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A NEW WAVE IN INTERIOR LIGHTING
Welcome to Lightfair—and to our at-show annual Market Issue. We’ve pulled together just about 200 products, ranging from decorative fixtures to lamps to controls, to bring you what we think is an interesting and comprehensive selection of what the lighting manufacturers have to offer. Some were introduced within the past year, others are set to debut at Lightfair. We hope you’ll take a moment to peruse the issue and set aside some time to visit the booths of those participating in Lightfair 2003. And while you’re at it, don’t forget to stop by and visit us at booth 2037!

But, of course, this is just a small sampling of all that’s out there...please continue to send us your product information or let us know about any exciting technology and design you find particularly noteworthy. We’d love to include it on the pages of Architectural Lighting. And, speaking of reader participation, I invite all of you who do attend Lightfair in New York to send in your responses to the following questions to be included in a post-Lightfair article (just email me at ctrauthwein@vnubspubs.com):

- What’s the most innovative product you saw?
- The most notable trend?
- What seemed to be missing?
- How about the most promising technology?
- What do you hope to see developed for next year?

Now, speaking of Lightfair, let me just take a moment to say a few words about a subject of which many of you may already be aware, but if not, just might be a topic of discussion as we head into this year’s event: The IALD’s recently announced European-based official media partner.

Since launching 17 years ago, Architectural Lighting has consistently and avidly supported the IALD, particularly in the past decade as the proud co-sponsor of the IALD Lighting Design Awards. We—the magazine and the staff—have lent our encouragement, experience and assistance in not only growing the lighting industry and profession, but particularly, the prestigious Association through countless editorial coverage, student scholarships and dedicated effort to promoting the annual Awards event. From serving for many years as co-chair of the judging committee to producing the printed program to presenting the awards to the many distinguished winners, it has been an honor to play a role in this process of growth and development and one I will recall fondly as I’ve greatly enjoyed the experience. Architectural Lighting firmly believes in providing our readers with the best—and we look forward to the future with the IALD and a continued relationship of support and mutual cooperation, albeit redefined.

And on that note, I’m pleased to announce another addition to our editorial advisory board. Coincidentally enough, this year’s new IALD Awards co-chair: Kenneth A. Douglas, IALD, LC, associate principal at The Mintz Lighting Group. Ken joined the firm in 1989 after several years as a theatrical lighting designer and has been the lead designer on many outstanding projects, earning him multiple lighting design awards from both the IESNA and the IALD. Ken acts as project manager and designer for a variety of project types such as signature bridges, corporate campuses, courthouses, academic buildings and retail venues. His most noteworthy projects include The Thomas Jefferson Memorial in Washington, D.C. (see cover story of our August/September 2001 issue); the Sprint World Headquarters in Overland Park, KS; and the Victory Bridge in New Jersey. Welcome Ken—we look forward to your experience and insight!

As you know, I am always available to hear your ideas, suggestions and criticisms. Please email me at the aforementioned address or call me at (646) 654-4481.

On the cover (clockwise from top right): Energie’s Level family of fixtures; Xilov BV’s Drosper; Ushio’s JDW Safety Quartz; Halogen Lamp; Luceplan’s Agaricon table lamp; Flux, Inc.’s Fixture Two; Valo Lighting’s Aliante sconce; North American Lighting Spectrum’s Blob (center).
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EPA RECOGNIZES SYLVANIA & WESTINGHOUSE

The U.S. Environmental Protection Agency (EPA) has named Osram Sylvania as Energy Star Partner of the Year for its contribution to reduce greenhouse gas emissions by making and promoting energy-efficient products. The company was recognized at an awards ceremony in Washington, D.C. on April 15. A partner in the program since 1999, Osram Sylvania will have 65 percent of its product line Energy Star-qualified by the end of this year.

At the same ceremony, EPA awarded Westinghouse Lighting Corp. a 2003 Energy Star award for educating Americans about the importance of reducing greenhouse gas emissions through energy-efficient lighting. As a leading partner in the Energy Star "Change a Light" campaign, Westinghouse Lighting Corp.'s efforts made it easy for Americans to purchase lighting that has earned the Energy Star label. The company's focus is to create awareness nationally, as well as to educate consumers on the benefits of Energy Star lighting products by using in-store promotions, supporting compact fluorescent lamp sale events and providing informative point-of-purchase materials.

PUBLICATIONS ADDRESS OUTDOOR LIGHTING & FIXTURE MARKET

The Commission Internationale de L'Eclairage (CIE) has published a new standard to replace "CIE S003 Spatial Distribution of Daylight—CIE Standard Overcast Sky and Clear Sky," which was released in 1996. This new standard defines relative luminance distributions and incorporates both the CIE Standard Clear Sky and the CIE Standard Overcast Sky. Also new from the CIE is a guide on limiting the effects of obtrusive light from outdoor lighting installations. Both publications are available from the CIE/USA, C/O TLA Lighting at 7 Pond Street, Salem, MA 01970.

The 2003 edition of "The U.S. Lighting Fixtures Market" is now available from Market Studies, Inc. The report offers statistics, forecasts, analytical summaries and recommendations and includes a directory of 2,600 U.S. lighting fixture companies. For more information, phone (919) 845-0050, fax (919) 845-0035 or visit www.marketstudies.com.

ON THE MOVE

Genlyte Controls has completed the relocation of the three brands that comprise the Genlyte Thomas Group's controls division, Entertainment Technology, Lightolier Controls and Vari-Lite all began working from a new single location on April 1. The move consolidates all operations of the three companies in one facility. Each of the three brands will continue to operate and function as individual companies, according to Genlyte Controls General Manager Steve Carson. "Having each of the companies in a single location and under the same roof will allow us to operate more efficiently and take greater advantage of the synergies and resources that the companies share," he said. The new facility, which has more than 70,000 sq. ft. of manufacturing and office space, is located at 10911 Petal St., Dallas, TX 75238. The toll-free phone numbers for each of the companies will remain the same: Entertainment Technology, (800) 223-9477; Lightolier Controls, (800) 526-2731; and Vari-Lite, (877) 827-4548.

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BY CHRISTINA TRAUTWEIN, EDITOR-IN-CHIEF

Architectural Lighting and Architecture Magazines have entered into a partnership with Searchspec.com. As part of the new relationship, visitors to Searchspec.com will be able to easily visit the magazine’s websites—Lightforum.com and ArchitecturalRecord.com, respectively. Visitors to these sites will, in turn, be able to access Searchspec.com as a new standard product search feature. In addition, visitors to Searchspec.com will be able to access select articles from Architectural Lighting’s archives.

Most people believe the Internet Revolution is over. But what many don’t realize is that in the lighting industry, the Internet has already won, and that the next big push is coming.

Only six or seven years ago, the idea of publishing spec sheets on websites and making them available to the public was considered somewhat radical. Now most manufacturers offer spec sheets on their websites. According to a new survey conducted by Searchspec.com and Lightsources.com, 84 percent of specifiers “go to the manufacturer’s website” first when they need a spec sheet, IES files or other critical spec information for a new product they’re interested in, compared to 15 percent who contact the manufacturer’s sales reps and 3 percent who prefer to contact the manufacturer directly.

The Internet succeeded because it meets two key criteria—it saves time and increases information. Now, two out of three specifiers say they use the Internet everyday to find products, manufacturers and manufacturer sales reps for active projects, and one out of three uses the Internet everyday to do general product research not directly related to a project. Today, only 17 percent of specifiers say they primarily use traditional print catalogs and CDs to acquire much of the product information they use for active projects, while 28 percent say they mostly use websites and 70 percent say it’s about evenly split.

So while the Internet failed to revolutionize the product channel, it did revolutionize the information channel—particularly in regards to literature fulfillment and spec support for standard products. However, a key problem has persisted. Specifiers have saved time by going to a website instead of calling a sales rep to get literature, but are they saving time mucking through websites doing the actual research? With the hundreds of possible websites and all of the different variations of websites, architectures, are specifiers actually saving time versus browsing print catalogs? And with project schedules becoming increasingly compressed, is there still enough time for choice?

Last June, the process of solving this problem began with the launch of Searchspec.com, created by ZING Communications, Inc., a marketing communications and consulting firm specializing in the lighting industry. Searchspec.com is designed to enable easy access to more product choices in less time for today’s busy lighting specifier. It connects specifiers with critical spec information for thousands of products in a standard format. Hundreds of architects, lighting designers, engineers and other specifiers use the site everyday to find new products, acquire spec sheets and IES files, see products in projects and find contact information for manufacturers and their sales reps.

To use the site, the lighting professional picks a product category, designates general spec criteria and then browses a dynamic catalog of products that meet his or her criteria. After finding the right product, the specifier can then download the spec sheet, IES files, etc. In addition, the specifier can also see all new products, see select products in projects and view products that are the most popular on the site in a series of “top 10” lists. In its simplest form, using Searchspec.com is like imagining a product need and seeing up-to-date catalogs on the shelf flip down and open to the exact pages for the products that meet the need, along with color product photos, attached IES files and contact information for the nearest sales rep.

Although various sites exist to provide similar services, besides Searchspec.com, eLumit is the other major site offering fast, standardized access to product choice and spec information. Each uses a different approach based on choices that address the capabilities of the Internet—with the understanding that each of these choices poses tradeoffs for the user—and also the quirks of the Internet, which is a very powerful but at times unpredictable medium. All specifiers are encouraged to try both sites out and choose the site that best matches their “search personality” and needs.

By adding intelligence to product search available on a single website, and standardizing the results with easy access to critical spec information, Searchspec.com advances the Internet’s ability to save time and increase information for specifiers. As a result, this type of Internet tool is expected to become standard practice in the future. The site is accessible at its own URL, and also as an advanced search feature on Lightsources.com, the online directory visited monthly by 50,000 lighting professionals. As of March 5, Searchspec.com offered more than 3,400 products from 85 manufacturers/brands in seven major categories and projected that by Lightfair the site would offer more than 5,000 products in ten categories (with a “product series,” not individual model numbers, to make searching faster and results easier to browse).

The first paragraph of this article stated that the “next big push is coming,” but Searchspec.com is only a first step in that direction as it is an “open loop” that connects the specifier to spec information but does not walk them through the entire construction process. The Internet offers even more dramatic capabilities, for example, such as automated access to pricing, availability, shipment tracking and final documentation. The small number of progressive vendors that offer these capabilities are generally doing so privately and through a non-integrated patchwork of services. As Internet technology becomes more reliable and its utility is increasingly validated to specifiers, it will be possible in the future for lighting professionals to generally “close the loop.” This specification process would generate pricing based on volume, real-time availability, real-time delivery tracking, documentation and an XML-wrapped bundle of cost and performance data that could be read by any software platform used by any professional in the construction process.

The Internet has matured to a large extent and most users are now using DSL or cable to connect to it, opening significant possibilities. Sites like Searchspec.com and eLumit.com are an important first step in realizing this future by standardizing search and access and streamlining communication between specifiers and manufacturers. ■
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Technology Licensing

Today's ideas just may become tomorrow's products

BY CRAIG DILOUIE, CONTRIBUTING EDITOR

Technology licensing turns years of research and development into products that can be quickly made commercially available across the industry, matching their utility to existing supplier brands, manufacturing facilities, distribution networks and expertise. This article will review some of the multitude of new ideas that may become tomorrow's hot new products through licensing—from Honeywell International, Revelations in Design and Ultrawatt Energy Systems.

FIGURE OPTICAL SYSTEMS

Honeywell International is a familiar name in the construction industry, a Fortune 100 company—one of the 30 select companies represented by the Dow Jones Industrial Average—with over $24 billion in sales in 2001 and more than 115,000 employees in 100 countries. What many don't know, however, is that Honeywell is very active in licensing its intellectual properties, with more than 1,500 granted licenses that provide over $100 million in annual revenue—some of which comes from lighting manufacturers utilizing technology originally designed for backlighting LCDs.

The company is now offering a linear suspended direct/indirect optical design, a fiber-optic lighting system and an LED lighting system based on this core technology, each modeled and analyzed using the Advanced Systems Analysis Program (ASAP)—an optical ray trace, analysis, design and modeling program provided by Breault Research Organization. The intellectual property packages encompass patents (and pending applications) that describe both design methodologies and low-cost manufacturing methods. Trade secret information in the form of optical models/analytics and supply-chain information is also available.

Direct/Indirect. Honeywell designed an optical system for linear, circular and U-shaped fluorescent lamps (and other sources such as ceramic arc metal halide) that distributes about 80 percent of the light up and 20 percent down for VDT applications (see Figure 1).

The fixture design employs a hybrid of cusp-reflector (uplight) and an array of non-imaging optics (downlight). Key to the design was the development of a geometry whereby light does not reflect back to the lamp. The ASAP model shows that the downlight component has an angular distribution compliant with DIN-50357 specifications, which means it is substantially devoid of light between 60 and 90 degrees of vertical to eliminate glare. ASAP also shows 95 percent of the lamp lumens delivered to the upward/downward targets with formed, sheet-metal reflectors, such as Specular+ from Material Sciences Corp.

The non-imaging optics used for the downlight component can also be formed from solid glass or plastic for aesthetic reasons. The design can be used in conjunction with a mild diffuser spaced below the non-imaging optics to eliminate a direct view of the lamp through the collimators and spread the downlight source over a larger area.

Fiber-Optic System. The original application for this technology was to develop a highly efficient fiber-optic lighting system for use in the backlighting of LCDs. Unique to the approach are stackable, injection-molded, non-imaging fiber collimators used at each end of the fiber.

At the input end of the fiber, the stackable feature avoids illuminating the gaps between adjacent fibers, producing a minimum efficiency improvement of 10 percent over traditional coupling losses into fiber bundles. At the output end of the fiber, the stackable feature can be used to form unique, uniform, geometrical illumination patterns, which can be projected to a targeted area via low-cost, off-the-shelf lenses. Alternatively, the stackable non-imaging optics can be user-configured into custom signage in the form of letters, graphics and so on.

The approach eliminates the dark gaps observable in traditional fiber-bundle illumination approaches and is compatible with color wheels or other color-selective fiber-coupling techniques. Three unique light collection optical approaches are available to maximize efficiency, eliminate lamp shadow, ensure equal distribution of lumens per fiber and reduce cost. The optical fibers can be off-the-shelf plastic fibers such as Mitsubishi's ESKA, large-core fibers such as Optiflex from Fiberstars and Stafelex from Lumenyte, and glass fibers, such as those produced by Schott Glass and Asahi Glass.

“The proposed systems are driven toward low cost and high efficiency to remove traditional market barriers to fiber-optic lighting,” said Bob Saccomanno, manager of licensing and intellectual property for Honeywell's Teterboro, NJ operations. “Existing illuminators are generally expensive, require custom fiber cables and have end-optics that are generally limited, such as circular lenses. Our intent is to allow the user to buy their own lamp, cable and so on and use our injection-molded, non-imaging optics to easily put low-cost, highly efficient, high-performance systems together, including unique output configurations. Commercialization of these systems will reduce cost, while increasing efficiency and versatility in typical fiber-optic applications—such as accent lighting, heat/UV-sensitive applications and pool and spa lighting—and potentially opening new applications.”

LED System. Based on its fiber-optic technology, Honeywell saw an application for LEDS. Most LED arrays have dark interstitial regions between LEDs. By using low, stackable, collimating, non-imaging optics to distribute LED light, a crisp edge is provided to the illumination pattern, removing the dark gaps between LEDs and making this technology ideal for LED signage (see Figure 2).

NEW HUMAN-LIGHTING INTERFACE

The Symmetron controller from Austin, TX-based Revelations in Design, designed as a replacement for standard switches and dimmers, allows occupants to control multiple lighting and other devices through simple hand motions in close proximity to the front of the control box or through physical contact/directional motion of a ball controller.

These hand motions are translated to a broad variety of commands using existing low-voltage circuitry; the occupant can select a single device or group of devices and then control the discrete attributes of these devices. The Symmetron controller, for example, can turn on and off a single light or bank of lights and also raise or lower light output to preference (dimming).

Designed to replace banks of controllers with a single device and programmable for three- and four-way circuits, this passive interface is suited to any traditional lighting setting and may be designed to integrate lighting control with plumbing, HVAC, mechanical, electronic and virtual any other electrical system. For example, in a conference room, the Symmetron controller could integrate the

Figure 1: Honeywell's optical system distributes about 80 percent of the light up and 20 percent down for VDT applications, with the downlight component substantially devoid of glare and with a 95-percent efficiency when used with formed, sheet-metal reflectors. Shown are ASAP model renderings of the linear, circular and ceramic arc metal halide models.

(Continued on page 20)
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The Symmetron controller (above left) is designed for multiple applications including residential where it is capable of interfacing with stereo/home theater systems and cleanrooms and healthcare facilities where the touchless device helps to maintain a sterile environment.

banks of switches, dimmers and other controls used to control lighting, ventilation, audiovisual and telephony into a single multi-use device controlled by hand motions.

In residential applications, the Symmetron controller is capable of interfacing with stereo/home theater systems, enabling occupants to select the various functions of the stereo, CD player, TV set, tuner, cassette or video player/then select volume, play, pause, fast-forward, rewind, mute, station tuning and so on. All other home devices, such as ovens, washers and refrigerators can also be controlled by a single or small group of controllers. In addition, the Symmetron can be incorporated into whole-home integrated computer systems.

Feedback may be provided using LED or LCD displays or even audible and/or tactile response. The actual device is independent and does not require a computer and integrates the controller, computer, dimmer and feedback technology components into a device small enough to install in a standard gang box. The technology's operation is dependent on existing electrical systems but not on individual devices, meaning it is not dependent to be used to accommodate future building technologies as well as existing systems. The Symmetron controller's functionality also evolves with the ever-changing needs of the occupant through simple reprogramming.

"The Symmetron offers limitless architectural design possibilities," said Jonathan Josephson, CEO of Revelations in Design, who conceptualized the technology with Sylvia Pettit, the company president, while working together on a lighting design project. "Picture a world with no buttons, switches or knobs used to activate and control any electrical device. With simple finger movements, occupants can operate their lighting, surround sound, air-conditioning/heating and security with controls that blend seamlessly with the environment, accenting and enhancing the architecture it adorns. Embeddments can be configured to read movement, check for authorization by fingerprint recognition and may also be used as a camera for security monitoring. In cleanrooms and hospitals, touchless controls with no moving parts and sealed, flat surfaces provide the ability to help maintain a sterile environment and reduce probability of contamination caused by contact. The world operates more intuitively, more gracefully and more cleanly with intelligence that is built around the occupant.'

"With the Symmetron controller, we have crossed the threshold between design and intuitive function and can truly say we are "turning the world on," said Sylvia Pettit.

"We are not changing what is done, we are changing how it is done," added Hunt Pettit, SVP of marketing, Revelations in Design.

GLOBAL DIMMING

Energy, environmental and productivity concerns have heightened interest in lighting controls systems that can provide flexibility while reducing energy consumption. Ultrawatt Energy Systems, Inc. of Fort Myers, FL, a developer and marketer of energy conservation intellectual properties founded in 1992, now offers a viable solution.

The major buzz in the industry over the past year has been the Digital Addressable Lighting Interface (DALI) protocol, which enables facility operators to individually address and control each ballast and either preset it to automatically dim or dim according to ambient conditions over the full 1-100 percent range. However, because DALI requires a dedicated low-voltage wiring network, requires premium digital ballasts and significant planning, installation and commissioning, digital networks are often not practical for existing buildings. Ultrawatt is hoping to capture this market and also present an alternative for new construction by offering the PowerGate Intelligent Management System, a technology that delivers similar benefits but with less complexity and a lower installed cost (see Figure 3).

PowerGate, the result of 10 years of research and testing and over $30 million in investment, provides the energy-saving benefits of automatic shut-off and up to 50-percent dimming for fluorescent electronic and HID and up to 80-percent dimming for fluorescent magnetic lighting systems, with dimming occurring over a nominal one-minute period. Using the software, facility operators can individually address each circuit as the point of control. Bi-way communication takes places between the point of control (a PC) and any number of lighting circuits in any number of buildings, located anywhere, using the Internet, a dial-up connection or LAN. An integrated meter logs data for energy savings verification and circuit analysis, and the system also provides the capability of 24/7 power monitoring.

"PowerGate now comprises an intellectual property portfolio, including commercialized products with proven utility, which we are actively marketing to both select large customers and compatible manufacturers for licensing," said Gary Wendt, CEO of Ultrawatt. Wendt, who recently joined the company in a senior advisory role to Tim Yablonski, the company's founder and president, is best known for his 24-year career at General Electric, where he founded GE Capital and built it into the company's largest business with more than $25 billion in international assets and 90,000 employees.

"PowerGate is a sophisticated technology built into a reliable small footprint. It is designed to work with any existing lighting system, including both electronic and magnetic ballasts and virtually every type of fixture," said Peter Persol, manager of licensing and intellectual property, at (201) 393-3589.

"PowerGate technology is centered around the PowerGate Intelligent Lighting Management System but is expanding with a wall/ceiling-mounted unit that performs a dual-dimming and occupancy-based automatic switching function, basic stand-alone, outdoor and small application models without the software; and an energy management system version that combines lighting control with HVAC control and a smaller footprint.

PowerGate technology is centered around the PowerGate Intelligent Lighting Management System but is expanding with a wall/ceiling-mounted unit that performs a dual-dimming and occupancy-based automatic switching function, basic stand-alone, outdoor and small application models without the software; and an energy management system version that combines lighting control with HVAC control and a smaller footprint.

Manufacturers interested in:

Honeywell's technologies—contact Bob Saccomanno, manager of licensing and intellectual property, at (201) 393-3589.

Revelations in Design's Symmetron multiple device controller—contact Hunt Pettit, SVP of marketing, at (512) 619-6329 or hpettit@r-n-id.com.

Ultrawatt's PowerGate—contact Tim Yablonski,
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Offering valuable AIA and State CEU's
Some opinions are more powerful than others.

And we all know opinions can change.

After last year's successful debut, Architectural Lighting's ACE.al Awards have become a mark of distinction and dependability.

Now in its 2nd year, it's that time again to voice your opinion and honor those manufacturers who have demonstrated exceptional value, durability, service and design.

**HOW THE PROGRAM WORKS**

1. Take a few minutes to review the list of building materials manufacturers appearing in the ballot section following this page.
2. To vote for those manufacturers that best meet the criteria detailed on this page, locate their assigned number and circle it on the ballot card at the end of the section.
3. Then simply fax your ballot to 646-654-5816. Your response must be received by July 1, 2003 in order to have your vote counted. Only official ballots published by the magazine will be accepted.

**VOTING CRITERIA**

Select the manufacturers who have provided you and your projects with the best:

1. Value
2. Durability
3. Customer Service
4. Design

Winners will be announced in the December 2003 issue of Architectural Lighting.

Cast your opinion in Architectural Lighting and let the industry know who you trust and depend on.
The 2nd Annual ACE.al Awards
Lighting Specifier’s Choice for Excellence
Recognizing Excellence in Lighting Products + Manufacturers

1 3M Light Fiber
2 Adapations
3 Advance
4 Alcon
5 Alera Lighting
6 Akco
7 ALS - Architectural Lighting Systems
8 Altman Lighting
9 Ambiance Lighting Systems
10 American Glass Light
11 ANP Lighting
12 Architectural Area Lighting
13 Architectural Landscape Lighting
14 Ardee
15 Aromat Corp.
16 Arroyo Craftsman
17 Artemide
18 Artistic Tile
19 Artco Lighting
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21 Bega Lighting
22 Bagelli
23 Beta-Calco
24 Birdwood Lighting
25 B-K Lighting
26 Boca Flasher
27 Boyd Lighting
28 Brook Lighting Systems
29 C.W. Cole & Co.
30 Charles Loomis
31 Color Kinetics
32 Columbia Lighting
33 Con.daz Lighting
34 Con-Tech Lighting
35 Cooper Lighting
36 Cyclone Lighting Inc.
37 oac
38 Davis/Muller Lighting
39 DelRay
40 Derek Marshall Lighting
41 Dermax & Hamlyn
42 Dreamscape Lighting Mfg.
43 Eclipse Lighting Inc.
44 Edison Price
45 Eiko Ltd.
46 Electrix
47 Electronic Theatre Controls
48 Elite Bohemia/Bari Del International
49 Elliptical
50 Engineered Lighting Products
51 ERCO
52 ESTILUX, INC.
53 ETC
54 Eureka
55 Exceline
56 F.A.D Lighting
57 FC Lighting
58 Fiberstars
59 FLOS
60 Focal Point
61 Foscarini
62 Gardo Co.
63 GE Lighting Systems
64 Gotham Architectural Downlighting
65 Guth Lighting
66 H.E. Williams
67 Hado
68 Halo
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86 Indy Lighting
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109 Lightoiler Controls
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112 Linecontrol
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114 Lithonia
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166 Sirmons
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180 Targeti
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184 The Original Cast Lighting
185 The Watt Stopper
186 THH Lighting
187 Thomas Daybrite
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191 Trend Lighting Co., Inc.
192 Tridonic Inc.
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194 Unilight Ltd.
195 Universal Lighting Technologies
196 Ushio America
197 Valmont Industries, Inc.
198 Vantage
199 Varon Lighting
200 Visa Lighting
201 VistaWall
202 W.A.C. Lighting
203 Waldmann
204 WE-EF Lighting USA
205 Wendelighting Inc.
206 Wila Lighting
207 Winona
208 Zaneen Lighting
209 Zumtobel Staff
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Lighting Specifier’s Choice for Excellence
Recognizing Excellence in Lighting Products + Manufacturers

Please fax ballot to 646-654-5816 or download ballot at www.lightforuni.com.

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I would like to vote for the following suppliers who were not listed

1. _____________________________ 3. _____________________________
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Name ___________________________ Phone ___________________________
Title ____________________________
Company __________________________
Address __________________________
City _____________________________ State ___________________________ Zip __________
**From the Leucos Design Studio, the Celine collection offers pendants, wall sconces and table and floor lamps. Celine P (shown) is an ADA-compliant wall sconce producing indirect illumination via a white handblown glass diffuser. A white metal backplate mounts directly to a standard 4-in. junction box. Measuring 10 in. wide, 10/1 in. high and 4 in. deep, the glass diffuser is secured to its base with a nickel brushed metal plate. Celine P uses one 100W A19 incandescent or two 13W compact fluorescent sources. Circle No. 100**

**Designed by Angel Bellini, Varisian's collection of mother-of-pearl and mussel-shell mosaic fixtures include the Lusi Krang table lamp, which features a rectangular mother-of-pearl and mussel checkerboard mosaic shade and square base formed of polished teak and supported by four metal legs. Lusi Krang measures 77/ in. x 6 x 7 in. and uses 60W A17 or A19 incandescent lamps. The Adonis sconce also sports a mother-of-pearl and mussel shell mosaic shade, measures 12 x 7/ in. x 17/ in. and uses 40W A17 or A19 incandescent lamps. The shades are finished with a polyurethane resin coating that is UV-stable and water- and heat-resistant. Circle No. 103**

**Starfire Lighting's Traditional Series Pendants provide direct/indirect lighting via dome-shaped diffusers offered in a variety of hand-painted finish options. Fixtures mount to the ceiling through a conventional recessed junction box and a choice of single or multiple mounting stems, rods, cables and chains in a range of polished or brushed metallic finishes. Pendants may be specified in 18- or 24-in. widths with standard mounting heights of 30 in. or 30-, 36-, 42- and 52-in. widths with mounting heights of 42 or 48 in. Custom mounting heights are also available. Lamping includes fluorescent and incandescent sources in various wattages. Circle No. 105**

**W.A.C. Lighting has expanded its line of Line-Voltage Ceiling Pendants with blue, red and amber (shown) glass in the Snifter style. Pendants are offered with a durable cord set available in black and white and 96-in. lengths. The cord can be customized to any length in the field. Line-Voltage Ceiling Pendants can be attached to any of W.A.C. Lighting's four track systems as well as other systems most commonly used in the industry. Circle No. 107**

**Metalumen's Carré square pendant series provides direct/indirect lighting and is available in 24- and 33-in. square models. Carré offers a choice of decorative glass and five mounting options and accepts up to eight biax compact fluorescent lamps. Outer and center lamps are independently wired for maximum switching control. An MR16 lamping option allows for up to five 50W lamps. Circle No. 101**

**Dernier & Hamlyn, founded in 1888, specializes in decorative lighting and custom designs. The company's products have been specified on many world-famous projects including Royal Albert Hall, 10 Downing Street, Windsor Castle and the Palace of Westminster (Houses of Parliament), as well as restoration of the chandelier in the Throne room at St. James' Palace. Circle No. 102**

**Ivalo Lighting has extended its Aliante line to include the Aliante Sconce, which features a 4-ft-long shell formed from .002-in.-thick aluminum through the use of automotive stamping techniques. The shell is available in satin or brushed finishes with clear or black anodization. Vertically centered in the shell, a 21-in. frosted polycarbonate lens diffuses the light. The sconce may be specified with the lens or as a solid unit and offers a choice of 120V and 277V dimming and non-dimming options. Circle No. 104**

**Advent's ADA-compliant Arc sconce can be mounted vertically or horizontally and uses T5 and T5/HO lamps in a variety of wattages. Diffusers are available in opal acrylic, natural paper over acrylic, fabric with inner acrylic, perforated aluminum with inner acrylic and stainless-steel mesh with inner acrylic lenses. Fixtures are offered in a variety of finishes and sizes. Options include decorative accents, emergency lamping, dimming, corner-mount kit, sandblasted opal acrylic lens with sealer, tamperproof screws on end-caps and 277V ballast. Arc also offers ceiling-mount and pendant models. C/UL-listed. Circle No. 106**

**Meyda Tiffany's Fleur-de-lis chandelier (Model #49726) features thousands of pieces of art glass in its shade and is designed with an art glass hub above the shade. The fixture was handcrafted using the company's copperfoil construction process and measures 32 in. high and 45 in. wide. Lamping is incandescent or compact fluorescent. Circle No. 108**

(Continued on page 28)
See us at Lightfair 2003 Booth 1843
Aqua Gallery’s Oversize ll collection was designed by Ayala Serfaty in response to the need for larger lighting fixtures in hospitality applications. Fixtures in the series are formed of metal wire structures wrapped in naturally crushed silk that is then treated with a water-resistant and flame-retardant epoxy coating. Fixtures are available in five colors. The Palm Beach 9 (shown) is a chandelier measuring 9 ft. long and 4 ft. in diameter and uses compact fluorescent lamps. Circle No. 109

Designed by award-winning architects Renato Toson and Noto Massari for Leucos, the Pandora pendant sports retro curvilinear contours reminiscent of seminal Italian industrial design of the 1960s and ’70s. The fixture is equipped with a satin white handblown glass diffuser measuring 17 7/8 in. in diameter and 13 1/2 in. high and metal hardware finished in brushed nickel. Pandora uses one 100W A19 silver-bottom incandescent lamp for downlighting and one 100W A19 incandescent lamp for diffused illumination. Double switching is available. Circle No. 110

Derek Marshall Lighting’s new collection of sconces is characterized by the use of colored glass that is cut and positioned on white opal glass and then fired to red-hot heat, creating a fusion that permanently welds all the glass together. After cooling, the fused glass is cut, ground and polished and fired again, allowing it to mold smoothly into the sculptured form of the sconce. Measuring 16 in. wide and 12 in. high, Sensa (shown) extends 4 in. and uses a 100W incandescent lamp, compact fluorescent is also available. The sconce attaches to the mounting bracket with brushed chrome knobs. Polished brass is optional. Circle No. 112

Delray Lighting’s Kone combines glass diffusers and precise aluminum downlight reflectors to provide general illumination and tasklighting. Available in two sizes of clear and opal glass, Kone uses compact fluorescent sources and comes equipped with an aircraft cable mounting system adjustable to a variety of lengths. Circle No. 113

Delray Lighting’s Kone combines glass diffusers and precise aluminum downlight reflectors to provide general illumination and tasklighting. Available in two sizes of clear and opal glass, Kone uses compact fluorescent sources and comes equipped with an aircraft cable mounting system adjustable to a variety of lengths. Circle No. 113

From Watermark Design, the Loft Lighting sconce measures 4 1/2 in. wide, 12 in. high and extends 6 1/2 in. from the wall. The sconce is available with a white or frosted acrylic shade and a choice of 32 electroplated or enameled finishes, including satin nickel (shown). Loft Lighting uses one candelabra-base 60W incandescent lamp. Circle No. 111

Designed by Karim Rashid for Foscariini and distributed exclusively in the U.S. by North American Lighting Spectrum (NALS). Blob free-form table, ceiling and wall fixtures are constructed from formed steel covered in a molded polypropylene light-diffusing shade. The 18.8 x 6.25-in. Blob S uses one 24W compact fluorescent lamp, while the 39.58 x 11.38-in. Blob M uses two 36W compact fluorescent lamps. Blob XL measures 49.58 x 19.75 in. and is lit with two 35W compact fluorescent lamps. Table and floor models are portable and plug-in controlled via an on/off switch and in-line electronic ballast on the cord. Ceiling and wall models may specified wired-in with remote concealed ballasting. C/UL-listed. Circle No. 114

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Excelite’s Galaxis series of wall sconces includes the Quadris V, which is equipped with a front panel that is ¾ in. thick and available in white faux alabaster and textured white acrylic. The open top and bottom provides up- and downlighting as well as air circulation. The Quadris V sconce accepts two 20W max. quad-tube compact fluorescent lamps. Circle No. 115
TARGETTI COLLECTION at CHELSEA ART MUSEUM

CURATED BY AMNON BARZEL

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the exhibition is supported by GUCCI
The Regh Associates Collection from Baldinger Architectural Lighting includes the Upton series, which features a wall sconce and pendant fixture with four tapers that branch out from the center (shown), and the Endicot pendant fixture, which measures 36-in. in diameter, and wall sconce. The entire collection is available in polished, satin and antique brass or polished and satin nickel finishes. Circle No. 120

D'ac Lighting’s Terminal pendant features a pair of aluminum stems suspended 43 in. from the ceiling surface and attached to two cylindrical housings. Equipped with a frosted colored glass lens and a 150W metal halide lamp, the lower housing provides 85-percent downlight and 15-percent uplight, which is reflected through and off the surface of a domed shade that separates top and bottom housings. Construction is cast aluminum with a spun-aluminum shade. Standard finish is chip- and fade-resistant baked powdercoat enamel in metallic gray. Custom colors may be specified. CUL-listed for dry locations. Circle No. 117

From the Aurora Lampworks’ new collection based on historical lighting fixtures, the Westchester pendant is inspired by Art Deco design and results from the restoration of the Michaelian Office Building, which was built in the late 1920s. The Westchester is nearly 2 ft. wide with a 4 1/2-in. banding and uses two 100W incandescent lamps (or compact fluorescent equivalent). Available finishes are antique brass or satin nickel. The diffuser is offered in glass and Lexan. Flush-mount models are also available. Circle No. 119

The Regh Associates Collection from Baldinger Architectural Lighting includes the Upton series, which features a wall sconce and pendant fixture with four tapers that branch out from the center (shown), and the Endicot pendant fixture, which measures 36-in. in diameter, and wall sconce. The entire collection is available in polished, satin and antique brass or polished and satin nickel finishes. Circle No. 120

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R. Jesse’s NI Series includes a table lamp, floor lamp and sconce, each with a variety of custom options. The series offers steel components polished and then plated with nickel; lacquered and sanded wood; and Pyrex diffusers. The NI-100 sconce (shown) is available in cocobola wood from South America as well as bird’s-eye maple, mahogany, bacoti and walnut with polished nickel. A custom alternative of unfilled travertine is also available. Diffusers are offered in natural Manhasset linen and natural or white Pongee silk. NI-100 measures 13 x 5 in. with a 5-in. projection and uses a 40W incandescent lamp. Circle No. 121

From Luceplan, Agaricon table lamp sports a ribbed and semi-transparent outer shell formed of high-pressure injection-molded polycarbonate and color achieved by mixing raw neutral plastic with a pre-pigmented material prior to molding. Pressing or releasing the extruded aluminum ring on the rim of the lid, which is equipped with a sensorial dimmer, adjusts the lamp’s brightness or turns it on and off. Measuring 14 in. in diameter and about 3/4-in. around the base, Agaricon is available in gray, classic green, orange or jade green and uses up to 150W incandescent lamps. Circle No. 124

Lightolier has added an integral emergency battery pack option to its BowShield series of ADA-compliant wall sconces, which sport a “bowed” piece of handcrafted glass that slips into a die-cast holder. Each style is offered in two proportions. Die-cast holders are available in either satin brass or satin nickel finishes. BowShield offers a choice of universal voltage electronic, dimmable electronic or high-power factor magnetic ballasts. Circle No. 122

Sea Gull Lighting’s Sussex Collection offers one- and three-light pendants, wall-mounted fixtures and three- and five-light chandeliers. The collection is characterized by a brushed nickel finish as well as polished rods, chains and canopies and satin white glass shades. Circle No. 123

Modernica is celebrating the anniversary of the Bubble Lamp with the release of the 50th Anniversary Edition Diamond Bubble Lamp. Designed in 1947 by George Nelson, the fixtures are fashioned from lightweight steel and translucent, synthetic material, which was originally developed during World War II to waterproof armaments. Mass production of the Bubble Lamp began in 1952 and since then, the fixtures have gained popularity in both ceiling and floor lamp versions. Circle No. 125

(Continued on page 34)
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Circle No. 67 on reader service card
Luraline’s Andorra collection consists of pendant, sconce and ceiling and linear fluorescent fixtures that combine satin-finish acrylic cowls available in four colors with satin white or satin-etched clear acrylic materials that frost when illuminated. Fixtures are accentuated with details finished in satin nickel. Custom colors and configurations are available. Andorra includes incandescent, compact fluorescent with magnetic or electronic ballasts, and T5 linear fluorescent models. Circle No. 126

From Flux, Inc., Fixture Two is a surface-mounted ceiling fixture in brushed nickel with a frosted glass diffuser. The fixture measures 5 3/4 in. wide and extends 5 3/4 in. from the ceiling. Illumination is provided by a medium-base 50W 120V incandescent lamp. Circle No. 127

Combining the warm appeal of fabric with the durability of acrylic-type shades, Knoll Textiles’ Imago may now be specified as a shade option on a wide range of sconces from Nessen Lighting. The resin-encapsulated shade fabric is offered in a choice of 30 colors and textural patterns that range from denim to tweed to linen. Imago is offered on wall sconces with rectangular or tubular shades and may also be specified as a replacement shade for existing Nessen fixtures. Material thickness ranges from 2-3 mm thick. Circle No. 128

Illuminating Experiences presents Peroni. The glass shade is available in diameters of 14 and 16 cm and heights of 30 and 40 cm, respectively. Peroni comes in clear, satined amber, satined white, frosted with clear edge, and frosted with satined sectors. Fitting is chromed metal. Circle No. 129
Engineered to be seen . . . indirectly
Con-Tech’s Symphony MiniTrack line has a 25 AMP capacity and is rated for use at 12V (300W capacity) or 24V (600W capacity). The Symphony line allows for flexibility in a variety of lighting applications, offering a variety of fixture and track lengths along with various accessories, transformers and installation accessories to customize lighting plans. Lamp choices include MR11, MR16, AR111 and T4 wedge-base xenon. Circle No. 131

Added to the Uni-Plug Series, Bruck Lighting’s Rainbow pendant can be mounted to any of the company’s eight track systems and features a combination of two glass shades. The inner shade is a frosted white cased glass and the outer is clear with a dichroic coating. When the fixture is lit, the pendant displays a fusion of dichroic colors; until, the glass assumes a liquid-mercury-like finish. Rainbow can also be ceiling-mounted via a ceiling canopy. Circle No. 133

Offering 150 new fixtures including trackheads and pendants, the Low-Voltage Mono Rail System from W.A.C. Lighting features a single-circuit, two-conductor rail that is available in 4- or 8-ft. lengths and may be specified with mounting options such as suspended and aircraft cable suspension. The rail can also be field cut for custom lengths and offers both remote and decorative surface-mount transformers. Sections can be joined to form longer electrically conducted runs or utilize electrically isolated connectors for multiple circuits on a continuous run. Mono Rail can be custom-designed with curves to negotiate challenging corners and is also hand-bendable. Circle No. 136

Remote Controlled Lighting’s spot fixtures, available from Translite Sonoma, create a new dimension in accent lighting. For the first time, unskilled personnel can redirect lighting without the use of ladders. Director DR2 (shown) is a low-voltage track-mounted spot fixture for the PAR36, AR111 and MR16 lamps. DR3 is a larger version for metal halide lamps up to 150W. Both fixtures are controlled using a simple hand-held controller incorporating RCL’s Select & Direct control protocol. DR2 has been designed for use in hotel banquetting suites, restaurants, galleries and museums, while DR3 is aimed at the retail market. Both fixtures have the ability to store positions for future use and DR3 can be programmed to sequence through these positions in a continuous loop. Director products have already been installed in hotels in London, Athens, Hong Kong and Shanghai, national museums in London, Paris and Amsterdam and restaurants, galleries and auction houses in London. Circle No. 137

Lighting Services Inc.’s 261 Series fixture, the latest in the company’s Wall Wash Series, is designed to evenly light vertical surfaces utilizing the energy-efficient MR16 bi-pin lamp (up to 71W). The sculpted design of the 261 Series Spotlight provides a visually quiet, glare-free light to enhance any interior space. The 261 Series unit features internal accessory clips for multiple accessories; a LSI 50- x 50-degree molded spreaders and aluminum kicker reflector for spreading light evenly onto the wall; a fully rotational front end for lens rotation and positive front rotation lock; and two-tone paint for control of unwanted spill light. The 261 Series Wall Wash unit is available in 120V, 120V and 240V, as well as a variety of finishes including platinum, graphite, black, white and silver. UL-, CUL- and CE-listed. Circle No. 132

Lighting Services Inc’s 261 .Series fixture, the latest and auction houses in London. Circle No. 137

national museums in London, Paris and Amsterdam and restaurants, galleries and museums, while DR3 is aimed at the retail market. Both fixtures have the ability to store positions for future use and DR3 can be programmed to sequence through these positions in a continuous loop. Director products have already been installed in hotels in London, Athens, Hong Kong and Shanghai, national museums in London, Paris and Amsterdam and restaurants, galleries and auction houses in London. Circle No. 137

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

light bite

LAMP TYPE  MR16
VOLTAGE  120, 230, 277  20-75 watts
DIMENSION  5.8" (148 mm) x 3.4" (86 mm)  UL/CUL/CE listed

Small is beautiful, and energy efficient too. The sculpted good looks of the 260 Series features a neat side-car transformer, keeping the fixture unobtrusively tight to the ceiling. A built-in cross baffle ensures a visually quiet light, with great colour rendition from the tungsten halogen MR16 lamp; all this, plus any variety of accessories, equals great effects. Size does matter.

Lighting Services Inc  The premier specialty lighting manufacturer.
Juno Lighting has introduced three new undercabinet fixtures series. The Pro Halogen Series utilizes 12V halogen lamps in one-, two- and three-lamp versions and sports a prismatic clear glass lens and housing/integral reflector system that reduces mounting surface temperatures to under 60 degrees Celsius. Mini-Halogen Series fixtures are 3-in. wide, use 120V 24W halogen lamps, which do not require a transformer, and feature an integral high/low/off rocker switch and compatibility with standard incandescent wall dimmers. The Mini-Fluorescent Series fixtures measure 1½ in. wide, and ½ high and are offered in a 12-in, 8W and 21-in.13W models. Both include an electronic ballast. All three series allow for plug-together connection. Circle No. 145

The one-piece, wedge-shaped shade ensures a broad pattern of right-angled distributed light with a sharp beam cutoff. A stem at the base of the shade allows rotatability. Edge-clamp base is standard. Air uses a 35W 12V halogen lamp and has powdercoated tubular steel arms with integral dual tempered-steel springs, pivot points covered in ABS and a base and shade formed of ABS. Matte black and gray aluminum finishes are standard. Circle No. 147

RAB Electric Mfg.'s Smart Task is a fluorescent undercabinet fixture that features an integral sensor and is available in 12-, 21-, 24-in. lengths. The sensor controls up to 250W of fluorescent light and swivels 330 degrees to aim as needed. Smart Task is available in a bright white epoxy powdercoat finish. Circle No. 139

Designed by Niels Diffrient for Humanscale, the Diffrient Light tasklight sports anodized aluminum parallel arms that maintain the reflector shade position during placement and allow light to reach 42 in. from the base. The shade is adjustable 360 degrees horizontally and 220 degrees vertically. Lightweight and cool to the touch to facilitate one-hand positioning, the Diffrient Light uses a 26W quad-tube fluorescent lamp and in-line electronic ballast and is available in single and double parallel arm models. A variety of desk and wall-mounting options are offered. Circle No. 140

Starfire Lighting, Inc.'s Tru-Lux Vanity Series brochure details in full color the features of the TS linear fixture that is designed to provide balanced illumination in a sleek architectural profile. Tru-Lux is suited for unobtrusive placement alongside or above commercial or residential vanity mirrors and features integral or remote electronic ballast, in addition to standard or custom lengths. Schematic drawings, product measurements, lamp data as well as complete ordering information are provided. Circle No. 142

Halogen 120 from Alko Lighting is an under-cabinet linear lighting system characterized by a rounded edge profile. Fixtures are equipped with aluminum spring-balanced, adjustable arms in a twin vertical design, use one 13W compact fluorescent lamp and mounted by clamp for standard and rounded surfaces, wall bracket and designer table base. Diva is compliant with the ANSI/HFES 100-1988 voluntary standard for computer workstations and is warranted for 10 years. Circle No. 146

Luxo's Calypso asymmetric tasklight features a tapered shade that conceals a 13W U-shaped compact fluorescent lamp and the company's counterbalanced, concealed-spring lightarm, which is triple-jointed and multi-adjustable. A parallel motion feature ensures that the lamphead remains horizontal to the work surface during adjustment. Calypso is available with a weighted table base or edge clamp. Louvered shade is optional. Calypso offers powdercoated tubular metal lightarms with integral springs and base and shade formed of ABS. Electronic ballast is built into the base. Circle No. 143

Luxo's Air portable adjustable asymmetric tasklight sports the company's parallel-motion, multi-adjustable, counterbalanced spring arm that is created from a cluster of exposed slender rod shapes. The Diva from Waldmann Lighting sports an adjustable lamphead with a ribbed design made from anodized aluminum and parabolic louvers to reduce glare. Fixtures are equipped with aluminum spring-balanced, adjustable arms in a twin vertical design, use one 13W compact fluorescent lamp and mount by clamp for standard and rounded surfaces, wall bracket and designer table base. Diva is compliant with the ANSI/HFES 100-1988 voluntary standard for computer workstations and is warranted for 10 years. Circle No. 146

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Halogen 120 from Alko Lighting is an under-cabinet linear lighting system characterized by a rounded edge profile. Fixtures are equipped with aluminum spring-balanced, adjustable arms in a twin vertical design, use one 13W compact fluorescent lamp and mounted by clamp for standard and rounded surfaces, wall bracket and designer table base. Diva is compliant with the ANSI/HFES 100-1988 voluntary standard for computer workstations and is warranted for 10 years. Circle No. 146

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The sensor controls up to 250W of fluorescent light and swivels 330 degrees to aim as needed. Smart Task is available in a bright white epoxy powdercoat finish. Circle No. 139

From Delaney Industries, the Envirolux Picture Light is an LED-based tasklight available in 3-, 6- and 12-in. head sizes. The 12-in. fixture operates at 2W and puts out approximately 50 lumens. Constructed of white LEDs in a brushed aluminum frame, the Envirolux Picture Light is offered with a base that can be attached with screws or in a clip-on version. Fixtures are powered by an AC to DC plug-in transformer. Battery operation may be specified. Circle No. 141

Starfire Lighting, Inc.'s Tru-Lux Vanity Series brochure details in full color the features of the TS linear fixture that is designed to provide balanced illumination in a sleek architectural profile. Tru-Lux is suited for unobtrusive placement alongside or above commercial or residential vanity mirrors and features integral or remote electronic ballast, in addition to standard or custom lengths. Schematic drawings, product measurements, lamp data as well as complete ordering information are provided. Circle No. 142

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Great lighting starts with innovative products, visionary people and a drive for excellence. The successful chemistry of any lighting application is the integration of these elements in a way that delivers the magic and impact of light. Dedicated to this philosophy for over 99 years, Lightolier remains committed to lighting that makes a difference, for people and business.

Prescolite’s TriLume offers downlight reflectors that provide three distinct levels of brightness. Reflector finishes for Prescolite’s Virtual Source reflector optics include American Matte, a patent-pending process that creates a softly diffused textured finish without sacrificing efficiency and hides fingerprints, dirt and minor scratches; Specular clear Alzak for mid-range levels of brightness; and Gemian import Euro Spec, which provides the lowest brightness level and features a vacuum-metalized reflector that provides a 55-degree cutoff. Circle No. 148

From Eclipse Lighting, Oculux series recessed fixtures are characterized by a patent-pending reflector system designed for use with Philips’ 165W QL induction lamp. The reflector is formed of aluminum and multi-segmented, and the 18-x-13\(\frac{1}{2}\)-x-9-in.-high aluminum housing features an integral high-frequency electronic control, junction box, hanger bars and black finish pan for flush recessed mounting in most ceiling types. UL-listed for through-wiring and damp location. Circle No. 150

Juno Lighting’s 4-in. PAR IC1 downlight measures 6 x 6 x 6 in., allowing installation in tight plenum spaces such as in soffits and near eaves. The housing design is Air-Loc-rated without requiring the use of supplemental gasketing. The rating complies with energy efficiency requirements, which do not allow conditioned air to escape a recessed fixture and unconditioned air in the attic to enter through it. An internal heat shield allows IC1 to operate 50W R20 and 50W PAR20 lamps without a socket extender. Trim ring has a beveled edge and matches the design of Juno’s Universal and Aculux recessed downlights. Circle No. 155

Con-Tech’s Varia Series of concealed adjustable fixtures can be used with any combination of the company’s 3-in. trim offerings. The housings are available in two- through five-lamp models and are suited for highlighting many environments. Circle No. 154

Lightolier’s Caleulite Matrix square- and rectangular-aperture downlights are designed around compact fluorescent lamps and include the 4\(\frac{1}{2}\)-in.-square fixture, which offers a small aperture and uses one 26W or 32W triple-tube lamp. The 4\(\frac{1}{2}\)-x-9-in. rectangular downlight uses a 26W quad-tube or 32W, 42W or 57W triple-tube lamp. The 9-in. square models accept two 26W quad-tube or 32W or 42W triple-tube lamps. Standard open reflector trims control glare with 55-degree visual and 35-degree vertical rotation. Self-locking mechanism is optional. Reflector is computer-enhanced, vacuum-metalized, 99.9-percent pure aluminum with a proprietary Scratch Resist coating. Outer aperture ring is anodized cast aluminum with a white baked enamel finish. Steel mounting brackets connect the reflector to a finned aluminum heat dissipater. CCT ARC accepts HID, halogen and incandescent lamps. Electronic ballasts may be specified. C/UL-listed. Circle No. 152

CCT ARC rotateable recessed downlights from Targetti North America mount flush against ceiling surfaces for visual unobtrusiveness and feature an arcled lamp orientation that enables the lamphead to be adjustable and aimable through 359-degree horizontal and 35-degree vertical rotation. Self-locking mechanism is optional. Reflector is computer-enhanced, vacuum-metalized, 99.9-percent pure aluminum with a proprietary Scratch Resist coating. Outer aperture ring is anodized cast aluminum with a white baked enamel finish. Steel mounting brackets connect the reflector to a finned aluminum heat dissipater. CCT ARC accepts HID, halogen and incandescent lamps. Electronic ballasts may be specified. C/UL-listed. Circle No. 149

From Focal Point, Skydoine can be mounted in grid or drywall ceilings and is offered in 2-, 3- and 4-ft.-diameter models. Housing is one-piece, die-formed 20-gauge cold-rolled steel, forming 8\(\frac{1}{2}\)-in.-deep, 2-x-2-, 3-x-3- and 4-x-4-ft. recessed fixtures. White acrylic concave lens is retained in precision-spun, one-piece steel doorframe and secured to the housing via torsion springs. Convex or flat white acrylic lens is available. Housing and steel components are finished in polyester powdercoat applied over a five-stage pretreatment. High-reflectance white finish is standard. Lamping options include biax and T8 fluorescent lamps. Circle No. 153

VM-12(X) produces miniaturized lampheads with 3000K, 3300K and 4100K. Lamps are available in 12W, two 57W or a combination of both PL lamps. Lamps are available in 3000K, 3500K and 4000K. VM-1200 produces minimal glare and iridescence, measures 12 in. in diameter and features a vacuum-metalized reflector that provides a 55-degree cutoff. Circle No. 148

The housings are available in two- through five-lamp models and are suited for highlighting many environments. Circle No. 154

(Continued on page 42)
The Emperor has no clothes!

MS: Ruth Ellen, this is your article. Why focus on industry issues rather than your products? Is this good marketing?
REM: Absolutely! These issues are hurting our industry. They are driving sales overseas. They are costing architects and designers money. Most of all, they are wiping out your profit margins. If you understand the issues, you'll be able to succeed in today's market. If you don't, then, "Say goodnight, Gracie."

MS: How is it new?
REM: Going to Lightfair? Take a close look at what is shown. Look at your ability to control things like aim and focus and intensity. Can it compare to NoUVIR's adjustable zoom 5" to 50" beams? How much of the lighting that you reject is scatter spill or Near and Improved. All of the energy is in the beam. There is no scatter, zero! You control the light. A lot of people are talking green. How much greener can you get than a reduction in light bulbs? That's what NoUVIR can give you. One major museum in the southwest replaced 700 framing projectors with 40 NoUVIR fiber optic systems. They doubled the light levels on their exhibits, and took out 600 light bulbs! When you factor in their savings in the heat their air conditioning doesn't have to remove from the gallery, they saved over 300,000 watts in that one gallery alone. That's new. That's green.

MS: But everyone at Lightfair is claiming new.
REM: That's industry, how about designers?
MS: So what can people do?
REM: A good many of them go out of business. When you try to compete purely on price, even if you win, you end up losing. Take a look at lighting industry stats. Every year imports, particularly Asian imports, are taking a bigger chunk of the market. Eventually even the imports are going to price themselves out of a profitable position. They will be selling in that kind of units and making nothing. You can't win selling the same old stuff. There is always someone willing to sell a little less, just a little cheaper.

MS: That's industry, how about designers?
REM: It works exactly the same way with architects and designers. If you are hawking the same old stuff, you'll forever be in a war with everybody else for smaller and smaller profits. That's a bad business plan. Almost anybody can design with track-lights or Chinese fluorescent. You just bolt it down and go. They'll give you a "how to" book at Home Depot. How can you sell a design that your customer has seen a thousand times or sell lighting hardware from a discount store?

MS: So what is a lighting designer supposed to do?
REM: You need an edge. You need to be able to do something others cannot do, something that takes you out of the crowd. Today fiber optic lighting is that edge. This is new technology. Light without any heat. Light without any UV. Perfect spectrum, perfect color balance, pure-white, stone-cold, perfectly controlled lighting that you can put anywhere and build into almost anything. You can do things with NoUVIR fiber optic lighting that no one has been able to do before. This is new, different, marketable.

MS: What is hurt ing lighting sales?
REM: Age! The truth is that most lighting technology is ancient. Incandescent light bulbs are more than a hundred years old. Fluorescents started in the 30's. They used arc lamps at World's Fairs way back in the 1800's. Sure we've made things a little more efficient, a little smaller, a little cheaper, but we've made things a little more efficient, a little smaller... that's it. The Emperor has no clothes. Today, LEDS are where fiber optics was before NoUVIR. They are great for effects but limited for practical lighting. Color temperature and color rendition is lousy. They advertise 100,000 hour life, but the latest research from people like RPI shows that they lose 40% or more of their intensity in the first 4000 hours. They are tri-stimulus sources, like fluorescents, so there are a lot of missing colors and the color changes as they age, just like HID sources. But keep watching. In ten years, they may have these things fixed. They may end up as practical and cost effective as NoUVIR fiber optics. They may not. I know they are not there yet.

MS: Do you suggest abandoning conventional lighting?
REM: Absolutely not! Parking garages and department stores are always going to use cheap fluorescents or HID sources. The low end will always be there. For those applications, you'll have to use those kinds of lights. The base of the pyramid rests on conventional lighting. It always will. What I am suggesting is a way out of the rat race at the base, a way to move up into truly new and exciting lighting, a business strategy to work quality lighting design with unique products. Most people won't make the effort. They are comfortable in the herd. Get out in front! Take the initiative and become a design leader? The future is here. Grab it. Control your lighting and your market. Discover the wonderful possibilities of NoUVIR! Help us change the world! Change yours!

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Advertisement

The Emperor has no clothes!

In a third annual "Lightfair" interview Ruth Ellen Miller, a Magna Cum Laude business graduate with a college teaching credential in Art and Design not only tells us what is going wrong in the lighting market today, but how new technology holds the key to success in today's market. Ruth Ellen is President and co-founder of NoUVIR Research, Delaware Business Person of the year 2000, and has been featured on PBS television and in college textbooks as an expert on proprietary technology. Ruth Ellen also teaches, lectures and is a published author on lighting design and theory.

Matthew Scott

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Test Question -

What's the best way to light... These world renowned ruby slippers?

This very famous ship's telegraph? (Underwater)

These handformed Tiffany vases?

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Circle No. 24 on reader service card
Indoor Architectural Lighting

Prescolite’s Virtual Baffle features a 360-degree rotatable trim design for easy jobsite alignment of the cross baffles. The 6-in. model uses one horizontally mounted 42W max. triple-tube or two quad-tube (26W total) compact fluorescent lamps. The 8-in. version accepts one or two triple-tube lamps up to 42W each; two 13W twin-tube lamps; or two quad-tube lamps up to 26W each. Virtual Baffle fixtures sport a one-piece, 18-gauge corrosion-resistant steel housing platform, universal adjustable mounting brackets and a retention mechanism to ensure a tight ceiling fit. Specular clear Alzak finish is standard. B24 bar hangers are available for T-bar ceilings. UL-listed. Circle No. 156

From CSL, the 2800 Adjustable Wallwash/Downlight trim is adjustable 130 degrees and available in white, black and brushed nickel. Circle No. 157

From Lithonia Lighting, the new Commercial Downlighting product line offers fixtures in 8-, 6-, 5- and 4-in. apertures. Lamping options include compact fluorescent, incandescent, low-voltage and HID sources. Circle No. 158

Prescolite’s Litebox 6- and 8-in. recessed downlights and trims for 45-degree sloped ceilings provide direct downward illumination and are suited for use in contract and residential applications that have angled, dormered or cathedral ceilings, as well as other architectural high-ceilinged spaces, such as building lobbies, restaurants and hospitality and entertainment venues. Housings are available in IC-rated new construction, IC-rated remodel or non-IC-rated remodel housing configurations. The 6-in. housing features black and white finish baffle trim options and the 8-in. housing features back and white finish baffles, as well as clear and gold Alzak reflectors. The smaller housing fits ceilings with slopes of 9 to 45 degrees, with pitch angles of 0/12 to 12/12 and accommodates PAR30L or BR30 incandescent lamps up to 85W. The larger housing is designed for ceilings with slopes of 9 to 45 degrees, pitch angles of 2/12 to 12/12 and accommodates PAR38 or BR40 lamps up to 250W. Circle No. 159

Illuminating Experiences presents Coupé from DeMajo Murano, a company known for its collection of handmade, individually signed pure crystal. This 12V trim kit for recessed lighting is available with or without a transformer. Coupé accepts a 50W GU 5.3 lamp. Diameter is 4¼ in. Exposed height is 2½ in. Colors are amber, white or clear glass. Circle No. 160
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Featuring acrylic glass screens housed in steel and aluminum fixtures, Orgatech's Lightguide Collection provides near-perfect 90/10 luminosity with T5 or T5/HO fluorescent lamps. Fixtures have a steel wire suspension with adjustable Y grippers, connecting leads and an integral electronic ballast. Dimming and presence-detection ballasts are also available. Lightguide includes Lightwing with curved 2 x 12.374-in. panels and Lightplane (shown), which measures 2 x 12.875 in. Both control and deflect lateral light downward. The 1.625-in.-high Prisma is available with colored decorative elements and Lightstar sports blue or white LEDs that are mounted in twin laminated clear-tempered glass panels. Circle No. 161

Zumtobel Staff Lighting's ML (Mellow Light) series of recessed and surface-mounted fluorescent luminaires features the patent-pending Light Chamber, which provides uniform brightness, translucence and visual depth; the proprietary rectangular Micro Grid Diffuser and optional inlays are available in yellow, blue and green. Recessed models are available in 2x2, 1x4, 2x4 configurations and for lay-in, slot-grid, gypsum board and Armstrong Optima Vector ceilings. Surface-mount versions are offered in a 1x4 configuration and for continuous-row runs. ML accepts 40W, 50W, 80W T5/T6, 28W T5 and 24W and 54W T5/HO fluorescent lamps. Circle No. 164

Forms-surfaces' Contour direct series fixtures are formed of Aero corrugated aluminum that is flexible and formable. Fixtures are available in 4- and 8-ft. linear lengths and can be suspended individually, or linked together in rows or configured in clusters or patterns via various angled connectors. Anodized finish in matte silver is standard. A variety of colors is also available. The fixture uses T5, T5/HO or T8 lamps. Circle No. 166

From Lam Lighting Systems, Zenith AA wall- and ceiling-mounted asymmetric lighting fixtures provide indirect light at right angles. Affixed to mounting brackets, the housing is field-adjustable and lockable into position. Fixtures feature a computer-enhanced, brightly polished asymmetrical metal reflector system. Lamping includes metal halide, T8, T5 and compact fluorescent sources. A clear, tempered glass lens shields against glare. Shrouds are also available. Zenith AA may be specified in clusters of two, three or four for large installations. Construction is extruded aluminum. Circle No. 168

Paraplus recessed direct/indirect fixtures from Lightoiler are available in 2x4, 2x2 and 1x4 sizes with multiple lamp options ranging from linear T8 and T5 lamps to twin-tube T5 lamps in the 2x2 model. The ML accepts 40W, 50W, 80W T5/T6, 28W T5 and 24W and 54W T5/HO fluorescent lamps. Circle No. 164

Paraplus recessed direct/indirect fixtures from FC Lighting's Spyke, a die-cast aluminum exterior/interior wall sconce, may be specified in direct, indirect or direct/indirect versions with aperture hardware allowing on-site light-throw pattern adjustments of up to 120 degrees. Measuring 5'/4 in. wide, 6'/4 in. high and 4 in. in diameter, Spyke uses quartz T4 and metal halide G12 lamps in wattages ranging from 50W to 175W. Finish is black or white powdercoat. Custom colors are available. Circle No. 169

Partnering with Regent of Basel, Switzerland, Énergie now offers the Level family of direct/indirect fixtures, which feature a patented Micro Downlight Technology (MDT) that controls the brightness and glare of fluorescent lamps. The MDT downlight component consists of a series of miniature downlights, which are actually numerous parabolic-shaped holes. Available in 4-, 8- or 12-ft. lengths, Level can be used as a stand-alone linear pendant or connected to form linear runs. Construction is extruded aluminum. Circle No. 162

The Sky Oculus series of recessed, surface and suspended round luminaries from Prudential Lighting provides designers with clean, organic forms combined with modern lamp technologies. The P-3900 fixture (shown) is offered in 2-, 3- and 4-ft. diameters available in surface or suspended mountings (shown). The one-piece, spun-steel housing gives a broad palette of applications and possibilities. Circle No. 163

Vista Lighting's Questra linear wall sconce features an ellipsoidal acrylic direct/indirect diffuser positioned at the leading edge of elongated chevron end brackets. The diffuser pivots through a 210-degree arc. The housing acts as a wiring chamber to facilitate mounting via standard BX or Romex connectors without need for an outlet box. Available in 28'/4-, 40- and 51'/4-in. lengths, Questra uses one narrow-gauge bi-pin 24W-54W T5 fluorescent lamp. Extruded aluminum body has removable white opal acrylic diffuser. Aluminum end brackets are finished in brushed aluminum, CUL-listed. Circle No. 167

From Lam Lighting Systems, Zenith AA wall- and ceiling-mounted asymmetric lighting fixtures provide indirect light at right angles. Affixed to mounting brackets, the housing is field-adjustable and lockable into position. Fixtures feature a computer-enhanced, brightly polished asymmetrical metal reflector system. Lamping includes metal halide, T8, T5 and compact fluorescent sources. A clear, tempered glass lens shields against glare. Shrouds are also available. Zenith AA may be specified in clusters of two, three or four for large installations. Construction is extruded aluminum. Circle No. 168
Elliptical's Gondolier modular display lighting system is equipped with an asymmetric reflector that projects light from the top of a gondola to the bottom from a height of 7 ft. or more and with minimal shadowing of lower shelves. The modules hook onto the gondola uprights. Other features include integral electronic ballasts; a choice of cord and plug or through-wiring for an entire row; locked aiming; and optional snap-on lens. The system uses T5 lamps and offers a variety of lengths. Circle No. 170

Lightolier's EY-EQ direct/indirect or direct series offers a linear prismatic lens in place of a louver. Suitable for schools, offices and retail stores, the EY-EQ Lens is available in 4- and 8-ft. lengths with a direct/indirect ratio of 45-percent downlight and 55-percent uplight when using the optional top lens. EY-EQ can be suspended via stems or cables or surface-mounted. Lens hinges from either side of the luminaire. EY-EQ uses T8 lamps and electronic ballasts. Housing is 20-gauge steel. Circle No. 171

(Continued on page 47)
ECHO'S ADJUSTABLE LUMINAires REFLECT AN EVEN LEVEL OF LIGHT OVER CEILINGS, WALLS, AND WORK PLANES. ITS OPTICAL SYSTEMS INCORPORATE THE LATEST ENERGY-EFFICIENT LAMP TECHNOLOGY. ECHO - A BRIGHT IDEA FOR AIRPORTS AND ATRIUMS, LOBBIES AND LIBRARIES.

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Designed for T5/H0 and T8 lamps, Super Cove from Prudential features a three-piece optical system. A formed 95-percent reflective specular aluminum reflector throws light at low angles. Galvanized steel bottom reflector directs and diffuses light on the ceiling to eliminate striations. White backlight reflector fills the cove cavity with light. Super Cove is available in 2-, 3-, 4-, 6- and 8-ft. lengths. Housing and endplates are die-formed, 20-gauge steel. T8 fixtures have instant-start electronic ballasts and T5/H0 fixtures have programmed-start electronic ballasts. Circle No. 174

Lithonia Lighting's Avante line includes 2-x-2- and 2-x-4-ft. side-mount diffuser units and surface/suspended fixtures available in 1x2 and 1x4 sizes. Both accept compact fluorescent, T8, T5 and T5/H0 lamps. Reflectors are finished in high-reflective matte white paint or stepped aluminum. Side-mount units may be mounted end-to-end and sport injection-molded plastic light traps that secure the diffuser to facilitate lamp access and prevent light leakage. Surface/suspended models offer cable-suspended and stem- and surface-mounting options. Field-joinable 2-, 4- and 8-ft. units allow continuous-row mounting. Circle No. 175

Lytespread Alpha from Lightolier uses two 28W or 54W T5 lamps with electronic ballasts and is available in 4-, 8- and 12-ft. lengths. A patent-pending reflector design allows the T5 lamp to emit the majority of the light at 107 degrees, creating a ceiling uniformity that meets or exceeds the IES RP-1 preferred criteria for office lighting. Suspended on aircraft cables, fixtures can be mounted 24 in. from the ceiling on 18-ft. centers and obtain less than a 5:1 ceiling brightness ratio while maintaining 55 fc. Dimming ballasts and emergency battery packs are available. Circle No. 176

Litecontrol's Inde-Pendants series consists of four direct/indirect fixture styles—Scion, Nexus, Echelon and Mantra—in two sizes. Ranging from 32 to 39 in. in diameter, large fixtures offer a choice of three- or six-lamp designs that use 39W, 40W, 55W or 55W twin-tube compact fluorescent lamps to provide indirect illumination. Junior-size fixtures vary from 23 to 29 in. in diameter and accept four 26W, 32W or 42W triple-tube compact fluorescent lamps. For downlighting, large models use one 21W or 38W 2D lamp; smaller fixtures use one 21W 2D lamp. Large fixtures suspend via a combination of a stem and three- or four-part aircraft cable assembly. Smaller fixtures also offer a single-stem mounting system. Circle No. 177
Cypher from Architectural Area Lighting features reflector/refractor optics that provide smooth, even illumination for floodlighting and indirect lighting applications. The design allows the Cypher to be mounted in any orientation to address various lighting tasks for interior and exterior applications. Circle No. 178

The McGraw-Edison brand of Cooper Lighting announces the Generation CVL Series of outdoor architectural cutoff post-top luminaires, which offers low glare, minimal uplight and high efficiency. Part of the Generation Series, the decorative post-top line combines exceptional cutoff photometric performance, modular fixture design flexibility and maintenance ease for residential communities, office complexes, downtown streetscapes, roadways, outdoor retail applications, city parks and school campuses that demand dark-sky benefits and light control. The Generation Series CVL Optical System utilizes a vertical lamp position located in the top of the luminaire to prevent any direct glare to pedestrians or motorists. The modular design offers three different base/housings, four banding/cage types, four tops and four different finials. The cast-aluminum housing is available with up to 250W metal halide and HPS or 85W QL electrodeless fluorescent systems. Circle No. 180

Metro, developed by Belgian manufacturer Multiline and offered by Energie, features watertight gasketing, stainless-steel screws with stainless-steel inserts and an eight-phase aluminum finish process. This shallow ingrade uplight is available with a round, square or triangular trim and is available in symmetric or asymmetric distributions. Metro may be specified with a cast-aluminum recessed housing for concrete or drive-over applications. Circle No. 179

The Farino floodlight from HessAmerica features a flanged cast aluminum housing with six different optical systems designed around ceramic metal halide sources for precise control. The fixture is available in three rectangular (80-degree horizontal x 10-degree vertical, 80-degree horizontal x 20-degree vertical, 80-degree horizontal x 35-degree vertical) and three spot (10-, 20-, 35-degree) distributions. Multiple shielding, control and color filter accessories complement this new offering. Circle No. 183

The SignMaster SL-17 Series luminaires from Metrolux Lighting have a computer-enhanced reflector design that reduces light pollution while delivering more light more evenly to overhead and roadside directional signs and outdoor advertisements along city streets, rural highways intersections and rest stops. The luminaires are characterized by a contemporary wedge-shaped design. Each unit contains a curved, horizontally faceted, sectional metal reflector system, which permits the light beam to be concentrated on the message and yield optimum lighting distribution across a range of sign sizes, shapes and outdoor environmental conditions. Circle No. 182

From Lithonia Lighting, the Gateway Series has added four new outdoor architectural fixtures that feature new grille patterns and offer a choice of round or oval face styles. Fixtures can be ceiling- or wall-mounted and positioned in a vertical or horizontal orientation. The low-profile round VGR and oval VGO (shown) use compact fluorescent lamps and most models are ADA-compliant. The deep housing VGR-C and VGO-C use higher-wattage multi-lamp compact fluorescent and HID lamps. Housings are marine-grade, die-cast aluminum finished in polyester powdercoat. Lenses are injection-molded polycarbonate. Tamper-resistant, IP65-rated enclosures are warranted for life against breakage. Circle No. 186

Design ACT-16 Acorn post-top luminaires from Quality Lighting are equipped with an internal spectrum metal reflector system and a rotationally molded, UV-stabilized polycarbonate globe, which diffuses light. Sharp cutoff and rotatable anti-light trespass are optional. The fixture uses a vertically oriented HPS or metal halide lamp in a range of wattages and standard or high-power ballasts with single or double fusing for application versatility. Housing is formed of durable, lightweight aluminum; ballast housing is spun aluminum. Finish is electrostatically applied textured polyester powdercoated. Paint finishes meet or exceed ASTM requirements for a 1,000-hour salt-spray test. Circle No. 184

Rood Lighting's DU Series is an easy-to-install sealed well light. This in-ground fixture is suited for lighting shrubbery, trees or architectural accents in residential, commercial or institutional settings. Accessories for the watertight housing include an external glare shield and external linear grate, which both control glare. The grate also protects the lens from falling objects. Louvers and color filters also are available. The DU Series is available in line or low voltage. Lamp selection includes halogen (MR16 and PAR36) and HID (metal halide, HPS and MH-PAR) sources through 75W. Circle No. 181

The Farino floodlight from HessAmerica features a flanged cast aluminum housing with six different optical systems designed around ceramic metal halide sources for precise control. The fixture is available in three rectangular (80-degree horizontal x 10-degree vertical, 80-degree horizontal x 20-degree vertical, 80-degree horizontal x 35-degree vertical) and three spot (10-, 20-, 35-degree) distributions. Multiple shielding, control and color filter accessories complement this new offering. Circle No. 183

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Lumux introduces its wall-mounted fixtures with fully shielded light sources for up/down dual lighting in indoor or outdoor applications. Construction is low-copper, die-cast aluminum with a corrosion-resistant polyester powdercoat finish. Fixtures are equipped with a tempered glass diffuser and vandal-resistant stainless-steel screws and accept a variety of lamps, including 150W HID sources. Fixtures may be specified in any RAL color. Suitable for wet locations. Circle No. 185
Sonne from Selux is a solar outdoor lighting fixture that combines architectural design and advanced solar technology. Sonne offers complete unit installation, maintenance-free material for luminaires, panel and battery controller enclosure, compact fluorescent lamp up to 42W, Smart Controller, environmentally friendly sealed gel batteries, galvanized steel and recycled ABS materials. Circle No. 187

The 75000BOL Fairfax Lane Bollard from Hinkley Architectural features a mounting base constructed of corrosion-resistant, cast-aluminum alloy and an extruded aluminum bollard shaft with a 6-in. diameter and .125-in. wall thickness. The top is cast aluminum. The fixture is offered with galvanized steel anchor bolts with nuts and washers, stainless-steel fasteners available with a tamper-resistance effect and a 4KV pulse-rated medium-base socket. Model 75000BOL uses up to 100W metal halide, mercury vapor, HPS and incandescent lamps. A compact fluorescent version with an HPS ballast and socket is also available up to 42W. Optic options include a Type-V cone reflector, glass and louvered refractors and a 180-degree house-side shield. Various finishes are available. Circle No. 189

Hado has expanded its recessed Steplyte family to include a performance LED light source. These fixtures utilize the high-output 1W Luxeon white LED and, depending upon the lumens required, are available in either a 3W or 5W series, with integral reflector and transformer included. Fixtures are available with louver, mini-screen louver, translucent lens or bubble lens and are constructed of marine-grade, die-cast aluminum alloy. Circle No. 190

Holophane's Bern Series fixtures consist of a bell-shaped reflector and a choice of nine prismatic glass reflectors. Fixtures are available with a choice of IES Type-III/4-way, III (asymmetric), IV (asymmetric) or V (symmetric) photometric light distributions. Lamping options include HPS, metal halide and mercury vapor sources in wattages of 35W-175W. The Bern Series is offered with Holophane's line of GlasWerks decorative posts, arms and brackets. Units can also be wall-mounted. Brochure available. Circle No. 188

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2003 Market Issue
With Pivot from Architectural Area Lighting, lighting designers can 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. 191

ExcelLine's Geo Flood Compact Fluorescent Series floodlights sport a die-cast aluminum housing, flat clear tempered glass lens and formed and polished and/or segment-ed specular aluminum reflectors. Fixtures feature lockable, five-degree incremental aiming adjustment, use triple-tube compact fluorescent sources in configurations ranging from two 26W to three 42W lamps and are available with accent, cutoff, facade, horizontal and vertical optical systems. Exterior components are painted with Duraplex II polyester powdercoating. Fixtures are offered in six designer finishes. C/UL-listed. Circle No. 192

NiteBrite outdoor HID lighting from Day-Brite Lighting introduces the Economic Outdoor Series of low-wattage, outdoor fixtures. Included are the NFL mini flood, which uses 70W, 100W and 150W HPS lamps, and the NFM floodlight, which accepts 70W, 100W and 175W metal halide lamps. The NFQ quartz flood (shown) is available with 500W and 1500W quartz lamps and the NWP wall pack is offered in 50W and 70W HPS versions. The NWL wall light accepts 70W and 100W HPS lamps and the NCL canopy light accepts 50W and 70W HPS lamps. The NPL PAR lampholders accommodate up to two 150W PAR38 lamps. Circle No. 194

From Hinkley Architectural, the 75008 BOL Direct Burial Bollard sports a bollard shaft made of extruded aluminum with a .125-in. wall thickness and topped with cast-aluminum. Stainless-steel fasteners are used throughout the fixture and available with a tamper-resistance effect. The bollard is offered with a 4KV pulse-rated medium-base socket and accommodates up to 100W metal halide, mercury vapor, HPS and incandescent lamps. A compact fluorescent model with a HPF ballast and socket is available up to 42W. Optic options include a Type-V glass refractor and a 180-degree house-side shield. Various finishes are available. Circle No. 197

Louis Poulsen Lighting's family of Inground/Accent products is comprised of buried uplights, namely Pharo, Nimbus and WeeBee. By adding the Dome, Pharo can be changed into a 360-degree pathlight or 180-degree pathlight and wall-wash combination. Nimbus and WeeBee are also available as marker lights, Tripos and Tripos mini, or as recessed wall lights, along with Dex, a rectangular steplight. For accenting purposes, the surface-mounted WeeBee Spot completes the product range. Lamping options include low-wattage ceramic metal halide, compact fluorescent, low-voltage halogen as well as LEDs, which are available in white, blue, green, red and amber. Inground/Accent Products are suitable for illuminating a wide variety of architectural and landscape projects, including building facades, columns, canopies, statues and foliage. Circle No. 198
The Treva bollard from HessAmerica is a geometrically styled bollard for low-level pathway lighting and accenting. The heavy-wall, cast-aluminum bollard is constructed for rugged durability. All exposed hardware is stainless steel. Three optical configurations are available to meet a variety of lighting design applications. All models have three low-level apertures for general pathway lighting, while an optional fixed uplight or a field-adjustable upper-level aperture (shown) can be specified for accenting. Treva uses 39W ceramic metal halide PAR30 lamps. Circle No. 199

Kichler Landscape Lighting’s Model 1535CO is an adjustable pathlight equipped with a copper shade and stem that will develop a natural patina over time. The adjustable top shade allows for flexibility of the light beam spread. The fixture includes a 24.4W lamp and 8-in. non-corrosive stake. Circle No. 200

Lithonia Lighting’s Aeris line of low-profile, architectural area and roadway fixtures has expanded to include a wall-mount option that is available in two sizes. The smaller size is suitable for pedestrian areas and the larger version is appropriate for open parking areas, entry drives and roadways. The Aeris wall-mount can be oriented lens-down or lens-up for indirect lighting. The entire Aeris series features anodized segmentable and rotatable in 90-degree increments and offer a range of distribution patterns. Lamping options include HPS, metal halide and compact fluorescent sources in various wattages. Circle No. 201

Paradigm PDM-24 pole-mounted outdoor area and roadway lighting fixtures from Quality Lighting feature curved lightheads punctuated on three sides with Edge-Glo accent windows available in a range of lens colors. Mounting arms can be specified to accommodate single-, dual-, triple- or quad-luminaire heads. Paradigm PDM-24 sports a proprietary computer-designed, segmented, multi-surface optical system for lamps up to 400W and offers a choice of six distribution patterns. Die-cast aluminum housing is finished with an electrostatically applied polyester powdercoat. C/UL-listed for wet locations. Circle No. 202

For more information, call Sentry Electric Corp. at 516.379.4660, or visit us at www.sentrylighting.com.

Sentry Electric Corp.
185 Buffalo Avenue
Freeport, New York, 11520
telephone: 516.379.4660
fax: 516.378.0624
www.sentrylighting.com
Visit us at Lightfair 2003, booth 946
IllumaTech Dimmers/Fan Speed Controls from Leviton’s Lighting Control Division combine traditional rotary dimming with Leviton’s Decora design. Dimmers are available in illuminated and non-illuminated models; fan speed controls are available in single-pole, single-rotary dial and duplex-rotary dial models. Illuminated models feature a green LED that serves as a device locator in darkened areas. Duplex rotary dial models control both a fan and light source in a single compact device. The dimmers offer push-on/off switching for both single-pole and three-way installations when used with a three-way switch. IllumaTech Dimmers/Fan Speed Controls are compatible with screwless and standard Decora wallplates, feature a built-in radio/TV interference filter and are suitable for multi-gang installations in residential and commercial installations or any area where ceiling fan noise is undesirable. Available colors are white, ivory and almond. Circle No. 204

Osram Sylvania’s new Pentron Eco and Pentron HO Eco low-mercury fluorescent lamps have passed the EPA’s TCLP test and are a more energy-efficient choice than standard electronic T8 systems. Pentron Eco and Pentron HO HO Eco are available in nominal 2-, 3-, 4- and 5-ft. lengths and may all be operated on the same Quicktronic PS and Quicktronic PHO electronic ballasts as the Pentron TS. When used in luminaires specifically designed for them, Pentron Eco Systems can produce between 5-20 percent more light than T8 systems while reducing the impact on the environment. Circle No. 206

Advance Transformer’s Optanium energy-efficient electronic ballasts for T8 lighting systems are available in a standard light output design with a .80 ballast factor and a low-watt design with a .78 ballast factor. Ballasts are instant-start, high-efficiency designs that substantially reduce ballast wattage losses compared with standard-efficiency units, helping users lower operating energy costs significantly. The low-profile housing has a contoured shape to follow the natural curve of the arc between the electrodes. The ballasts feature higher lumens per watt, superior uniformity, longer lamp life, reduced thermal losses and greater energy savings as well as faster warm-up and restrike over standard probe-start metal halide lamps. PulseStrike metal halide lamps are rated for both open and enclosed fixtures and are available in medium base 70W, 100W and 150W and mogul base 250W, 320W, 350W and 400W in clear and coated finishes. Circle No. 208

All of GE Lighting’s 2-, 3- and 4-ft. T8 linear fluorescent lamps are now Ecolux products. Ecolux lamps exceed the Toxic Characteristic Leaching Procedure (TCLP) standards set by the Environmental Protection Agency. The TCLP test is a landfill disposal test that determines whether used fluorescent lamps are to be managed as standard waste or hazardous waste upon disposal. Lamps that pass the TCLP testing requirement are considered non-hazardous waste, per federal regulations. Circle No. 203

Universal Lighting Technologies offers three new product lines highlighting the Triad brand High Efficiency and AccuStart ballasts. When paired with energy-saving T8 lamps, Universal’s High Efficiency ballasts cost up to 40-percent less to operate than T12 energy-saving systems and up to 6-percent less than standard electronic T8 systems. AccuStart electronic ballasts incorporate Programmed Rapid Start technology and is ideal for frequently switched and short-cycle applications, including classrooms, restrooms and occupancy-sensor applications. The new literature provides specification information, catalog numbers, wiring diagrams and appropriate lamp applications. Circle No. 205

Universal Lighting Technologies’ Uni-Form pulse-start series now includes a 125W metal halide mogul-based lamp for enclosed rated luminaires. Developed for retrofit applications, the 125W Uni-Form pulse-start lamp is an alternative to the 175W universal metal halide lamp and provides 12,000 initial lumens, 8,400 mean/design lumens and a color temperature of 4000K. Compared to a traditional 175W pulse-start metal halide lamp, the 125W lamp offers more mean lumens over life and provides 50-percent longer life at 15,000 hours. CRI is 65. Circle No. 207

Ushio America’s PulseStrike metal halide lamps feature a formed-body arc tube in which the quartz glass is contoured to follow the natural curve of the arc between the electrodes. The design allows for the use of a higher fill gas pressure in the arc chamber and reduces the damage to the electrodes caused by starting. The lamps feature higher lumens per watt, superior uniformity, longer lamp life, reduced thermal losses and greater energy savings as well as faster warm-up and restrike over standard probe-start metal halide lamps. PulseStrike metal halide lamps are rated for both open and enclosed fixtures and are available in medium base 70W, 100W and 150W and mogul base 250W, 320W, 350W and 400W in clear and coated finishes. Circle No. 209
Osram Sylvania's Octron XP Supersaver Curvalume Ecologic lamps work in tandem with Quicktronic Programmed Start PSX ballasts to form the Octron XP Curvalume Supersaver PSX System, which offers a 24,000-hour average rated lamp life, provides up to 60-percent longer life than instant-start at 15,000 hours and uses 27-percent less energy. Other system features include a lumen maintenance of 95 percent and a CRI of 82. Compared to a T12 energy-saving lamp and ballast system, the Octron XP Curvalume Supersaver PSX System provides 40-percent energy savings, 33-percent longer lamp life and 91 percent of the maintained light levels with improved color rendition in three popular color temperatures (3000K, 3500K, 4100K rare earths vs. cool white and warm white halo phosphors). Circle No. 210

From GE Lighting, the Ultramax electronic ballast combines multi-voltage capabilities with high energy efficiency, enabling one ballast to run on 120V or 277V; delivers cost savings of up to 40 percent over standard ballasted T12 systems; and features Multi-Voltage Control, which can virtually “read” the incoming voltage and adapt automatically to any voltage from 108V to 305V. The Ultramax line is the first to offer Anti-Striation Control, which reduces common “barber pole effect” lines across the lamp. Ultramax is also the first full line of T8 electronic ballasts to earn UL’s type-CC rating, a feature called Arc Guard, which eliminates the damaging effects arcing can have on lamps, ballasts and sockets. Available in all T8 applications, the ballasts for 2-, 3-, 4- and 8-ft. T8 lamps are available in three ballast factors: low watt, normal light output and high light output. Circle No. 211

The IntelliVolt technology of Advance Transformer's Centium electronic ballasts (ICN-4554-90C-2LS) enables them to operate one, two, three or four F54T5/HO fluorescent lamps at any voltage between 120V and 277V as well as 36W/39W, 50W and 55W long twin-tube lamps and F58T8 lamps. A high-low switching option makes Centium ballasts compatible with California Energy Commission Title 24 and allows a fixture to be switched via a variety of devices from operating four lamps to two lamps or three lamps to two or one lamp. Features include a temperature rating of 90 degrees Celsius, 20-ft. remote mounting, 0-degree Fahrenheit cold starting, auto-restart capabilities, programmed-rapid start ignition for extended lamp life in frequent starting conditions and lamp end-of-life protection circuitry. Total Harmonic Distortion is less than 10 percent and power factor is greater than 98 percent. The ballast operates at a frequency between 40 kHz and 54 kHz. Circle No. 212

For use in high- or low-bay HID lighting applications, Delta Power Supply's patented SuperBallast electronic ballast boasts a 95-percent efficiency and long lamp life, reduces lumen depreciation for 150W-450W HID lighting systems and offers dimming to 35 percent of power without degrading lamp life. A patented, high-frequency Fast-Start feature provides quick ramp-up time and lamp-preserving start-up to maximize lamp life; uses lower starting current than conventional magnetic ballasts; and delivers full light output in less than 75 seconds. Continuous dimming capability allows lamps to be dimmed via standard 0-10V feedback from control devices. SuperBallast self-compensates for line-voltage fluctuations from 190V to 304V and restricts powers variation seen by the lamp to no more than 0.5 percent, enabling accurate color rendering over the life of the lamp. Circle No. 213
**Lutron Electronics' Eco-10** IR is a fluorescent ballast with a built-in IR dimmer. The Eco-10 IR offers personal control of overhead lighting through the use of a handheld IR transmitter, allowing the light to be set to various levels. The ballast can be installed like standard non-dimming ballasts, offering individual fixture control. Eco-10 IR can also be installed like a three-wire dimming ballast and used with a central control system, such as Lutron's Grafik 6000, digital microWatt or RadioTouch. Eco-10 IR measures 9.5 in. in length, 1.6 in. in width and 1 in. in height and is available in one- and two-lamp models for 32W T8 lamps (277V). Circle No. 214

**Osram Sylvania** has expanded its Soft White DuLux EL family of screw-based compact fluorescent lamps to include a series of Energy Star-rated products. The 28/19/12W 3-Way Twist can be operated at three different light levels and provides a soft white light similar to a 30/70/100W three-way incandescent lamp. The 30W Twist produces 2000 lumens and the 4W Flame Shape Medium and Candelabra Base and 7W Torpedo Medium and Candelabra Base lamps offer energy savings for decorative applications. MiniTwist lamps are now available in 7W, 11W, 19W and 23W. Also added to the DuLux EL family are 15W BR30 Frosted and SafeLine lamps, 14W A19 Soft White lamp, a non-attracting Insect Buglight lamp and a low-energy, low-heat 11W G25 globe for bathroom vanity light strips. These lamps feature a 6,000-10,000-hour average rated lamp life, a CRI of 82 and color temperature of 3000K. Circle No. 215

**Simplicity Series** digital dimming systems from HUNT Dimming simplify installation with its compact, lightweight design and minimal wiring requirements. The series includes wall-mounted control stations with LCD touchscreens, which provide visual and intuitive digital lighting control for single-location operation, monitoring and programming of all lighting zones; push-button control stations, which offer control through pre-programmed and field-changeable functions; and handheld IR remote controls. Simplicity digital dimming panels contain 12 individually addressable outputs with each circuit capable of being dimming or switched. Four to 12 power modules can be provided per dimming panel. Each dimming module is multi-rated to control incandescent, fluorescent (phase-control), low-voltage (electronic or magnetic), neon, cold-cathode, fan-speed and non-dim (or switched) sources. CUL-listed. Circle No. 216

**Lithonia Lighting's Synergy lighting control system** integrates all aspects of lighting control into a single scaleable platform, from basic low-voltage switching and occupancy sensing to daylight harvesting and complex networked architectural dimming. With the BACnet protocol native to its design, Synergy lighting controls inter-operators with the rest of a building's automated control systems. The control system is compatible with Lithonia's Sequel preset dimming controls and Digital Equinox fluorescent lighting control products. Features include Zero Cross switching technology, RS232 interface, DMX512 compatibility and Script Logic. Circle No. 218

**From The Watt Stopper**, the new AS-100 Automatic Control Switch provides automatic facility-wide lighting control as well as local, manual on/off control. Designed to replace a conventional wall switch, the AS-100 receives signals over standard power wiring from a lighting control panel or occupancy sensor to automatically turn on, off or delay off lighting. No additional wiring is required from the controlling system, streamlining installation. Users can also manually operate area lighting on and off via a front push button. The AS-100 requires no neutral, allowing for easy integration into retrofit projects. Installation is further simplified by terminal-style wiring, which eliminates the need for wire nuts. Other features include shut-off blink and beep warnings. Circle No. 217

**Lithonia Lighting's** SafeLine lamps. 14W A19 Soft White have expanded its Soft White Dulux EL family to include a series of Energy Star-rated lamps. The new PL-H lamp features a multi­ple-burning position and individual lumen output of 9000 lumens. The white light of the PL-H lamp also provides stable color rendering, long life and high lumen maintenance. Circle No. 220

**From Leviton's Lighting Control Division**, the Dimensions D3200 Series offers multi-point dimming and scene control systems that feature on-screen wizards to guide residential and commercial end-users through programming and operation. The D3206 Controller/Dimmer is a self-contained dimmer unit offering eight scene buttons for a total of 32 scenes and access to 186 zones maximum. Rated 2000W/VA (1000W/VA per zone and 1200W/VA per side), the D3206 can control multiple scenes in home theaters and dining and living rooms. The unit also features a built-in "learning" IR receiver that can be programmed to work with any handheld IR controller. Offering the same features as the D3206, the D3208 provides access to 248 zones and combine/parallel control for partitioning zones in restaurants, ballrooms and other commercial applications. The D3208 allows scheduled scene changes based on time-of-day events or dawn/dusk settings. Circle No. 219

**Ushio America** has added a 1000W lamp to its Colorlite series of metal halide lamps. The 1000W Colorlite features the same characteristics as their 150W and 400W counterparts, including high color saturation, consistent color, high efficiency and long life. The new Colorlite mogul-base lamp operates on standard M47 ballasts and allows the application of color to lighting design projects without the use of gels and filters. Circle No. 221
The MS 875W/HOR/BT37/PS pulse-start metal halide lamp from Venture Lighting International is now available for horizontal applications. The 875W horizontal lamp provides energy savings of up to 155 system watts per luminaire, compared to a traditional 1000W universal metal halide system, and offers 95,000 initial lumens with a life rating of 12,000 hours. The 875W pulse-start lamp provides 109 lumens per watt compared to the 94 lumens per watt offered by a standard 1000W metal halide lamp. Circle No. 223

Holophane’s Prismatron electronic ballasts are now offered for use with single metal halide luminaires. Available with the company’s full line of high-bay prismatic glass optics, the ballasts may be used with 1200W, 1500W and 2000W conventional and pulse-start metal halide lamps and feature silent operation, color stability and flicker-free illumination. Prismatron ballasts will dim lamps to as low as 25 percent of the lumens output and may be used with industry-standard, low-voltage control circuitry, including occupancy sensors and programmable controllers. If the luminaire is turned off while in a dimmed state, a “hold-high” capability allows the lamp to return to full level output power when the luminaire is turned on again. FCC compliance ensures compatibility with other EMI and RFI sensitive electronic devices. Circle No. 224

The JDW Safety Quartz Halogen Lamp from Ushio America consists of a low halogen fill pressure, inner quartz bulb and a thick outer hard glass jacket. The jacket self-contains any quartz in case of lamp breakage, reduces UV light and allows lamp installations to be performed with bare hands. The Safety Quartz also features a proprietary EU11 base to be used with its matching socket, whose design, for safety considerations, will not accept standard mini-can E11-based halogen lamps. The overall design of the lamp allows for smaller open fixture design and facilitates lamp replacement and maintenance. The lamp is available in 120V, 85W with a clear or frosted inner capsule. Circle No. 222

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Circle No. 10 on reader service card
The CentaGlo luminaire from Holophane features a low-brightness design to create a visually appealing environment in a wide range of commercial and industrial applications. The fixture provides an upward lighting component that skims the overhead to reduce the contrast between the ceiling and the fixture. Both symmetrical and asymmetrical distributions are available for open areas or aislesways. Designed with both a borosilicate glass reflector and refractor, the CentaGlo reflector directs most of the light back into the refractor while allowing the designed amount of uplight to pass into the environment. The refractor then takes the reflected and direct light components and redirects them into a useful distribution pattern. Glass refractor sidewalls minimize brightness while boosting vertical illumination. Circle No. 225

Stingray Lighting’s Complement Series offers a range of contractor-friendly lighting products, including floodlights, industrial lighting, surface-mounted fixtures and landscape lighting. Fixtures have low installation and operating costs and require negligible scheduled maintenance over many years of continuous use. The series includes HID high- and low-bay units as well as surface wall-mounts, parking and commercial garage lights and floodlights. Compact fluorescent options also available. UL-listed. Circle No. 228

Lithonia Lighting has redesigned and retooled its IntegraSeal fixtures to meet the ISO14644-1 universal cleanroom classification as well as the older U.S. Federal Standard 209E. The retooled versions also meet requirements for 90 percent of cleanroom applications. The IntegraSeal product family includes the SRT Series (shown), which meets ISO 7, 8 (Class 10,000 and 100,000) and offers a new recessed housing with caulking-sealed seams for a precision fit; and the SRH and SSH Series, both of which meet ISO 5, 6 (Class 100 and 1,000). Circle No. 226

From Eclipse Lighting, the 546 Series offers 1x4 fixtures that use 54W T5/HO fluorescent lamps. Equipped with a specular aluminum reflector and open-grid louvers, fixtures are designed for high-bay lighting in industrial and commercial applications and offer instant-on performance and a CRI of 85. Die-formed steel housing measures 73/8 in. in profile and is finished with a polyester powdercoat. The series is available for surface, pendant or chain mounting. UL-listed. Circle No. 227

Providing an alternative to HID high-bay fixtures, the HBC Series from Day-Brite Lighting uses 26W, 32W and 42W compact fluorescent lamps in two-, four-, six- and eight-lamp configurations. The eight-lamp model uses four ballasts. The series’ electronic ballasts feature programmable start and are enclosed in standard die-cast, high-bay ballast housings. Acrylic reflectors are factory-assembled to the ballast housing and are available in 16-, 19- and 22-in. sizes. Circle No. 229

Lithonia Lighting’s new MSSHB T5/HO fluorescent high-bay fixtures are designed for retail, warehousing and light industrial applications with mounting heights up to 30 ft. Multi-faceted reflectors provide optical control, narrow distribution to accommodate aisles and wide distribution for open areas. Open blade louvers offer shielding and glare control. Other features include T5/HO rotary locking sockets and a polymeric paint finish. MSSHB is available with open optics and uplight, a variety of installation options and an optional T8 unit. Circle No. 230

Crescent/Stonco’s T-Bay fluorescent fixtures are designed to replace conventional HID lighting in industrial applications and accept multiple suspensions methods, including 1/4-in. threaded pipe for direct replacement of existing high-bay fixtures. Ends and reflector panels are hinged to facilitate mounting, wiring and access to the ballast chamber. T-Bay is available in a four-light 54W T5 and six-light 32W T8 fluorescent models. Other features include a 20-gauge die-form housing, instant on, built-in switching and low-temperature operation. Circle No. 231
Lightolier’s Outlook architectural-grade emergency lighting features self-testing/self-diagnostics nickel metal hydride batteries and LEDs. Products include two- and four-head emergency lighting units and thin-profile exit signs available in die-cast aluminum and thermoplastic. The series is designed to be easy to install and contractor-friendly. All products are UL-listed and comply with NFPA Life Safety Codes. Circle No. 232

From Lithonia Lighting, the redesigned ELM2 and ELM emergency lighting units feature MR24 lampheads, krypton lamps and Quick-Mount three-minute installation. Units are equipped with high-impact thermoplastic housings that include impact-resistant, scratch- and corrosion-proof and UV-stabilized and lead-calcium batteries. The ELM2 offers fully adjustable optics. Both boast a 25-percent smaller footprint and tool-less entry to facilitate installation and maintenance. Circle No. 234

From Cooper Lighting. Surelites LPX LED polycarbonate exits and emergency lighting products are available in AC only and self-powered units. AC-only units feature push-in AC power connectors and optional two-circuit, FTBR operation and are listed for damp locations. Self-powered models have line-latching, solid-state switching, brownout circuitry, low-voltage disconnect, overload/short circuit protection and a test switch and power indicator light. Exits can be ceiling-, wall- or end-mounted. Universal exits may be field-configured as a single- or double-face sign, included with all exits. CSA-certified and UL-listed. Circle No. 235

Pathway the Lighting Source has published a product selection guide of the company’s commercial and industrial emergency lighting. Products include SVS self-diagnostic systems, LED exit signs, ADA illuminated signage and emergency lighting systems in recessed, surface and vandal-resistant styles. Circle No. 233

The Ultimate Exit (UX) Series from Cooper Lighting’s Surelites brand offers self-diagnostics, laser fast-test and vandal-proof silicone gasketing. The series is Energy Star-registered and UL-listed for wet and damp locations as well as outdoor-rated. The units may be installed in 4-in. hose-down or high-temperature environments, freezers and outdoor parking areas. UX is also NSF-listed (National Sanitation Foundation) for use inside “splash zones” in food processing. Fixtures are equipped with a die-cast aluminum housing and polycarbonate lens. Circle No. 236

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For more information about our digital technology and our full line of DALI compatible digital linear, compact and biax ballasts, call us at 1-866-TRIDONIC or contact us by email at sales_usa@tridonic.com. Circle No. 25 on reader service card
From LEDtronics, MR16-style TrackLEDs are direct incandescent replacement lamps that combine InGaAlP and SiC/GaN LED technology with a standard MR16 bi-pin base. TrackLEDs offer a power draw of 0.8W to 4W, an 11-year operating life and a choice of six sunlight-visible colors: green, white, blue, yellow, red and orange. Standard TrackLEDs come in 12/14V DC. Custom voltages such as 48V DC, 120V AC and 240V AC may be ordered with factory approval. TrackLEDs are available in 12, 24 and 42.5mm discrete LED configurations. Circle No. 237

Osram Opto Semiconductors' LINEA'Right Colormix LED Dimmable System utilizes the LINEA'Right Colormix module in conjunction with the Optotronic LED power supply, Optotronic OTDIM electronically stabilized dimming module and the LINEA'Right optic lens. The LINEA'Right Colormix module provides dynamic control of colored illumination via three chips inside each LED with a viewing angle of 120 degrees per LED. Each module (450mm long) consists of 30 surface-mounted LEDs, can be subdivided into smaller units of LEDs and can be expanded to include as many as 10 modules with one feed-in unit. The systems can be used in various large-scale applications. Circle No. 239

From iLight Technologies, Plexineon is made of durable plastic composite materials, comprised of high-intensity LEDs and encased in a fully sealed unit. Plexineon features high-temperature resistance, moisture resistance and is suitable for exterior and interior applications as well as wet locations. The product can be used in long, straight pieces; connected to form one continuous piece; factory-bent into letters or curves; cold-bent in the field for gentle arcs; equipped with mitered edges or bent convex or concave. Available in red, amber, green, blue and white, Plexineon products boast an even glow, last up to 180,000 hours running 24/7 365 days a year and may be programmed to include special effects such as color changes and chasing lights. Circle No. 238

From Color Kinetics, the iColor Cove NXT expands on the company’s iColor Cove line and provides a beam angle of 120 degrees for a uniform distribution of color. Modular in design, the iColor Cove NXT is available in fixed lengths of 6 in. and 12 in., with each segment cased in a low-profile, vented, molded plastic housing. The new system also features streamlined wiring and installation options. Circle No. 241
Part of Bruck Lighting's Uni-Lights Series, Artu is a MR16 pendant featuring 32 LEDs available in white, blue, red, green and amber. The fixture measures 5 9/16 in. in diameter and 6 3/8 in. in height. A 59-in. cable length is standard. Circle No. 242

From the Netherlands-based Xilver BV, the Droplet is an automated moving LED luminaire capable of producing up to 16 million color shades. The Droplet measures 5.11 in. x 7.25 in., is DMX-controlled with 360-degree pan and 260-degree tilt movement and has a beam angle of 10 degrees with lenses available for changing to 18- and 30-degree beam angles. Other features include 0-100 percent fluent dimming, a maximum power consumption of 35W, silent operation and a specially designed universal mounting plate, which enables pre-wiring and pre-fixing on wall boxes. Standard housing colors are silver, black and white. Custom colors are available. Circle No. 244

Mule Lighting's dynaLUX LEDs consume 1W of power and reduce energy usage by up to 80 percent when compared to incandescent lamps of similar brightness. The series includes LEDison lamps, which offer an alternative to incandescent lighting; the G45 for decorative applications; and the R63, which features a reflective coating for added brightness. The FlameTip combines the curves of an incandescent chandelier lamp with the energy efficiency of an LED source. Also included are the LEDelier and the all-purpose A19. Circle No. 245

Traxon's 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. 243

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The Master Classes focused on creativity and included presentations on the lighting design of Toys "R Us in New York's Times Square, the lighting of the Gateshead Millennium Bridge in Newcastle, England, as well as techniques and fixture performance for wall-lighting, recent research in vision and color theory, electrical and energy codes, trends in office lighting design and architecture as theater. In addition to the seminars, many noteworthy manufacturers exhibited their products. Participating manufacturers included: Apollo Design Technology, Inc.; Wybron; ETC; ALM Systems; RSA Lighting; Altman Stage Lighting; Rosco; Martin Professional; Color Kinetics; Selecon Performance Lighting; Rambusch; Advent/SPJ; Lee Filters; LiteTouch; Minitota Corp; and Accent, marries Color Kinetics' digital control with the latest LED advancements for an affordable, low-voltage, indoor/outdoor direct-view linear light, available in 1-, 4- and 8-ft. lengths. Circle No. 246

Martin Architectural has expanded its line of interior color-changing products with the introduction of the Cyclo series, a range of tubular washlighting featuring RGB color-mixing or color-correction control. The Cyclo is a surface-mounted fixture with a slim design. Designed for use in cove lighting, perimeter lighting, light walls or behind semi-transparent materials and in spaces where room is restricted, Cyclo comes in three varieties. Cyclo 02 is a fluorescent color-temperature changer that can recreate natural fluctuations in daylight. The smallest in the series, the luminaire consists of two dimmable T5 tubes, a warm white at 2700K and a daylight white at 6000K. The Cyclo 03 and Cyclo 04 (shown) offer full color-mixing using RGB technology to generate white light of any temperature as well as virtually all colors and shades. The Cyclo 04 features an additional white 4000K tube for extended color control and an improved functional light quality. All three are controlled via a 0-10 V signal. Circle No. 247

Wybron’s Eclipse II is a DMX-controlled douser that does mechanically what can’t be done electronically: dimming HMI and other “non-dimmable” lights across the full spectrum of brightness, from pitch dark to the brightest light. The Eclipse II mechanically dowses the light while the power stays on so there’s no need for hot restrikes. The douser, which mounts on the front of a lamp much like a color changer, blocks the light source to the degree specified. The Eclipse II features an array of fins that operate like a camera aperture and comes in two sizes—1K and Large Format, which is available in standard enclosed and weather-sealed models. Both are DMX-programmable and are driven by any Wybron Coloram II power supply. Circle No. 248

Apollo Gel Tubes provide creative, low-cost color control of fluorescent lighting. Color gel inserts are pre-assembled into clear polycarbonate tubes with end caps. Place the fluorescent light inside the tube and install. Available in three sizes—1-in., 48-in. T12, T8 and T5—with any Apollo Gel. Circle No. 249

ALM Systems Inc.’s Mirage 5000 is a digital user-control interface with up to 96 channels and 24 presets of capability all in a user-friendly design. The system components and accessories include entry station and preset stations; master preset recall station; room combiner panels; RF handheld controls; screen and curtain control; timers, occupancy sensors, ambient light level sensors; dimmers and enclosures for all types of loads; theatrical consoles; and emergency power transfer systems. Applications include restaurants, convention centers, retail stores, hotels, churches, boardrooms and schools. Circle No. 250

ETC's Unison Control Stations are suited for applications such as theaters, hotels, churches and convention centers. Unison offers lighting-control Flexibility—Program the desired lighting looks on a theatrical console or at a multi-page Unison LCD touchscreen station; then select presets with a touch of a button or have it done automatically by the integral astronomical timeclock. Control is provided via fully programmable button, fader and LCD stations. Unison's Link Power control network offers topology-free wiring. That means stations can be wired in any configuration: star, bus, or loop. Circle No. 1

LEE Filters manufactures a variety of professional-quality lighting filters for the lighting and imaging markets. Lighting filters include the Architectural Series consisting of the Glass Series and fluorescent sleeves, color correction, color effects and diffusions. Circle No. 3

Left to right: Keynote speaker Howard Brandston, Architectural Lighting Editor-in-Chief Christina Traudwein and ALMC creative consultant, Paul Gregory take a moment to pose for a photo during the two-day event at Manhattan’s John Jay College, which brought together architects, lighting designers and manufacturers who exhibited products (right). Lightolier. Following is just sampling of the Manufacturers' Showcase. As of press time, plans are underway for next year's event. Stay tuned and we'll keep you posted on the dates and times. It's an event not to be missed!
Sentry Electric Corp.

Sentry Centre Street Lantern. This extraordinary early American-style lantern incorporates beveled glass panels and is topped with a brass eagle on a pyramid-perch finial. The luminaire features an internal luminous ceiling that hides the light source and provides greater visual comfort, ideal for many elegant exterior applications. This unique luminaire is built to New York City's vandalism specifications with high-strength aluminum structure. Circle No. 51

Special FX Lighting

Special FX Lighting announces a new generation of high-performance color lighting products and color coating services. New EZ»COLOR® HT is a super-tough, weatherproof, color-fusing/curing process invented and perfected by Special FX. This new process creates permanent high-transmission, high-temperature coatings in all colors for all types of glass and glassware. Special FX manufactures the most cost-effective permanent color and filter solution for every lighting application. Circle No. 52

Targetti

Lightfair attendees are invited to enjoy the Targetti Light Art Collection featuring 32 works on the poetry of light at the Chelsea Art Museum from May 7 to June 8, located on the corner of 22nd Street and 11th Avenue, and open Wednesday through Sunday, noon to 6 p.m. Circle No. 53

W.A.C. Lighting

W.A.C. Lighting's new Low Voltage Monorail System features a sleek, eye-catching look, cutting-edge technology and accommodates 150 contemporary pendants and fixtures. Easy to assemble, it bends in the field to create graceful curves and negotiate corners on ceilings and walls. The firm also offers five state-of-the-art track systems: pendants; recessed housings/trims; metal halide trackheads; compact fluorescent wallwashers; miniature, flexible fixtures; button lights; display lights; track extensions/suspensions, accessories. Phone (800)526-2558, fax (800)526-2558, email sales@waclighting.com, www.waclighting.com. Circle No. 58

THHC Lighting

THHC Lighting is the leading manufacturer of low-voltage and line-voltage low-pressure xenon lamps for variety of general and specialty illumination applications. They include landscape, showcase, decorative and architectural designs. THHC Lighting offers the most complete line of xenon lamps in the industry, including: wedge-base, festoon, rigid loop, cartridge, G4 bi-pin, GY6.35 bi-pin, E11, E12 and BA15D lamp. For more information: www.xelogen.com or 877-Xelogen. Visit us at Lightfair booth 1043. Circle No. 55

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HOW GREEN WILL YOUR NEXT PROJECT BE?
An update on the proper handling and disposal of spent lighting products

BY ANTHONY AMARO, LC, CLMC

I want to start by thanking Architectural Lighting for being so gracious to allow me to address an operations and maintenance issue that is often under the radar of architects and many building owners. It is, however, a matter in which lighting designers can significantly impact and improve the environment through informed recommendations to architects and retail, commercial and industrial clients. Residential clients are exempted from these regulations.

The basics are that all gaseous discharge lamps, primarily fluorescent and HID, require a small amount of mercury to function properly and reliably over their rated life. Heavy metals such as mercury and lead have been found to be injurious to human health. Does this mean that the workhorse lamps of our industry may be hazardous to our health? The environmental authorities think so and have enacted regulations for their proper disposal. Your customer, the lighting end-user, will always be held ultimately responsible for compliance with these regulations.

In 1990, the U.S. EPA adopted the Toxicity Characteristic Leaching Procedure (TCLP) as the approved method to determine if waste products are hazardous because of their content of heavy metals. When that happened, most fluorescent lamps were found to contain mercury levels high enough to classify them as hazardous waste. This created quite a stir, especially since the Resource Conservation and Recovery Act (RCRA) also mandated transportation by hazardous waste haulers and possible costly disposal in a hazardous waste landfill.

The lamp manufacturers immediately went to work on this problem. In the 12 years since they began this work, they are to be commended for having made significant progress. A recent study by NEMA indicates a 67-percent reduction in the use of mercury for the production of lamps. Prior to 1990, the industry used 27 tons per year. That number is now down to approximately nine tons per year. The important result for the user is that many of the lamp types now being offered by the major manufacturers are "characteristically non-hazardous." Wow, thanks, so that's the end of the story—or so many people may mistakenly think. However, as with most things in life, it isn't quite that easy.

Being characteristically non-hazardous only addresses the technical aspect of the situation. In addition to the U.S. EPA, all the states have jurisdiction in matters such as these. The U.S. EPA provides the regulatory framework and each state is then allowed to make its policies more stringent than those of the U.S. EPA. The states have enforcement authority and the lighting end-user (waste generator in EPA terms) must determine if the waste is hazardous and manage it properly. The dynamics of local and state regulations affecting these matters are motivated by the physical availability of landfill space and the politics in each jurisdiction. The trend over time has been to become more stringent rather than less so. The result of this rule becoming procedure over the years has been a patchwork quilt of rules and policies that vary from state to state and are sometimes confusing. Some states with more stringent regulations are Connecticut, Florida, Maine, Minnesota, Rhode Island, Vermont, Oregon, Pennsylvania, New York and Washington. Some have ruled that no lamps containing mercury (regardless of the amount) are allowed in landfills. California recently announced they will adopt such a policy in 2005.

Two points of caution here: First, everyone is encouraged to check with state and local authorities for the latest information regarding proper disposal. Second, remember that the rules are dynamic and heavy metals are long-lived. If the landfill has a problem with mercury at some time in the future, authorities will seek out the organizations that dumped mercury products there. These entities will then be held responsible for the clean-up under the "Super Fund" law. Environmental clean-ups are always costly, often running into millions. For these and other reasons, the lighting industry is now recommending recycling spent lighting products.

The complexity of regulations and the high cost of compliance have given birth to an industry dedicated to recycling spent lamps. Rather than depositing them in a regulated hazardous waste landfill, it is now possible to have them recycled. By this method—now available nationwide—the lamps are de-manufactured, reducing them to four products: glass, aluminum, phosphor powder and mercury, which are then returned to the economy for reuse. The cost of this service can range from $3.50 - $1.50 per lamp depending upon the amount of service provided with recycling.

Despite the availability of recycling nationwide, the recycling rate remains relatively low with only 20-25 percent of all spent lamps going to recycling. One of the obstacles has been costly transportation. As mentioned above, when these rules first came into effect it was technically necessary to use a hazardous waste hauler. Hazardous waste hauling is simply impractical for lighting users. So, in 1999, the U.S. EPA allowed spent lamps to be handled as "Universal Waste." This does not mean the authorities now consider this waste to be any less hazardous; it only means they need not be shipped by a hazardous waste hauler, provided they are destined for recycling. They can be shipped to the recycling company, whole and intact, by a common carrier freight line.

Despite the fact that these rules have been in place for several years, awareness remains relatively low among the business community at large. To address this issue, three key initiatives are now in various stages of development:

• First, the lamp manufacturers, through NEMA, recently announced a voluntary program to change the labeling of all mercury-containing lamps. The lamps and their packages will soon be marked "Hg" to indicate they contain mercury.

• Second, the U.S. EPA, in cooperation with the Association of Lamp and Mercury Recyclers (ALMR) and the National Electrical Manufacturers Association (NEMA), will conduct a national outreach and education campaign to promote recycling of mercury-containing lamps. This outreach program will provide information and training to local governments, businesses and the public.

Recommend recycling of all spent lighting products as well as energy-saving products and systems on each project.

• Third, the U.S. Green Building Council will launch the Leadership in Energy and Environmental Design (LEED) Rating System for Existing Buildings in November. LEED for Existing Buildings (LEED-EB) is a set of performance standards for greening the operation, maintenance and upgrade of existing buildings. The LEED-EB credit structure addresses the leveraging of green strategies into system upgrades, whole-building cleaning and maintenance practices, indoor air quality, energy/water efficiency programs and recycling. The Occupant Recycling Credit within LEED-EB focuses on diverting the waste and toxics generated by building occupants from disposal in landfills and awards credit for on-going recycling activities. Recycling of spent lighting products can contribute to achievement of LEED-EB's recycling/landfill diversion requirements.

Today's lighting designer can have an impact in this awareness continuum. Given a choice, I think people want to do the right thing. Our industry thinks that recycling of spent lighting products is the right thing to do for the environment and everyone concerned. Today's lighting designer can easily communicate this message to architects and lighting end-users. I encourage you to advocate "Green Building": Recommend recycling of all spent lighting products as well as energy-saving products and systems on each project. By recycling, your clients will come into compliance with the regulations and improve the management of future risk.

To learn more about recycling and for links to state regulations, refer to www.earthpro.com. Another website, www.almr.org, produced by the Association of Lamp and Mercury Recyclers (ALMR), also provides helpful resources. ALMR is currently developing expansions to the site, to be posted by the end of 2003, which include training, electronic databases, infrastructure availability state-by-state. For more information on the U.S. Green Building Council LEED-EB visit www.usgbc.org/LEED/Existing/leed-existing.aspx

Anthony Amaro, LC, CLMC is VP of business development for Earth Protection Services, Inc. (EPSI), where he is responsible for sales, product development and financial functions of the PA-based company. In addition, Amaro is past VP of the IESNA, Nashville Section; past president of the Corporate Council of the American Institute of Electrical Engineers; member of the Association of Professional Energy Managers; and earned a letter of distinction from the EPA Green Lights Program for outstanding service. Amaro has served in senior positions at Motorola Lighting, MagneTek Corporation and Sylvania Lighting Services.