm so pleased to announce that my replacement is Emilie Sommerhoff. You just might recognize the name. I was privileged to have Emilie work for me a few years ago on *Architectural Lighting*, where I learned only weeks after she started the job how energetic, intelligent and creative she was. Since her time on *Architectural Lighting*, she has been managing editor of *Facilities Design & Management* and *Architecture* and now comes back to *Architectural Lighting* as editor-in-chief. I have total confidence in her abilities and talents to take the magazine to its next level of success and to lead it in a more-than-competent manner. She is a force to be reckoned with!

On a final note (hey, I already warned you about my propensity to talk a lot), I want to let you know where it is I'm going. I've accepted the position of editor-in-chief of *Kitchen & Bath Business*, a publication with enormous potential and growth. As we all know, lighting is a key part of residential design—especially in the kitchen and bath—so don't be surprised at all if you hear from me in my new role. Also, I encourage you to keep me informed, share your ideas and stories and, hopefully, we can still work together on my new venture.

In the meantime, don't be a stranger. You can still reach me at 646-654-4481. Talk to you later... ■

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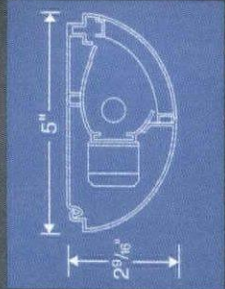


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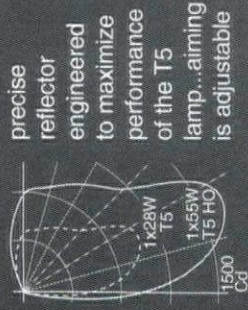
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## To the Editor:

The seminar "Do Good Things Come in Small Packages?" at Lightfair produced a spirited discussion on the practice of purchasing all fixtures and controls on a project from a single manufacturer, distributor or sales agency. I think a reason for the contentious nature of the debate is that there are many worlds within the universe we call lighting design.

For projects with a small number of fixture types—that are essentially commodities—in large quantities, packaging may be an effective way to encourage competition and minimize cost. For projects with a large number of fixture types, including specialty items, in small quantities, packaging may result in actually limiting competition to the one or two vendors that can provide the specialty items or lead to proposed substitutions that only barely resemble the specified products.

We have documented cases from our practice in which packaging did not produce the lowest price for the fixtures purchased and cases in which packages were broken to get the lowest price. In our world of lighting design, a bid is the result of more factors than cost alone. A bid also results from the contractor's relationships with vendors, the ability of the contractor and distributor to get credit, previous experience with a product line and personal preferences.

At the heart of this issue, of course, is controlling cost. Controlling the scope and quality of the project during design, in conjunction with reliable estimating, is essential to minimizing cost. Only then can the purchasing method produce meaningful results for the owner.

Jeffrey T. Berg, AIA, LC  
Berg/Howland Associates

In response to "Starless, Starless Night," which appeared in *Architectural Lighting's* April issue, the author of the article, James Benya, received the following letter via email:

### Dear Jim,

I've met you a couple of times at past seminars and haven't corresponded regularly but still follow your whereabouts and always enjoy your articles. I'm not sure, though, that I agree with your recommendation in your great "Starless Starless Night" article in the April 2003 issue of *Architectural Lighting*, which states that "In order to reduce reflected sky glow, the best overall solution is to reduce lighting to the lowest recommended level published by IESNA for the application." I've always regarded codes as a minimum standard, but that's probably because I'm in California where there are more lawyers than fish. In addition, trying to pinpoint a maintenance factor

for lumen depreciation is like trying to shoot a fish (attorney) in a barrel. I feel that there is too much leeway in the way-too-many variables and too much potential liability to rely on a predicted (design) illumination level based on any published minimum. Wouldn't someone in Oregon agree?

Chris Kraft, LC  
Bechard Long Associates

### Benya responds:

*As an expert who has testified in courts in California, let me assure you that compliance with IESNA recommendations is just fine if the expert is truly qualified. I have no trouble making this the pivotal point in sufficient light cases—perhaps the attorneys to which you refer confront less qualified experts. That is not to say some courts will make decisions that defy common sense, like the woman who successfully sued McDonald's for overly hot coffee. But as many lawyers will tell you, ultimately, it gets very expensive and potentially fruitless to sue over a point for which there is substantial standard or precedent, and challenging IESNA footcandle levels is one of the points.*

*If your design uses a reasonable interpretation of IESNA recommended maintenance values and you are careful to account for lumen depreciation of HID lamps, in my opinion, you have nothing to fear from legal actions. Every case in which I provided expert services was settled on my opinion relative to IESNA recommendations except one: In that case, the plaintiff pursued the claim despite an arbitration ruling accepting my opinion favoring the defense (the plaintiff lost in court, not surprisingly, because my testimony established that there was adequate light). If my field measurements were within 10-20 percent of the recommended amount, I would take maintenance and other factors into account as well as comments in the IESNA Handbook and other publications concerning the approximate nature of the recommended values and usually testify that the design was within recommended IESNA practices. In virtually all of the cases in which I testified that there was insufficient light, the lighting design was deficient from the recommended IESNA practice by at least 50 percent.*

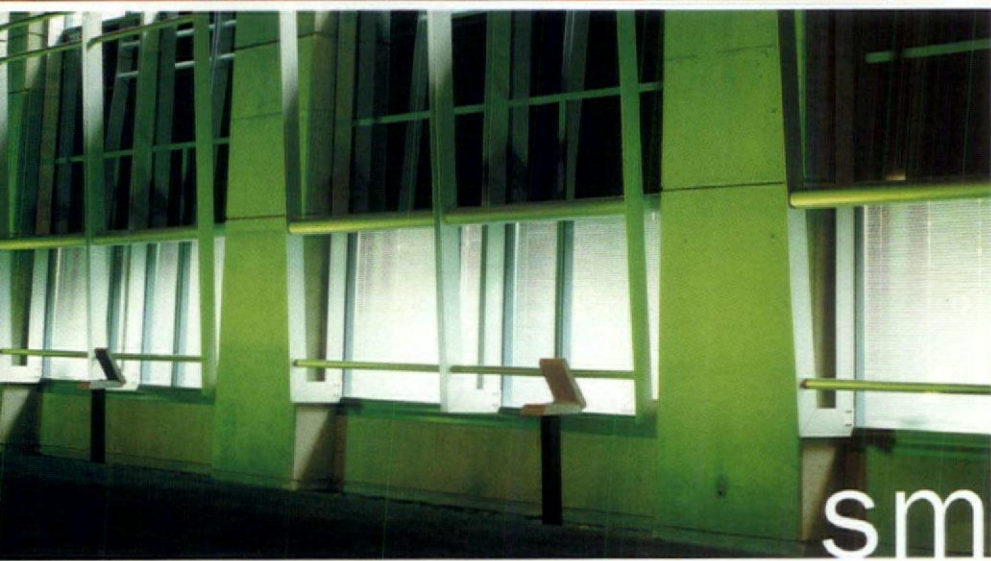
*I might add that my expert work varies between defense and plaintiff based on who retains me, and several times, I have recommended a settlement because my opinion did not favor my client. A good lawyer hires experts that tell the truth, not what the client wants to hear.*

*In any event, I stand by my column.*

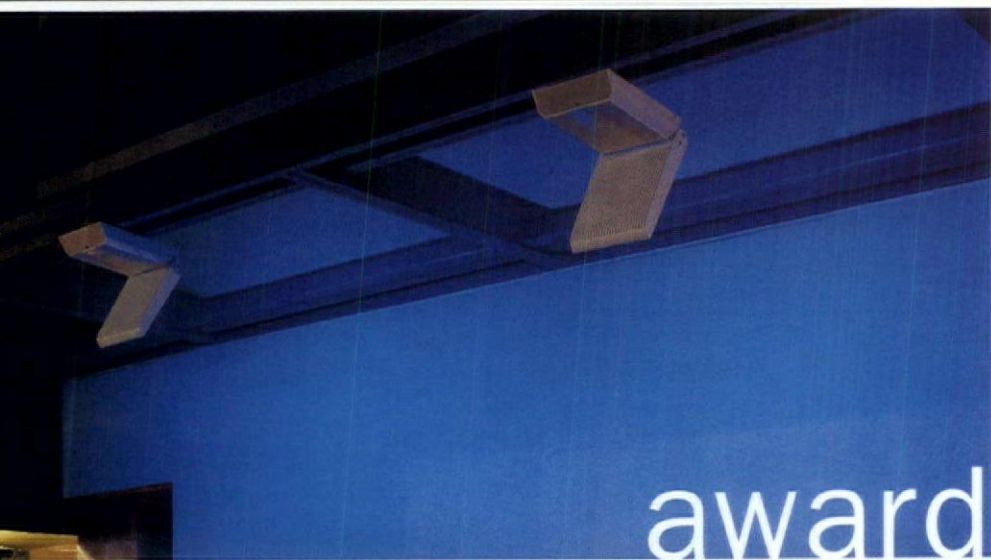
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## GE ANNOUNCES WINNERS OF 22ND EDISON AWARDS

The winners of the 22nd Annual Edison Award were announced at a special dinner reception held on May 6 at the Intrepid Sea-Air-Space Museum in New York City. This year's top prize, the 2002 GE Edison Award, was presented to Robert Daniels, IALD of Brilliant Lighting Design and Bernardo Fort-Brescia, FAIA and Sergio Bakas, AIA of Arquitectonica for the facade and show illumination of the Golden Moon Hotel and Casino in Philadelphia, MS.

Awards of Excellence were also given to Pamela Hull Wilson, IALD, IES of PHW Architectural Lighting Design for the Dallas Convention Center Expansion 2002 and to Dale R. Boyce, PE, LC of Ring & DuChateau, Inc., David Kahler, FAIA of Kahler Slater Architects and George S. Sexton, III of George Sexton Associates for the Brise Soleil Lighting at Calatrava's Milwaukee Art Museum Addition.

Receiving Edison Awards of Merit were Bruce Yarnell, IALD, IES, LC, Mark Hershman, IALD, IES and Mark de la Fuente, IES of Yarnell Associates, LLC for Liberty Memorial; Rita N. Koltai, LC and Terrance M. Kilbourne, LC of TEC, Inc. for Cuyahoga County Courthouse Rotunda Relighting; Naomi Johnson Miller, FIES, IALD, LC, Naomi Miller Lighting Design for Christ the King Roman Catholic Church (see cover story, page 22); Martin J. Peck, IALD, IES, LC and Andrew M. Wegwert of Creative Lighting Design & Engineering for Rocket Science; Suzanne

Powadiuk, Suzanne Powadiuk Design Inc. for Roy Thomson Hall; Ross De Alessi, IALD, LC, MIES and Trish Connor, MIES of Ross De Alessi Lighting Design for the Pyramid Arena Exterior Lighting; and Francesca Bettridge, IALD, IES and Fabio Tuchiya of Cline Bettridge Bernstein Lighting Design for Corporate Headquarters in GA. James R. Benya, PE, FIES, IALD, LC of Benya Lighting Design and Jon H. Wiener, Soderstrom Architects, PC received an Award for Sustainable Design for the Paul L. Boley Law Library, Lewis & Clark Law School.

### LIGHTFAIR 2004 RETURNS TO LAS VEGAS

Lightfair International 2004 will be held at the Las Vegas Convention Center in Las Vegas, NV March 31-April 2. The tradeshow and conference program will be preceded by the Lightfair Institute and workshops on March 28-30. For exhibit information on the 2004 show, contact Eva Behrendt, tradeshow manager at (404) 220-2218 or email [evab@lightfair.com](mailto:evab@lightfair.com); for conference and marketing information, contact Tiffany Wiederhold, assistant manager, conference and marketing at (404) 220-2205 or email [tiffanyw@lightfair.com](mailto:tiffanyw@lightfair.com).

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## 20TH ANNUAL IALD LIGHTING DESIGN AWARDS HONORS 16

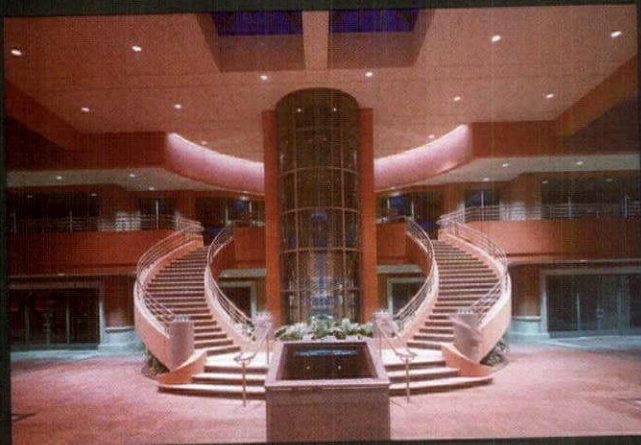
At a gala event held May 7 at Columbia University's Alfred Lerner Hall, the International Association of Lighting Designers announced the winners of the 20th Annual IALD Lighting Design Awards. This year's program differed from previous competitions in that it saw the debut of the Radiance Award, the top prize, which was presented to Steven Rosen, IALD and Katherine Abernathy, IALD of Available Light for the MIT Building 7 Renovation.

The Radiance Award winner was chosen from a group of projects receiving Awards of Excellence, which include: Chung Tai Chan Temple, lighted by Ta-Wei Lin, Su-Chen, Penny Lin, Windsor Wen, Ji-Yung Lin and Kentzu Tseng of CWI Lighting Design Inc.; Chou Lien, IALD, Brandston Partnership and the Chung-Tai Chan Monastery Design Team; School of the International Center of Photography, Stephen D. Bernstein, IALD and Scott Richardson of Cline Bettridge Bernstein Lighting Design, Inc.; Solar Light Pipe, Davidson Norris and James Carpenter of Carpenter Norris Consulting, Dave Kufferman, PE, DK Engineers and Matthew Tanteri of Ann Kale Associates.

Winning Awards of Merit were: Golden Moon Hotel and Casino, Robert Daniels, IALD, Brilliant Lighting Design; First Presbyterian Church, Robert Shook, IALD and Giulio Pedota, LC, Schuler & Shook; Country Music Hall of Fame, Chou Lien, IALD, Sabra

Zacharias, Jim Hasler, Brandston Partnership; Erco P3 High-Bay Warehouse, Uwe Belzner, ELDA, Ingrid Halfmeier, Julia Jensen, Belzner Holmes Architektur Licht Bühne; M39/40, J.K. Yao, IALD, chroma33 Architectural Lighting Design, Inc.; Korean Development Bank, Charles G. Stone II, IALD, ELDA, Enrique Garcia-Carrera, IALD, Fisher Marantz Stone Architectural Lighting; Deutsch Inc., David Singer, Minako Koyama, Lili Ivanovska, Sara Lavery, Arc Lighting Design; South Court of the New York Public Library, Barry Citrin, IALD, Paul Marantz, FIALD, Fisher Marantz Stone Architectural Lighting; Magna Science Adventure Center, Jonathan Speirs, ELDA, Mark Major, IALD, ELDA, Laura Jones, Claudia Clements, Colin Ball, Philip Rose, Steve Power, Jamie Dobson, Malcolm Innes, Henrietta Lynch, Speirs and Major Associates; Modern Art Museum of Fort Worth, George Sexton, IALD, George Sexton Associates; and Minneapolis Convention Center Auditorium, Lauri Tredinnick, Schuler & Shook, Minneapolis/USA (see story on page 26). The Symantec Office Building in Springfield, OR, which was lighted by James R. Benya, PE, FIES, IALD, LC was recognized with a Special Citation.

Submission date for next year's program is December 1, 2003. For more information, visit [www.iald.org](http://www.iald.org).



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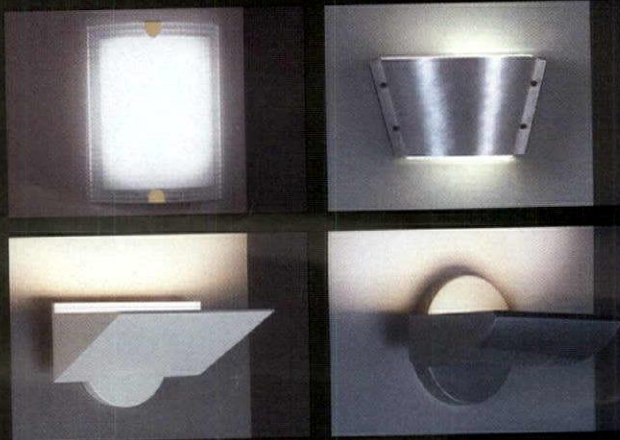
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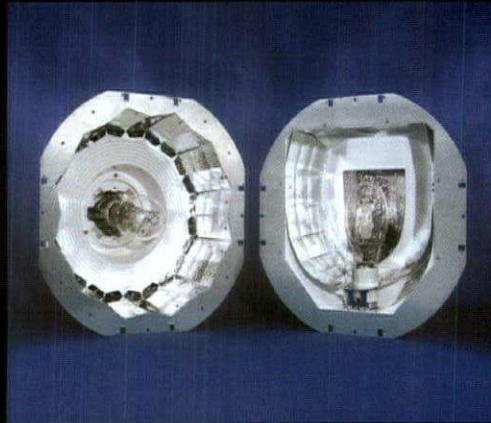
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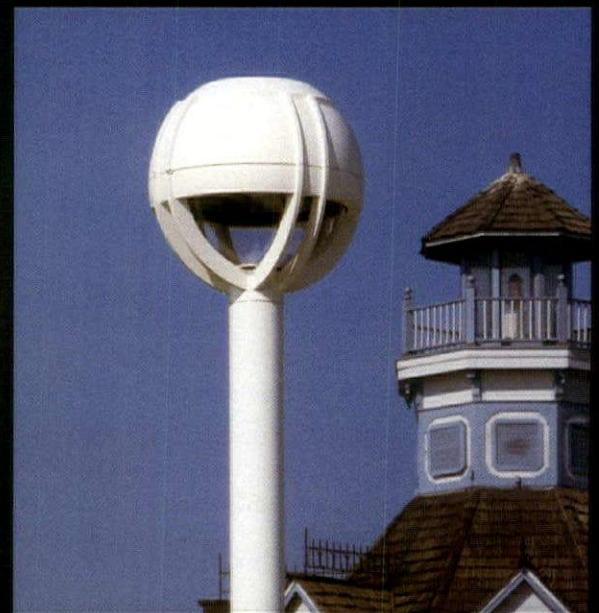
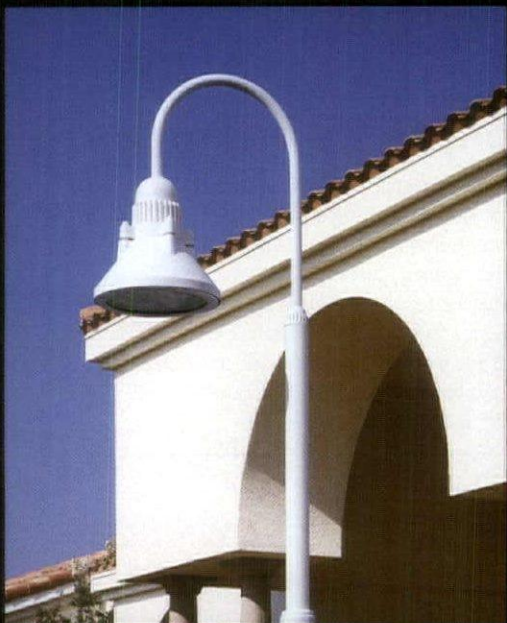
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## LEVITON WITHDRAWS FROM ACQUIRING ONQ

Leviton Mfg. Co. has announced that it is exercising its right not to acquire OnQ Technologies Inc. The company will continue to direct the structured wiring and applications operations of its Leviton Integrated Networks and Decora Home Controls businesses from its corporate headquarters in Little Neck, NY.

In other news, Leviton has also entered into a technology alliance with Crestron Electronics and joined its family of I2P Coalition of Industry Partners. The partnership will focus on joint marketing of the companies' complementary audio/video and lighting control solutions, beginning with the development of a system interface that enables Crestron's line of home automation systems to interoperate with Leviton's Dimension D3200 Series architectural lighting control system. For more information, contact Leviton at (800) 323-8920 or visit [www.leviton.com](http://www.leviton.com).

## ORGATECH PARTNERS WITH BPS

Orgatech has signed a partnership agreement with BPS Leuchten-Systeme GmbH, a company in Blomberg, Germany that focuses on engineering and has collaborated with renowned architects in translating their ideas into lighting reality. The agreement enables Orgatech to accept and complete large-scale custom lighting projects. This will also facilitate the redevelopment of Orgatech's existing project range to the design-to-manufacture agreement, under which 80 percent of Orgatech's design and development will be carried out in Germany.

## CON-TECH ANNOUNCES WINNERS

Con-Tech Lighting has announced the winners of this year's Sirius Award, which recognizes and honors excellence in the work of designers, architects and lighting specifiers using Sirius products. The 2003 award and cash prize went to Spectrum Lighting and Controls of Memphis, TN for its lighting of a custom-built home in Memphis. The announcement was made at Lightfair. The winner of the 2004 Sirius Award will be announced at next year's Lightfair. For more information, visit [www.con-techlighting.com](http://www.con-techlighting.com).

## MERGERS & ACQUISITIONS

**Kling and Stubbins Associates** have formed an affiliation between the two firms, effective April 23. Kling acquired the stock of Stubbins and then converted the existing ESOP-owned firm to one in which the leadership of both firms share an equity stake. For information, visit Kling's website at [www.kling.us](http://www.kling.us) or the Stubbins' website at [www.stubbins.us](http://www.stubbins.us).

**Turpit Architects, Inc.** has joined Robbins Jorgensen Christopher. John Turpit, AIA and his entire staff have also relocated to 230 Laurel Street, San Diego, CA 92101; phone (619) 239-9292, fax (619) 239-9288.

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PEOPLE

Holophane has named **Peter Schreiber** VP of marketing operations.

Leviton Mfg. Co has promoted **William Marshall** to VP of sales and marketing; **Dave Sanders** is director of national accounts for its voice and data division.

Philips Lighting Co. has appointed **Mark Roush** director of brand experience in North America.

Prescolite has appointed **Ron Newbold** senior product manager. **Bill Foley** joins as VP of brand management.

**Ken Mackenzie** has been promoted to VP and general manager of track lighting at Lightolier.

W.A.C. Lighting has named **Pareesh Shah** director of R&D and engineering; **Howard Schnall**, director of customer support; and **Renee Cohen**, specification sales manager. **Henry P. Muller** has joined the product development team.

Martin U.S has named **Mark Nelson** national sales manager for its architectural division.

Beacon Products has named **Daniel J. Funk** VP, general manager.

**Jim Decker** has been promoted to VP of brand management at Progress Lighting.

Auerbach • Pollock • Friedlander has appointed **Michael McMackin**, ASTC and **Adam Shalleck**, AIA principal in San Francisco; **Tom Neville**, ASTC, senior associate in Minneapolis; and **Daniel Mei**, associate in New York. Auerbach • Glasow has named **Richard Osborn**, **Leslie Davis, LC**, and **Susan Porter, LC** associates of its San Francisco office.

**Scott Ortiz** has joined Con-Tech Lighting as technical sales coordinator.

**Brian Deady** has been named director of sales for Quality Lighting.

Super Vision has named **Carl Mione** director of sign division sales and **Teddy Van Bommel** worldwide director of sales.

Horton Lees Brogden Lighting Design has promoted **Lee Hanel**, **Ann Little** and **Guy Smith** to associate.

SPI Lighting has named **John Hollander** director of marketing; **Rob Allen**, executive director of design; **Michael MacLeish**, director of engineering; **David Grimm**, brand manager; **Andrew Shabica**, senior product designer; **Gordon Dickman**, product prototype specialist; **Andrew Mauk**, new product engineer; and **Craig Curtis**, new product engineer.

Syska Hennessy Group has named **Dennis Vito** senior VP and manager of the firm's Princeton, NJ office.

ARCHITECTURAL LIGHTING/www.lightforum.com

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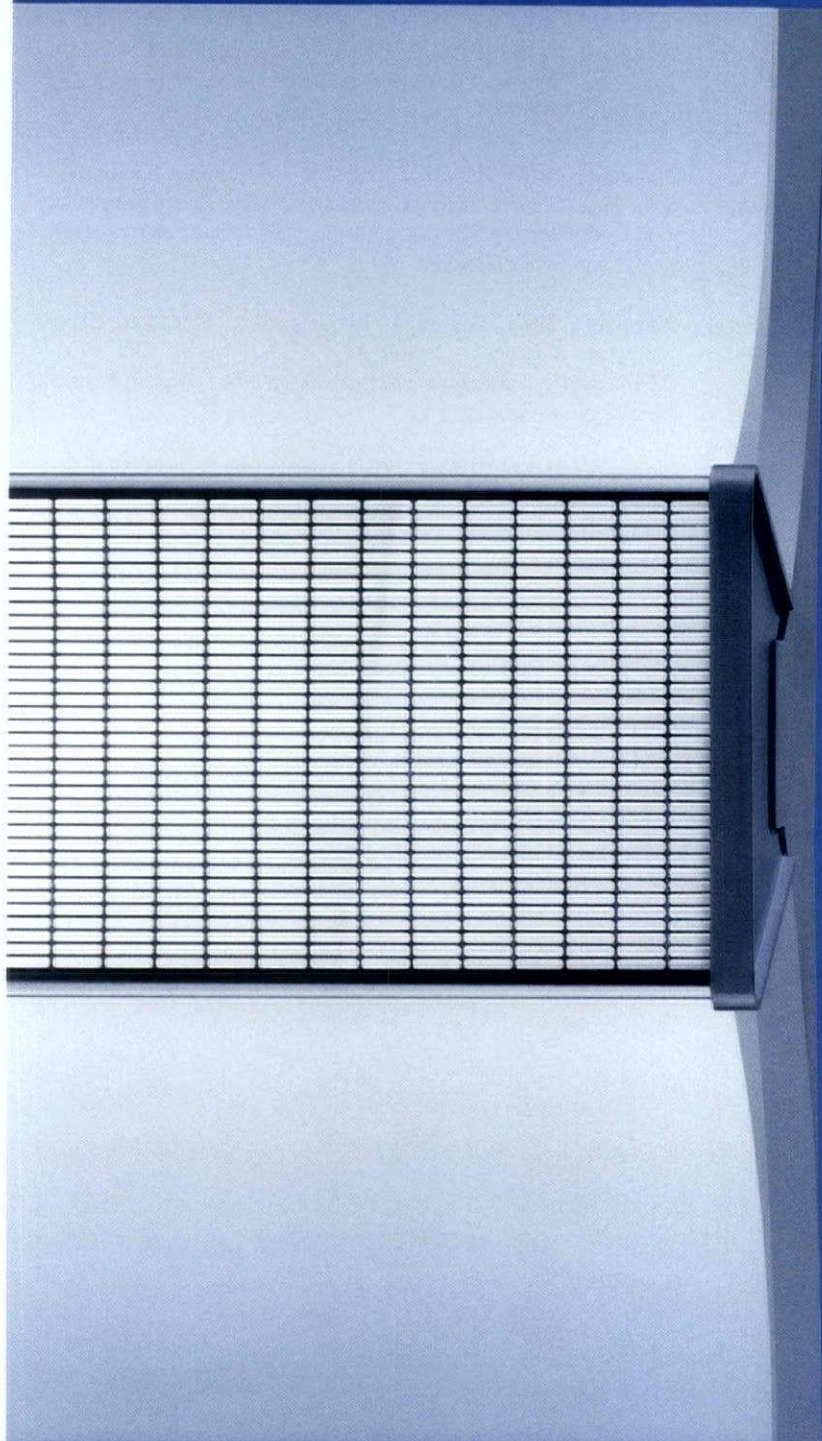
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## 2003 SCHEDULED EVENTS

**September 18-20** Restoration & Renovation Chicago 2003, Navy Pier, Chicago. Contact (978) 664-6455, fax (978) 664-5822, info@restoremmedia.com, www.restorationandrenovation.com.

**September 29-October 1** IESNA 22nd Annual Street and Area Lighting Conference Contact: (212) 248-5000, ext. 110, www.iesny.org.

**October 15-17** Lighting Emitting Diodes 2003, The Strategic Summit for LEDs in Illumination, DoubleTree Mission Valley Hotel, San Diego, CA. Contact: (207) 781-9800, fax (207) 781-2150, email register@intertechusa.com, www.intertechusa.com/leds.html.

**September 24-25** LightShow/West, Concourse Exhibition Center, San Francisco Design Center, San Francisco. Contact: Chris Gibbs, VP at (770) 953-4445, email chris@lightshowwest.com, www.lightshowwest.com.

**November 4-8** BIEL Light+Building Buenos Aires, Buenos Aires, Argentina. Contact: (49) 69 7575-6477, email iris.jeglitz-moshage@messefrankfurt.com, www.light-building.messefrankfurt.com.

**November 12-14** The USGBC Greenbuild International Conference and Expo, David L. Lawrence Convention Center, Pittsburgh, PA. Contact: (330) 425-9330, www.greenbuildexpo.com.

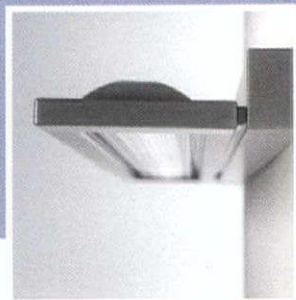
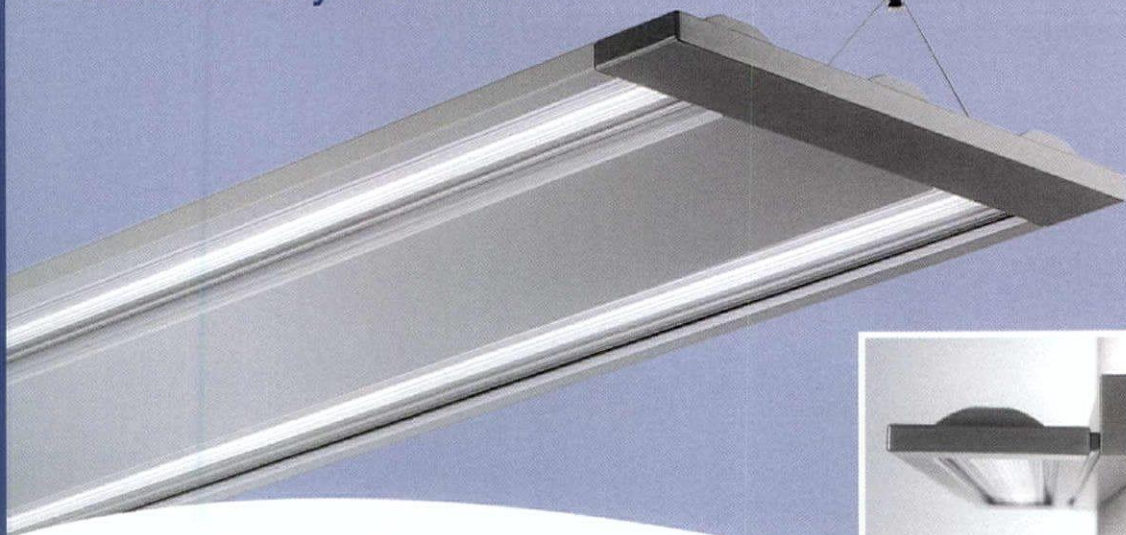
**November 18-21** The 8th Guangzhou International Illumination Exhibition, Chinese Export Commodities Fairground, Guangzhou, China. Contact: (0086) 20-82579156, fax (0086) 20-82578955, www.illuminationchina.com.

**November 19-21** ISH Light+Building Asia, Singapore Expo, Singapore, Singapore. Contact: 0065 6737-1704, fax 0065 6732-9296, email info@singapore.messefrankfurt.com, www.light-building.messefrankfurt.com.

**November 21-23** LDI 2003—The Entertainment Technology Show, Orange County Convention Center, Orlando, FL. Contact: (800) 527-5007, (203) 358-3751, email registration@primediabusiness.com, www.ldishow.com.

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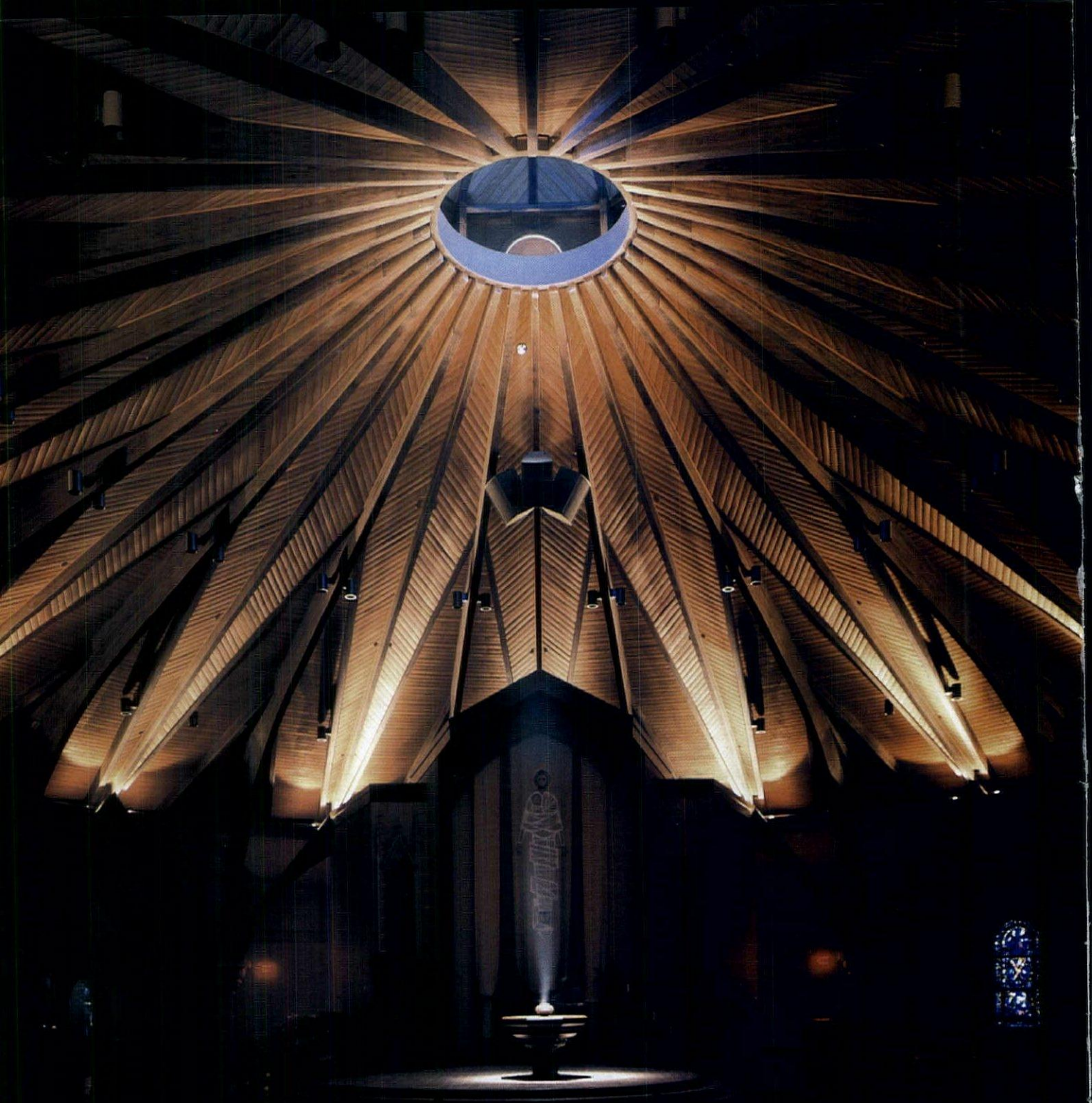
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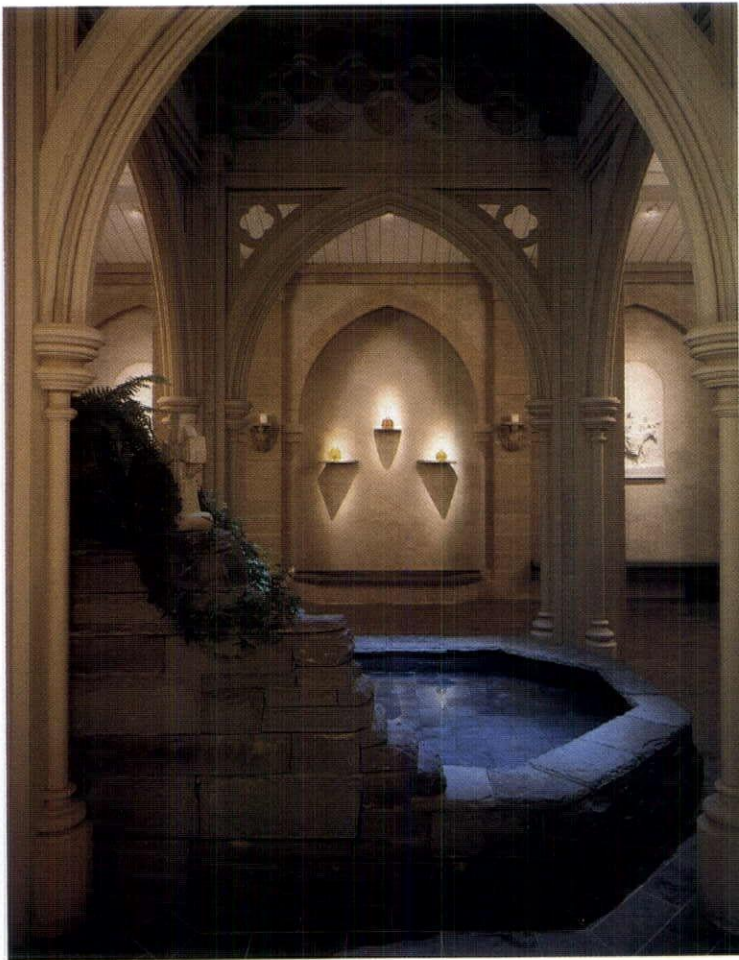
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# Light from Above

Carefully placed fixtures, concealed within the architecture of this Albany, NY church, shed dramatic light among the darkness

BY CHRISTINA TRAUTHWEIN, EDITOR-IN-CHIEF



Congregants enter the 16-sided worship space (opposite) through the Baptistry (above), which symbolically reminds the parishioners of Christ the King Church of their initiation into Catholicism. The tranquil atmosphere, enhanced by subtle and soft lighting effects, provides a meditative space for the prayerful. The architectural design of the church blends Romanesque and Gothic styles to create a church reminiscent of great cathedrals. Lighting fixtures concealed within the beams highlight the woodwork and transform the space into a mystical place—which is further enhanced by dramatic touches such as the “incense light” that captures rising smoke from burning incense placed on the altar (see photo opposite).

**T**hey say God is in the details. Well, then divine presence—and certainly inspiration—is abundant in upstate New York’s Christ the King Roman Catholic Church where not a one is overlooked. In fact, it is the keen attention to detail, achieved collaboratively by the design team, which transforms this house of worship into a truly religious experience. Here, serenity, spirituality, meditation and mystery are much more than an expression of the Mass or the involvement of the participant; they are the objectives of the design concept. And it is through the evocative use of light—a strong Christian metaphor—that the environment stimulates the senses, manipulates the action and soothes the soul.

Both Catholicism and the architecture that celebrates it are steeped in history and rich tradition. In recent years, however, the design of Catholic churches has evolved into a more contemporary style, often devoid of ornamentation. Appealing to a more modern aesthetic, the intricate detailing and truly awe-inspiring interiors seem now to be relegated only to historic churches, great cathedrals—or Europe. But this church in Albany, NY, with its 13,000 sq. ft. of new construction and 4,300 sq. ft. of renovated space, resurrects the notion that

contemporary architecture can include and moreover, can reflect traditional and period influences. And need not be saturated with light.

“Churches like this are just not constructed around here, especially churches of this size, so it really was a privilege to work on it,” said lighting designer Naomi Miller, who was honored this year with a GE Edison Award and an IES Award of Excellence.

The original design intent was to create a Romanesque-style church with a bit of a Gothic open-air feeling, enhanced by stone and wood finishes, that is typically found in grand cathedrals. Arches spring from a series of columns that define the perimeter of the 16-sided worship space. The architect, Jim Hundt, wanted to accentuate both the building architecture, by drawing the eye to the ceiling and consequently, to the cupola in the center overhead, and the liturgical aspects, which are the essence of the space.

## LIGHT IN THE DARK

One enters the worship space through the Baptistry, which is symbolic of the parishioner’s initial entry into the Kingdom of God. And though congregants pass through this space on the



Above: Some, though very little, daylight enters the worship space through stained-glass windows that surround the perimeter of the church. These windows were salvaged by the pastor from area churches prior to demolition and bring beauty to the church and meaning to the worshipping community, many of whom grew up in the neighboring parishes. Around the perimeter, MR16s accent column-mounted Stations of the Cross and statuary (opposite, far right).

way into church, making it a heavily trafficked area, it was to remain contemplative—a place to sit and meditate. By day, the font, which is situated under a stone canopy, is skylit. By night, midnight-blue-filtered MR16s, located in the canopy, simulate moonlight to create a dramatic effect.

“Father Pat, the pastor, wanted this church to feel dark like those in Europe, which are always dark in spite of their stained-glass windows,” said Miller. “The environment was to be created through electric light rather than natural, which is typical of many churches,” added Hundt. In fact, the only daylight admitted into Christ the King is through some clear windows in the cupola and the dark stained-glass windows around the perimeter of the space, which are lighted from the exterior using 70W PAR30 metal halide fixtures. All of the windows, including those in the oculus are equipped with electric shades to enable the pastor to create the desired mood, day or night. “It was definitely challenging to make the space feel mystical without making it gloomy—and without making it difficult to see,” said Miller.

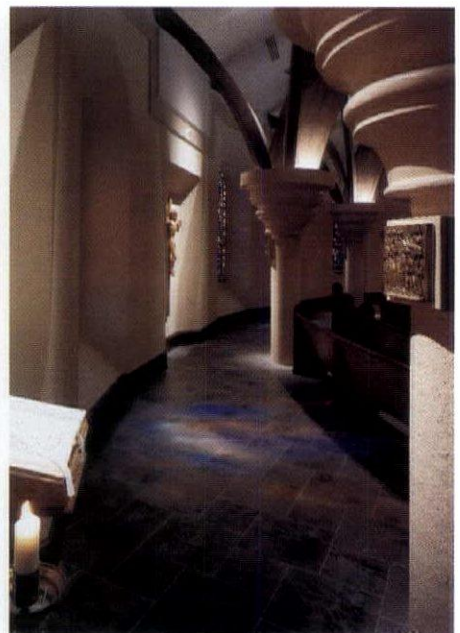
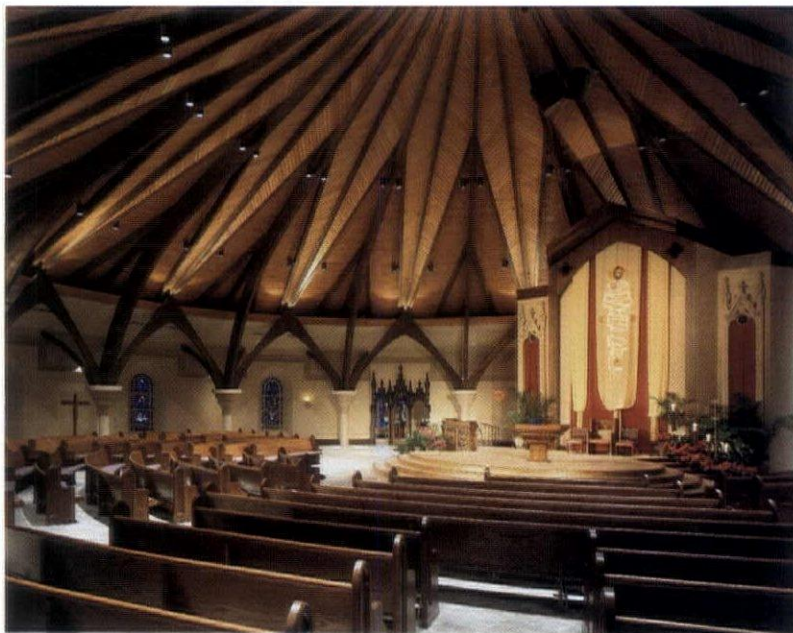
The Baptistry with its delicate balance between light and dark sets the tone for the entire facility. This grotto-like space, complete with the tranquil sound of running water, is adorned with salvaged bas-relief stone panels imbedded in stucco walls,

softly highlighted with recessed MR16 downlights. Sacred oils, which are stored in glass flasks on shelves in the baptismal area, are accented with 7-degree 20W MR16 lamps, giving this space a museum-like quality, which had been suggested by Hundt.

“Father Pat is a collector of church relics,” noted Miller. “Over the years, he has watched area churches being demolished—unfortunately, it happens a lot—and has saved some of the beautiful objects, such as fabulous marble sculptures or friezes or altar railings, inside them from also being destroyed. He has preserved their history and purpose by now displaying many of them, primarily the 11 stained-glass windows, in Christ the King.” The selection of religious items had been sitting in storage waiting for a new home, and it was incumbent upon the architect to incorporate them into the new structure and to make them look like integrated design elements. “We basically designed the church around the windows,” said Hundt. “The artifacts inspired the decision to accommodate both architectural styles—Gothic and Romanesque—in the building.”

“The addition of these articles adds a sense of history to the new building and gives it architectural context,” said Miller. Added Hundt, “A lot of the parishioners had grown up in these





other parishes, so bringing something from the churches of their youth to a current suburban church makes the whole experience even more special.”

## SACRED AREA

As one proceeds into worship space, complex architectural elements interweave to symbolize the crown of Christ and draw the eye upward to the oculus, which brings some natural light during the day to an otherwise dim space. The oculus, being the architectural focal point, continues to glow at night using cost-effective F32T8 striplights.

Lighting layers create different effects for changing liturgical events. Dimmable 3000K 39W compact fluorescent striplights uplight glu-lam arches from column capitals. “The arches were extremely difficult to depict in drawings, so it was difficult to visualize in three dimensions what was going to happen to the lighting,” explained Miller. The solution creates dimension and helps to see the arches in silhouette to some extent.

Beam-mounted cylinder downlights provide 25 fc of reading light using 100W PAR38/IR/flood lamps and narrow flood lamps. These are dimmed slightly to extend lamp life and pole-relamped when necessary. To minimize energy and relamping, only the long-life fluorescents are turned on for daily meditation.

PAR38 monopoints are added to graze the converging overhead beams. These use 100W PAR38/IR/NSP10-degree lamps and reveal the texture of the surface by accentuating the ribs of the ceiling. “It brings out the beauty of the structure overhead,” said Miller.

Around the perimeter, housed in sloped ceilings, mirror-trim 90-degree MR16s accent column-mounted Stations of the Cross and statuary.

Concealed in the band above the arches, 300W PAR56/NSP luminaires illuminate the ambo and custom-made octagonal altar for reading and light the priest’s face. Behind the altar, a floor slot conceals 60W PAR38 IR track heads that uplight banners.

One of the more dramatic lighting elements of the church is a very simple one and one suggested by the pastor: A single recessed 4-degree AR111 spotlight—one of the few recessed fixtures in the space—invisibly shines a narrow shaft of light

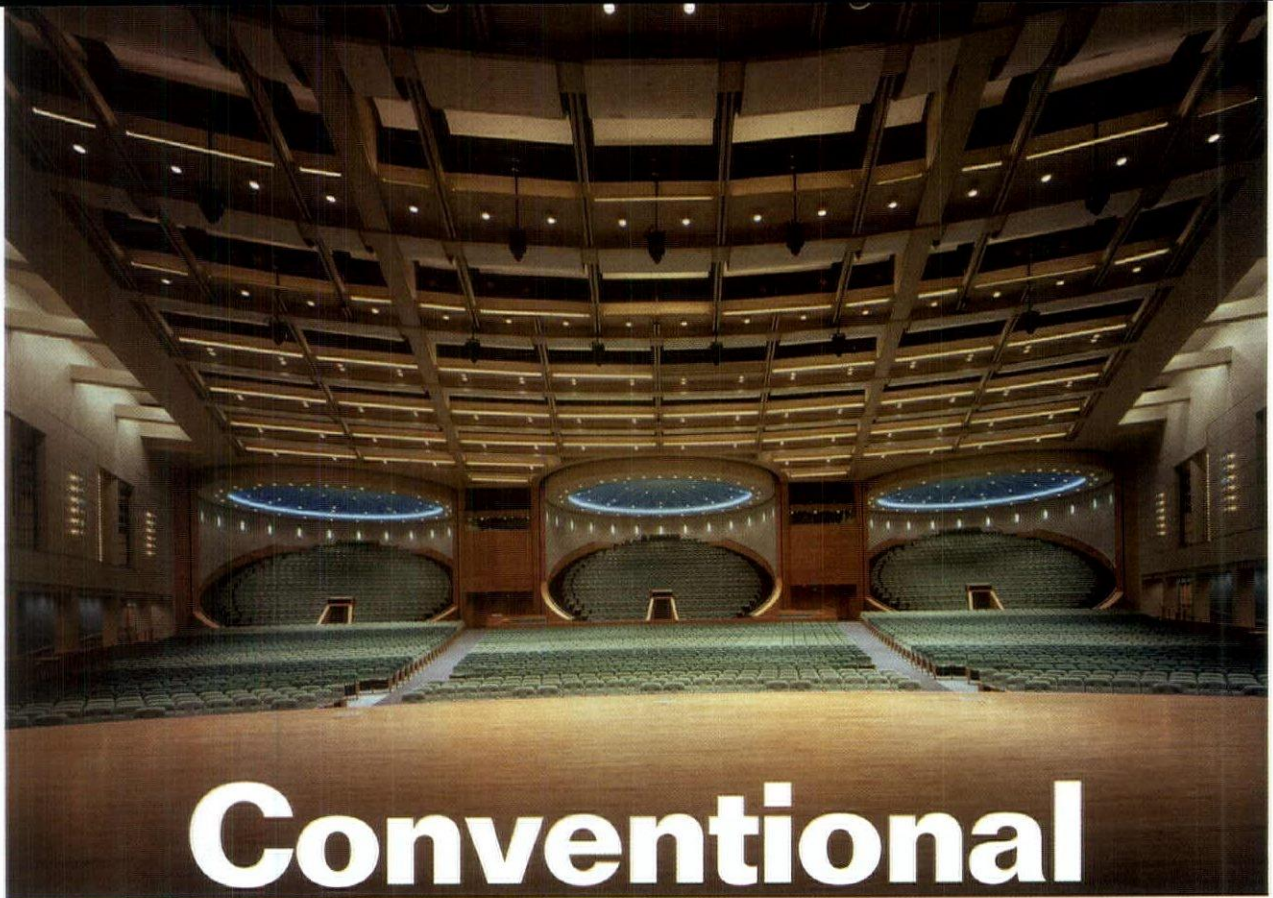
down onto the altar and illuminates the stream of ascending smoke from burning incense. “This draws your eye, once again, to the top of the church, up to the spectacular architecture and to Heaven in a very mysterious, ethereal manner,” said Miller. “It’s exceptionally mesmerizing with the banner image of Christ in the background.”

Explained Miller, “All lamps on the project are carefully positioned, aimed or louvered to minimize glare, with planned accessibility from a lift or from the roof.” At only 1.65 W/sq. ft. connected lighting load, this building uses energy judiciously. An architectural multi-scene preset dimming system allows one-touch scene changes, and according to Miller, “Father Pat loves to ‘play’ with it. He’s a man with a lot of drama in his soul, who really loves his religion, his church and the effects he can create for his congregation.”

“We took a very theatrical approach to lighting design because the pastor realized the importance of lighting in terms of creating the focal points that you want to create within the worship experience,” said Hundt. “We used it to emphasize a particular area or activity, as well as to emphasize the architecture of the building or a number of things that need to be lighted from the wood ceiling to the various artwork pieces that were placed around the building. I design churches frequently, and this really was a unique opportunity insofar as it allowed us to use lighting to its maximum effect—and I think it was very successful in doing that.” ■

## DETAILS

**PROJECT** Christ the King Roman Catholic Church  
**LOCATION** Albany, NY **ARCHITECT** James Hundt  
**LIGHTING DESIGNER** Naomi Miller Lighting Design—  
 Naomi Johnson Miller **ELECTRICAL ENGINEER** Excel  
 Engineering **PHOTOGRAPHER** Randall Perry Photography  
**LIGHTING MANUFACTURERS** Kurt Versen; Lightolier;  
 Prescolite; Lighting Services Inc; Forecast; Legion Lighting;  
 Lumiere; Lehigh (controls)



# Conventional Wisdom

At this multi-functional auditorium, lighting and architecture blend to ensure that all sizes are welcome

BY ALICE LIAO, MANAGING EDITOR

**A**t 33,000 sq. ft. and 3,400 seats, the new state-of-the-art Minneapolis Convention Center auditorium, though impressive, may seem at first glance to be suitable only for a large assembly. Designed by local architects, The Leonard Parker Associates, the oversize facility, a part of a 750,000-sq.-ft. expansion of the Convention Center, is daunting in scale with sloped ceilings that peak at over 40 ft. and a 63-ft.-wide proscenium stage. However, the facility is, in fact, a bit of a contortionist, easily maneuvering to accommodate groups and events of varying sizes. And the lighting scheme, crafted by the Minneapolis arm of Schuler & Shook and recently awarded an IALD Award of Merit, is equally nimble, adjusting for a range of functions, while reinforcing the architectural aesthetic of the auditorium in its multiple incarnations.

At the heart of the venue's accommodating nature is a trio of turntable spaces that are located at the back of the auditorium and rotate 180 degrees outward to form three separate, more intimate rooms. Each of the turntable spaces seats 450 in stadium-style rows, providing "excellent sight lines," as noted by Schuler & Shook principal Michael DiBlasi, and is lighted to ensure visual comfort despite shifts in room orientation and elevation. According to DiBlasi, because the ceilings do not move during the spatial conversions, the elevation of the seating in relation to the ceiling changes as the rooms rotate. He explained, "If you're at the

bottom of the tiered seating, and the room, which is essentially the walls and seating, rotates while you remain in place, your distance from the ceiling decreases from 34 ft. to 8 ft."

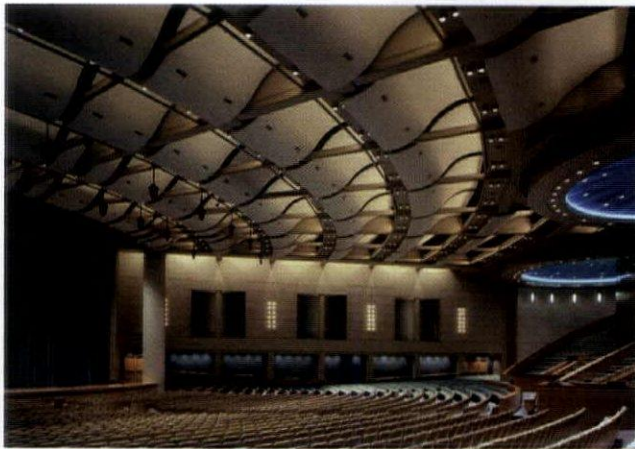
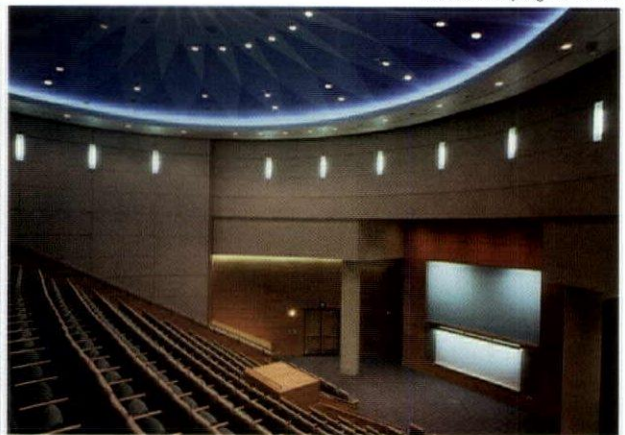
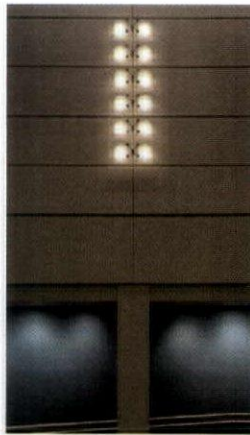
The dramatic fluctuations in elevation, consequently, required a lighting strategy capable of varying light distributions and intensities according to room configuration. To achieve this, the ceilings are studded with a combination of 150W and 400W quartz downlights placed on a control system that is preprogrammed to "recognize" room orientation and switch groups of fixtures on/off appropriately. To minimize lamp types and simplify maintenance, the 400W downlights are fitted with narrow-, medium- and wide-beam optics. Said DiBlasi, "In a high-ceiling area, the narrow distribution punches light down to the seats," while 150W downlights ensure proper intensity for 8-ft. elevations.

## EVENT PLANNING

Flexibility was also critical in the main auditorium space, which hosts a variety of events and productions with diverse lighting requirements and includes architectural, theatrical and automated lighting equipment. "A number of different considerations led us to design a space that's very flexible," said DiBlasi. "Being responsible for both the theater consulting as well as the architectural lighting was extremely helpful, because we were able to play the two off each other." The dual responsibilities enabled him to mold a lighting scheme that is integral to the architecture, a

Opposite, right & below: To seat 3,400, three turntable rooms located at the back of the auditorium are turned inward. Ambient light is provided by quartz downlights and xenon uplights, all of which are accessible from a network of catwalks. Decorative elements such as glass sconces add sparkle while articulating the architecture.

Far right: Rotated outward, the turntable spaces become separate, smaller venues. A control system adjusts the downlighting for changes in elevation.



key concern for DiBlasi, and to devise a system of catwalks that eases relamping by eliminating the need for genie lifts and supports theatrical equipment as well. "It's a very tight design with the architecture, which really can only be achieved through a close collaboration with the architect" commented DiBlasi. "The architect really deserves a lot of credit for working through all of the issues. We were involved with them from day one."

To supply ample ambient illumination and respond to the multi-functional needs of the large assembly place, DiBlasi employs a blend of direct and indirect lighting. Uplighting the curved sheet rock panels that form the undulating ceiling, low-voltage, adjustable xenon striplights are tucked inside 4-in.-diameter aluminum extrusions that run parallel to the arced lengths of the ceiling bays. Secured to and accessible from the catwalks, the xenon fixtures are supplemented by semi-recessed 400W quartz downlights located directly below and organized into pairs for an "interesting articulation." These fixtures can also be accessed from the catwalks above. DiBlasi said, "By being involved with the architectural lighting and theatrical consulting, we bring together all of these various elements, so that everything has more than one function." Again, to ease maintenance, the downlights utilize the same lamp, but address differences in elevation with narrow-to-wide-beam light distributions.

Other elements of the lighting scheme enhance the interiors by highlighting architectural features or adding elements of sparkle. Hidden above in an 8-ft.-wide ceiling slot, quartz wallwashers splash light downward to lend relief to the vertical surfaces and, as DiBlasi said, "to architecturally divorce them from the ceiling plane," while additional wall-washing illuminates the side aisles. Three large bays, which provide mounting sites for theatrical equipment and also further articulate the perimeter walls, are indirectly lit with surface-mounted striplights lamped with 4,000-hour 40W G16 sources and concealed behind columns. The niches are flanked by luminous glass sconces that stand 13 ft. tall.

The fixtures consist of floating glass panes affixed to "spiders" mounted onto the walls. "We used a simple incandescent G lamp behind the glass to create a glow and to give the walls some articulation," said DiBlasi. "It's a relatively simple use of materials to create a large-scale fixture in that space."

Glass sconces also adorn the exterior and interior walls of the rotating rooms, creating a thematic link throughout the entire auditorium and thus, tying the four spaces together. On the exterior, etched-glass fixtures, flush-mounted and backlit by dimmable fluorescent strips, are grouped into seven glowing stripes that vertically scale the walls for dramatic flair. Inside, individual fixtures evenly spaced below a ring of 3000K triphosphor cold cathode add visual punctuation to the rooms, while responding to the more intimate setting. Said DiBlasi, "We used the same fixtures in different configurations to address the issue of scale." Above, the cold cathode uplighting enriches the blue tones of a painted starburst and the dual downlight system, carefully incorporated into the ceiling design and rim, appears as glittering stars.

A final, but no less significant component of the lighting solution, is the control system, which allows the four rooms to be controlled separately or together and is crucial in ensuring visual comfort and appropriate light levels and lighting conditions, regardless of room function or configuration.

#### DETAILS

**PROJECT** Minneapolis Convention Center Auditorium  
**LOCATION** Minneapolis, MN **OWNER/CLIENT** City of Minneapolis  
**ARCHITECT** The Leonard Parker Associates—Gary Mahaffey, Yong-Koo Lee  
**LIGHTING DESIGNER** Schuler & Shook—Lauri Tredinnick, Michael DiBlasi  
**PHOTOGRAPHER** Myunghwan Cho  
**LIGHTING MANUFACTURERS** Kurt Versen; Lighting Services Inc; Winona Lighting; ETC; Leviton Mfg.

**martinarchitectural**



*Lighting Design School, Lyon, France.*



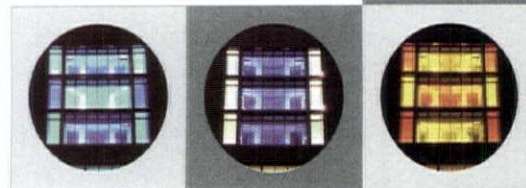
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# design focus report

## Residential Lighting

L

ighting for the home can be one of the most exciting projects for a lighting designer. From ambient to decorative, residential lighting has to cover many environments, moods and tasks. As the average home is increasing in size, there is an ever-increasing demand by utilities,

states and other organizations for more energy-efficient residential lighting. However, focusing on the technology is only half the issue; there are many design techniques for the home that will help utilize light more efficiently and effectively.

**Technologies.** Fluorescent technology is making a strong breakthrough in the residential market, primarily because of the ENERGY STAR program. Fixtures that have earned the ENERGY STAR meet strict efficacy, color, performance and quality requirements. These fixtures are laboratory-verified to be instant-on, do not hum or flicker and use 10,000-hour lamps, to name just a few of the attributes. At the June 2003 Dallas Residential Lighting Market, leading manufacturers such as Quoizel and Sea Gull were proudly displaying dozens of ENERGY STAR fixtures; with over 50 manufacturers making ENERGY STAR fixtures, it is easy to find a high-quality, energy-efficient fixture for most applications.

For spot, flood and sparkle, halogen light sources still have a place in the home. MR16s and MR11s on rail, track or cable systems are an excellent choice. Although minimally more efficacious (lumens per watt), a well-designed low-voltage halogen system can provide the same dramatic effect but use about one-half the energy as an incandescent recessed downlight design because of its more effective use of the light.

Controls should also be considered. Dimmers are most commonly used in dining, but can add flexibility for mood and efficiency to many rooms. However, when designing with fluorescent, make sure to specify a compatible dimmable fluorescent fixture. Timers for indoor fixtures also provide added benefits of control and energy savings. On outdoor fixtures consider the use of photocells (all ENERGY STAR outdoor fixtures use photocells) to turn lights off during the day. Motion sensors on outdoor fixtures (available on some ENERGY STAR models) are also a good idea not only for energy savings but for security as well.

**Applications and Design.** Kitchens often have the most number and diversity of lighting fixtures because of the many different needs. Today's larger homes commonly use numerous recessed downlights to illuminate countertops, islands and cabinets. However, typical incandescent downlights can add significant heat

to the kitchens, and if installed improperly, the scalloping on the cabinets and walls can be uneven and too low. Consider the use of under- and over-cabinet fluorescent fixtures (T5 and other lamps now provide the opportunity to effectively hide the fixture from direct view) for visual effect and countertop lighting. Fluorescent, low-voltage or line-voltage halogen pendant fixtures can bring the light where needed—closer to the counter. If downlights are used, consider ENERGY STAR fluorescent downlights where the lamps will last 10 times longer.

Downlights are commonly used in living areas as well but are typically a source of glare. If downlights are a must, consider the use of adjustable downlights that provide flexible aiming. Adjustable MR16 downlights are an excellent choice for light control and minimize fixture size. ENERGY STAR

downlights are also available but should be used with the proper glare control and only around the perimeter of the space. Fluorescent cove-lighting to illuminate walls or ceilings is one alternative if a more uniformly lighted room is desired. Remember to specify lamps with a color temperature of preferably 2700K (and not to exceed 3000K) for a warm looking environment.

Energy-efficient fixtures for bath, hallway and other areas should also be considered. Leading manufacturers have a wide range of decorative ENERGY STAR products for these applications.

In recreational rooms, consider the use of rail or track low-voltage systems instead of numerous high-wattage downlights when spot and accent lighting is desired on walls and furnishings. Using low-voltage MR16 and MR11 sources reduces the size of the fixture and allows the light to be efficiently controlled and to effectively illuminate only the desired object. The use of fluorescent cove-lighting to wash walls can help increase the perceived size of the room and reduce uncomfortable heat gain.

Unfortunately, this article only covers some of the very common residential lighting applications, but there are numerous strategies in lighting a house. Challenge yourself to explore techniques and technologies that will lead to high-quality, energy-efficient design. ■

*Paul Vrabel, LC is a project manager with ICF Consulting, supporting a number of energy efficiency programs and continually tests out new energy-efficient technologies and design techniques throughout his home (until his family kicks him out). The author is always open to discussions on high-quality, energy-efficient lighting, and can be reached at [pvrabel@icfconsulting.com](mailto:pvrabel@icfconsulting.com).*

If downlights  
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flexible aiming.

## News on the homefront...

### LIGHTING FOR TOMORROW

Phase I winners of the Lighting for Tomorrow fixture design competition were announced at the American Lighting Association's (ALA) annual conference on May 2. Of the 11 finalists chosen, Stefano Casciani of Ivalo Lighting took top honors with the Aliante pendant and Stephen Blackman of American Fluorescent Corp. was recognized for the Santa Cruz and Salem chandeliers, the Oslo pendant and the surface-mounted Ensenada. Other finalists included: Between 2 ShapeS pendant by Leif Hygild Andersen and Soren Momsen, Momsen Design; Light Shell portable by Steen Dueholm Sehested and Soren Momsen, Momsen Design; Wave sconce by Jonathan Daifuku, Daifuku Designs; Torch sconce by Manny Vieyra, Forecast; and Chameleon tasklight by Ken Lau, LC, Powerlux Corp. Thirteen designs received Judges Awards and Honorable Mentions.

Sponsored by the ALA, Consortium for Energy Efficiency and the U.S. Department of Energy, the Lighting for Tomorrow competition was launched in 2002 to introduce attractive, innovative and energy-efficient residential lighting fixture designs into retail showrooms. Eligible designs included currently available fixtures and drawings, which are dedicated to an energy-efficient light source, complying with the efficiency requirements of ENERGY STAR fixture specification, v. 3.1, and rated for use in residential lighting. Prototypes for winning paper design are due January 31, 2004, with winners to be announced in May. For more information, visit [www.lightingfortomorrow.com](http://www.lightingfortomorrow.com).

### TITLE 24

As part of its 2005 revisions to the Title 24 Energy Standards, the California Energy Commission is making the largest changes to its residential lighting regulations in its 25-year history. Previously, California has required that the general light source in kitchens and bathrooms employ a light source of at least 40 lumens per watt (LPW). In the 2001 version, Title 24 permitted the bathroom light to be traded off for a high-efficacy source in a utility room, laundry room or garage. Most electrical inspectors required that the first switch in the kitchen operate the high efficacy lighting. It is important to note that California does not allow medium screw-based luminaires with self-ballasted compact fluorescent lamps for compliance. New rules will be:

- High-efficacy sources have been redefined as 40 LPW up to 15W; 50 LPW up to 40W; and 60 LPW 40W. In addition, lamps 18W and greater must employ electronic ballasts.
- More than 50 percent of the watts in a kitchen must be high-efficacy sources separately switched from other sources.
- Lighting in bathrooms, garages, laundry rooms and utility rooms must use either high-efficacy sources or a motion sensor controlling other sources.



Winning designs: The Aliante pendant (above) by Stefano Casciani of Ivalo Lighting and Santa Cruz, one of four entries from Stephen Blackman of American Fluorescent Corp.

- Permanently installed lighting for all other rooms, including living, sleeping and dining spaces, must use high-efficacy sources, a dimmer or a motion sensor. Rooms smaller than 70 sq. ft. (such as closets) are exempt. There are no requirements in Title 24 about switched outlets, which can often be used to meet minimum NEC requirements for these space types.

- Outdoor lighting permanently mounted to structures must either use high-efficacy sources or a motion sensor. Note that this excludes most landscape lighting.

These new rules were developed to maintain reasonable design freedom while ensuring that energy savings are achieved. The ability to use motion sensors or dimmers in lieu of forcing fluorescent lamps throughout the home should satisfy the concerns expressed over the years by architects, designers and builders towards previous high-efficacy lighting rules.

### ZERO ENERGY HOUSE

On April 22, a Zero-Energy Home (ZEH) in Tucson, AZ opened its doors in celebration of Earth Day. Developed by builder John Wesley Miller and the NAHB Research Center in partnership with Tucson Electric Power, the house combines state-of-the-art, energy-efficient construction and appliances with commercially available renewable energy systems and is designed to produce as much energy as it consumes. Features include: active solar spaces and water heating, solar water heating with tankless backup, ENERGY-STAR-rated appliances, compact fluorescent lighting, low-flow plumbing fixtures, high-efficiency air-conditioning system, radiant barrier roof decking and windows that minimize solar heat gain. Among the sponsors involved in the ZEH were lighting manufacturers Osram Sylvania, whose ENERGY-STAR-rated fluorescent products provided an energy-efficient alternative to incandescent lighting, and Nora Lighting. For more information, visit [www.nahb.org](http://www.nahb.org). ■

# design focus report

## Home Improvement

"People are staying in their homes and remodeling them instead of buying the next bigger house," said lighting designer Randall Whitehead of Randall Whitehead Lighting. "It's a major trend that we're seeing, which started in the '80s and has since grown progressively evident. People are using the equity line in their homes to create cash to improve the spaces that they're in." Such was the case with a project recently completed by Whitehead in the Potrero Hill neighborhood of San Francisco. The home, occupying two stories in a five-story rowhouse, was expanded 1,200 sq. ft. by transforming two levels of large decks into new interior living spaces. To effect this conversion, Whitehead worked closely with the architect and interior designer to bring more light into the center of the house, while minimizing disruption to the homeowners who had decided to stay in the home during the renovation.

"A good 85 percent of our first-time remodel clients decide that they want to live in the house during the remodel," said Whitehead, for whom the clients' decision to stay was "the biggest constraint." "People can get very edgy when living in two inches of plaster dust. We had to be very cleanliness-oriented, but also use fixtures made specifically for remodel or just replace fixtures where they already existed. If there was going to be any major breaking into walls or ceilings, we did not do it." Also complicating the design challenge were the low ceiling heights, which ranged from 7½ to 8 ft. and prevented the use of pendant fixtures and cove lighting for ambient illumination. The small size of the rooms demanded sconces with relatively shallow projections. "We relied on a variety of decorative fixtures, uplighting and accent lighting to create as much visual height as possible," said Whitehead. "The low furniture really helped too."

In addition to enhancing the illusion of height, the low furnishings reflect the Asian style introduced by the interior design. This in turn directed Whitehead to select decorative fixtures that would complement the eastern theme. For example, to light the main hallway, a sconce originally sporting late Art Deco appeal is "made over" with a bronze finish and orange glass diffuser, resulting in a fixture appropriate to the feel of the interiors. In the living room, a woven wood fixture from Indonesia, which appears to be the sole source of light, is supplemented by recessed, adjustable low-voltage accentlights that highlight artwork, plants and various surfaces.

"The use of low-voltage fixtures enabled us to create pools of illumination for the art objects, while being unobtrusive and energy-efficient," said Whitehead. "Employing the same trim throughout, whether it be for downlighting, wall-washing or accent lighting, kept the openings in the ceiling consistent, which helped draw attention away from the light source and toward the objects being illuminated." To accommodate the high mobility of the artwork on display in the house, the accent lighting is very flexible with a 358-degree turning radius and a 45-degree aiming angle. For added ease in the living and dining areas, different light levels and effects are programmed into a four-scene preset system. Whitehead normally recommends four scenes to his clients: day-to-day, "pass-through" for negotiating through spaces, entertaining and "clean-up, which is when all the lights come to full brightness."

A highlight of the renovation is the addition of a 24-x-16-ft. glass wall in the back of the house. While allowing sunlight to penetrate the home, the glass also affords the clients a generous view of the backyard and the San Francisco skyline. To ensure that the nighttime garden viewing experience is equally enjoyable, 50W MR16 directional accentlights are mounted above the windows to counteract the black mirror effect after dark. "You have to balance the light inside and out," said Whitehead. "By having sufficient light out there, people can see beyond the windows." The fixtures are equipped with daylight blue filters to prevent the plants from yellowing, which can result from using an incandescent source. Articulating the greenery, compact fluorescent uplights, ground-mounted near the base of the trees, provide further drama at night. Noted Whitehead, "The cool color of the fluorescents—4100K—keeps the foliage looking fresh and healthy."

According to Whitehead, "The look and feel of a room or an entire home can be transformed with good lighting and dramatic uses of color." Also key to the success of this and other residential projects is a team approach to design. He said, "Having an architect, lighting designer, interior designer and contractor who share ideas and soak up each other's information can produce a finished design that has great flow and flexibility." ■

—Alice Liao



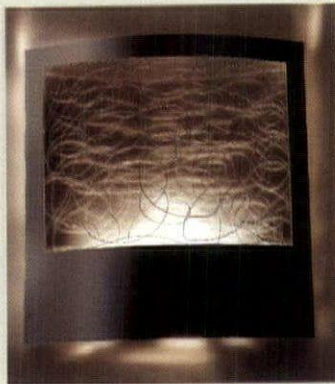
### DETAILS

**PROJECT** Private Residence **LOCATION** San Francisco **ARCHITECT** Erickson Zebroski Design Group **INTERIOR DESIGNER** John Martin **LIGHTING DESIGNER** Randall Whitehead Lighting Design—Randall Whitehead, IALD **PHOTOGRAPHER** Dennis Anderson **LIGHTING MANUFACTURERS** Boyd Lighting; Juno Lighting; Lutron; B-K Lighting; Kelsey Kane; GE

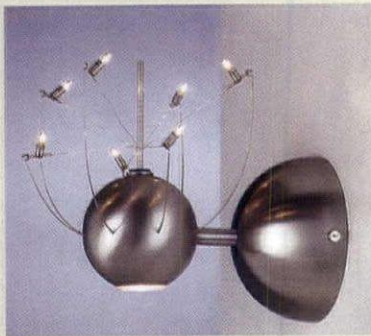
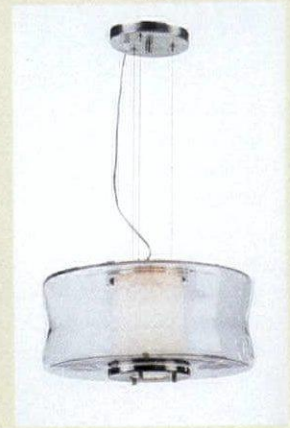
# design focus report

## Add a little house dressing...

Designed by Liat Poysner for **Baldinger Architectural Lighting**, Gondwana is an ADA-compliant wall sconce available in two sizes. The smaller model uses one 75W bi-pin T4 halogen lamp and measures 10<sup>1</sup>/<sub>8</sub> in. wide and 11<sup>1</sup>/<sub>8</sub> in. high with a 3<sup>1</sup>/<sub>4</sub>-in. projection. The large model projects 4 in., is 13<sup>3</sup>/<sub>4</sub> x 12<sup>3</sup>/<sub>4</sub> in. and uses one 26W compact fluorescent or 100W T3 halogen lamp. Both are offered with a choice of Grid Stripe, Scribble (shown) and Loose Weave diffusers. Finish is stainless steel. **Circle No. 80**



From **Oxygen Lighting**, a division of Quorum International, the Lucia series comprises a wall sconce, table lamp and pendant. The pendant (shown) is equipped with a white triplex glass cylinder inside a 18-in.-diameter, clear glass diffuser and suspends via wiring. Ceiling plate and other metal components are nickel with a satin finish. **Circle No. 81**



From **Quasar**, the Orkje series features globe-shaped fixtures each equipped with a downlight component and eight arms. Each arm holds a 12V 1.2W E5/8 lamp and downlighting is provided by one 24W halogen lamp. Orkje 2 (shown) measures 7<sup>9</sup>/<sub>10</sub> in. in diameter, including arm lengths, and projects 7<sup>9</sup>/<sub>10</sub> in. from the wall. Pendants suspend 78<sup>7</sup>/<sub>10</sub> in. and include a single-light version as well as a three-unit model extending 43<sup>3</sup>/<sub>10</sub> in. in length. **Circle No. 82**

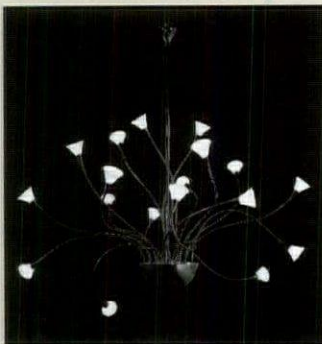
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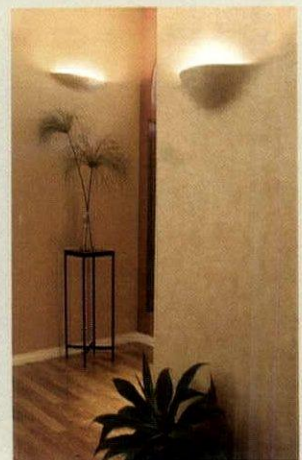
**Lucifer Lighting's** new Mirage low-voltage wall-washer features a sheer trim plate, die-cast interior baffle and a polished internal kick reflector with frosted lens to eliminate scallops and hot spots. Measuring less than 4 in. in diameter, the downlight can be flush-mounted or flanged and installed in recessed non-insulated or insulated

ceiling housings manufactured by the company. Mirage uses one 50W max. MR16 lamp. Standard finishes are matte white and black or polished chrome or brass. Special finishes available. **Circle No. 83**

**Florian Schulz' Via 18 chandelier** features 18 flexible metal arms ranging in lengths of 36-47 in. Extending from a metal bowl measuring 10 in. in diameter, the arms are equipped with 3-in.-diameter shades in white Teflon, which use 12V 20W halogen or xenon lamps. Via 18 suspends from the ceiling via a telescopic rod available in four standard lengths. **Circle No. 84**



**Chadwick Designs** offers seamless ambient lighting, achieved through a custom plaster design with a patent-pending, integrated mounting flange. Installation is a three-step process, involving pre-wiring; mounting the fixture to the wall and then taping, floating, texturing and painting; and finally, trimming with a supplied socket kit. **Circle No. 85**







# BOYD



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# design focus report

## Seeing Things in a New Light

Bright ideas to bring the kitchen and bath out of the dark

**T**oday, more than ever, kitchens and baths reflect our changing lifestyles: Kitchens have become bustling centers of family activity and oftentimes the real living rooms of our homes, while bathrooms have evolved into personal retreats to “get away from it all.” And lighting, so very important to the moods and functions of both spaces, is critical not only to illuminating the tasks at hand, but to transforming these rooms into comfortable yet practical living areas.

Lighting is one of the key elements in creating a safe and comfortable home environment, especially in rooms that see a lot of activity. But a sensible lighting scheme not only addresses the functional and design requirements of the space; a little “lighting magic,” achieved through some simple techniques, can create effects that may visually alter the space in positive ways such as making a room feel bigger and brighter or deeper and dramatic. Keep in mind, though, kitchens and baths require special consideration when it comes to lighting. When selecting fixtures, consider: What tasks will be performed? How much brightness is required? Also, pay attention to decor: Reflective surfaces, such as mirrors can cause unwanted glare; matte finishes will absorb.

### COOKING LIGHT

Proper and sufficient lighting in the kitchen is crucial to good design, illuminating work surfaces that are all-too-often left in the shadows. Let’s face it, today’s kitchen is part diner, part entertainment center and part office—not to mention, of course, still a kitchen, a place where meals are prepared and cooked. The kitchen, a multipurpose room, is now the most popular spot in the house. And lighting has often failed to keep up with the evolution of this space.

According to Eric Strandberg, LC, lighting specialist at the Lighting Design Lab in Seattle, “Good lighting can make an ordinary kitchen look extraordinary and bad lighting can make an extraordinary kitchen unworkable.” In an article by Strandberg, posted on [LightingfortheHome.com](http://LightingfortheHome.com), he emphasizes that good kitchen lighting, from an aesthetic and functional standpoint, incorporates three *essential* types of lighting into one design. This method of layering the light is crucial for achieving positive results and creating a functional kitchen environment.

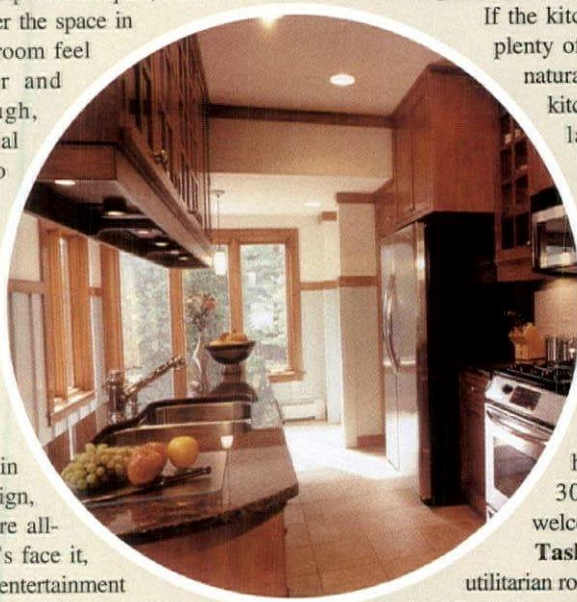
Brush up on lighting basics and remember that kitchen lighting design incorporates each of the following:

**Ambient.** Defined as lighting throughout an area that produces *general* illumination, ambient light provides overall illumination and helps fill a space with soft light, reduces contrast and lights vertical surfaces to give the space a brighter feel. Ambient light is what is needed for casual activities within a room. Fixtures that bounce light off the ceiling and walls to indirectly light the space are best to avoid hot spots and shadows. According to Strandberg, consider concealing fluorescents or low-voltage striplights above wall cabinets and pointing them toward the ceiling to achieve a bright, yet subtle, uniform glow. If there’s at least 12 in. of space from the top of the upper cabinets to the ceiling, this is a great way to brighten up the space.

If the kitchen has light-colored surfaces and plenty of daylight, there’s probably enough natural ambient light during the day. But kitchens are used from early morning to late night—and even after for a midnight snack!—so windows and skylights are just not enough. According to Strandberg, fluorescent sources do a good job of providing ambient light since they provide broad, even illumination, and their efficiency makes it possible to really fill the space with light without using a lot of power and generating too much heat. Choose a color temperature of 3000K-3500K for a warm and welcome appearance.

**Task.** Since the kitchen is primarily a utilitarian room, task-oriented lighting is necessary for effectively preparing and cooking meals. Task areas, such as counters, sinks, tabletops or anywhere a specific function is being performed—such as chopping vegetables—are best illuminated with bright, shadowless light. According to Strandberg, linear fluorescent sources are particularly suited for this because of their large surface area and high lumens per watt (not to mention energy efficiency). To achieve optimal task light, fixtures should be placed close to the task area, so mounting the lights on the underside of wall cabinets, for example, is a standard solution.

Many kitchen designs incorporate islands or other work areas where there are no upper cabinets to attach fixtures to. Try suspending pendant fixtures to bring light close to the work surface. A wide range of styles, shapes, sizes and colors allows this type of fixture to perform double duty: not only as a task light



# design focus report

but as a decorative design element, adding personality to the space. Or, another idea is to project light from the ceiling using either track or recessed fixtures to light the appropriate surfaces. The most effective lamps for track or recessed fixtures are directional lamps as they provide focused light. Consider efficient incandescent sources—such as halogen—which come in line voltage (120V) and low voltage (12V). Be careful, though. According to Strandberg, the low-voltage lamps most often used are MR16s, which have a very defined beam pattern and cast hard shadows making them a poor choice for task lighting but excellent for accent lighting. The line-voltage halogen PAR30 lamp has a good blend of efficiency and performance so it is well-suited for use in carefully positioned track and recessed fixtures used for task lighting.

**Accent.** Since more people are spending more time with more guests in the kitchen, creating just the right atmosphere by adding visual appeal provides a truly enjoyable dining experience. And adding a layer of accent lighting may just do the trick. This focused, directional lighting, used to highlight certain objects and give the space a third dimension, adds to the quality of the space and creates visual interest. Accent lighting should be used thoughtfully to highlight home objects—like paintings, decorative accessories, collectibles, maybe even a flower arrangement or food presentation area—the homeowner wants to emphasize, and even on architectural details that call for attention. Accent lighting is usually done with spotlights, quite often MR16s housed in track fixtures, precisely aiming them on the object to be illuminated, or with adjustable recessed fixtures in the ceiling, which are basically unobtrusive and cast a focused beam of light on an object. Just keep in mind, advises Strandberg: If everything is accented, *nothing* is accented.

## BATHED IN LIGHT

A place to relax and rejuvenate at the beginning and end of each day, atmosphere and ambiance are now requirements of today's residential bathroom. As lifestyles become more hectic and stressful, people are looking to escape to the serenity of this all-important space for some at-home R&R. And with the proliferation of sophisticated bath products, fixtures, fittings and equipment, many baths have become personal spas of sorts. And what helps to set the tranquil mood? Lighting, of course. With baths becoming more like private havens, careful selection and placement of lighting fixtures can achieve both a soothing and functional space, which after all, is tremendously important as adequate light levels allow users to comfortably perform daily routines whether applying makeup or shaving. But remember, as opposed to other rooms in the house, the "tasks" at hand have less to do with preparing things as they do with preparing *people* so the lighting should produce a complimentary "glow," while eliminating harsh glare. When

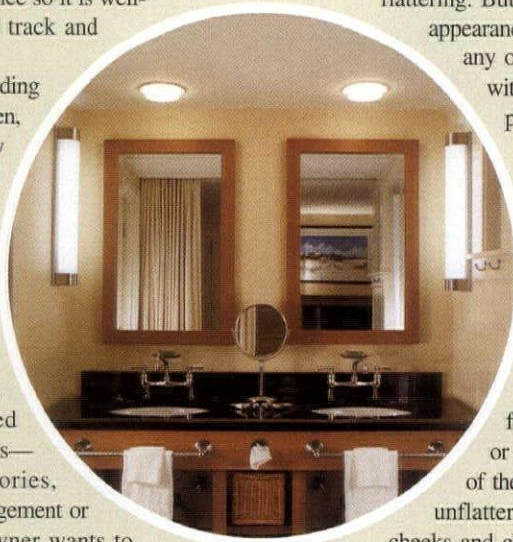
choosing lighting fixtures for the bathroom, remember that sufficient light levels and good color rendering are required for grooming, with more light needed for mature eyes. For comfort, bath lighting should be glare-free and avoid excessive heat.

Task lighting in the bathroom is especially important. A single overhead fixture is not enough. Trying using multiple overhead fixtures in strategic locations such as above the toilet and near the vanity or anywhere a specific task is performed—and don't forget the tub and shower area. Install a fixture rated for damp locations.

Probably the most important lighting in the bath is for the vanity or mirror. It needs to be bright but not glaring, accurate yet flattering. But remember, it affects the homeowner's appearance so it, more than any other lighting in any other part of the house, must be handled with care for a happy client. Consider fixture placement, lamp type and fixture style. For grooming, place fixtures on both sides of the mirror to sidelight the mirror with diffuse light, surrounding the face with light. By creating cross illumination with equal light on both sides of the face, dark shadows are minimized. An elongated fixture called a vanity bar is often used over a mirror. And sometimes recessed downlights or a fluorescent light is installed in the ceiling or soffit above the vanity. Light from either of these overhead locations can be harsh with unflattering shadows under the forehead, eyes, cheeks and chin. According to Strandberg, the most effective arrangement is two vertical light bars or wall sconces at eye level (the center of the fixture should be about 66 in. above the finished floor) and approximately 30 in. apart, one on each side of the mirror. Fixtures can also be installed directly onto a large mirror, but consider how the reflection of the back side of the fixture will appear. If the sink area is flanked by walls on each side, fixtures can also be placed at this height on these two walls instead. Avoid using ceiling-mounted fixtures as the sole source and definitely don't rely on recessed downlights for mirror lighting, as the shadows can be just plain awful. If a recessed type must be used, due to space restrictions, consider adding a luminous soffit and concealing linear fluorescents within. Just make sure the lighting extends past the length of the mirror to achieve side illumination. Another important reminder: Skin tones look most flattering in medium to warm color temperatures (about 3500K) with higher CRIs.

Baths that are large or have a high ceiling may require additional ambient light to softly fill the remaining space. Covelighting, ceiling mounts, close-to-ceiling mounts or pendants can also be used effectively. For rooms with a tall ceiling, covelighting or a bowl-shaped pendant directs light upward, which provides indirect illumination. And speaking of ambient, you should be able to adjust the light levels in your bathroom. When you wake up in the middle of the night, you need enough light to see but not be blinded by. Dimmable sources are a good way to go.

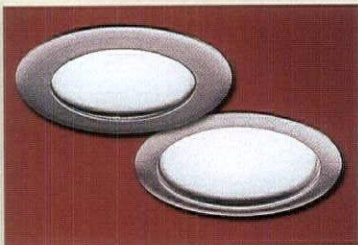
—Christina Trauthwein



# design focus report

## What's Cookin' & Good Lookin'...

**Prescolite's** Architektur Shower Trims enable standard 4-in. line- and low-voltage recessed ceiling downlight housings to be used in damp or wet locations. The Solite glass-protective lens shields the lamp from direct view and allows roughly 90 percent of effective light to be transmitted. ASTM E283- and Washington State Energy Code-compliant trims are AirShield-rated, preventing moisture from accumulating in the ceiling structures and use up to one 75W MR16 halogen lamp or one 45W PAR16 or 50W PAR20 lamp in line-voltage applications. **Circle No. 86**



Reflections recessed vanity fixture from **Dreamscape Lighting** is designed to be placed between sections of mirror. Diffusers may be mounted flush with the mirror or may overlap the mirror by 1/4 in. Diffuser options include sandblasted glass or acrylic and rose washed acrylic. Spaced 25-36 in. apart, fixtures can accept two T5 or T8 fluorescent lamps. Dual electronic ballasts installed in each fixture allow single- or dual-lamp operation. Dimming ballasts are optional. **Circle No. 87**

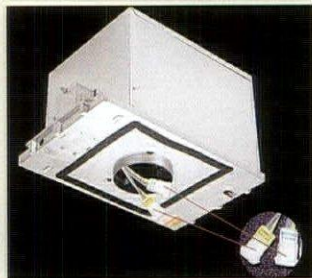


Available through Ameico, **Produzione Privata's** Orientale pendant was designed by Michele De Lucchi and is equipped with a handblown Murano glass diffuser measuring 14<sup>4</sup>/<sub>5</sub> in. in diameter and 6<sup>2</sup>/<sub>5</sub> in. in height. The fixture accepts up to one E27 150W maximum incandescent lamp and suspends via a 68-in.-long metal wire. **Circle No. 88**

**Alkco's** Halogen 120 line-voltage undercabinet linear halogen lighting system features a rounded edge profile, facilitating integration with casework. Housings are available in four lengths and may be used alone or linked together via in-line connectors or cords to form continuous rows. A sandblasted, semi-opaque glass diffuser shields the lamp. Models are available for direct-wired or portable plug-in installation. Halogen 120 may be operated with a wall dimmer. **Circle No. 89**



**Cooper Lighting's** Iris Recessed Low-Voltage Downlights family features an integral 12V dual-output Q-Tran toroidal transformer that corrects for the voltage loss from dimming equipment and produces 11.8-12.0 volts to provide 30-percent more light with 50W MR16 lamps or a 25-percent energy savings with 37W MR16 IR lamps without light loss. The Q-Tran toroidal transformer consumes less total wattage than a laminated transformer: 56.32VA vs. 60.88 VA (with a 50W MR16). **Circle No. 90**



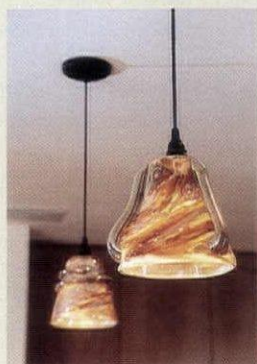
From Ginger's sister brand **motiv**, the Quattro sconce sports forged solid brass and a satin, cased opal glass shade. The fixture accepts up to one 100W medium-base incandescent and measures 10<sup>7</sup>/<sub>10</sub> in. high, 4<sup>1</sup>/<sub>2</sub> in. wide and 7<sup>1</sup>/<sub>10</sub> in. in diameter. The sconce is also available with a top-mounted shade and a nightlight option in a bottom shade, which can be operated independently via a separate hot wire and switch to the fixture. UL-listed for damp, interior locations. **Circle No. 91**



# design focus report



**Watermark Design's** Palatino Collection of bathroom accessories includes the Palatino Light Fixture and the Palatino Mirror Sconce (shown), both of which are available in 33 finishes. The Palatino Mirror Sconce sports Celestia shades formed of sandblasted glass and measures 17½ in. wide and 5 in. high. Lamping is incandescent. **Circle No. 92**



From **Rock Cottage Glassworks**, these cased glass pendants measure 6 in. wide, 5 in. in diameter and are formed by combining multiple layers of clear and colored glass, producing color effects not found in factory glass. This special process can also create air bubbles, variations in the color and thickness of the glass. The pendants use an E17 PAR20 lamp. **Circle No. 94**



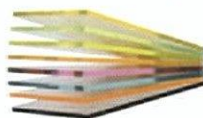
From **Socket**, the GoodFellas Vanity is available in 24-in., four-head and 30-in., five-head models. Construction is aluminum and chrome-plated brass. Fixtures measure 5 in. high with a 4⅞-in. projection and accept 10-35W low-voltage halogen lamps. A choice of shades is available. **Circle No. 95**

**Progress Lighting's** Art Deco mini-pendant, Model P5003-09, is a stem-mounted fixture featuring a clear and etched glass diffuser. The pendant measures 12¼ in. in diameter and 7⅞ in. high with an overall length of 63 in. P5003-09 uses one 100W medium-base incandescent lamp. Construction is steel with a brushed nickel finish. **Circle No. 93**



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# Balancing Act: Quality & Efficiency

*Programs that raise awareness, help bottom line*

BY PAUL VRABEL, LC, CONTRIBUTING EDITOR

In January 2003, I started a series of articles focusing on high-quality, energy-efficient lighting for various commercial and residential applications. These articles addressed the use of energy-efficient technologies and proper design techniques that help balance energy efficiency with the occupants' visual needs and the space's aesthetic requirements.

The practical application of high-quality, energy-efficient design continues to gain momentum. Many utilities and energy-efficiency organizations support high-quality, energy-efficient design; however, three vanguard programs worth mentioning are sponsored by the New York State Energy Research and Development Authority, DesignLights Consortium (DLC) and ENERGY STAR. These organizations are conducting extensive outreach efforts and have developed numerous materials to help manufacturers, designers, distributors, contractors, facility managers, owners and occupants increase their knowledge of energy-efficient, high-quality design and lighting technologies. These programs offer invaluable resources to lighting decision-makers because they are well publicized and bring valuable business opportunities to lighting designers, manufacturers, distributors and other lighting professionals.

## NEW YORK ENERGY \$MART

The New York State Energy Research and Development Authority (NYSERDA), a public benefit corporation, sponsors the **New York Energy \$mart** Small Commercial Lighting Program. The program "promotes effective and efficient lighting solutions that result in better lit spaces, which allow people to see more easily and cost less to operate."

The **New York Energy \$mart** Small Commercial Lighting Program is different from other "energy-efficient lighting" programs in that it does not focus solely on the technologies. Although cash incentives

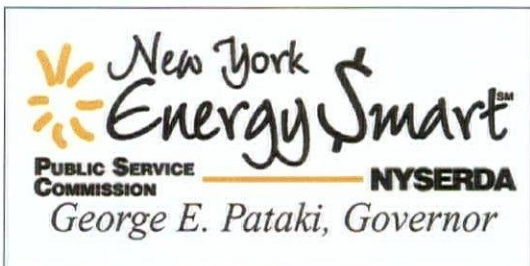
are available, just changing a light bulb is not going to earn one a check or any publicity from this program. The program takes a holistic approach, focusing on design, quality and energy efficiency. In addition to promoting energy efficiency in terms of certain technologies and watts per square foot, the program also uses several metrics as a guide to control glare, meet footcandle requirements and respond to color rendering, light distribution and other design parameters.

The program targets lighting contractors, distributors, designers and other lighting decision-makers and offers a variety of design, technical training and financial resources to help improve lighting in small commercial spaces of 25,000 sq. ft. or less. Lighting designers are of special importance in this program because of their influence and interaction with other market actors, especially contractors.

The program trains and provides cash incentives to engineering firms, manufacturers' representatives, electrical contractors and distributors to promote and install energy-efficient lighting systems in eligible spaces. After attending the program's technical and operations training, lighting professionals are then eligible to receive a variety of incentives from \$500 for qualifying (installed) projects to \$1,500 for demonstration projects to incentives for holding training meetings and advertising the program.

In addition to the free training, eligible participants can receive free publicity in the **New York Energy \$mart** Small Commercial Lighting Program case studies of exemplary lighting designs. Contractors receive free listing as "Ally Contractors" on the program's website ([www.nysesda.org/sclp](http://www.nysesda.org/sclp)). The program also provides technical and design guides, and participants can receive free technical support from the hotline and their account managers. Furthermore, through a new "multi-site" initiative, the program will target franchise owners and other small commercial companies with multiple sites.

As a lighting professional, you can promote effective, energy-efficient lighting, gain publicity for your efforts and share in some of the financial incentives from this innovative program. For more information visit the program's website at [www.nysesda.org/sclp](http://www.nysesda.org/sclp) or call toll-free (866) 698-8177.



The New York Energy Smart Small Commercial Lighting Program focuses on design, quality and energy efficiency and targets lighting contractors, distributors, designers and other lighting decision-makers. For more information, visit [www.nysesda.org/sclp](http://www.nysesda.org/sclp).

## DESIGNLIGHTS CONSORTIUM

With members located throughout the Northeast and Mid-Atlantic, the DesignLights Consortium (DLC) is a regional collaboration seeking to influence naturally occurring lighting events towards quality, comfort and efficiency. DLC's mission is to help builders, architects, designers and commercial property owners implement improved design practices in all areas of the

# DESIGNLIGHTS

## CONSORTIUM

commercial lighting market, so that high-quality, energy-efficient design becomes commonplace in all lighting decisions.

DLC has developed valuable design guides and case studies to encourage and promote high-quality, energy-efficient lighting design in commercial spaces. These materials are used to educate owners, developers, electrical contractors, designers and others who influence lighting design, specification, selection and installation practices.

The Lighting *knowhow Series* design guides are the cornerstone of the program. Each eight-page guide focuses on a common commercial space type and provides recommendations for lamps, luminaires and controls. Design layouts developed by leading lighting designers demonstrate proper luminaire placement to meet footcandle requirements, proper lighting uniformity, luminance ratios, occupant comfort and other quality issues. The guides also discuss energy-efficiency measures and worker productivity issues to highlight the end-user benefits of high-quality, energy-efficient lighting design.

Available guides include lighting for offices, retail, classroom, high-bay industrial, retail skylighting and warehouse skylighting. Full-color versions of the guides can be downloaded from DLC's website at [www.designlights.org](http://www.designlights.org).

DLC has also developed more than 20 case studies that demonstrate the practical application of the techniques shown in the guides, resulting in high-quality, energy-efficient lighting designs. The four-page case studies discuss the occupant and space needs, existing lighting issues, quality requirements for the space, design parameters and the quality lighting solution. In addition, project financials and lighting design results, including feedback from the occupants, demonstrate the effectiveness of the project. Case studies cover commercial office spaces, retail, institutional, skylighting and (coming soon) industrial and warehouse lighting.

DLC's Lighting *knowhow Series* design guides and case studies are available free of charge at [www.designlights.org](http://www.designlights.org).

### ENERGY STAR FOR RESIDENTIAL LIGHTING

The ENERGY STAR program, sponsored by the Environmental Protection Agency and Department of Energy, has been raising the bar for efficiency and quality in more than 30 product categories from computers to TVs to lighting. Currently, over

DesignLights Consortium has developed design guides and case studies to encourage and promote high-quality, energy-efficient lighting design in commercial spaces. All are available at [www.designlights.org](http://www.designlights.org).

5,400 residential lighting fixtures have earned the ENERGY STAR and are offered from more than 50 manufacturers.

Products labeled with the ENERGY STAR must meet strict performance, quality and efficacy requirements. ENERGY STAR fixtures must come on within one second, have a color-rendering index (CRI) of 80 or greater, use 10,000-hour lamps and meet noise, heat and other requirements. To qualify for the ENERGY STAR label, manufacturers must submit laboratory-verified documentation for performance, quality and efficacy. Most ENERGY STAR fixtures use compact or linear fluorescent lamps, but this is not the cool-white, poor CRI fluorescent lamp your grandmother had in her kitchen.

Because not all fluorescent is created equal, it is important to look for lighting fixtures with the ENERGY STAR to make sure

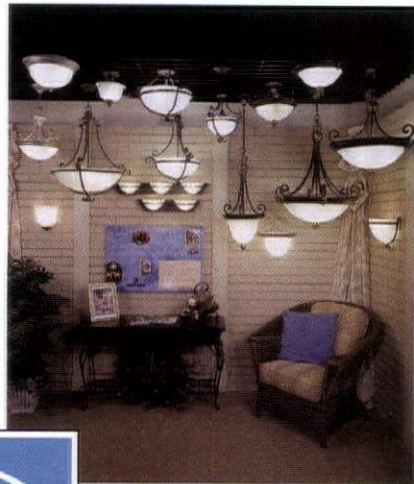
you are getting a high-quality, energy-efficient product. During a recent trip to California, I visited a few showrooms and was, of course, checking out the energy-efficient products. I came across some very decorative products that the showroom manager told me were "good sellers" because they met Title 24 energy code requirements. Yes, these products were energy-efficient fluorescent with good color, but they blinked a few times before continuously lighting. I mentioned that it was a shame that such a nice fixture had such a poor lamp and ballast and that the showroom should consider ENERGY STAR products that would not have these drawbacks.

Over 5,400 residential lighting fixtures have earned the ENERGY STAR and are offered by more than 50 manufacturers, including Quoizel, Sea Gull (above), Westinghouse and Wilshire.

With over 5,400 SKUs and leading residential manufacturers such as Quoizel, Progress, Sea Gull, Westing-

house and Wilshire participating in ENERGY STAR, designers have many options for high-quality, energy-efficient lighting products for the home and other residential-type applications. For more information on ENERGY STAR lighting products, visit [www.energystar.gov](http://www.energystar.gov).

*Paul Vrabel, LC is a Project Manager with ICF Consulting, supporting a number of energy-efficiency programs. The author is always open to discussions on high-quality, energy-efficient lighting and can be reached at [pvrabel@icfconsulting.com](mailto:pvrabel@icfconsulting.com).*



# THE NEW PRODUCT REVIEW

BY JAMES R. BENYA, PE, FIES, IALD, LC

Lightfair 2003 in New York was the biggest, with more attendees (about 19,450), more booths (over 1,465) and more exhibitors (551) than ever before. Almost 50 percent of the attendees were architects, engineers, lighting designers, interior designers or consultants. The New Product Showcase program, Lightfair's annual opening event, showed off a record 220 entries in a dozen categories. To those of us who tried to see the entire show floor, it was a real challenge.

But regardless of the size of the show, there are always standout ideas and products, and each show seems to have an underlying technical theme. No question about it, this was the year of the LED.

## MANY BITS OF LIGHT: LED TECHNOLOGY

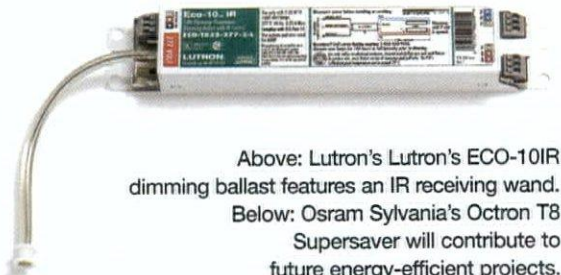
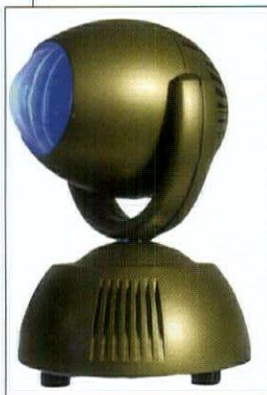
By their nature, LED lamps as we know them today are small and low-wattage, so lighting systems of LEDs will need to use quite a few lamps to create a useful amount of light. While traditional luminaires use one to four lamps to do the job, LED luminaires may need dozens or even hundreds of lamps. The ability to have LEDs of different colors makes the sources ideal for color changing and washing—perhaps their best use other than traffic signals so far. As you might imagine, LED lamp technology was a feature of the show.

LED luminaires and lighting systems stole the show. The Best New Product was the TIR System's Destiny ColorWash, an architectural outdoor-grade color-changing, wall-wash luminaire with great photometrics. Other notable LED color-changing luminaires included the Pigeon Color Stream, an LED tube product with neon-like qualities, and Mood Panels by Systems Trading Corp/Traxon USA. Even theatrical lighting and entertainment lighting gear are getting into the act with the Xilver "Droplet," a very compact automated moving LED luminaire with color-mixing capability and DMX control.

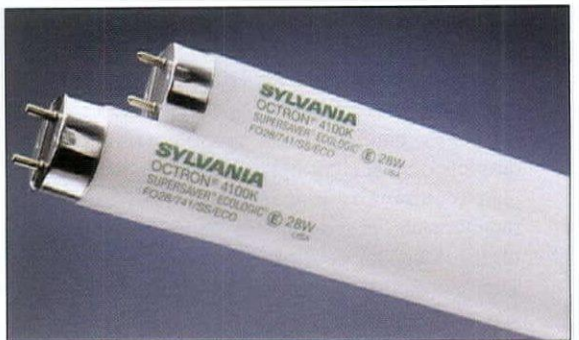
Exit signs using LEDs are old news, but the concept is still good. For instance, MagniFlood showed an LED street sign and several companies showed LED channel letter signs. Using low-voltage, low-wattage LEDs, these will be welcome additions to the urban landscape.

Individual LEDs were also shown, both individual lamps and arrays. A warm (2600-3000K) white LED by Nichia was the most exciting of these products. Even the big guys are in the act with all three major lamp companies involved to some extent in LEDs. Unfortunately, white LED efficacy is still pretty low, so it's not quite time to stop using regular lamps, folks.

Xilver's Droplet is an automated moving LED luminaire with color-mixing capability and DMX control.



Above: Lutron's ECO-10IR dimming ballast features an IR receiving wand. Below: Osram Sylvania's Octron T8 Supersaver will contribute to future energy-efficient projects.



## REGULAR LAMPS INDEED

Among incandescent lamps these days, there aren't of lot of new developments. However, the Bulbrite Frost-All MR16 was a real interesting eye catcher. It solves the problem of making an exposed MR16 lamp attractive.

There were quite a few new fluorescent products, ranging from a very tiny T1 lamp to some very clever new compact fluorescents. One company—Lights of Australia—even showed a 138W compact fluorescent (which was not very compact...). One top product, however, was a fairly conventional T8 lamp by Sylvania, the Octron 28W Super Saver, a lamp sure to play an important role in future energy-efficiency projects. Another important introduction was the Philips PL-H system, which uses an Advance ballast and BJB fittings. With up to 9000 lumens, this system will certainly revolutionize fixture designs.

Among regular lamps, HID was this year's area of greatest innovation. Virtually all new lamps are pulse-start, and the move toward ceramic arc tubes and high CRI continues to be strong. The best product, Philips' Master Color 320W pulse-start metal halide, is rated for open fixtures and belongs to their TCLP-compliant ALTO family. Other HID lamps ranged from special quartz arc-tube products for TV use to innovations in HPS lamps.

It may take a geek like me to get excited about a ballast but one product, Lutron's ECO-10IR dimming ballast, got me jazzed. It combines a simple IR receiver wand with the ballast, enabling handheld dimming and making it possible to make overhead commercial lighting systems dim-

(Continued on page 42)



*Designing an open fixture? Call the people with the most significant patent since, well, his.*



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mable at a modest cost. There were a lot of other ballasts, too, including many new products in both HID and fluorescent in very small cases. The trend is definitely towards smaller and universal-voltage ballasts.

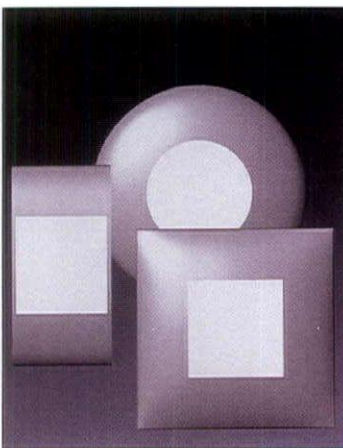
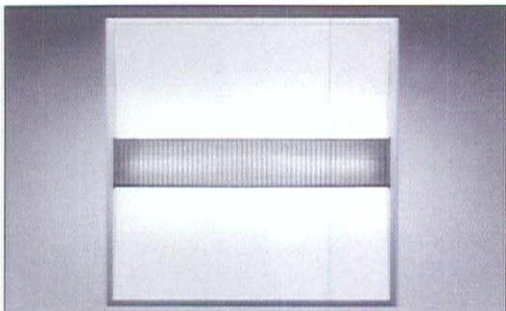
There was another geek thing—the SysElec Stucchi T5/G5 dual rotary lampholder. This is an important innovation in T5 lampholders, making fixture design better and giving fixture designers another degree of freedom in the fast evolving T5 luminaire market. For those of us who want more dramatic and smaller T5 fixtures, this socket permits lamp insertion and rotation that we have only dreamed about before (yes, geeks dream).

## HOT & COOL NEW LUMINAIRES

I have to admit that for me, the new fixtures and lighting systems are the real attraction of Lightfair. I tend to walk out with a lot of new ideas for projects. Other than LEDs, though, the other big trends are products with compact fluorescent lamps (no surprise) and T5 lamps (the hottest stuff going...).

Two T5-based fixtures were real standouts among a field of great new designs. The Spina by Delray Lighting is a simple, timeless and artistic luminaire, undoubtedly the most attractive strip-light ever made. The Orgatech Omegalux LightStar is more complex—a T5 linear uplight with LED wings—that is both handsome and playful. There were about 5,000,000 other T5 fixtures as well, including a lot I'd like to take home and play with.

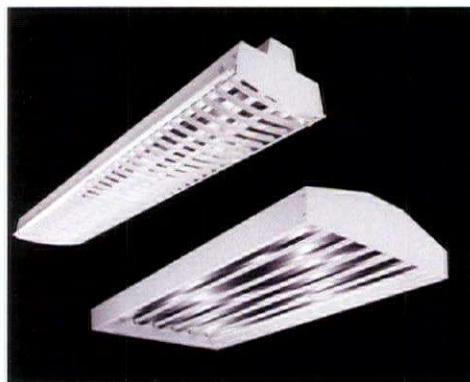
If there is another trend in lighting that is going strong, it's glass. Leucos showed a compact fluorescent ADA-compliant sconce called the Claire that won the hearts of many (including product judges). It is made of ceramic glass and uses two 36W lamps. There were about a million other glass pieces at the show, however, ranging from some really gorgeous handblown pieces of fabulous color to some very clever, low-cost fixtures for ENERGY STAR projects. Check out Flos, Delray, Lightolier and Winona.



## NEW LIGHTING SYSTEMS

Line-voltage track that looks like low-voltage monorail—field bendable, curving and most of all, attractive—was a definite highlight of the show. Tech Lighting, a long time innovator in track systems, showed up with Tech trak, a wonderful line-voltage system that competes visually with a lot of low-voltage systems. I saw several other products along the same lines from companies like Nora and Con-Tech, so we definitely have some choices out there.

Fiber optics are still a viable design option and there were a number of exhibitors with good products. Improvements in fiber efficiency, especially



Clockwise from top: Ardee's LightTiles uses 26 white LEDs; Cooper Lighting's Metalux F-bay stands out in the high-energy-efficiency, high-bay and relighting market, providing an alternative to HID systems; the Ra fiber-optic tasklight from Leucos produces no heat, just light; Zumtobel Staff's Mellow Light is an indirect recessed troffer with improved aesthetics.

Glass also showed up strongly in low-voltage and incandescent lighting. From Classic Lighting's Swarovski crystal concoctions to Ardee's playful LightTiles, from Con-Tech's Sirius sconces to elegant new designs from Baldinger, there is a lot to look at. It's hard to pick favorites because decorative lighting, like jewelry, is so personal. I was especially impressed with how many glass exhibitors were present.

It's hard to invent an attractive, much less exciting troffer, but Zumtobel nailed it with their "Mellow Light." Seriously. It is an innovative troffer design that combines some of the visual benefits of the

in the design of illuminators, continue to keep fiber exciting. I was really impressed with the power of the side-emitting fibers from Fiberstars. But the award winner this year in fiber was the Ra Task Light from Leucos. This little number showed off the creative talents of the company's designers, making a tasklight that has no heat, just light. Nice for really tight quarters.

Metalux was the pick of the litter in the high-energy-efficiency, high-bay and relighting market with its F-bay high-bay fluorescent luminaire. For those of you still using HID in high-bay spaces,

products like this one need to be looked at carefully. There were several companies who "got it," designing fairly everyday luminaires around the optical prowess of the T5 and T5/HO lamp.

Landscape lighting was abundant at the show with a large number of exhibitors and great products. Perhaps the trend in this market is the evolution of lighting systems where corrosion and water are being addressed evermore aggressively. For example, B-K Lighting introduced a modular, IP68-rated, in-ground accent light, winning awards and kudos for a great water management system. You have to see a full catalog cutsheet to see how it works—it's amazing. Other exhibitors showed above-ground product for many sources with special attention to offering more durable, naturally weathering metals and finishes.

For outdoor sports lighting, the trend towards dark sky-friendly design probably inspired Thorn and North Star Lighting to release the Troika III, a flat lens cutoff sports luminaire. Innovation is happening quickly these days in outdoor lighting, and I expect next year's Lightfair to be overwhelmed with new dark sky-friendly outdoor fixtures of all types.

### LIGHTING GEEK HEAVEN

I really go nuts over controls and other special systems, and there was a lot to see. New software, new features—I probably spent more time pushing buttons than I should. But this is where some very exciting things are happening that will really change our business.

For example, MagniFlood showed a remote aiming system for sports lighting and other lighting systems needing careful adjust-

ments. It is way cool, especially for anyone who has spent nights atop light poles. This system could be the best thing we've seen in a while, and for those who design sports lighting, this might give your designs a whole new dimension.

Another cool product was a small, self-contained emergency power transfer switch from LVS. Imagine the relative ease of a light switch box-sized device, allowing the transfer of just about any lighting system from normal to emergency power. This is something I've needed for a long time and it will get used right away.

Of course, the lighting software companies were out in force, and it was great to see really powerful new releases of some of the best calculation programs. Take note: The next generation of software is a dramatic difference and will propel lighting design concepts directly into the customer or client's eyeballs. Check it out.

Finally, Penn State received an award for its excellent on-line lighting education programs. If you need a college-level, professionally taught class in lighting, this is the one.

Each year, Lightfair changes. Companies change product lines and faces, and waves of new products, charged by lamp innovations and other new developments, make their debut. Plan to attend March 31 through April 2, 2004 in Las Vegas and feast your own eyeballs. There's nothing like it. ■

*James R. Benya, PE, FIES, IALD, LC is principal of Benya Lighting Design, West Linn, OR.*

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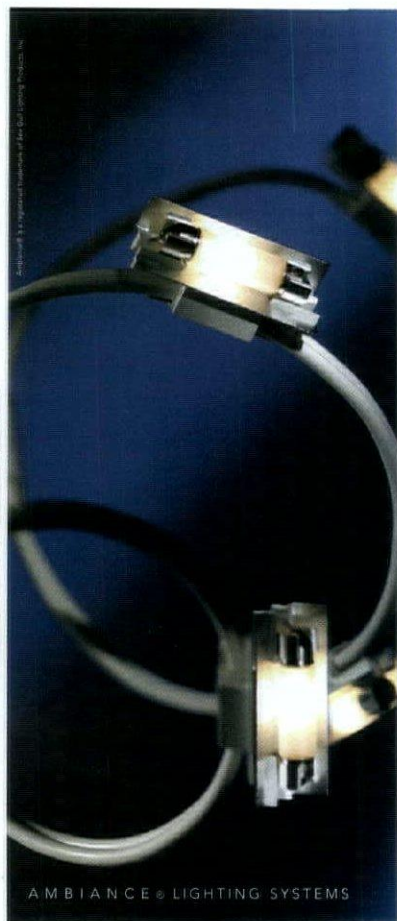
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Circle No. 67 on reader service card

## 2003 NEW PRODUCT SHOWCASE

*Architectural Lighting* was proud to sponsor the New Product Showcase at Lightfair International 2003 in New York City. This year's event received a total of 220 submissions, which were organized into five categories. The entries were presented by Susan Brady, IALD; Gary Dulanski; Barbara Cianci Horton, IALD; and Lee Waldron, IALD. Twenty-three products received the Best of Category Award for demonstrating exceptional benefits to lighting professionals. From the 23, four

finalists were honored with Awards of Distinction—Energy Award, Technical Innovation Award, Design Excellence Award and the Best New Product of the Year Award. This year's showcase also awarded one Judges' Citation and two Roeder Awards.

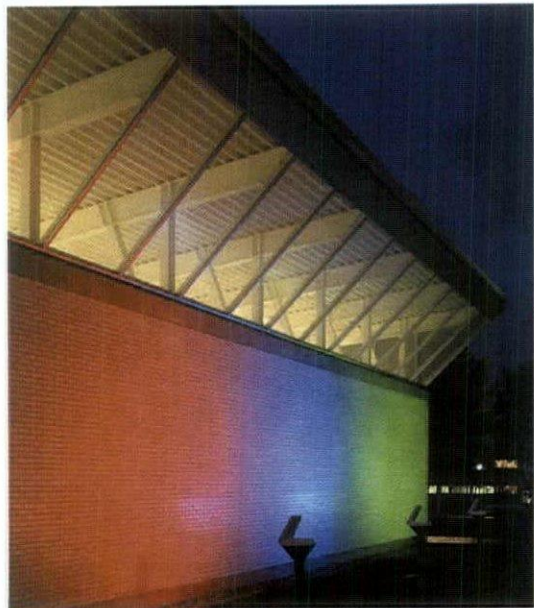
Judges for the 2003 New Product Showcase were Renee Cooley, IESNA; Mary Peyton, IALD; Christopher Ripman, IALD; Bruce S. Palmer, IESNA; and Scott Watson, IALD.

### Best New Product of the Year

#### TIR Systems

##### Destiny ColorWash

Sporting a slim, laptop-like design, Destiny ColorWash color-changing luminaire utilizes 60 Lumileds Luxeon High-Flux LEDs in red, green and blue and offers an asymmetric forward-throw light distribution with a well-defined rectangular projection. Available with a choice of vertical and horizontal wash optics, the fixture can be mounted on the wall, ceiling or floor and is equipped with a tempered glass lens and cast aluminum housing weatherized for dust and moisture. Color and dimming level may be pre-programmed. DMX-addressable. Finishes are black, silver and white. IP66-rated. C/UL-listed. **Circle No. 96**



In addition to the winners of the Awards of Distinction, the following products received Best of Category recognition:

- Incandescent Lamps**—Frost-All MR16, *Bulbrite Industries*
- Fluorescent Lamps**—Octron 28W T8 Supersaver Ecologic Lamps, *Osram Sylvania*
- HID Lamps**—MasterColor 320W Pulse-start Lamp, *Philips Lighting Co.*
- Downlights, Wallwashers, Accent Lights**—CDM Series Downlights, *RSA Lighting*
- Troffers, Commercial Recessed & Surface Fixtures**—Mellow Light, *Zumtobel Staff Lighting*
- Suspended Indirect & Bi-directional Pendants**—Lightstar LED, *Orgatech Omegalux*
- Decorative Sconces, Chandeliers, Ceiling, Table & Task Lamps**—Claire Wall Sconce, *Leucos USA*
- Site & Roadway Lighting**—LED Illuminated StreetSign, *MagniFlood*
- Landscape & Fountain Lighting**—Tenaya, *B-K Lighting*
- Fiber-optic & Remote Source Lighting**—Ra Tasklight, *Leucos USA*
- Theatrical & Entertainment Lighting**—Droplet, *Xilver*
- Sports Lighting**—Troika III, *North Star Thorn Lighting*
- Vandal-resistant & Industrial Specialty Lighting**—F-Bay, *Cooper Lighting/Metalux*
- Exit Signs & Emergency Lighting**—Vari-X LED Exit Sign Retrofit, *Emerlight Corp.*
- Controls**—Model EPC-A Emergency Power Transfer Control, *LVS*
- Components**—T5/G5 Twin Rotary Lampholder, *SysElec*
- Research, Publications & Software**—AE466, *Pennsylvania State University*
- Specialty Innovations**—MF-3000 Electronic Aimer, *MagniFlood*
- Ballasts & Transformers**—Eco-10 IR, *Lutron Electronics Co.*

# lightfair

## International 2003



### Design Excellence Award

#### Tech Lighting

##### Tech trak

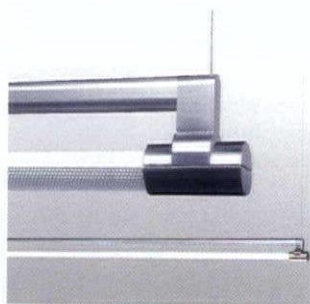
Tech trak is North America's first hand-bendable, line-voltage track lighting system whose sleek metal track can be curved in the field to form practically any shape. The system also includes a range of line-voltage heads for metal halide and incandescent lamping, a variety of 2thousanddegrees decorative pendants and Tech Lighting FreeJack Elements for adaptability to the Tech trak system. **Circle No. 97**

### Judges' Citation Award

#### Delray Lighting

##### Spina

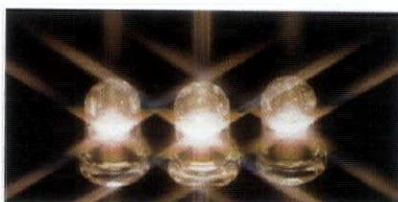
Spina pendant and surface-mount luminaires are available in 2-, 3- and 4-ft. lengths and one- and two-lamp versions. Standard options are dimming and emergency battery packs. Fixtures can be used alone or with a variety of diffusers, reflectors and wallwashers. Spina uses T5 lamps in a range of wattages. **Circle No. 98**



### Technical Innovation Award

#### Nichia Corp.

##### NSPL510S Warm White LED



NSPL510S Warm White LED is combination of blue LED, YAG phosphor and a newly developed red phosphor. The addition of the newly developed red phosphor

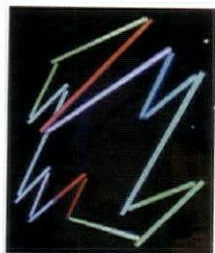
results in a closer match to the black body locus with a color temperature of 2500K to 3500K. When compared to current white LEDs, NSPL510S also offers reduced color shift as a result of the change in forward current. Luminous efficiency is 20-25 lumens per watt. **Circle No. 99**

### Roeder Award

#### Pixeon

##### Color Stream

Color Stream features arrays of red, green and blue LEDs arranged in individual pixels that are controlled separately to produce a range of colors and dynamic movement along the length of the tube. Fixtures can be daisy-chained together with power and data jumpers. The complete system also includes a power supply, which delivers power for up to 10 meters of tube, and a data controller, which supplies date to the system and holds standard and custom patterns in its memory. **Circle No. 100**



### Systems Trading Corp./Traxon USA

#### Mood Light

Mood Light is an LED-based fixture capable of producing millions of additive RGB colors with variable intensity. A basic unit consists of four diffuser panels contained within an aluminum frame and measures 50 x 50 x 3 cm. Multiple units may be combined to form a variety of flat or three-dimensional configurations in wall- or pendant-mounted form or as a stand-alone object. Color combinations and effects can be controlled via a handheld IR remote control. **Circle No. 101**



### Energy Award

#### Philips Lighting

##### PL-H System



The PL-H compact fluorescent lighting system responds to the demand for high-output compact lighting applications.

Part of the low-mercury ALTO family, the PL-H four-pin lamp is available in 60W, 85W and 120W, boasts an output of up to 9,000 lumens and is optimized for use in combination with high-frequency electronic control gear. The system features a lampholder by BJB Electric and an electronic ballast by Advance Transformer. **Circle No. 102**

# Prometheus & Beyond: Euroluce

Euroluce, the biennial international lighting exhibition, founded in 1976, was held this year in Milan, Italy, from April 9-16. Milan came alive as 85,590 visitors descended on the Milan Fair Grounds, known as Fiere di Milano, touring three large buildings totaling over 400,000 sq. ft. The prized ticket this year was the grand opening of "Immaginando Prometeo," an exhibition/event held at Palazzo della Ragione, adjacent to the Piazza del Duomo, in central Milan. Food, music and wine prepared the design elite for an avant-garde happening dedicated to fire as the primary source of light, as seen through the eyes of famous designers. The event was organized by American stage designer Robert Wilson.

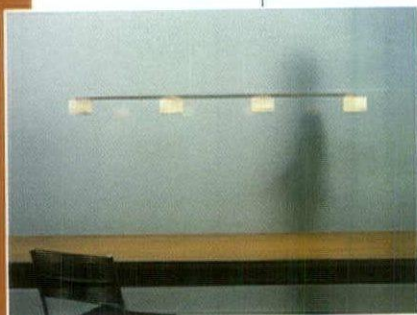
Equally noteworthy, Ingo Maurer hosted a dazzling opening of his new products at Spazio Krizia, a multi-purpose, multi-media facility in the heart of Milan. Featured designs included a new furniture line with LEDs embedded in glass. Paul Cockledge from the UK was featured with his hand-blown glass vessels filled with rosy neon. All over Milan, showrooms were celebrating the Fair and Euroluce 2003. It was party time for the lighting world.

Traditionally, many lighting fairs and exhibitions present products that are similar in design or present variations on a theme and consequently, are virtually indistinguishable one from another. We all know that lighting fixture design is driven by specific lamp types and their relative sizes. The long cultural traditions, the apprentice programs and the craft industry that supports the design industry, enable the Europeans to be the best at achieving unique, exciting and unexpected solutions that merge old processes with new technology. European manufacturers have an easier time developing prototypes to get products to market compared to North America. Therefore, more products, fresh concepts and the tradition of quality manufacturing dominate the industry.

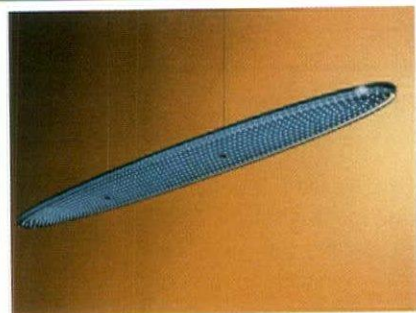
What's new in Europe is the use of new forms of glass, acrylic, polycarbonates, classic shapes and fixtures that are interactive for the user. This year 2003 is no exception. The next show is in April 2005. Will we see you there?

*James Crowell is a lighting consultant, president of Crowell Design, Inc. Radnor, PA*

## New materials are being used with great success:



**Ceramic foam** sounds like a used by-product of some manufacturing process, but **Serien** (Germany) has created a real aesthetic winner in their **Reef** fixture lit from within for an amazing textural effect. The ceramic foam is hard, lightweight, semi-opaque and washable (dishwasher friendly). Designed by nextspace, fixtures are available in wall, ceiling or suspended. [www.serien-lighting.de](http://www.serien-lighting.de)



**Imprinted Molded Glass** is used to sandwich LEDs, with light on both sides of the diode, between layers of glass. No conductors or cables carrying the electricity are visible. Similar to auto safety glass, the embedded film conducts the current. **Skywalker** by **Sinnlicht** (Switzerland) is a 12V, 58.9W suspended luminaire with white diodes (LEDs) embedded in glass, a new technology for illumination. [www.sinnlicht.ch](http://www.sinnlicht.ch)

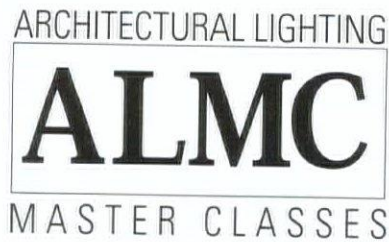
**Hot formed Opal Acrylic** takes on the color of the lamp or filter. **Artemide's Sextans** uses multiple colored filters to bring life to the acrylic form. Designed by Italo Rota and Alessandro Pedretti, Sextans is a piece of floor equipment designed for environmental considerations: It glows, filters air and emits sound. Construction: acrylic, colored filters, chrome. [www.artemide.com](http://www.artemide.com)



**Thermoplastic resin** lightweight film appears mirror-like with no light and white or colored with internal light. Check out **Artemide's Tian Xia**, a circular fixture with multiple light sources that is user-friendly for creating special interior lighting effects. Designed by Carlotta Bevilacqua. [www.artemide.com](http://www.artemide.com)



(Continued on page 48)



## **Architectural Lighting Master Classes 2004**

**New York City, March 11th and 12th, 2004**

**“Tremendously Successful Classes to Return in 2004”**

Sonny Sonnenfeld, Producer, in partnership with Architecture and Architectural Lighting magazines are pleased to announce Architectural Lighting Master Classes 2004. Returning as creative consultants are Paul Gregory and Jonathan Speirs.

This two-day seminar will be held again at John Jay College in New York City.

The New York Chapter of the American Institute of Architects will co-sponsor the event. The A.I.A. will award 16 Continuing Education credits for all those attending. The N.C.Q.L.P. will award 12.5 credits.

The faculty, in addition to Paul Gregory and Jonathan Speirs, will include Howard Brandston (Keynote Speaker), Fred Oberkircher, Ann Kale, Willard L. Warren, Ray Grenald and Robert Prouse.

As it becomes more important for architectural and interior design offices to maintain their competitive edge, making sure their team leaders can best use lighting to enhance their designs provides both a design and competitive advantage. This event is intended to train architects, interior designers, lighting designers, electrical engineers, owners, and others interested in the creative use of light in order to enhance their projects.

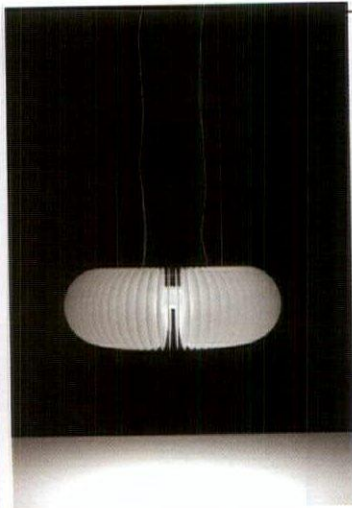
The Architectural Lighting Master Classes will address architectural lighting design philosophies. It will be a creative lighting design and inspirational experience. Attendees will be shown how lighting can add another dimension to an architectural design. This seminar will get your creativity flowing. Those participating will spend two full days (10 intensive seminars) discussing creative architectural lighting designs and how to achieve them. The goal is to both inform and inspire the participants.

Additionally, there will be a manufacturers showcase, staffed by engineering and design staff, where selected manufacturers will exhibit their newest lighting products.

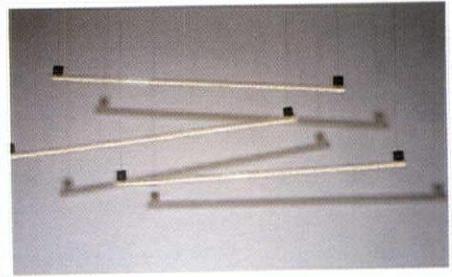
Tuition is \$550 (before January 1) and \$595 thereafter. For AIA members the tuition is \$500 (before January 1<sup>st</sup>) and \$545 thereafter.

**For further information, please contact Emily Pan, Focus Lighting 212-865-1565,  
emilyp@focuslighting.com or Suzanne Haber Publisher, Architecture and  
Architectural Lighting 646-654-5756, sthaber@vnubuspubs.com.**

## Old lamps used in new ways:



**Circuline Fluorescents** are known for their utility, efficiency and never known for contributing to any aesthetic effort. But for **Davide Groppi's** (Italy) **Love**, designers Marco Carini and Davide Groppi take the well-used circle lamp, shroud it with circular radial forms in white acrylic and create a classic look that will last. Fixture is metal and metacrylate with standard circuline fluorescent. [www.davidegropi.com](http://www.davidegropi.com)



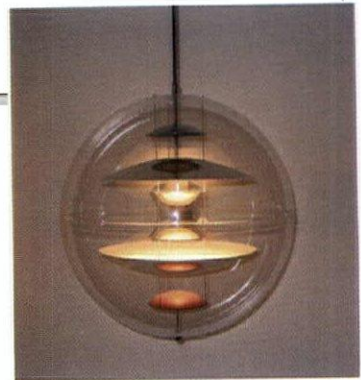
**Linear Incandescents** are meant to be exposed. They generally come in the clear glass or frosted white tube. **Quasar** (Netherlands) practices the notion of less is more, in two fixtures, one with clear glass (**Hypodrome**) so the filaments are exposed and one frosted in a minimalist statement. Hypodrome suspends via low-voltage cables and is simple and elegant. [www.quasar.nl](http://www.quasar.nl)

## Other show stoppers:

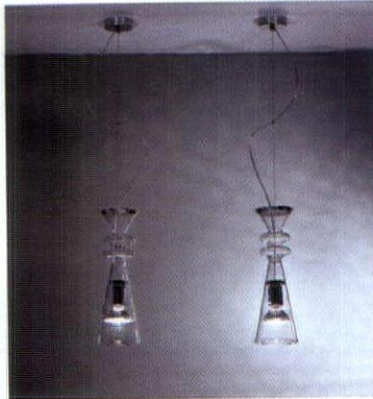
**Verdeluce** by Franco Raggi, for **Artemide** (Italy)—Outdoor or indoor bollard, integrates lighting and plant material: aluminum, stainless-steel and acrylic. [www.artemide.com](http://www.artemide.com)



**Globe** by Verna Pantan for **designbyfrandsen.dk** (Denmark)—Acrylic globe featuring five aluminum convex reflectors with a lacquered finish: composite acrylic, aluminum. [www.designbyfrandsen.dk](http://www.designbyfrandsen.dk)



**Agave** by Diego Rossi and Raffaele Tedesco for **Luceplan** (Italy)—A pendant fixture more art than illumination, made of heat sensitive acrylic that opens with the lamp source on, and closed with it off. [www.luceplan.com](http://www.luceplan.com)



**Chiara** by Andrea Bastianello for **Disegnoluce**. (Italy)—An elegant pendant in transparent and sandblasted glass. Chiara uses one PAR30 lamp. [www.disegnoluce.com](http://www.disegnoluce.com)

**Rosaverde** by Edouard Francois for **Luceplan** (Italy)—For the Harry Potter fans of the world, your own "LED wand" to ward off spirits or use in your personal environment. [www.luceplan.com](http://www.luceplan.com)



(Continued on page 50)



## Architectural Area Lighting

Design with light on your next project using the Pivot from Architectural Area Lighting. Wash a wall, highlight signage or indirectly illuminate a space. The Pivot uses energy-efficient fluorescent



lamps and electronic ballasts in a small compact luminaire design. The Pivot is available in four individual lengths or can be used in continuous rows. The Pivot is engineered for mounting in any orientation for indoor or outdoor applications.

Circle No. 100

## Dreamscape Lighting Mfg.



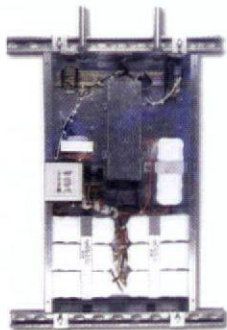
Reflections is a T5 or T8 fluorescent recessed vanity fixture that is placed between sections of mirror. There are two diffuser mounting options, either flat with the mirror or overlapping the mirror. Diffusers include sandblasted glass, sandblasted acrylic and rose washed acrylic. The two-lamp fixture provides soft but powerful illumination with

excellent color rendition. Dual electronic ballasts installed in each fixture allow single- or dual-lamp operation. Visit [www.dreamscapelighting.com](http://www.dreamscapelighting.com).

Circle No. 103

## Chloride Systems

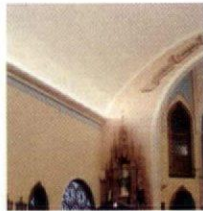
The PowerScape by Chloride is a unique Interruptible Power Supply (IPS) designed for indoor and outdoor emergency lighting applications. The PowerScape IPS has a 150 VA rating and can be surface-mounted, wall recessed-mounted or ceiling plenum-installed.



Circle No. 101

## Engineered Lighting Products

CLC Series—Cornice Cove Light. Engineered Lighting Products' wall-mounted, cove system combines a continuous decorative cast-GRG (glass-fiber reinforced gypsum) cove with a high-performance cove lighting system. The asymmetric reflector distributes uniform light into the space without noticeable socket shadowing. Lamp options are biax, T5 or T8 fluorescent. The cove casting is offered in three standard styles (custom designs also available) and is provided in 8-ft. sections. 90-degree corners are also available. Visit our website at [www.elighting.com](http://www.elighting.com) or call (626) 579-0943 for more information.



Circle No. 104

## Chloride Systems

Chloride Systems' new SV11 is a vandal-resistant emergency lighting unit with a unique shape and small footprint. The SV11 utilizes fully adjustable MR11 halogen lamps. The SV11 is UL-listed for damp locations, and is ideal for vandal-prone or high-abuse areas.



Circle No. 102

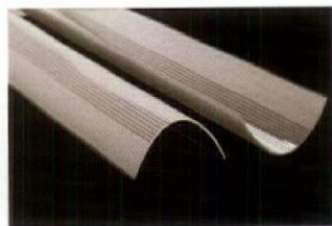
## Erco Lighting



A color touch-screen control panel offering user interface for lighting control and other building automation systems.

Circle No. 105

## Genesta

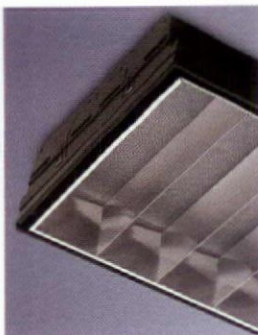


The new energy-saving Genesta LCF Reflexor is a proprietary process that incorporates Light Control Film in-line with the profile extrusion. Providing a controlled uplight component, it helps reduce lamps and ballasts in fluorescent hi-bay and direct/indirect applications. Contact our engineers today to create your custom design.

Circle No. 106

## Lightolier

Lightolier's Fluorescent division has introduced a new luminaire designed expressly to provide illumination for video teleconferencing. The Video Teleconference luminaire provides soft, vertical illumination for comfortable viewing of teleconferencing participants. Available in 2x4 and 2x2 recessed sizes, these fixtures shield the camera from light sources, eliminating glare on the projection screen.



Circle No. 109

## Lightolier

Lightolier is pleased to introduce the new SOLI line of ADA wall- and ceiling-mounted luminaires from its Architectural Decorative division. The SOLI series represents Lightolier's first entry into larger scale (up to 4 ft. long) wall-mounted sconces. This scalable luminaire series can be tailored to have a minimal look without reflectors/diffusers or a refined look with an etched-glass or acrylic reflector/diffuser.



Circle No. 107

## Prima Lighting

Opus by Prima Lighting. Exciting and unique, the "Flame" spotlight is a real statement. It is meant to be seen and appreciated. Flame can be used in low-voltage monorail, cable and mono-point/multi-point canopy systems. Options of Polished Chrome and Matte Silver finish, MR16 max 50W. For more information, call toll-free (866) 885-4915 or visit [www.primalighting.com](http://www.primalighting.com).



Circle No. 110

## Lightolier



Lightolier has expanded its current metal halide track lighting offering with the addition of the PowerArc Modular series. Designed for retail, commercial and architectural applications, this family of products utilizes a variety of ceramic metal halide lamps. Unique cord and plug system offers unsurpassed flexibility allowing mounting configurations to be tailored to the needs of the application.

Circle No. 108

## Semper Fi Power Supply Inc.

Semper Fi Power Supply Inc. manufactures indoor and outdoor remote transformers for 12/24 low-voltage lighting offering multiple voltages simultaneously. Indoor units can be recessed into an insulated wall with up to eight transformers in an enclosure. Outdoor units include above-grade stainless or direct burial transformers that reduce long runs and voltage drop.



Circle No. 111

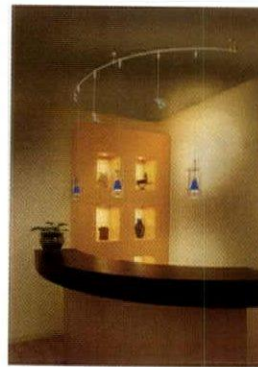
## Traxon USA

Traxon's Mood Light—winner of Lightfair 2003's Roeder Award. Via a hand-held remote or DMX software, Mood Light's LED panels (19.5 in. x 19.5 in. x 1.75 in. each) can be customized to pulse and turn an infinite variety of colors. Mood Light's modularity enables countless configurations, so whether your design ideas are for residential or commercial projects—the possibilities are endless.



Circle No. 112

## W.A.C. Lighting



W.A.C. Lighting's New Low Voltage Monorail System offers a bold, eye-catching look and cutting-edge technology, and accommodates 150 new fixtures and pendants. The Monorail is bendable in the field and its flexible design can be customized to create graceful curves while negotiating corners on ceilings and walls.

Circle No. 113

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adindex

# Feeling Blue, Feeling Good

BY MICHAEL A. TORTORA, IES

**D**uring a recent lighting design project, I suffered an artistic blow regarding the lighting composition for a lobby space. A complementary but crucial design element of custom LED fixtures was deleted at the last moment because the client lacked faith in the color *blue*. Specifically, the client questioned blue's psychological impact, fixture costs and by implication, the way we presented the *blue* lighting concept. Perhaps, if we had presented the concept more thoroughly, the client would have appreciated the emotional intent and visual effect blue could have given their building.

This complementary lighting system consisted of 26 floor-recessed uplight fixtures tucked within the webbing of 13 60-ft.-high steel beam columns. Each fixture had a separate blue, white and amber LED strip for color balancing and an independent level control. However, the overall design deliberately emphasized blue.

The placement of the self-contained units close to the columns would create vertical highways for the focused light to travel upon, define the perimeter of the lobby by

uplights), the client's lobby space would appear as an obvious void in the lighting design by exposing a visual black hole in its overall presentation.

Psychologically, blue represents the absence of light, darkness. With that psychological license, we are free to reveal the shades and shadows of architectural elements by filling the voids with a cool, bluish tint that, in turn, defines that absence. In fact, blue makes our minds insist we accept this absence. Understanding this unique power of blue to deliver such a subtle visual paradox, I feel inclined to urge clients to think and feel the same way about the color in their buildings.

Because of blue's complementary power towards the natural, warm colors it surrounds, in theater, there is never too much blue for the eyes. It only takes one warm, amber light source to stab its way through the air and reduce the saturation of the onstage blue sources. Yet the presence of blue gives a crisper, whiter light—not only to reveal expression and setting, but also to identify emotion, define time and space and model subjects so they can appear larger than life.

## Psychologically, blue represents the absence of light...

accentuating the sides of the towering steel columns and play a supporting role to the warm light sources providing nearby illumination. The placement would also surround people in the lobby with light, instilling a sense of protection. This lighting system would introduce a subtle drama and reveal a more prevalent shadowing effect within the webbing, giving spectral life to ordinary darkness and creatively and psychologically revealing the absence of light. However, the client's apprehension about *blue*, combined with a questionable price mark-up, led to the demise of these luminaires.

Although this element wasn't the *primary* lighting system, it was, artistically, a critical one. Philosophically, implementing a peripheral lighting system is a necessity for the mind when defining the geometric boundary of a space. To experience the power and effect of primary light sources, the installation of a peripheral lighting system is necessary because it allows people to feel they are a part of their architectural surroundings, experiencing the significance of these surroundings through the space's visual design statements.

Nearly every lighting system requires a complementary counterpart to visually fuse and define the architecture's design statement, both vertically and horizontally. This is especially true at night, when selective focus is creatively applied. The lobby's *primary* lighting system—a modest inventory of metal halide downlights (tight spots for texture and destination/key light), security desk downlighting (task), a cool linear system (accent) and a backlit satellite map (sparkle)—was no exception. Although it was designed to showcase the significance of the architectural framework and to define the framework's boundaries, with the absence of a complementary lighting system (namely, the blue LED

The integration of blue, no matter how saturated or pale, into any lighting project always reaches out to the warmest hues. The fusion of these visible wavelengths displays the perfect spectral marriage. Blue has seduced and inspired nearly every project on which I've been involved. Strange as it may seem, as a designer I feel an invisible connection with blue, even an emotional commitment to the color. It's a trusting relationship between artist and medium. No matter what flavor it presents, blue is an essential tool for any lighting designer who desires to promote visual stimulation and is willing to take creative risk.

Unfortunately, most clients often misunderstand or underestimate the impact of blue. To better educate them, lighting should be experienced, not merely displayed in photographs or summarized in presentations. Lighting designers should take their clients through a space that reeks of blue light, allowing them to observe and immerse themselves in the effects of blue light. This experience should be similar to the total control of color, focus and intensity available within the darkest and most flexible lighting playground known—the stage. Perhaps through such an experience, clients will discover and experience blue as a powerful, effective tool in communicating their company's public perception and corporate image.

In closing, blue accentuates objects and triggers visual mobility to elements that may appear lifeless. It resurrects the shadow and artlessly serves its dominant counterparts. Blue shapes, soothes, accents, reveals, recedes and assists warm light to move forward and highlight elements. Blue can fool, attract, expand... ■

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