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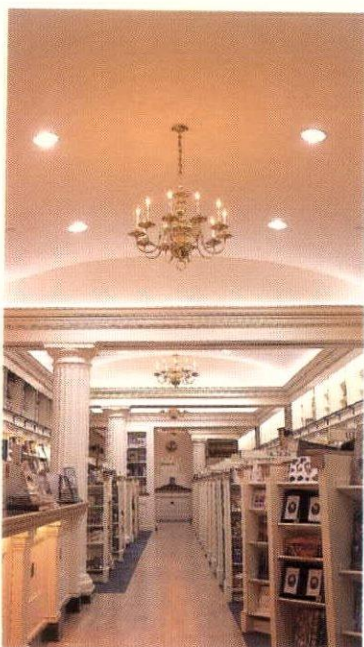


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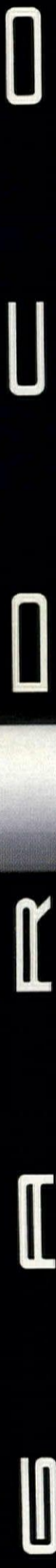
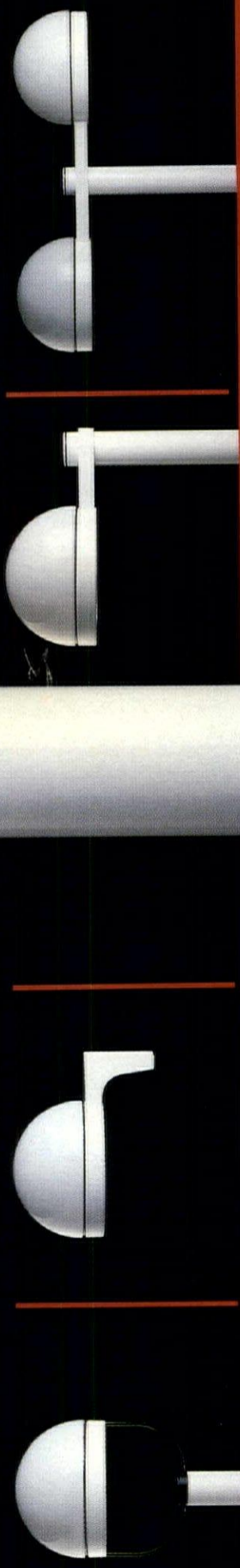
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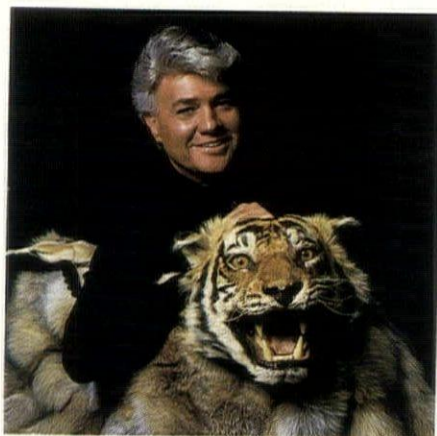
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GIFT WRAP**

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Looking Ahead

TO PREPARE FOR THE NEW YEAR, we've collected opinions and insights from many of our Editorial Advisory Board members and contributors to this issue's features on what the coming year and decade might bring in lighting.

European/American relations, daylighting advances, improvements in light sources, interest in ergonomics, new education scholarships, growth in residential exterior lighting, and fixture refinements are some of the topics you'll read about in boxes bearing the 1990 Forecast logo scattered throughout the issue.

Happy New Year!



ARCHITECTURAL LIGHTING

DECEMBER 1989
VOLUME 3, NUMBER 12

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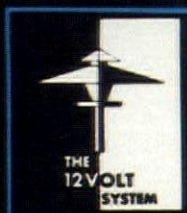
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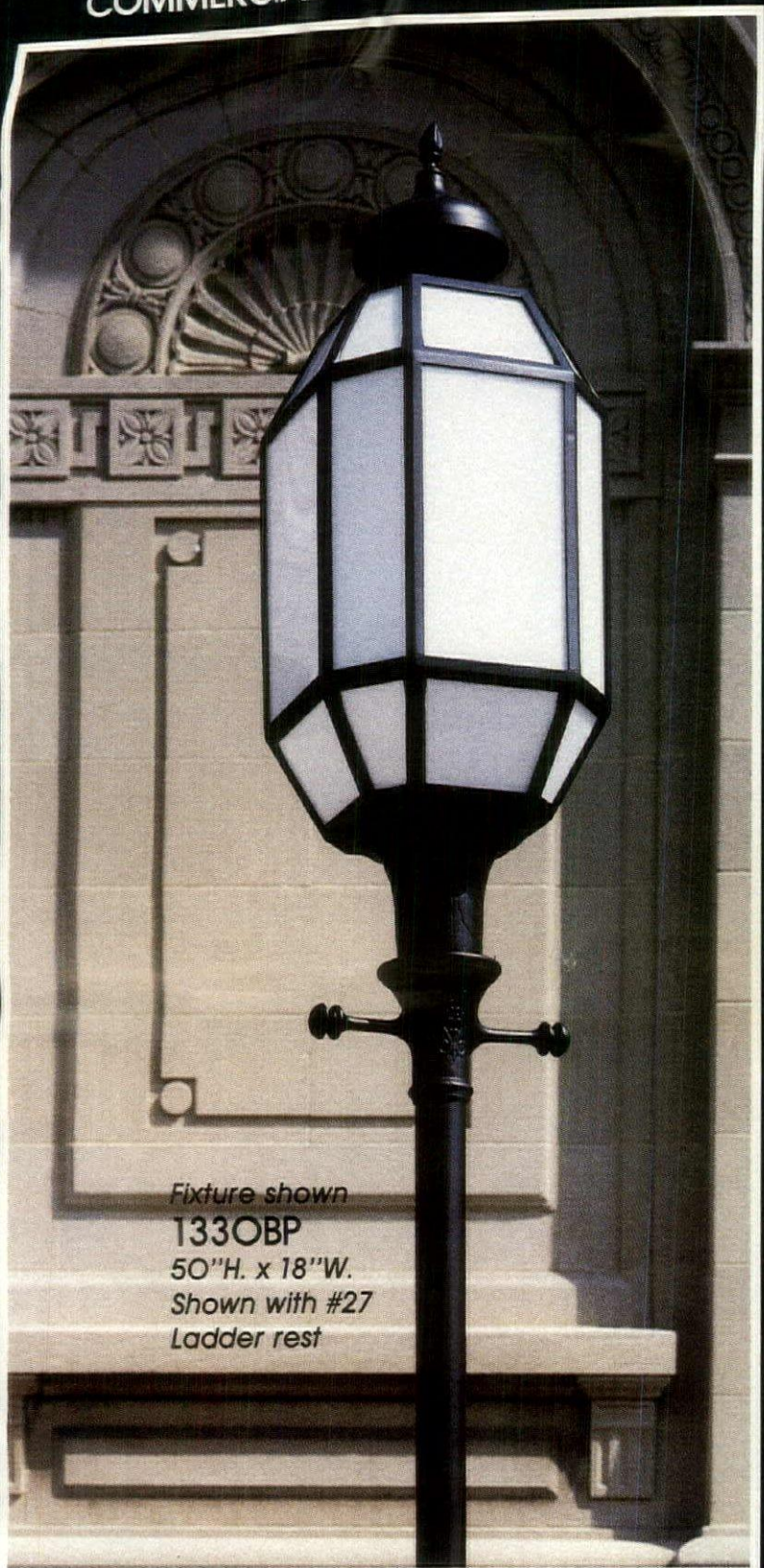
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Preview of Events—1990

AAMA Expo '90, building exterior products exposition and conference, Rosemont-O'Hare Exposition Center, Rosemont, IL. **February 8-10** Contact: American Architectural Manufacturers Association, 2700 River Road, Suite 118, Des Plaines, IL 60018, (312) 699-7310.

EuroShop 90, international trade fair for the store environment, Dusseldorf, West Germany. **February 17-21** Contact: Dusseldorf Trade Shows, The Empire State Building, Suite 4621, New York, NY 10018, (212) 239-3750.

NCGA '90, 11th annual conference and exposition, Anaheim Convention Center, Anaheim, CA. Application of computer graphics with special emphasis on systems integration. **March 10-22** Contact: National Computer Graphics Association, 2722 Merrilee Drive, Suite 200, Fairfax, VA 22031, (703) 698-9600.

1990 WAVM Market, Showplace Design Center, San Francisco, CA. International trade show for visual merchandising and store design. **March 23-26** Contact: Gerald J. Greenwood, WAVM, 2 Henry Adams St., #M-57, San Francisco, CA 94103, (415) 431-1234.

National Lighting Conference, Robinson College, Cambridge, England. Recent developments in lighting research, and techniques. **April 8-11** Sponsor: Chartered Institution of Building Services Engineers, Lighting Division. Contact: CIBSE, Lighting Division, Conference Committee, Delta House, 222 Balham High Road, London SW12 9BS, England.

Lightfair, international lighting conference and exposition, New York Hilton, New York, NY. **April 10-12** Contact: Hope Schultz, communications manager, Atlanta Market Center, 240 Peachtree St., NE Suite 2200, Atlanta, GA 30303, (404) 220-2107.

Southwest Builds '90, trade show, Phoenix Civic Plaza, Phoenix, AZ. Building products and services for design and construction industries in southwestern states. **April 11-12** Contact: Carroll A. Askew, Southwest Builds, 1516 Pontius Ave., Los Angeles, CA 90025, (213) 477-8521.

American Institute of Architects (AIA) Conference, Houston, TX. **May 19-22** Contact: John Gaillard, senior manager of conventions, 1735 New York Ave., Washington, D.C. 20006, (202) 626-7396.

Lighting World/Chicago, McCormick Place, Chicago, IL. **June 14-16** Contact: Denise Bigo, show director, National Expositions Co., Inc., 15 W. 39th St., New York, NY 10018, (212) 391-9111.

16th Annual Conference of the Solar Energy Society of Canada, World Trade and Convention Centre, Halifax, Nova Scotia. **June 18-20** Contact: Natalie Gallimore, conference coordinator, 3-15 York St., Ottawa, Ontario K1N 557, (613) 236-4594.

American Society of Interior Designers (ASID) Conference, Atlanta, GA. **August 8-11** Contact: Andrea Perlman, ASID, 1430 Broadway 22nd Floor, New York, NY 10018, (212) 944-9220.

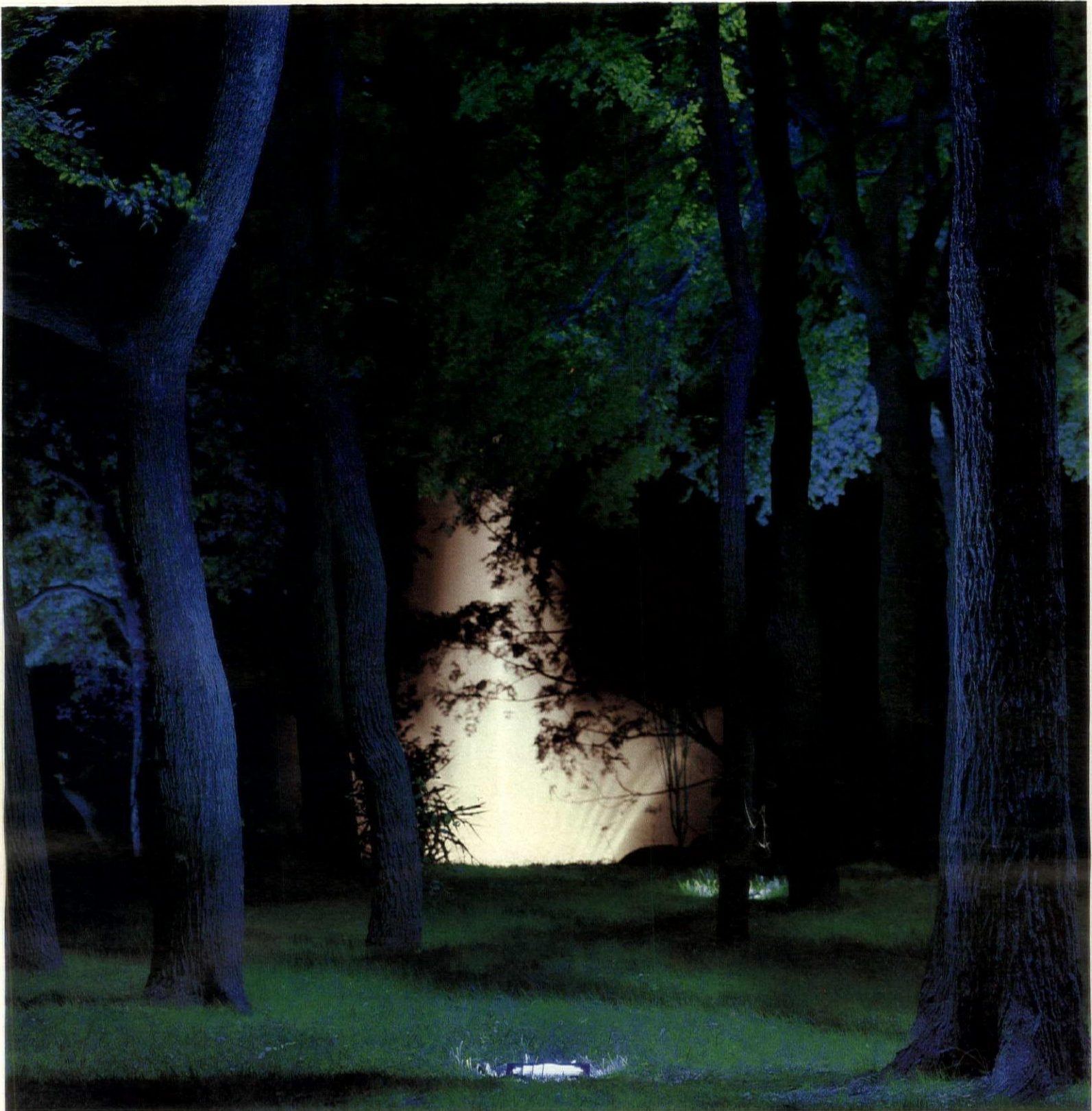


Firsts: RPI's M.A.; Parry Moon Scholarships

THE NEW YEAR will bring several important developments in lighting education. The most important will be the inauguration of the master's degree program at Rensselaer Polytechnic Institute (RPI). Targeted for the long term, "high-end" intellectual requirements of the lighting industry, this program will be headed by Dr. Mark Rea, director of the Lighting Research Center at RPI.

Additionally, The Parry Moon Scholarships for Illuminating Engineering will be established. Two \$5,000 graduate, and three \$1,500 undergraduate scholarships for study in illuminating engineering will be awarded in 1990. Funded by Lighting Technologies, Inc., and established both as a tribute to one of this century's greatest illuminating engineers, and as an investment in the lighting industry's future, these scholarships will be awarded on the basis of merit, without regard to the institution the students will attend. (More details in upcoming issues.)

DAVID L. DILAURA, FIES ■ ASSOCIATE PROFESSOR ■
UNIVERSITY OF COLORADO, AND DIRECTOR OF ENGINEERING
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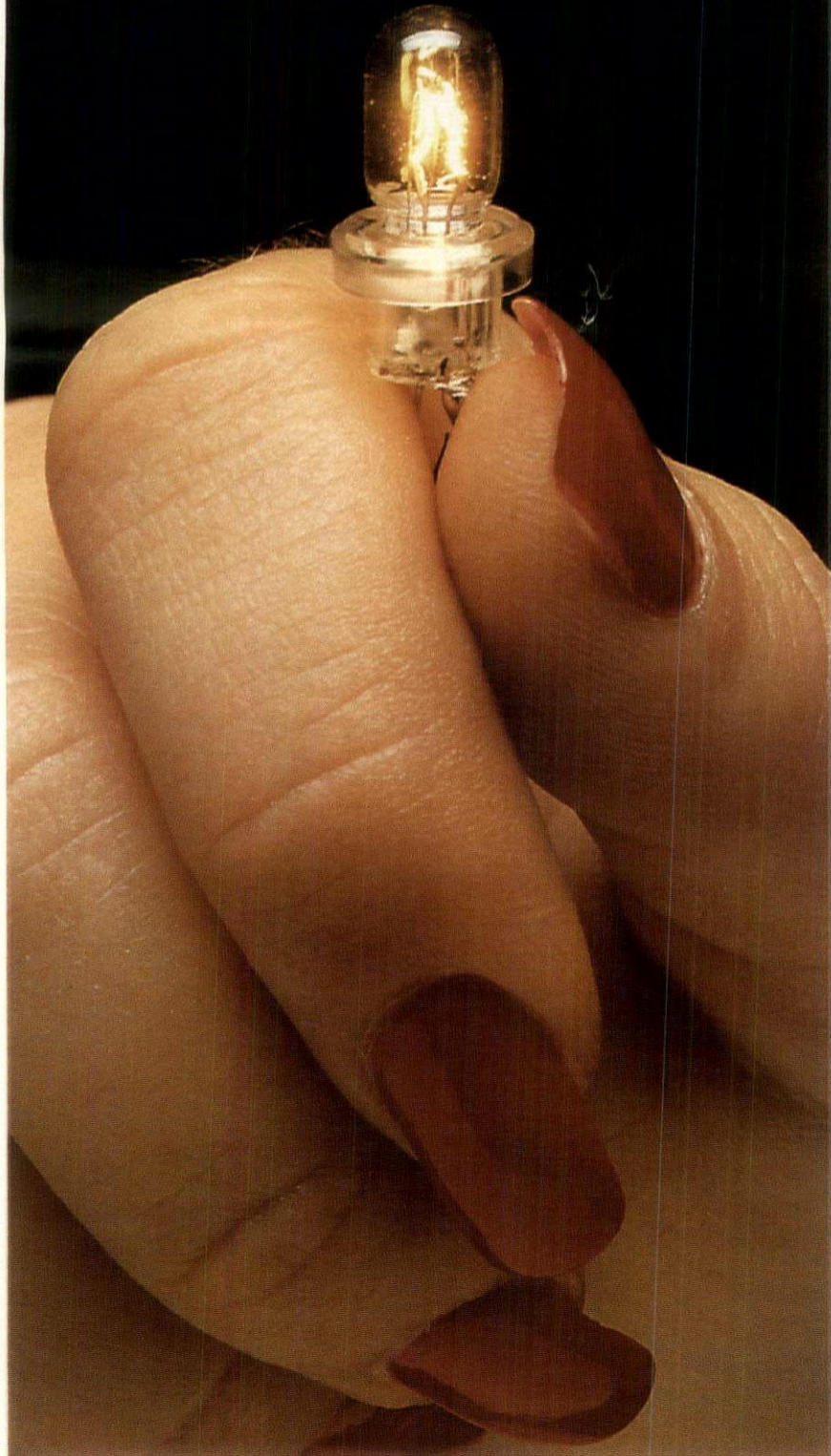
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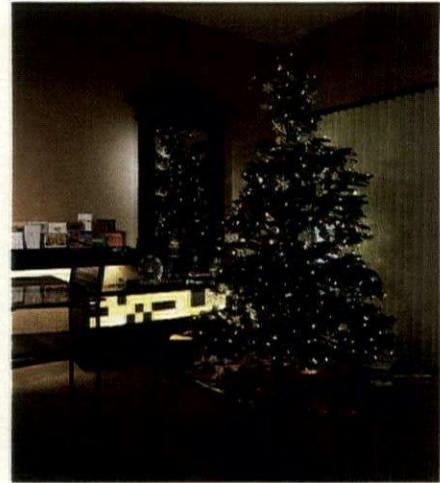
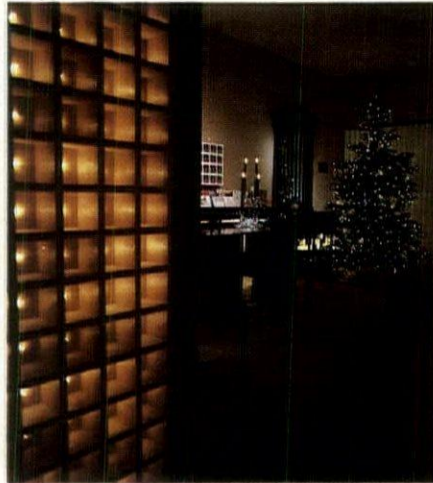
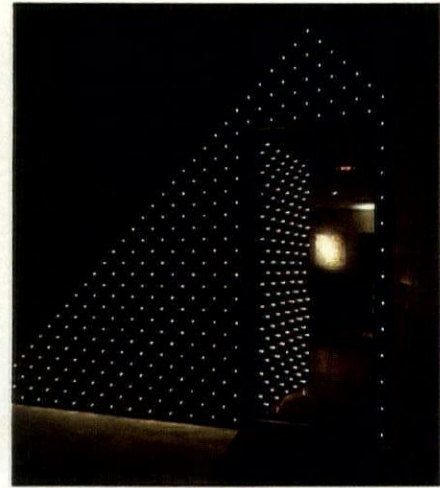
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EDITORIAL



LIGHTING DESIGNER/ARCHITECT Michael Smith says
“Happy Holiday!” with light on the exterior (top photos)
and in the interior (below) of his home in Houston, TX.

A Home For The Holidays

Michael Smith used the same festive lighting techniques to illuminate the exterior of his own home for the holidays that he used on a larger scale for Houston's Decorative Center (see page 20). Here's how it's done:

The door, frame, and surrounding exterior wall are covered with 3/4-inch plywood sheets painted dark green. Holes, 3/8-inch in diameter, have been drilled in a diagonal grid to receive 300 0.5-watt incandescent lamps.

Openings have been cut in the door panel for the door knob and dead bolt. The panels have been anchored to the door and wall with wood blocking to al-

low room for the wires to run behind the wood.

The design has low energy consumption, and can be reused year after year. Labor and materials cost less than \$600, and include a dimmer to extend lamp life, and to allow for fine tuning of the light level. The entire assembly is anchored with five long wood screws that minimize blemishes to the existing structure.

Thanks to Michael Smith for allowing us to wish you all a happy holiday season with light!

WANDA JANKOWSKI
EDITOR



Lighting Centers Explosion

ACROSS THE COUNTRY, architecture schools are intensifying their efforts in architectural lighting, particularly daylighting. In 1990, look for:

- Intriguing developments from the lighting research centers at the University of Minnesota, Rensselaer Polytechnic Institute, and the University of Washington,
- The debut of handsome, utility-sponsored, lighting design centers in several cities on the West Coast, and
- From Lawrence Berkeley Laboratory, innovative efforts toward an advanced design tool that combines the best of videodisc and microcomputer technology.

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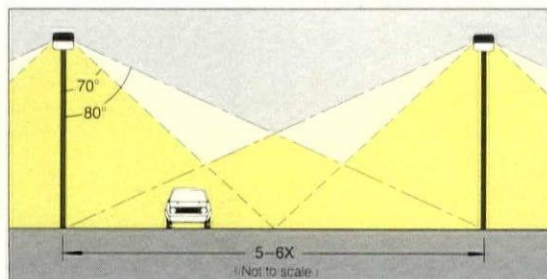


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Evoking Emotions



FLOODS & FLAMES: Designer James Callahan's dining room (left) is lit overhead with MR 16 spots and black, rectangular wall sconces. Drama is added to the Jacuzzi area (below) with 75-watt, colored outdoor floodlights. The mist from the tub swirls around a butane torch at the top of the Greek statue.

James Callahan
 'chisels darkness' to
 create light illusions

CATHERINE SCHEITTING SALFINO
 MANAGING EDITOR

Everybody knows what they like, but they only like what they know, says lighting/interior designer James Callahan.

"I walk a thin line sometimes in my lighting and design—some people say it's a little ostentatious or a little theatrical," says Callahan, who was involved with theater before becoming a designer. "But they're only comparing it to what they know."

In the early '70s, when Callahan had a design firm in Ohio, he says he was considered to be a very flamboyant designer.

"I would use magenta streaks of neon across white walls and have light come

CONTINUED ON PAGE 10

CREDITS/SOURCES

PROJECT: CALLAHAN RESIDENCE
LOCATION: PALM SPRINGS, CA
OWNER: JAMES CALLAHAN
LIGHTING DESIGNER: JAMES CALLAHAN
INTERIOR DESIGNER: JAMES CALLAHAN
PHOTOGRAPHER: TOM RUSSO, TOM RUSSO PHOTOGRAPHY
LIGHTING MANUFACTURERS: LUTRON, dimmers, HALO, fixture trims; GENERAL ELECTRIC, halogen Performance Plus, PAR 20 lamps, incandescent lamps; LUMILINE, incandescent tube lamps; ROXTER, 4515 accent lamps, MR 16 spots; CUSTOMIZED JAMES CALLAHAN, bar top pilot lights, dining room sconces; NOVA, bedroom sconces



Personal, Emotional Light

THERE WILL BE A TREMENDOUS emphasis on exterior residential lighting. People are just beginning to understand the importance of it—color's ability to enhance, coordinate with an exterior theme, or highlight lawn sculpture.

People are spending more time at home, so we are seeing an emergence of varied home environments. Homeowners are looking for their own identities—they realize their home doesn't have to look like everyone else's.

I think lighting will gain more importance in residential applications, also, if designers recognize that they need to stimulate people emotionally, instead of technically. Designers need to stimulate clients' emotional responses with light.

JAMES CALLAHAN ■ LIGHTING/INTERIOR DESIGNER ■ PALM SPRINGS, CA

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to "create wonderful, exciting illusions," rather than its technical aspects.

"There are a lot of designers who are engineers or architects. And when they refer to lighting, it's something they have calculated," he says. "They don't take into account lighting's ability to evoke emotional responses from people."

Callahan, on the other hand, says his lighting designs evolve after studying his clients' personalities—who they are, and who they want to be. Their unique identities are reflected in the lighting applications. He took the same approach when he designed his own home.

"I had an image of myself as well as the kind of environment that I was going to live in comfortably. It had to be creative, romantic, and sexy. So I used various lighting techniques not only to exhibit my expertise, but to absolutely portray the individual who lives there."

Unusual color combinations of blacks, browns, grays, and sands are used throughout the interior of the house, creating a darkened environment.

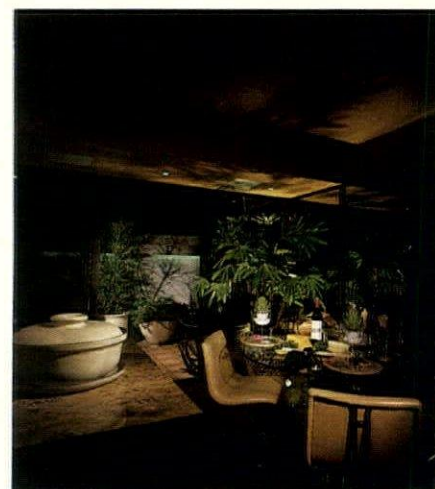
"Some people fear darkness," Callahan says. "But darkness is extremely romantic and sensuous if you enhance it."

The darkness in Callahan's home was "enhanced" with MR 16 lamps. These very narrow spots allow light to be concentrated straight down without a wide beamspread.

"I wanted to make this dark environment crisp," Callahan explains. "An MR 16 offers the perfect color rendition for the colors I've used here. In the living room, to accent the lightness of the suede sofa on the dark brown carpet, I needed to make the silver come out. Also, since you step down into the room, it called for the lighting to come from over your head. Light coming from under your eyes would detract from what you're supposed to see. An MR 16 is perfect for this, since it's a cool white light."

The MR 16s are controlled with a dimming system to produce a warm glow. They combine well with the warm, pink 18-inch incandescent tubes recessed in the living room and bar areas—around the fireplace, behind the wall unit, above pictures, and under various furnishings. Callahan turns the MR 16s down to half power and brings the tubes up to full power. This technique

CONTINUED ON PAGE 12



Evoking Emotions

CONTINUED FROM PAGE 8

from under sofas in white and color. People would say, 'Well, that's really theatrical, but we just don't do that in homes.' "

Not to be deterred, Callahan continued practicing his creative designs and when he left Ohio in 1976 for California, he found an outlet for his work. In Palm Springs, CA, the base for James Callahan, a Design Corporation, he says he felt there was a lot of room for creativity.

"I come into contact with people who have different attitudes and likes, and they all seem to want something that is more exciting and different than what they have," Callahan says. "But most people don't know what's available, so I show them. I expose them to interiors and lighting schemes that are attractive, stimulating, romantic."

Callahan, one of just a few interior designers who is a member of the International Association of Lighting Designers, likes to emphasize lighting's ability

PATIO PARs: In his guest room (above), Callahan used halogen PAR 20 50-watt lamps in the ceiling and 75-watt lamps in the large, round wall sconces. The same PAR 20 lamps spotlight the patio area. More MR 16 spots are used in the eating area (right.)

Small Is "In"; Substance Is "Out"???

1990 FORECAST

FOR THE BETTER, I see the fixture manufacturers catching up with the variety of new and improved light sources. We shall see the emergence of the T8 and BIDX lamps as more popular fluorescent sources, as new fixtures are designed to exploit these

inherently superior lamps. I expect whole new types of fixtures to emerge, such as linear wall-washers, and adjustable accent/wall-washers. Smaller fluorescent fixtures should become more popular with architects and interior designers, and a new family of wall-mounted fluorescents should also be developed soon.

The newer, high-efficiency, tight-beam incandescent sources will be housed in more compact fixtures, and will effectively challenge the MR series of lamps. Interestingly enough, the low-watt, low-voltage, single-ended quartz lamps will invite the development of an entirely new family of fixtures, which will grow in popularity.

The European influence on the American market will grow, with its emphasis on quality at a price. This is one challenge that American manufacturers are simply not prepared to deal with effectively. The European manufacturers will open their own factories to exploit a market that they may not have invented, but have certainly developed, and are prepared to exploit.

On the down side, I see increasing emphasis placed by architects and interior designers on physical appearance, and less emphasis on light as a tangible element of architectural design—more focus on surface, and less on substance. This attitude is more common in Europe and the Orient, and represents a backward step for the United States.

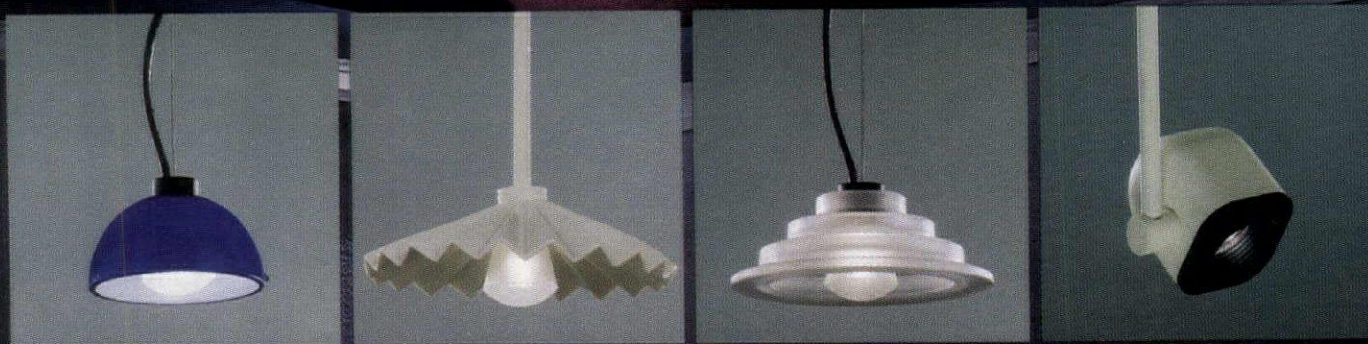
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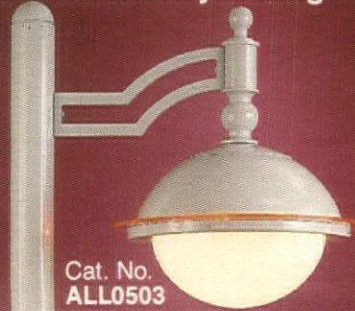
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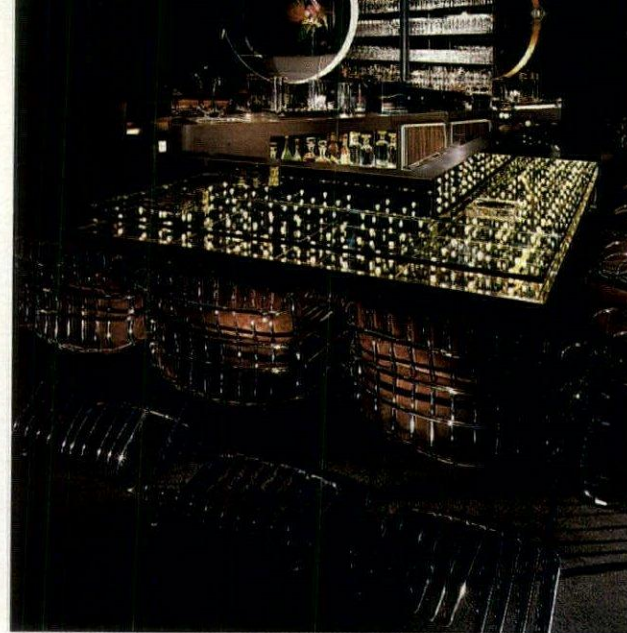
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MIMICKING CANDLELIGHT:

To achieve the look of candlelight in the bar area, Callahan custom-designed the incandescent, 6-watt pilot light bar top, which uses a dimming system. The same incandescent, 18-inch tubes that are in place in the bar are used in the living room.

Evoking Emotions

CONTINUED FROM PAGE 10

complements the brown colors and enhances the coolness of the grays.

To capture the look of candlelight in the bar area, Callahan used 6-watt incandescent pilot lights that are also hooked up to the dimming system.

"Amber candlelight is the most flattering light for the complexion," he says. "And here, we have that type from pilot lights counteracting the ceiling light—it comes up under your face and it is very flattering."

"The bar lights can be turned up and can also pulsate with the music. When you're in that happy frame of mind after the third cocktail, it makes it very exciting. Of course, you have to do something like that at the right time. But being able to make people feel different through lighting is what makes our profession so exciting."

Out on the patio, Callahan used halogen PAR 20 spotlights. The luminaires have an incandescent receptacle

with a halogen lamp inside that gives off a very strong light. The same fixtures were used in the bedrooms with 50-watt narrow spots.

Another bit of dramatic lighting is in the Jacuzzi area, which is located just off the master bedroom. Callahan created a very mystical, ethereal setting by placing 75-watt colored outdoor floodlights at the base of the tub. The mist from the jacuzzi swirls around a butane torch that is placed at the top of a sculptured stallion's head from Greece.

"It says drama. It draws guests out there. Again, it evokes emotion. As lighting designers, I think that this is an area we should be deeply concerned about because I don't see that much concern going on right now in this area and there needs to be more of this happening."

"I think probably the most important thing I can do is take a client and make their environment look and feel like them," Callahan says. "I don't mean in art or furniture. But make it resemble them in personality and emotions. A designer should not ask what a client wants in their house. They should ask how a client wants to feel." ■

1990
FORECAST

Quality Research, Better Products

I BELIEVE NEXT year will bring an increase in:

- Parabolic troffers using specular aluminum reflectors, and high-efficiency complex reflector forms, including many specifically for compact fluorescents
- Use of compact fluorescent systems
- Sophistication of dimming systems, due to microchip technology advancements.

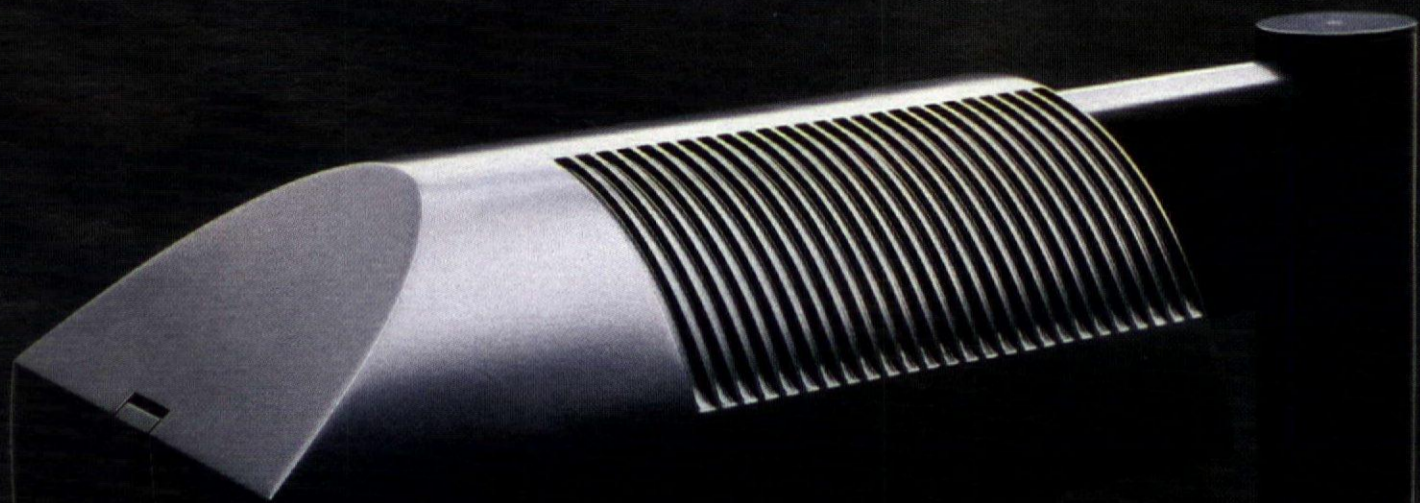
I see a greater emphasis on the quality of light in the work environment by facility managers. Many large corporations are competing for highly qualified employees, and seek to offer them more comfortable and productive environments.

In the past, lighting design for laboratory and pilot plant areas was principally concerned with the quantity of light delivered, and the mechanical strength and gasketing of the fixtures. In the future, the concern for construction quality will be enhanced by an emphasis on improved visibility standards. This will lead to increased use of parabolics, low-brightness lensing and care in future placement.

Also, there will be less use of low-voltage, halogen lamps in standard wall wash or downlight applications, except in retail or display situations. These sources are precise, but not as good for general lighting applications as originally thought.

ALFRED R. BORDEN IV, IALD ■ THE LIGHTING PRACTICE ■
PHILADELPHIA, PA

Finally! A Bold New Direction in Outdoor Cutoff Lighting.



The Archetype™

Once every decade or two, a luminaire design is created that totally changes the definition of outdoor lighting. The Archetype will become that new definition. Why? Because it reflects the latest thinking in industrial design, architecture, technology, ergonomics and lighting performance.

The Archetype is a product of design logic. Its function and purpose are clearly stated by its form, while its compatibility with today's architecture is unsurpassed. The housing and lens frame are rugged one piece



die castings with an ingenious latch that is beautifully detailed into the nose. Four light distributions, six mounting configurations and up to 400 Watt lamp sizes provide total project flexibility for street or area lighting. Simply stated, The Archetype is the new state-of-the-art in cutoff lighting. Everything else is history.

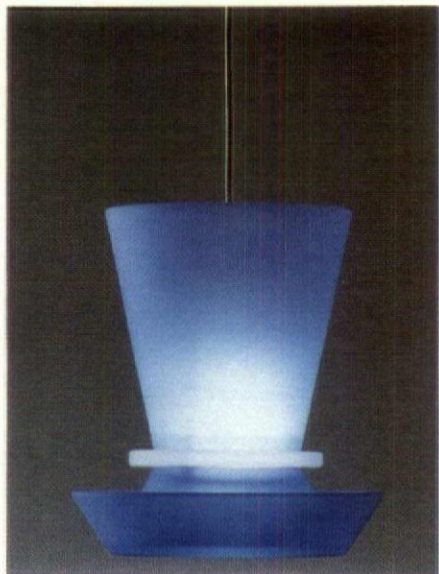


KIM LIGHTING

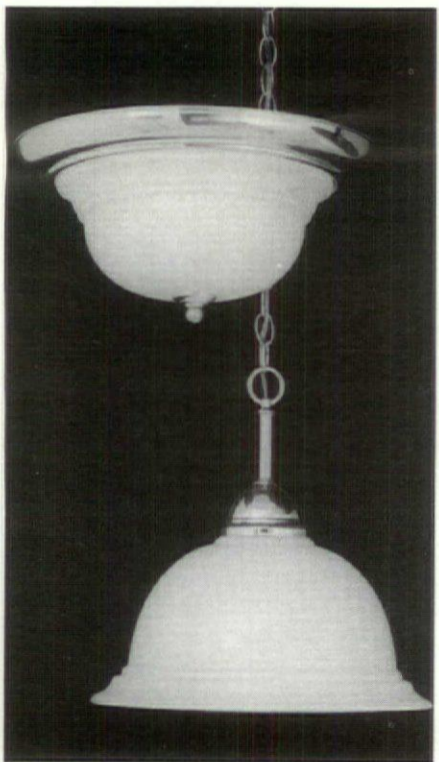
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SHOWCASE

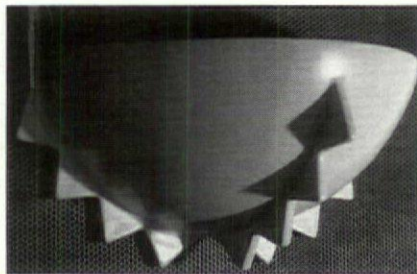
DECORATIVE



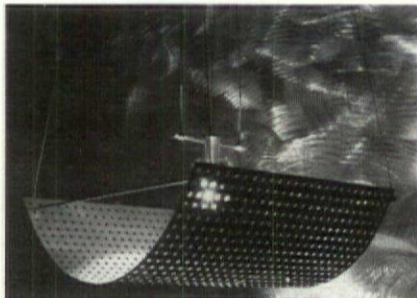
THE ZEFIRO PENDANT LAMP FROM ATELIER INTERNATIONAL LIGHTING provides direct and diffused lighting effects using a 150-watt incandescent lamp. The fixture is available in three styles offering different sizes and color combinations. Atelier International Lighting, Long Island City, NY. *Circle No. 60 on product card.*



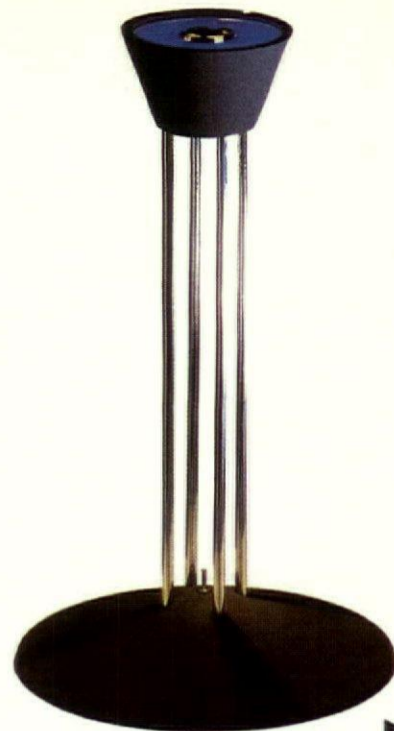
BECKER LIGHTING'S FIXTURES ARE made from polished or French solid brass and solid triplex opal glass, and are supplied with incandescent lamp holders. Models 650 and 651 are 8 inches high and 16 inches wide, and use three 60-watt bulbs. Models 652, and 653 are 17 inches x 19 inches, and use 150-watt bulbs. Models 770 and 702 measure 16 inches high, 14 inches wide, and also use 150-watt bulbs. Becker Manufacturing Co., Inc., City of Industry, CA. *Circle No. 61 on product card.*



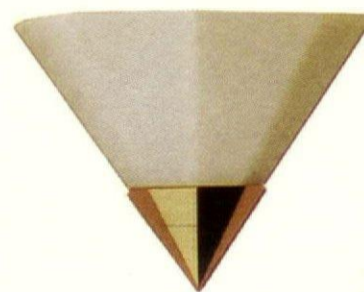
GOTHAM DESIGN'S CERAMIC, WHITE-FINISH WALL SCONCE measures 14 inches x 7 inches x 7 inches. The fixture uses a 100-watt halogen bulb. Gotham Design, Malibu, CA. *Circle No. 62 on product card.*



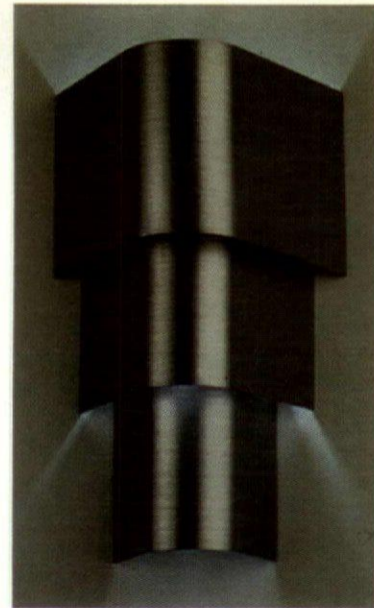
LAMP ONE, A HANGING HALOGEN LAMP FROM DOG ON A COLD STONE FLOOR DESIGN, is made from milled aluminum, punched aluminum sheet, brass, braided aluminum tubing, and uses a standard 12-volt, 50-watt, MR 16 narrow flood halogen source. The fixture is available in clear or black anodized finishes. Dog On A Cold Stone Floor Design, Genoa, NY. *Circle No. 63 on product card.*



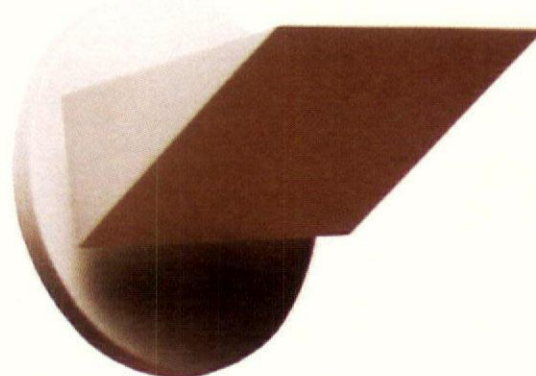
THE COBALT TABLE LAMP FROM KOCH & LOWY has a cobalt blue glass shade, polished chrome stems, and a base with a black nextel, flat aluminum finish. The maximum wattage the 15-inch high lamp can utilize is a 12-volt, 50-watt halogen. Koch & Lowy, Long Island City, NY. *Circle No. 64 on product card.*



BEGA'S LIMBURG GLASS OCTAGONAL CONE is available for wall mounting, ceiling mounting, and as a pendant fixture. The handcrafted, blown-glass fixture allows high transmission of light and is available with incandescent or compact fluorescent light sources. BEGA/FS, Santa Barbara, CA. *Circle No. 65 on product card.*



DENNIS MILLER ASSOCIATES' WALL SCONCES, designed by Brian Donovan, are available in lavender, blue-green, peach, or clear with either a clear or brass finish. Using incandescent or halogen bulbs, the light shines upwards, downwards, and outwards as a result of the housed reflector panels. Dennis Miller Associates, New York, NY. *Circle No. 66 on product card.*



NORBERT BELFER'S WEDGE LENS SERIES is a wall-mounted upright that provides wide light distribution. The fixture offers single or twin halogen lamp sources and can be mounted on either round or square backplates. Norbert Belfer Lighting, a division of Lighting World, Inc., Ocean, NJ. *Circle No. 67 on product card.*

1990 FORECAST

"... Material Casts Shadows— Shadows Belong To Light ..."

LOUIS KAHN'S EXPRESSION reminds us of the common path shared by those who design our buildings and those who light them. When we fail to clearly understand each other's role, the path divides—often to the detriment of our structures.

By choosing to enter the next decade as thoughtful and responsive designers, sensitive to the dreams of our collaborators, and with an increased perception of our place in the world, we will humanize our visions . . . and continue together on the common path.

**CAROL CHAFFEE, IALD, IES ■ IMERO FIORENTINO ASSOCIATES
■ LOS ANGELES, CA**

Olde Georgetown

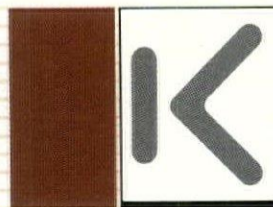
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The sense of style that is Georgetown. These majestic fixtures are solid brass, with center columns and candle holders cast and handturned by craftsmen. Painstakingly polished to a brilliant lustre, then coated to preserve the lustre. Brass "candle followers" on each candle add an authentic accent to the Georgetown look. A look of grace and elegance that remains at the height of today's fashion.

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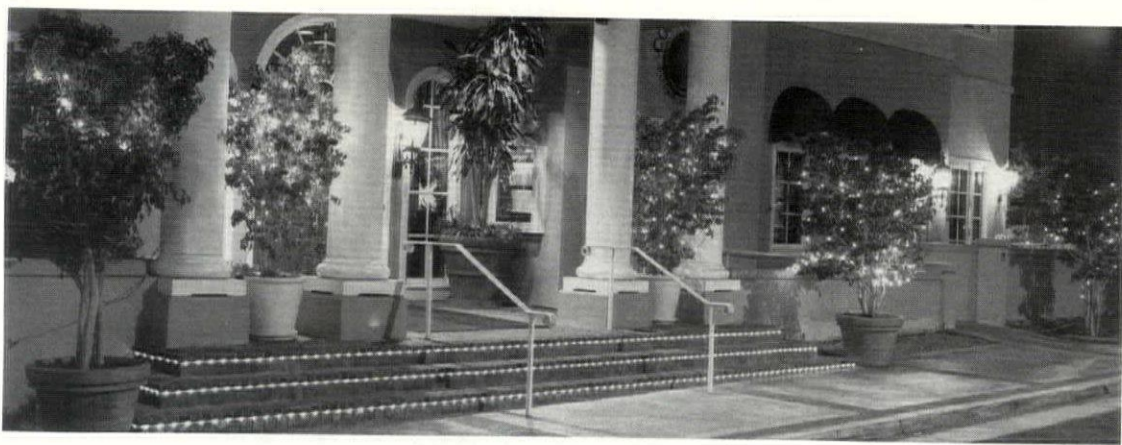
K I C H L E R
LIGHTING

CLEVELAND, OHIO

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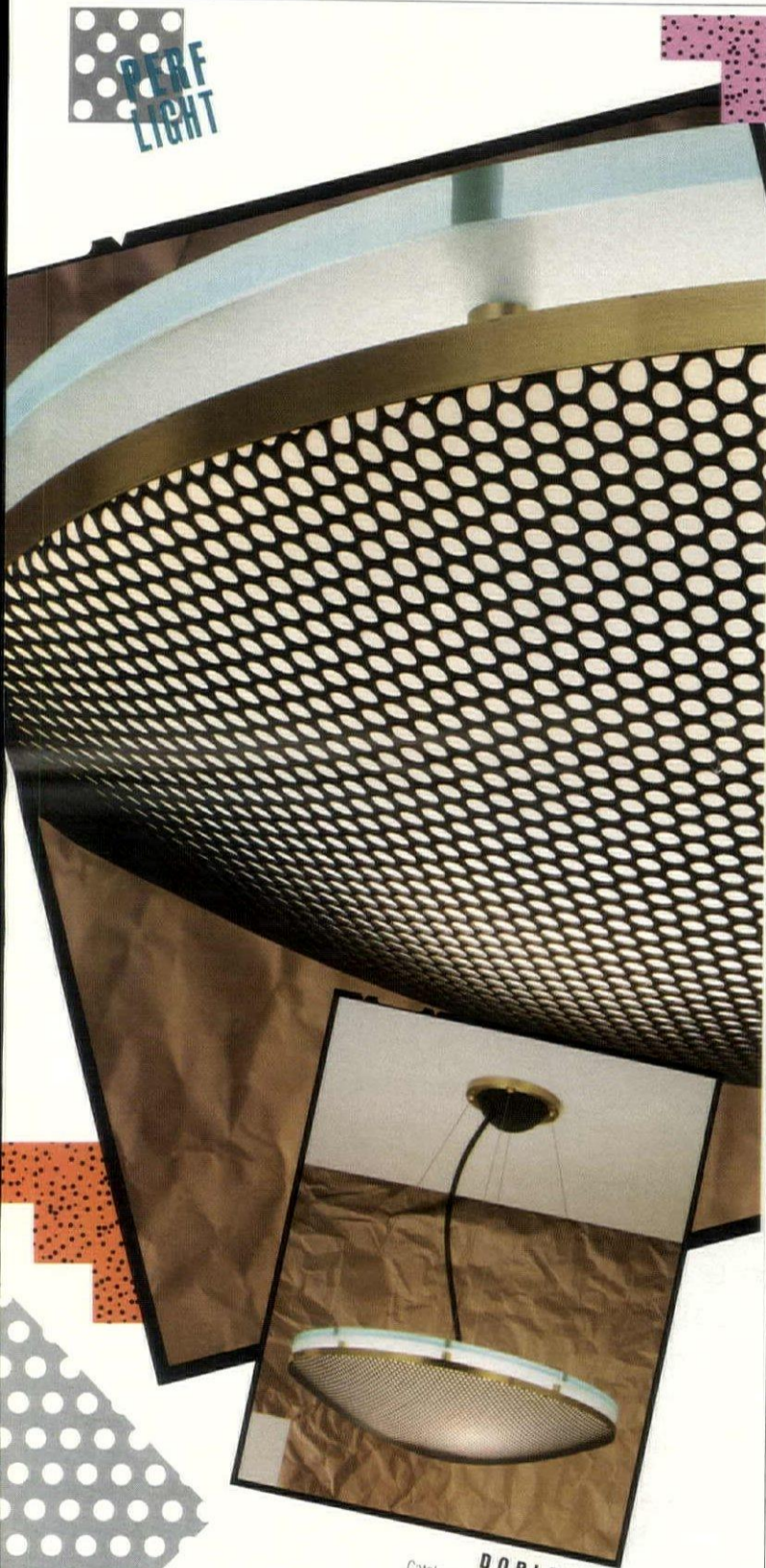
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TIVOLI INDUSTRIES' GUIDELIGHT EXTRUSION LINE provides low-voltage decorative floor lighting. The extrusions are available in six channel configurations. Tivoli Industries, Inc., Santa Ana, CA. *Circle No. 68 on product card.*

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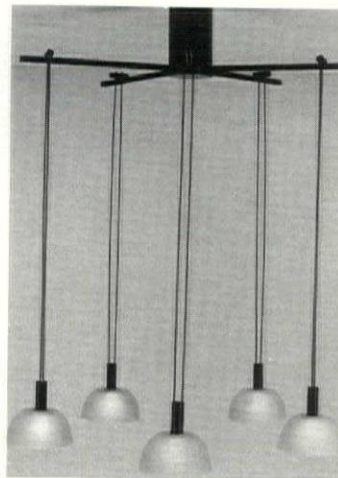
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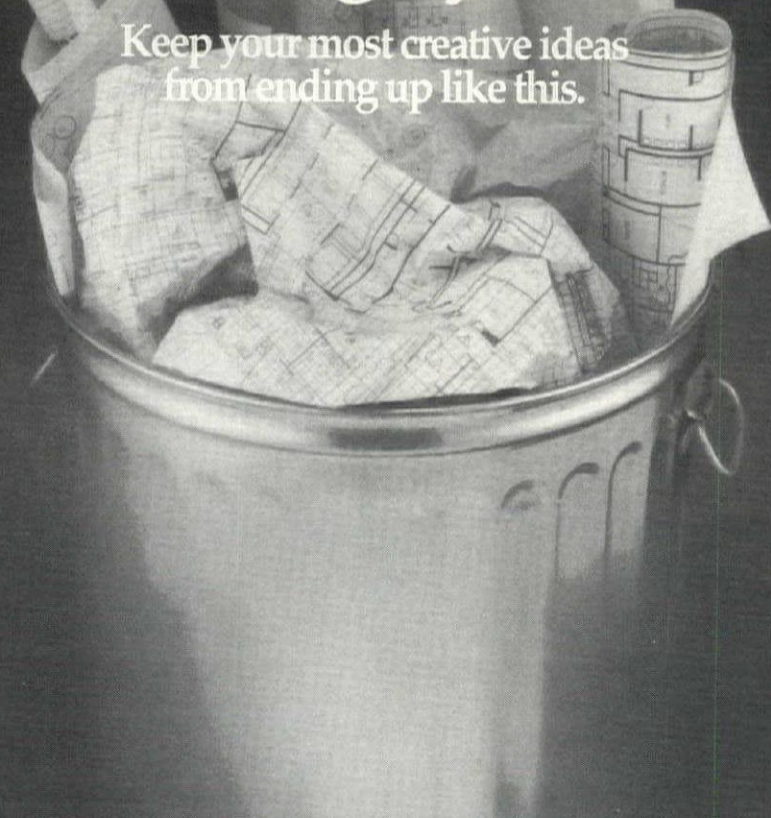
SUSPENDERS, A LOW-VOLTAGE HALOGEN LIGHTING SYSTEM, designed by Robert Sonne-man, and manufactured by George Kovacs, consists of a variety of canopies, horizontal bars, and vertical suspenders.

Blue glass shades and an assortment of six white shades are available to be hung from the ceiling or suspended from a wall bracket. George Kovacs, New York, NY. *Circle No. 70 on product card.*



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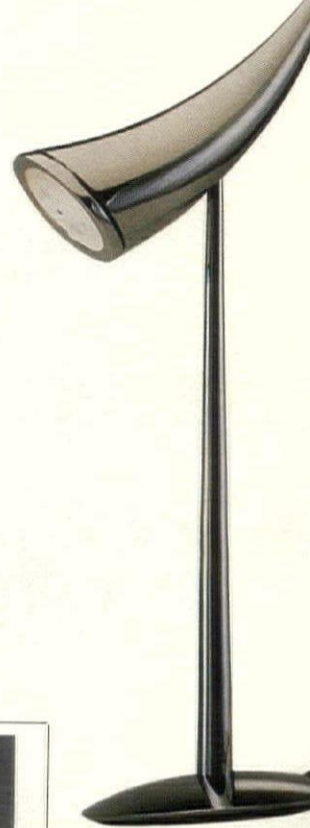
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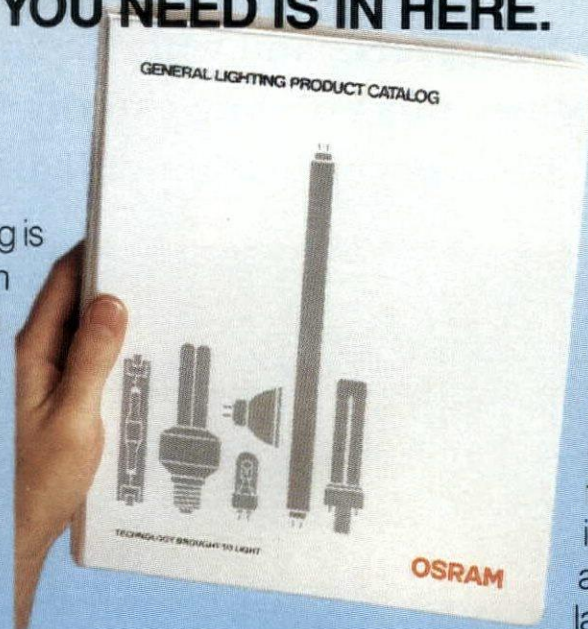


ARA, DESIGNED BY PHILIPPE STARCK, IS AN ADDITION TO THE FLOS COLLECTION of original design lamps. This table and task lamp provides direct lighting using a low-voltage, 35-watt, tungsten halogen lamp. The fixture has a 7-inch base, a tapered lamp stem with a horn-shaped lamphead, and is finished in mirror-polished nickel or black chrome. Flos Inc., Huntington Station, NY. *Circle No. 69 on product card.*

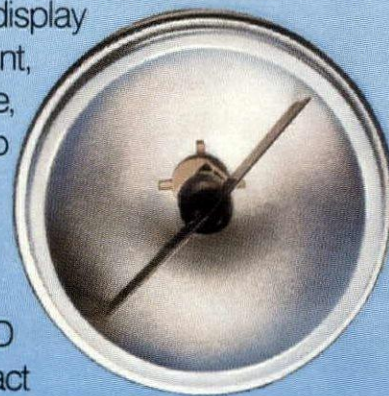
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IF YOUR DESIGNS REQUIRE LIGHT, EVERYTHING YOU NEED IS IN HERE.

The OSRAM General Lighting Catalog is a thorough source of information on every one of our energy saving lamps for general, task and accent lighting. It features complete specifications for each lamp, including luminance, efficiency and dimensions—and detailed schematics too. In the guide you'll learn more about:



PAR-36 Lamps: A unique aluminum reflector is responsible for the tungsten halogen PAR-36 lamp's light weight and antiglare characteristics. It offers excellent color rendition, a 2000 hour life and tight beam control. Applications include: display and accent, landscape,



track and downlighting, disco and spot lighting.

BI-PIN Lamps: Bi-Pin tungsten-halogen incandescent low voltage lamps offer a high luminous efficacy of up to 25 lm/W—for concentrated light in a sturdy, compact package. They are available in both axial and transverse filament construction to accommodate a wide range of reflector designs. They are the perfect fit to light small spaces and burn in any position, and have a lifespan of more than 2000 hours. The Bi-Pin is suitable for wall decorations as a working or supplementary light, for small showcases, and for highlighting in store windows, museums and galleries.



HQI Lamps: HQI metal halide lamps offer a high luminous efficacy and the highest level of CRI available. Their long life, high lumen output and low heat radiation make them the right choice for



indoor lighting systems in showrooms, store windows, trade shows, hotels and restaurants—any place where high quality and economical operation are a requirement.

DULUX® D Compact Fluorescents: DULUX D is a single-ended compact fluorescent that lasts more than 10 times longer, and consumes up to 75% less energy than a comparable incandescent, while providing the same light output. The DULUX D combines quality of light, excellent color and a high lumen package, making it suitable for small, unconventional fixtures, shallow downlights and modern lighting systems. The DULUX D is available in 2700 K, 3500 K and 4100 K color temperatures, and in standard and dimmable versions.



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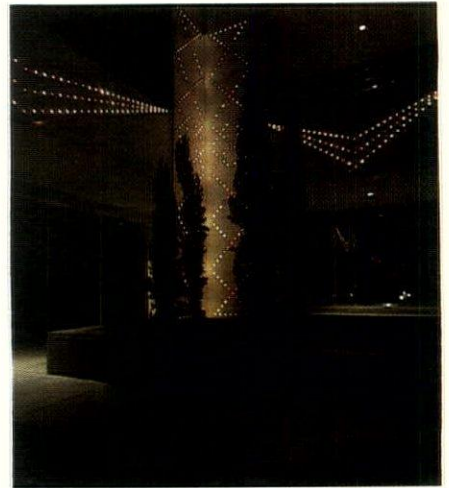


HOUSTON DECORATIVE CENTER'S

Gift Wrap

CHARLES LINN, AIA
EXECUTIVE EDITOR

A plywood, second skin holds the 8,000 red, green, and white lamps that transform this building exterior into a holiday celebration of light



The traditional approach to lighting buildings for the winter holidays has its limitations. Strings of lights that are beautiful by night may appear as unsightly masses of wiring by day. Anchoring, accurately positioning, and aiming individual lamps are tricky, too. Often the difficulties of dealing with those considerations leads to adopting a lighting scheme that merely outlines the form of the building with strings of lights.

Michael John Smith, AIA, IES, IALD, of Houston, TX, used his talents as an architect and a lighting designer to go far beyond the ordinary when creating festive holiday lighting for the Decorative Center of Houston. His concept for the main facade and two flanking colonnades required that approximately 8,000 red, green, and white lamps be positioned precisely to create an intricate geometrical design compatible with the existing architecture.

Smith fulfilled each of the client's requirements and dealt with anticipated weather conditions:

**PLEASING APPEARANCE BY DAY;
NO EXPOSED WIRING.**

Smith designed a temporary, false skin for the building to conceal the wiring, and to hold the inexpensive, off-the-shelf strings of Christmas lights in position. The skin was constructed of 5-foot x 8-foot x 5/8-inch thick exterior-grade plywood painted to match the building's stucco finish.

Each panel was splined to adjacent panels on all four sides to create a finish close to seamless, and hung from aircraft cable anchored to the building's parapet wall. A 3/8-inch hole was pre-drilled for each of the 0.5-watt lamps.

**FACADE REMAINS UNMARKED
WHEN LIGHTING IS REMOVED.**

Wiring and lamps were installed panel by panel, as each panel was suspended. Rubber bumpers placed at each cable stress point, as well as at the corners of every panel, prevented the panels from marking the building.

**SECOND SKIN STANDS UP
TO WINDY WEATHER.**

After the faux facade was suspended, more aircraft cable was used to tie it back to the building to prevent the panels from swaying in the winter wind. Temporary wiring was run over the roof to power the lighting, and a time clock was installed to turn the electricity on and off automatically.



**Office Lighting Redirected;
Comforting Color**

I BELIEVE THE coming year will bring positive developments in two areas:

- Increased use of indirect lighting in office environments
- Improved color rendering in light sources other than incandescent, which will make for more comfortable surroundings.

than incandescent, which will make for more comfortable surroundings.

MICHAEL JOHN SMITH, AIA, IES, IALD ■ LIGHTING
CONSULTANT ■ HOUSTON, TX

FOLKS FOOLED BY FAUX FACADE: "By day," designer Michael Smith says, "most people didn't have any inkling we'd done anything to the building. The holes for the lamps were so tiny, passersby didn't notice them until they were lit."

CREDITS/SOURCES:

PROJECT: DECORATIVE CENTER HOLIDAY LIGHTING
LOCATION: HOUSTON, TX
CLIENT: DECORATIVE CENTER
ARCHITECT AND LIGHTING DESIGNER: MICHAEL JOHN SMITH, AIA, IES, IALD
PHOTOGRAPHER: ROBERT GARCIA



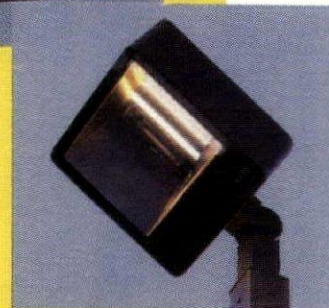
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SHOWCASE

LANDSCAPE

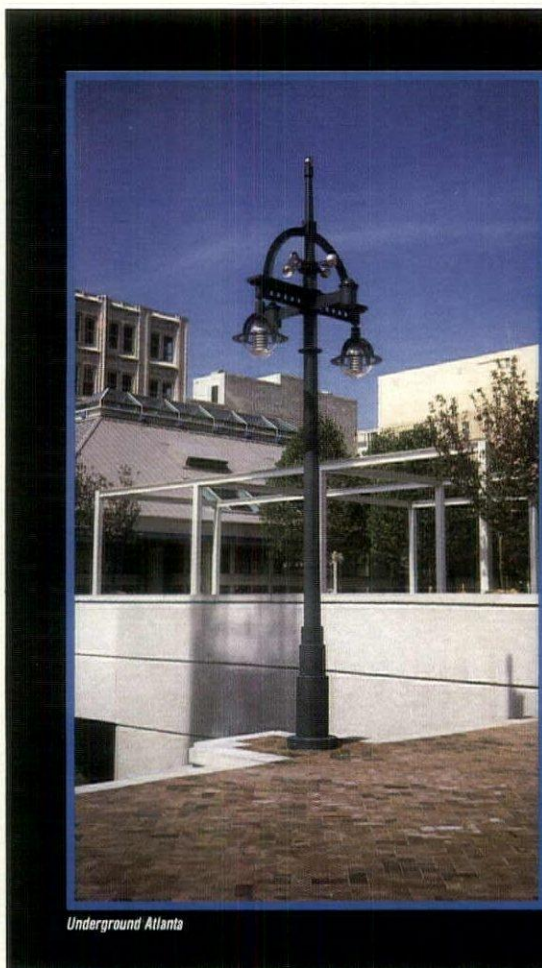
McGraw-Edison's CREDENZA SERIES OF EXTERIOR LIGHTING PRODUCTS features three different styles, 10 colors, three lampholder mountings, and 15 optional packages. The Dome Top model can accommodate 250-, 400- or 1,000-watt metal halide lamps or HPS lamps. The Low Profile version features a cylindrical flat-topped fixture and, like the Dome Top model, is available in three sizes with three mounting options. The Luminous Dome features a translucent dome. Units are offered in a variety of colors. McGraw-Edison, a division of Cooper Lighting, Elk Grove Village, IL. *Circle No. 84 on product card.*



THOMAS INDUSTRIES' ADJUSTABLE WELL LIGHT utilizes a 50-watt MR 16 lamp and features aluminum castings, a polyurethane powder-coat, hydraulic compression swivel fittings, stainless steel fittings, teflon-coated wiring, and silicone lubricated threading. These features make the well light resistant to corrosion, moisture, lawn chemicals, and salt spray. Thomas Industries, Inc., Louisville, KY. *Circle No. 85 on product card.*



HANOVER LANTERN'S HID BALLAST/JUNCTION BURIAL BOX includes a floodlight housing and features cast aluminum components including one piece ballast/junction box housing, watertight gasketed lids, two-piece gasketed adjustable swivel, and a sealed heat-resistant lens with cover. The fixture uses light sources of 50- to 100-watt mercury vapor, 35- to 200-watt HPS or 70-watt metal halide and is available in a brown finish. Hanover Lantern, a division of Hoffman Products, Inc., Hanover, PA. *Circle No. 86 on product card.*



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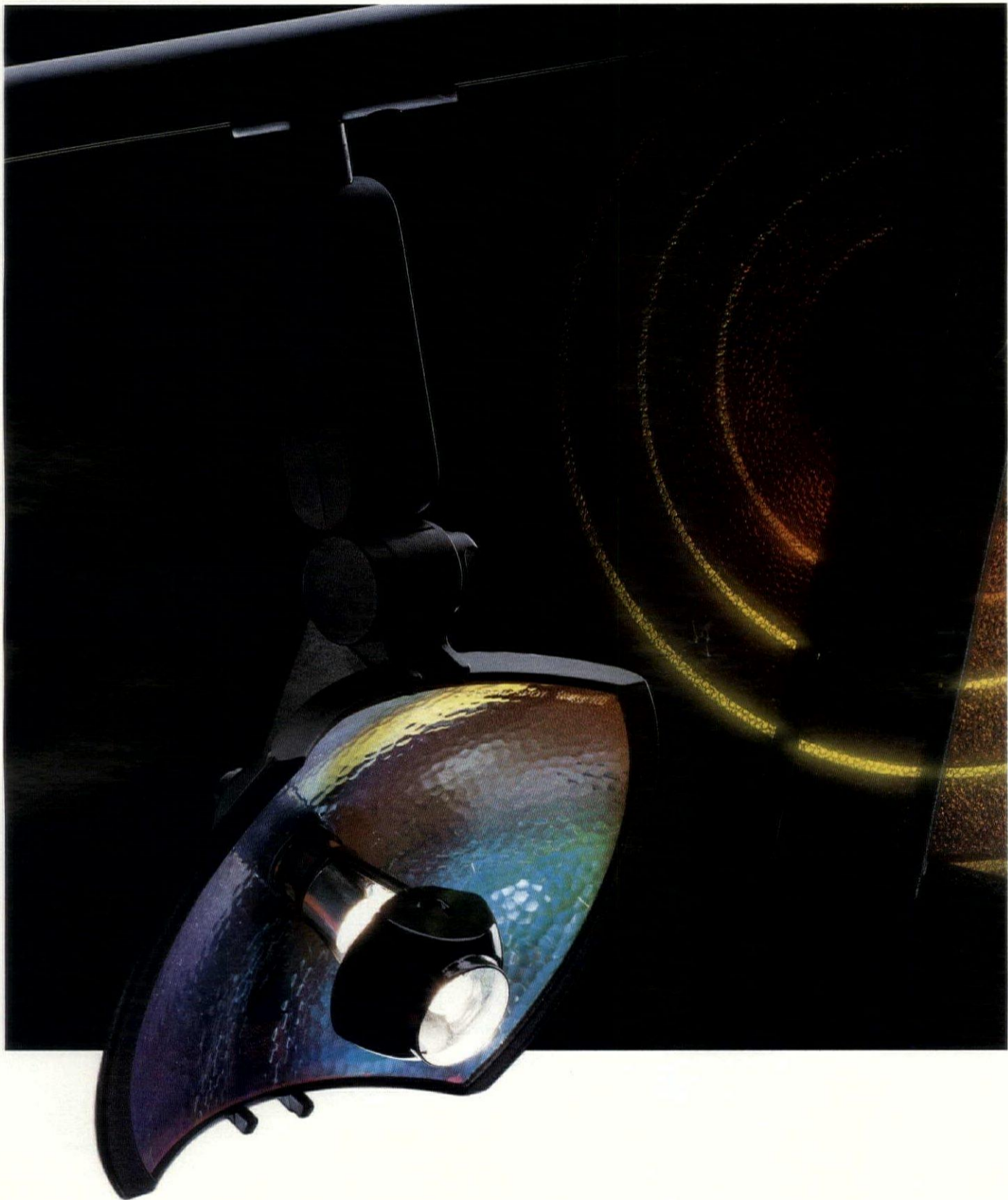
Circle No. 18 on product card.



MAGNIFLOOD'S 8-INCH × 7-INCH × 7-INCH COMPACT WALL LIGHT features cast aluminum housing and a polycarbonate lens that permits 180-degree light distribution. All units operate at

120 volts and are available in HPS 35-watt, 50-watt, and 70-watt, or with twin 7-watt fluorescents. MagniFlood, Inc., West Babylon, NY. *Circle No. 87 on product card.*

ITALIAN DESIGN & AMERICAN TECHNOLOGY



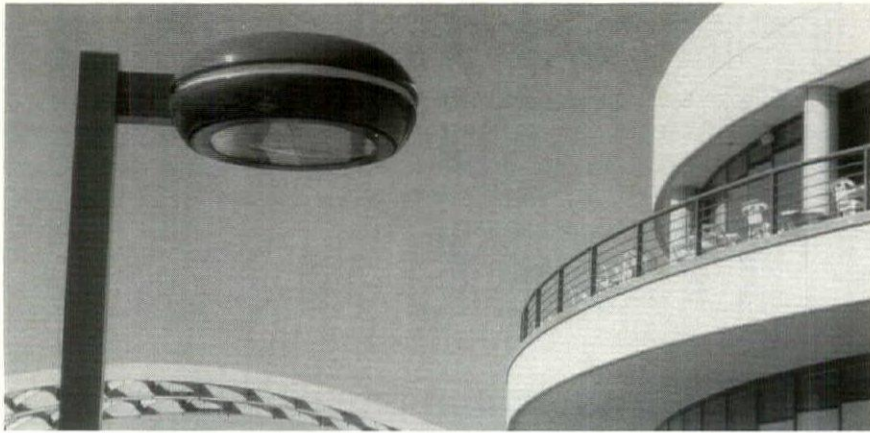
Another example of innovation by Targetti: a spotlight, distinctive for its sophisticated reflector design incorporating injection-moulded ULTEM® from GE, the newest addition to Targetti's state-of-the-art Minitondo miniature low voltage track collection.

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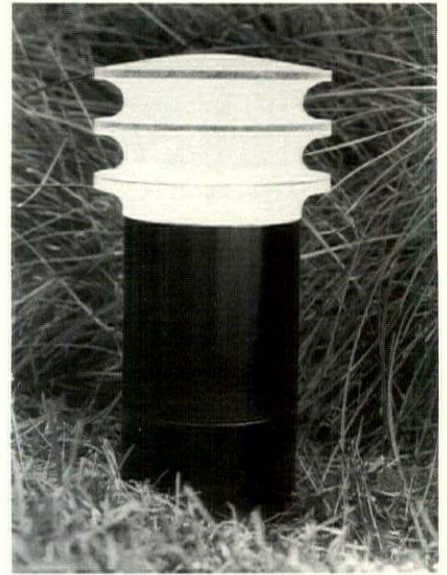
innovation & design in lighting

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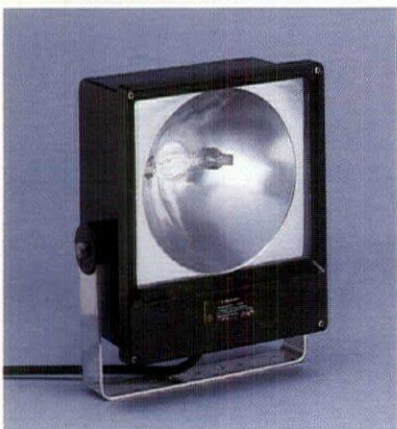
Circle No. 19 on product card.



SPAULDING LIGHTING'S CATALINA FAMILY of luminaires includes poles and fixtures available in 10 color finishes with illuminated color glow rings or opaque accent bands. Spaulding Lighting, Inc., Cincinnati, OH. Circle No. 88 on product card.



THE #502 AREA ILLUMINATOR, PART OF LUMIÈRE DESIGN & MANUFACTURING'S Tahoe family of mini-bollards, is made of a solid rod of U.V. stabilized acrylic. The clear annular lens projects the light outward from the crown, while the diffused center and the top produce an overall illumination. Lumière Design & Manufacturing, Inc., Westlake Village, CA. Circle No. 89 on product card.



MAKE YOUR POINT

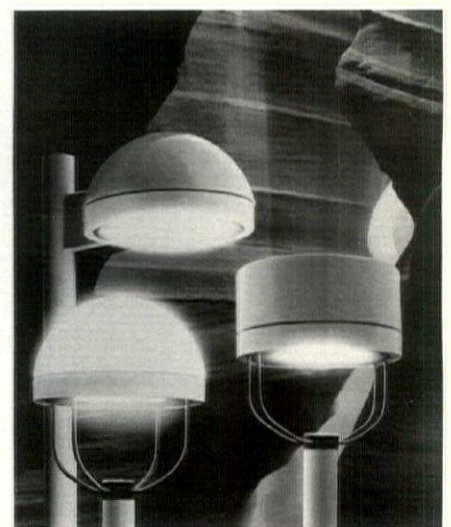
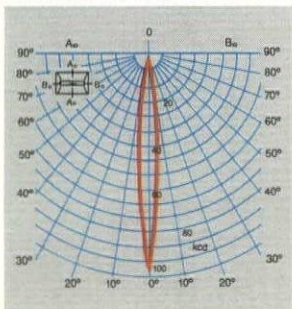


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Circle No. 20 on product card.

O'HARE SERIES OUTDOOR HQI® SPOTLIGHT

Not only does the Miroflector O'Hare series offer excellent efficiency, superb color and high C.R.I. (81-86) but it also offers an exceptionally concentrated light distribution through a computer calculated rotary symmetrical reflector. The housing is a robust die-cast aluminum casting with black lacquer finish. The series which is available in 150W HQI® and 250W HQI® also offers a broad flood, horizontal linear and vertical linear patterns. The O'Hare series is U.L. listed for wet location. The O'Hare series is but another of the innovative new high color rendering HID fixtures from Miroflector.



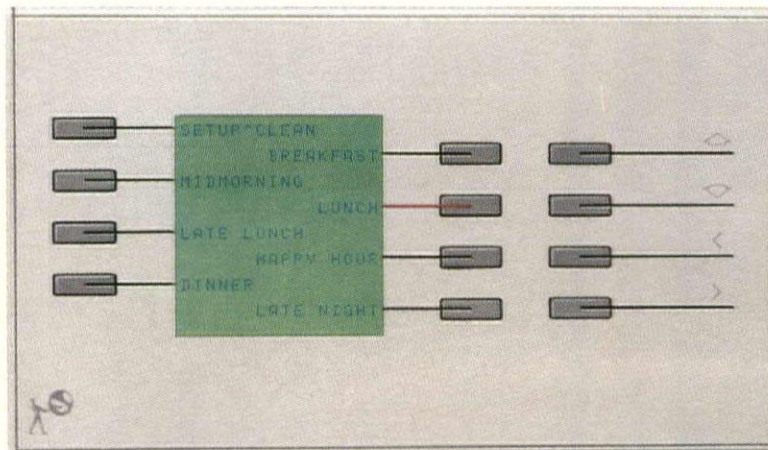
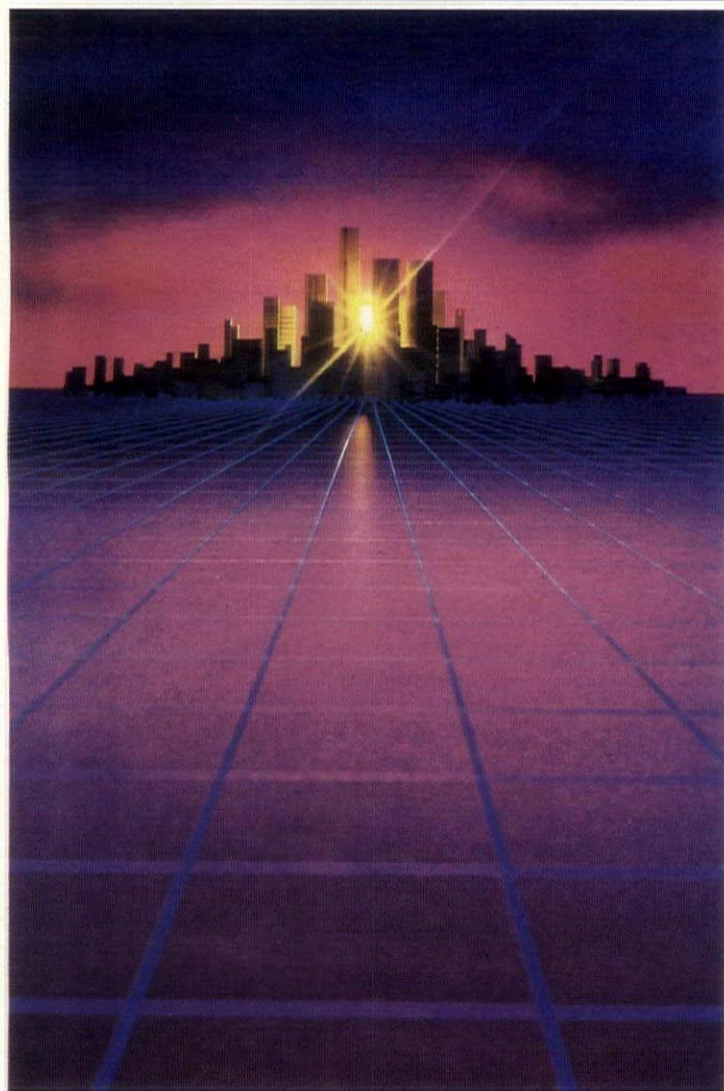
LITEFORM DESIGNS OFFERS SEVEN SERIES of California redwood outdoor lighting fixtures. Available in wall, path, post, and bollard styles, heights range to 72 inches tall. Light sources include incandescent, fluorescent, and high-pressure sodium. Liteform Designs, Portland, OR. Circle No. 90 on product card.

®HQI is a reg. trademark of OSRAM Corp.

PREMIERE

beyond imagination

With the advent of this new product, Strand Electro Controls pierces the technological ceiling to fulfill dreams that have, until now, been only dreams. Yet the welcome surprise lies not in the development of the technology itself...it has long been known that someone would develop limitless lighting control...but in the fact that it is available now. It is exciting! It is beyond imagination! It is **PREMIERE!**



Features:

- Simple to design
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- 128 channels per processor
- 128 presets per channel (matrix)
- Up to 512 dimmers
- Up to 256 relays
- 64 stations per processor
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- Screwless station faceplates
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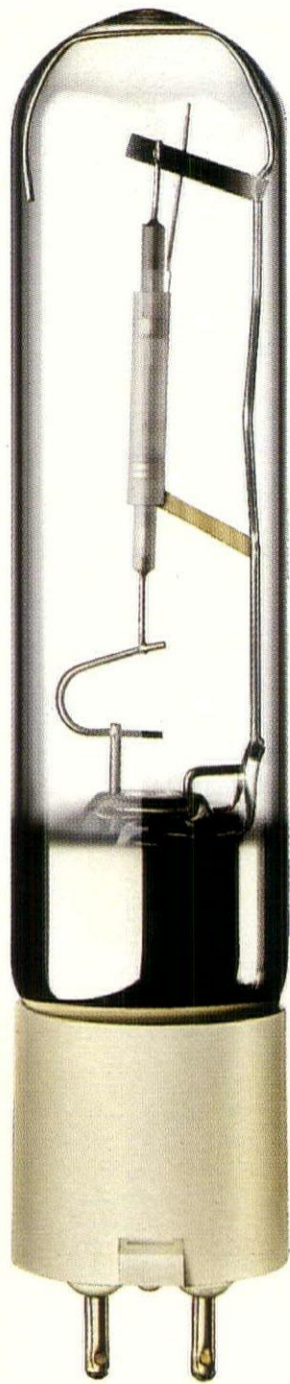
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For the name of your local Strand Electro Controls representative, Call Toll Free: (800) 453-7435 (Continental U.S.A.), (800) 387-3403 (Canada)

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Circle No. 21 on product card.



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Our new display lamp is such a big breakthrough, we feel confident promising you the moon.

Philips White SON lamp is the first and only High Intensity Discharge light source of its kind. It produces a brilliant, warm, full-spectrum light that lets you see color and texture the way no other HID lamp can.

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To learn more about the exciting White SON lamp take one small step to the nearest phone. Once there, call Philips Lighting Team at 1-800-631-1259.

It's time to change your bulb.[™]

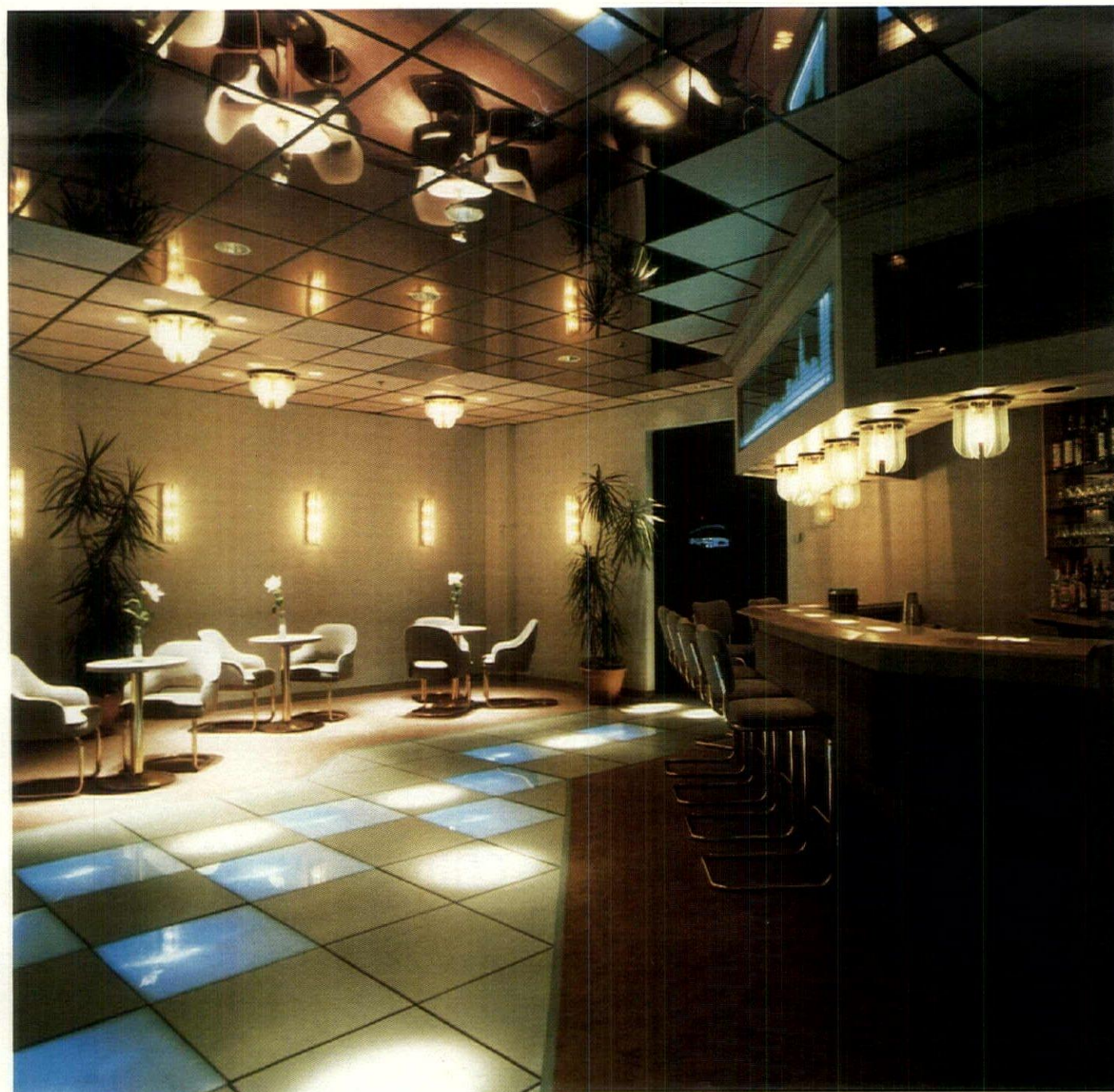
PHILIPS



AUDIENCE PARTICIPATION: The ceiling in the Education Theater (left) houses varied luminaires, and allows the audience to experience directly selected lighting effects. Application Theater full-scale rooms include a living room (right) and bar/lounge (below).



Light Theater



Philips Lighting Center offers the chance to experience light in full-scale rooms

WANDA JANKOWSKI
EDITOR

Attendees actually experience effects they've previously only heard, read, or talked about, and gain a whole new perspective, regardless of the number of years they've spent in lighting," says Mark Roush, manager of the Philips Lighting Center in Somerset, NJ. "I'm proud of how and what we teach," Roush continues. "We don't just throw out information, but instead help attendees to reach an understanding and appreciation of lighting. We like to think of ourselves as educators in the quality of lighting."

Philips Lighting Center, which opened in June 1988, offers seminars and conferences for groups up to 25. "We reach out to all individuals who desire knowledge in lighting," Roush says. Conferences are offered for designers, architects, engineers, contractors, developers, owners, utility personnel, distributors, and others.

The two main areas of the facility are the Education Theater and the Application Theater.

LIGHT, COLOR, VISION EXPLORED IN EDUCATION THEATER.

Seated seminar participants are moved into position for viewing the ap-

propriate demonstration area in the room by a rotating floor. The Education Theater room includes:

- a stage for discussion of fundamentals on light, color, and vision
- a light sources stage, with color boxes, and slide-out panels for the demonstration of lamps, optical effects, controls, ballasts, and other system hardware
- two side-by-side rooms that can be furnished to depict any application, depending upon the seminar for comparisons of lighting systems
- a white cube that allows for the demonstration of 117 lamp and luminaire combinations which rotate into view from six-sided drums, and is the focal point for discussion of beam characteristics, luminance, and the psychological aspects of lighting.

THE APPLICATION THEATER HAS FULL-SCALE ROOMS.

A wide range of effects can be shown in each of the theater's rooms, which include the following application areas:

- residential/hotel
- bar/lounge
- retail
- outdoor

At the lighting center, there is a full-

To Learn More About Lighting

FOR MORE INFORMATION contact: Philips Lighting Center, 200 Franklin Square Drive, Somerset, NJ 08875-6800, 201-563-3600.

JANUARY

22-26 Lighting Design and Application Workshop—\$320

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5-7 Lighting Application Workshop for Distributor Sales Representatives—\$250

MARCH

7-9 Lighting Conference for Utility Representatives—\$250
19-21 Office Lighting Seminar—\$250

APRIL

2-4 Retail Lighting Seminar—\$250
18-20 Lighting Conference for Consultants—\$250

MAY

7-11 Lighting Design and Application Workshop—\$320

SEPTEMBER

10-14 Lighting Design and Application Workshop—\$320
17-19 Industrial Lighting Seminar—\$250

OCTOBER

3-5 Lighting Conference for Utility Representatives—\$250
15-17 Lighting Conference for Consultants—\$250

NOVEMBER

7-9 Lighting Conference for Hotel/Motel & Conferencing Facilities—\$250
29-30 Light Sources for Luminaire Sales Representatives—\$220

DECEMBER

10-14 Lighting Design and Application Workshop—\$320

time staff of four, two of whom are directly involved with establishing programs. The approximately 20 speakers and instructors used are drawn from Philips professionals in the application, product, training, and marketing groups.

Feedback from attendees via an evaluation form sent out after each course keeps the center's program planners in touch with practicing professionals. The most common response according to Roush, is that "people are surprised it isn't a product presentation. They leave here excited about lighting." ■

1990
FORECAST

Lighting Center To Expand

Two additions will be made next year to the Philips Lighting Center:

- An industrial application demonstration area featuring 40 different lighting systems, and
- Conference rooms, holding up to 40 people each, where highly technical aspects of lighting engineering and equipment will be examined.

MARK ROUSH ■ MANAGER ■ PHILIPS LIGHTING CENTER ■ SOMERSET, NJ



HERE'S YOUR CHANCE TO SHINE.

It's the first Louisiana Light competition—a statewide program to spotlight the best exterior lighting work of our state's lighting engineers and architects.

The program, sponsored by Louisiana's Investor-Owned Electric Companies, will select winners in outstanding technical achievement, enhancement of architectural lines and impact on the nighttime environment. Commercial buildings may be entered by owners, architects, designers or admirers in four categories—single story, two to five stories, six stories and above, and specialty lighting, including fountains, monuments and landscape design.

For complete information and entry forms, call (504) 529-3161. Deadline for entry is March 31.

Call today! It may be your only chance all year to see your name up in lights.

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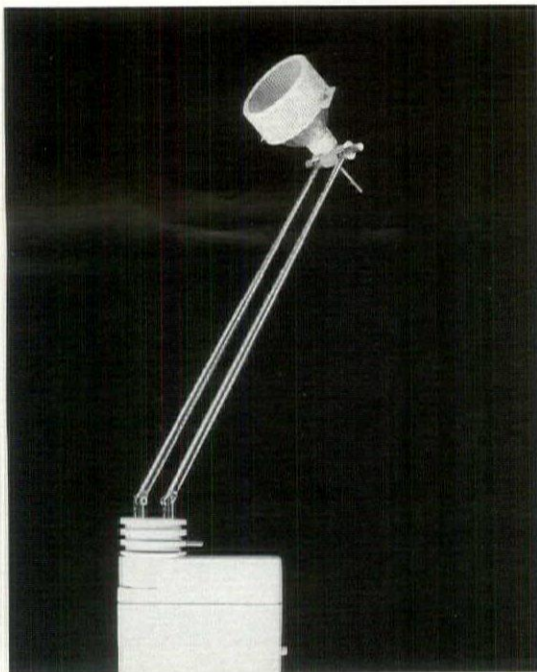
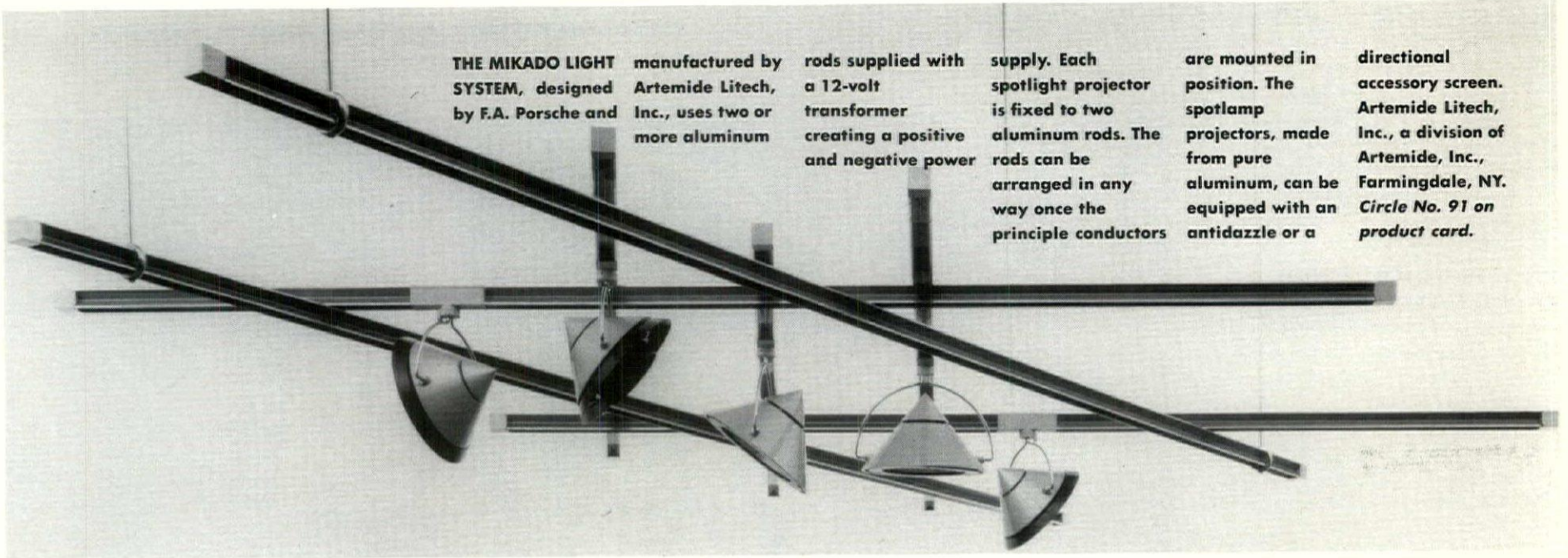
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Southwestern Electric Power Company

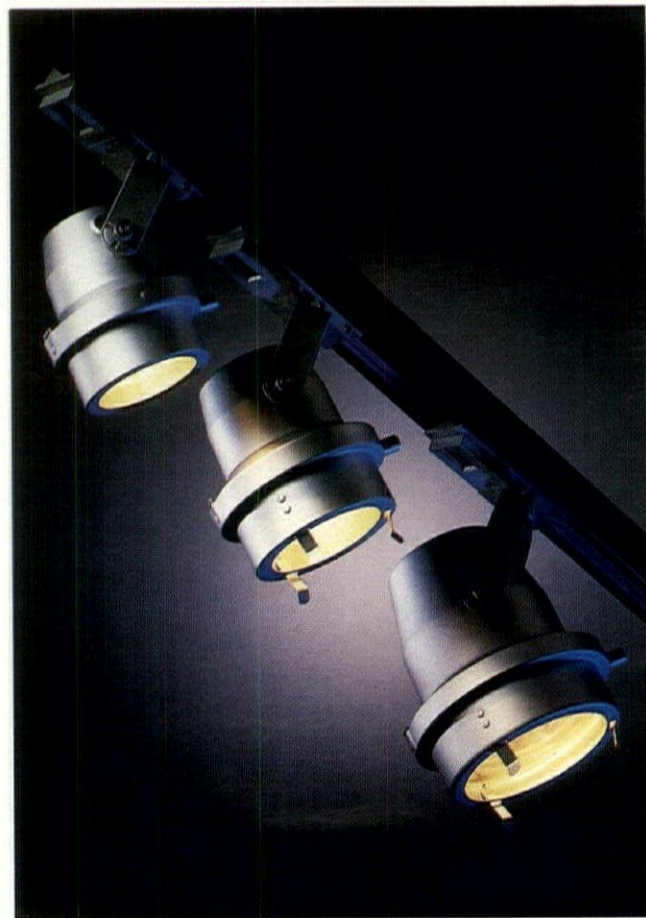
Circle No. 23 on product card.

SHOWCASE

THE MIKADO LIGHT SYSTEM, designed by F.A. Porsche and manufactured by Artemide Litech, Inc., uses two or more aluminum rods supplied with a 12-volt transformer creating a positive and negative power supply. Each spotlight projector is fixed to two aluminum rods. The rods can be arranged in any way once the principle conductors are mounted in position. The spotlamp projectors, made from pure aluminum, can be equipped with an antidazzle or a directional accessory screen. Artemide Litech, Inc., a division of Artemide, Inc., Farmingdale, NY. *Circle No. 91 on product card.*



◀ **THE LIGHTDANCE SERIES FROM LAZIN LIGHTING** consists of four different track and surface-mounted fixtures. In place of wires, telescopic and bendable arms carry the 12-volt current required for MR 16 lamps. The fixture is made of nickel-plated brass and molded plastic and comes in matte white or black. Lazin Lighting, NY. *Circle No. 92 on product card.*



◀ **THE SB-16 SPACEBIRD IS PART OF THE LOW-VOLTAGE SERIES FROM LIGHTING SERVICES.** The fixture is adjustable throughout all horizontal and vertical planes, and is made of extruded aluminum. The SB-16 Spacebird is powered by an electronic transformer for all MR 16 lamps from 20 watts to 75 watts in a range of beamspreads. Available in LSI black, white, or silver aluminum, its accessory holder can accommodate any combination of LSI attachments. Lighting Services, Inc., Stony Point, NY. *Circle No. 93 on product card.*



Ergonomic Lighting Born

MY MAGIC MIRROR (reflector) tells me that the most significant lighting event in 1990 will be the birth of the ergonomic lighting industry.

Most lighting manufacturers, with maybe one or two exceptions, are completely stuck in the electric illumination business (born in 1879). They sell footcandles when they are not selling strictly decorative Old World and Euro-style lighting equipment.

These manufacturers devoutly believe that the obvious end purpose of electric illumination equipment is to provide illumination of adequate quantity and "quality." Even that is tough enough to sell.

However, the true, but unfortunately less simplistic, end purpose of ergonomic lighting is to ensure that the complex patterns of luminance (not illuminance) seen by the worker are adequate in level, and relativistically correct for optimal visual comfort and acuity.

JOHN R. BRASS ■ PRESIDENT ■ LIGHTING RESEARCH & DEVELOPMENT, INC. ■ NOVATO, CA

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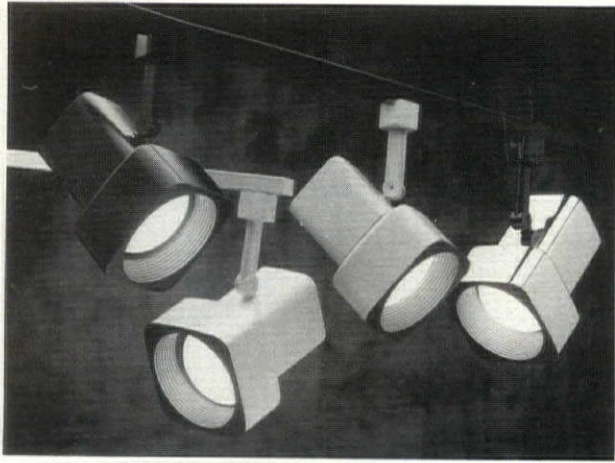
*The Schonbek family
invites you to join
us January 13-17 in
our new showroom,
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on the occasion
of our company's
120th anniversary.*



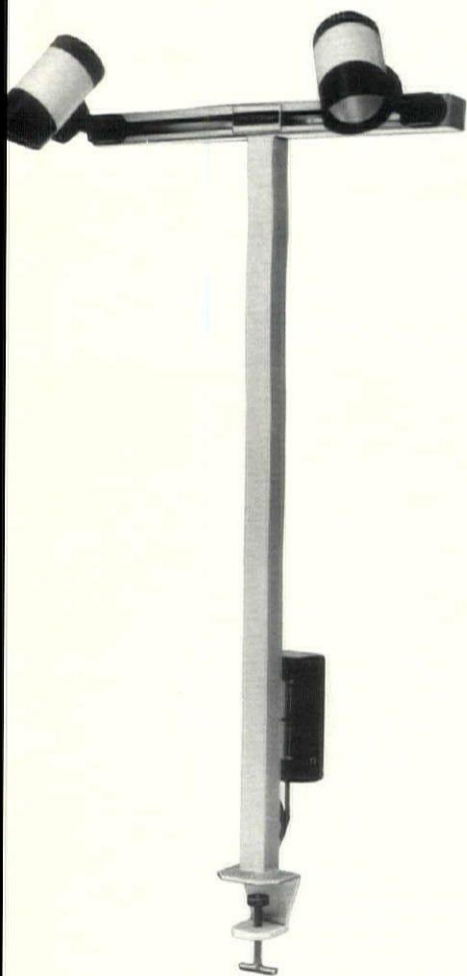
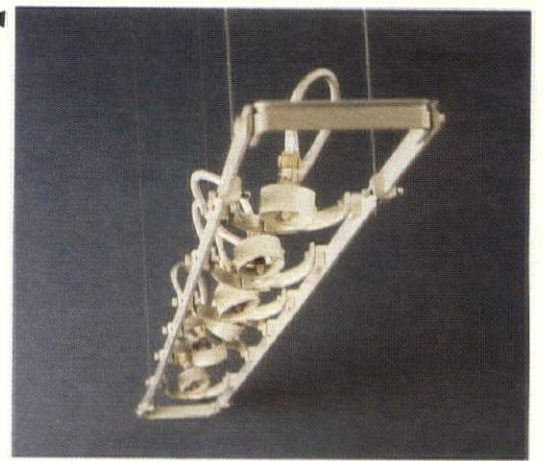
Schonbek Worldwide Lighting Inc., 4-8 Industrial Blvd. W., Plattsburgh, NY 12901. A. Schonbek & Company, Ltd., 920 Montée de Liesse, Montreal, PQ. Canada H4T1N8.

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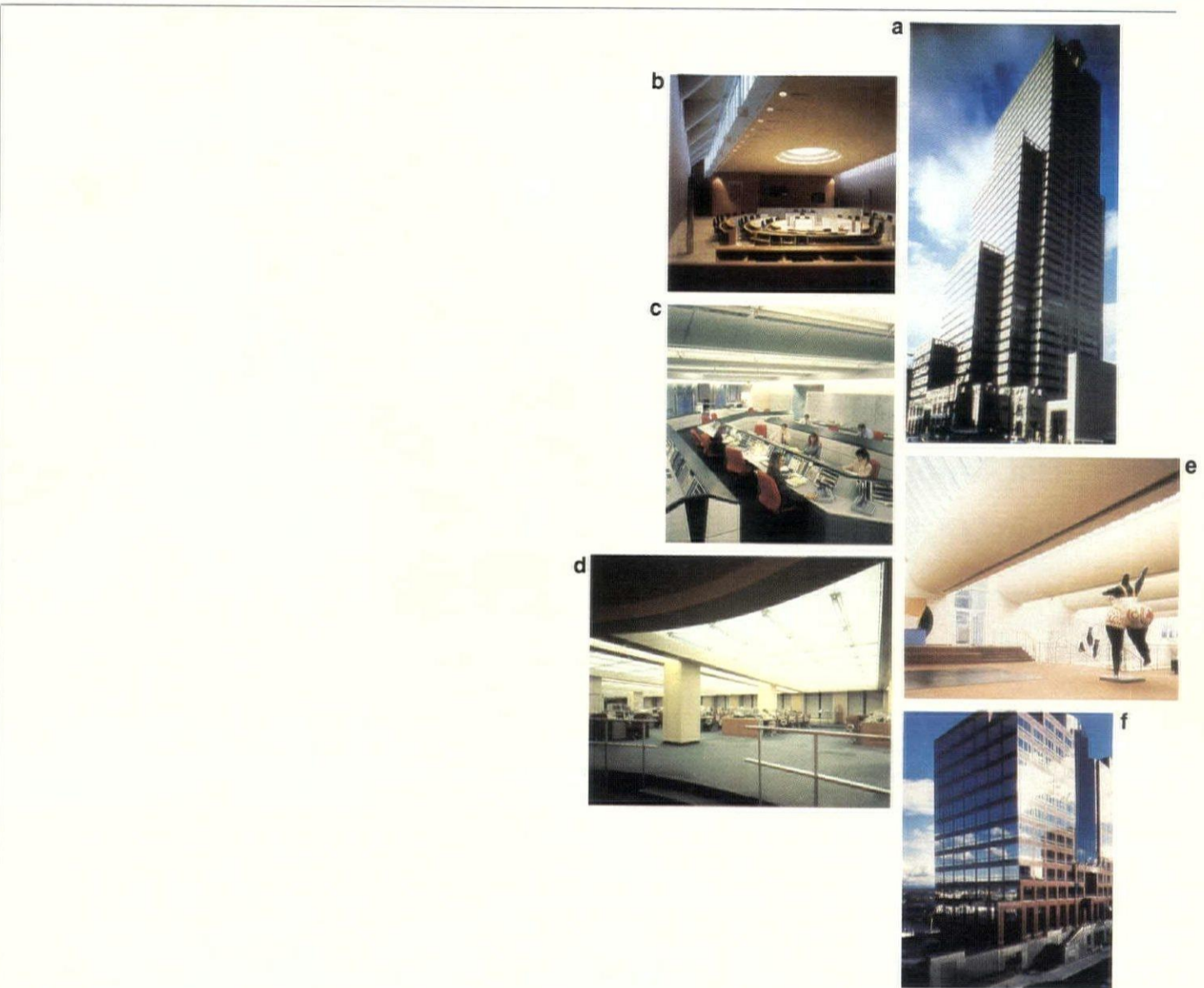
THE EXPANSION OF HALO LIGHTING'S POWER-TRACK geometric line of track lighting fixtures features two Soft Square Continental Lampholders. The smaller unit measures 5¹/₁₆ inches × 3³/₄ inches with a 6¹/₂-inch extension and can be used with 50-watt R 20, PAR 20, and 60-watt A 19 lamps. The larger unit can use 75-watt R 30, PAR 30, and A 19 lamps, or 100-watt R 25 lamps. It measures 6¹/₁₆ inches × 4¹/₁₆ inches and has an 8-inch extension. Halo Lighting, a division of Cooper Lighting, Elk Grove Village, IL. Circle No. 94 on product card.



MOONS, DESIGNED BY LAWRENCE C. OLIN FOR CHRISTOPHER LLOYD, is a system of individual fixtures that use low-voltage MR 11 halogen lamps, mounted on a cable suspended frame. The system is available in white and matte black. Christopher Lloyd, Inc., Hamden, CT. Circle No. 96 on product card.



BARO LAMPS' PORTABLE LIGHTING FIXTURE is 3 feet high, and equipped with a 9-foot cord for immediate use. Its two halogen lamps cover a space of 6 feet. This accent lighting fixture can be mounted to any table. Baro Lamps USA, Inc., San Jose, CA. Circle No. 95 on product card.



Zumtobel. A company known by the company it keeps.

- a I.M. Pei & Partners, Architects, Commerce Square, Philadelphia.
- b Wilhelm Holzbauer, Architect, State Government Building, Bregenz, Austria.
- c Mitchell B. Kohn, Architectural Lighting Consultant, A. Webster Dougherty, Philadelphia.
- d Kohn Pedersen Fox Conway Associates Inc., Architects, Bear, Stearns Co. Inc., New York.
- e Hans T. von Malotki, Lighting Designer, Wallraf-Richartz Museum, Cologne, West Germany.
- f Wyatt Stapper Architects, The Russel Building, Tacoma.

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For further information and the name of your local Zumtobel Sales Representative, please contact us at: Zumtobel Lighting, 141 Lanza Avenue, Garfield, NJ 07026 FAX 201 340-9898.

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ZUMTOBEL LIGHTING THE WAY

Learning Stages



GTE Sylvania's Lighting Center serves as a support system for company engineers and industry professionals

CATHERINE SCHEITTING SALFINO
MANAGING EDITOR

ANY TIME'S THE LIGHT TIME: The updated GTE Sylvania center informs visitors about the lighting field in its 2,500-square foot main conference room (above left) and display and application area (above center). Various lighting techniques are used to catch the attention of visitors as soon as they enter the reception area (right).

The GTE Sylvania Education and Training Center is filled with rooms that display various forms and sources of lighting. But, says center spokesperson Peter Brown, visitors should not misconstrue this as meaning the center is a lighting showroom. Rather, he says, the center, which is located at GTE's U.S. Lighting Division headquarters in Danvers, MA, focuses on lighting education.

"Each room is dedicated to promoting a better understanding of lighting," Brown says. "When we built the center, we were looking to create a classroom environment for distributors, architects, engineers, and lighting designers, as well as for utility and professional association use."

The new, one-story training center, designed to accommodate groups of up to 75 people, is an update of the previous facility operated by the U.S. Lighting Division.

Bob Davis, the company's lighting designer, says his technical support group not only assists GTE Sylvania's engineers, but they also educate visitors about lighting in general and the company's products.

"We don't charge high fees for our courses—we're not looking to make money with our training," Davis says.

"The center is a marketing tool," Brown adds. "But it's not a hard sell. It doesn't have to be. People these days want to know about lighting—both its design and efficiency aspects."

Here's a quick tour of the GTE Sylvania center:

RECEPTION AREA LIGHTED TO FEEL SPACIOUS.

In the center of the reception area, the semi-barrel vault ceiling, made with white metal slats, is uplighted from either side by coves that use T8 fluorescent

lamps in a special fixture to provide a uniform wash of light. Davis says recessed adjustable MR 16 fixtures were chosen to accent the reception area walls because they provide a cleaner look than track lighting.

The custom-designed, pendant-mounted fixture at the back of the reception area projects the company logo onto the floor, and highlights the company sign on the wall.


The common areas of the center are downlighted with standard, tungsten-halogen A-lamps. The walls are illuminated with T8 fluorescent luminaires, making the room seem larger than it actually is, and more comfortable for visitors who pause to have some coffee and meet informally.

MAIN CONFERENCE ROOM HAS THREE STAGES.

The front of the room is divided into three stages, situated right, left, and center. Adjustable, tungsten-halogen PAR lamps light the stages—two each for the right and left areas; three for center.

A custom-designed, touch-control screen has been installed for the presentation of videos and slides.

The room also contains three color boxes, each equipped with fluorescent, incandescent, and HID circuits. The HID circuit includes a specially-designed-shutter system that opens when the lamps are being demonstrated, and closes afterward. This way the slow-warming lamps don't have to be turned



Better Color, Smaller Lamps

LAMP DEVELOPMENT TRENDS will emerge in three areas:

- Size—light sources are getting smaller, and it's most popular in the low-voltage area. This will be the most popular trend in coming years.
- Color—the end user is interested in color and how lighting affects it. Whether fluorescent or metal halide, designers are looking to improvements in important color characteristics, such as rendition and temperature.
- Energy—energy-saving products will continue to have an important place in the market.

The biggest change in lighting will be the emphasis on its effects on people. The focus will shift towards aspects such as lighting and health—how a person's biological clock responds to general office lighting. It will also focus on how lighting affects a viewer's perception of a room.

BOB DAVIS ■ LIGHTING DESIGNER ■ GTE SYLVANIA LIGHTING CENTER ■ DANVERS, MA



A LIGHT TOUCH: The living room vignette in the lab area is another mock-up that gives visitors the chance to see the GTE lighting products in "real life" applications. The lighting in each vignette can also be adapted to demonstrate different lighting products and techniques.

To Learn More About Lighting

GTE SYLVANIA'S STANDARD course offerings include: "Understanding Lighting," a lighting application seminar, and an energy efficiency seminar.

These courses are open only to attendees who are handpicked by GTE Sylvania field salespeople or district engineers.

If an outside group is interested in a lighting topic, the center can arrange a one-, two-, or three-day course on the subject.

Also, individual architects, lighting designers, or retailers can use the facility to test various lighting applications for their projects.

For more information, contact Peter Brown at 508-777-1900 or write to the GTE Products Corporation, Sylvania Lighting Center, 100 Endicott St., Danvers, MA 01923.

off after each demonstration and then heated up when needed.

General lighting for the room consists of 2 foot x 2 foot parabolic fluorescent fixtures, each with three T8 U-lamps. A valance accents the walls with 4-foot T8 lamps. Tungsten halogen PAR-lamp downlights are also used for low light levels. All luminaires are fully dimmable.

BREAK-OUT ROOMS SERVE DUAL PURPOSE.

- The two break-out rooms are used for:
 - small conferences involving a maximum of 15 people
 - application research projects

The flexible wiring installed in each of these rooms allows a variety of different lighting fixtures to be plugged in quickly for demonstration. For example, the lighting color temperature in a room can be changed from warm to cool by pushing a button on the dimmer system.

APPLICATION LAB HAS MOCK UPS.

The lighting lab is broken into four areas for demonstrating how lighting can be applied to various real life situations. The mock ups include:

- business office
- retail displays, including grocery, clothing, and jewelry
- residential setting
- outdoor setting

The central portion of the lab contains the product demonstration area. A variety of lamps displayed on two walls are tied into a digital wattmeter for wattage readings.

The lab also has a color box that displays high-intensity, discharge lamps.

"We can bring five or six people into the lab," says Brown, "and talk specifics or show slides pertinent to the products we're discussing."

Four of the mock-up areas are each 12 feet x 12 feet. There is an approximate 20-foot clearance above the entire area. The finished walls extend only about 10 feet high. Above that, everything is painted black. Above each mock-up there is a 4-foot black grid of pipework from which the fixtures hang. All of the wiring is flexible and is affixed above the grid. This way, Davis says, an electrician isn't needed every time a fixture has to be changed.

The office vignette has a different ceiling plan. A standard suspended ceiling is used to show the effects of pendant-mounted, indirect fixtures.

"We also have the capability to compare recessed lensed fluorescent lamps with recessed parabolic fluorescent lamps, all in separate fixtures," Davis says.

FINE ARCHITECTURAL LIGHTING

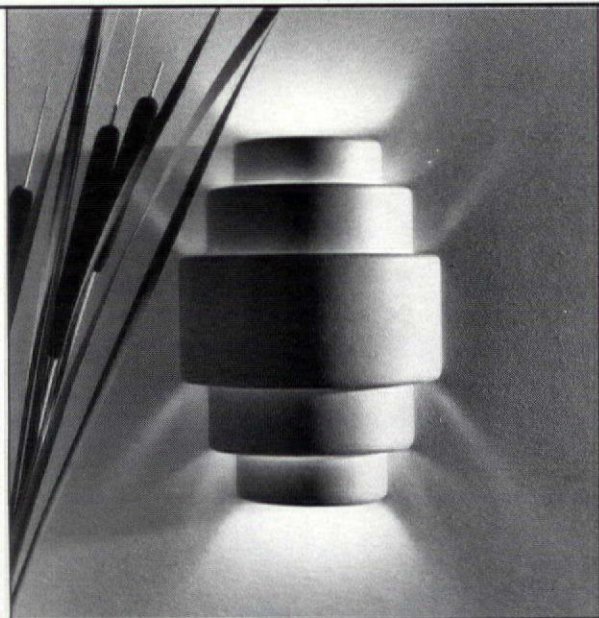


OUR HUNTINGTON SERIES FEATURES a dining room fixture, shown above, and also includes flush ceiling and wall mounts.



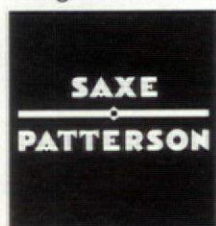
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BEAUTIFUL LIGHT

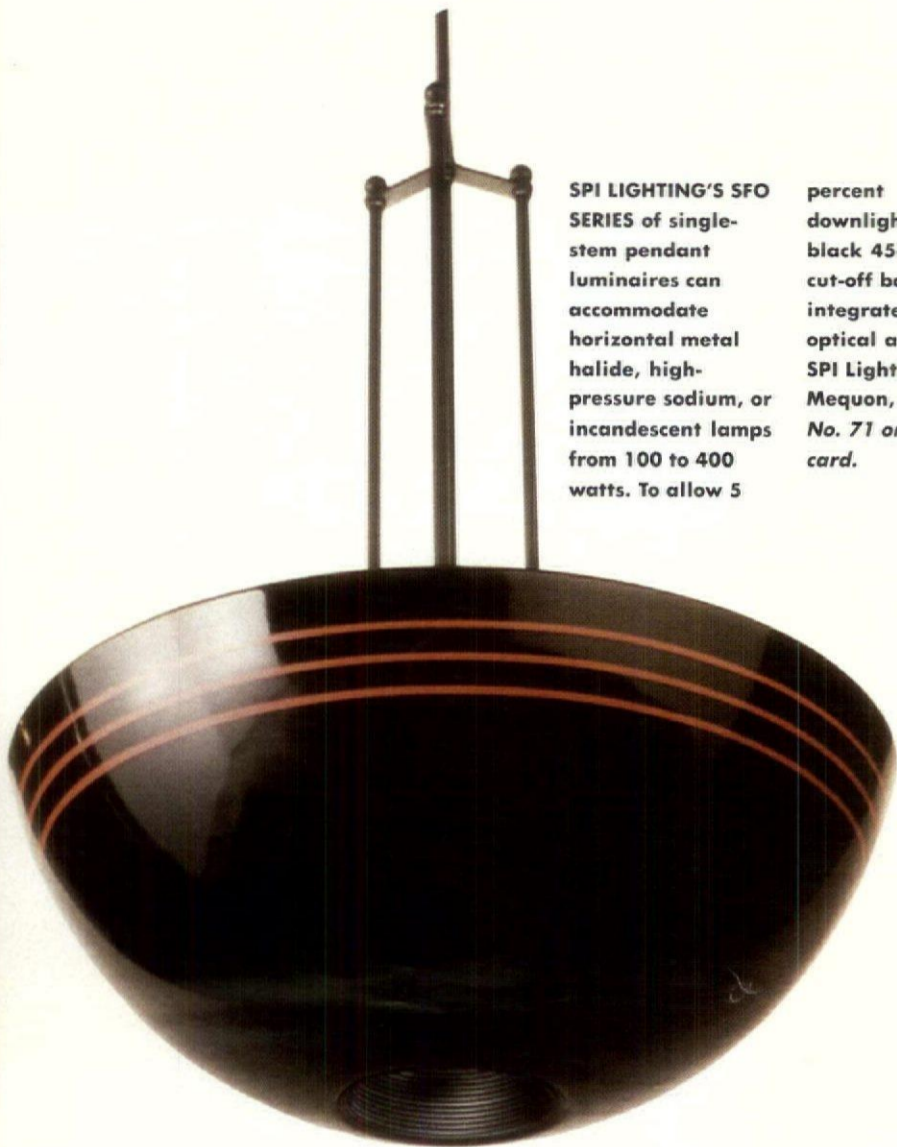
The Alinea Light is an Art Deco concept brought to beautiful perfection by Aamsco Manufacturing. A tubular incandescent bulb and fixture, the Alinea radiates a soft, warm light that is especially flattering to flesh tones. Controlled by a standard incandescent dimmer, Alinea makes everything in a room more radiant and beautiful. At 2800K, Alinea bulbs come in three lengths. Fixtures are available in 10 decorator colors. For more information call Aamsco at (201) 434-0722, or write Aamsco, P.O. Box 15119, Jersey City, NJ 07305.

Territories available for representation

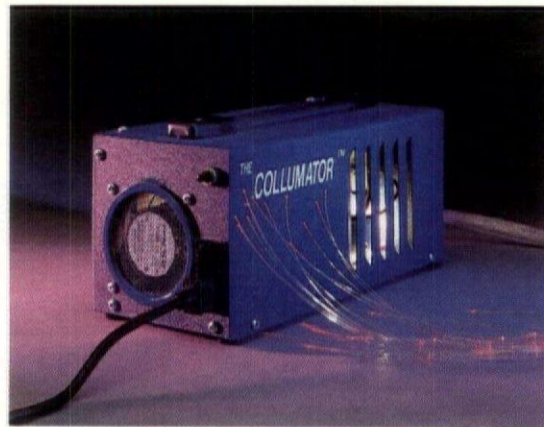
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SHOWCASE

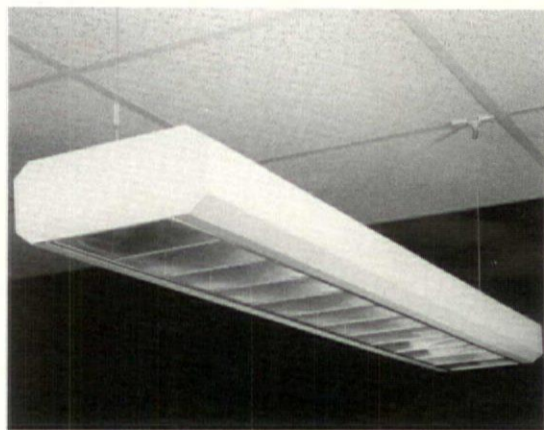
AMBIENT



SPI LIGHTING'S SFO SERIES of single-stem pendant luminaires can accommodate horizontal metal halide, high-pressure sodium, or incandescent lamps from 100 to 400 watts. To allow 5 percent downlighting, a black 45-degree cut-off baffle is integrated in the optical assembly. SPI Lighting, Inc., Mequon, WI. Circle No. 71 on product card.



THE COLLUMATOR FROM LAZARUS LIGHTING DESIGN illuminates strands of polymer optical fibers or Lumenyte brand optical fiber. Lumenyte produces a neon-like effect and changes color with the rotation of the Collumator color wheel. Lazarus Lighting Design, Glendale, CA. Circle No. 72 on product card.



THE LC-90 INDIRECT/DIRECT LUMINAIRE from Litecontrol offers 60 percent indirect, 40 percent direct components. The system produces candlepower at 30 degrees above horizontal. The 3-3/8-inch x 9-5/8-inch units can be suspended 9 inches from the ceiling and they are available in two-lamp T8 or T-12, and three-lamp T8. Lite-Controls Corp., Hanson, MA. Circle No. 73 on product card.

STAFF LIGHTING'S POLY QUAD SERIES eliminates the rainbow or iridescent effect from compact fluorescent luminaires. Each reflector is made from vacuum metalized polycarbonate and has a highly polished mirror-like reflective surface. The luminaire produces low brightness and broad light distribution. Staff Lighting, Highland, NY. Circle No. 74 on product card. ▼

NEW EDITIONS

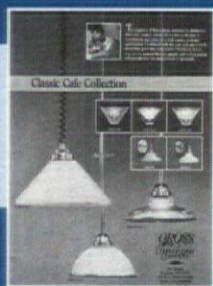
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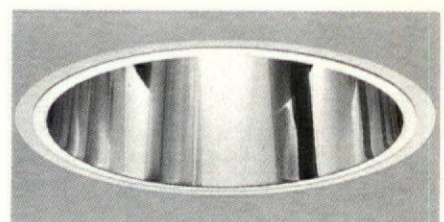


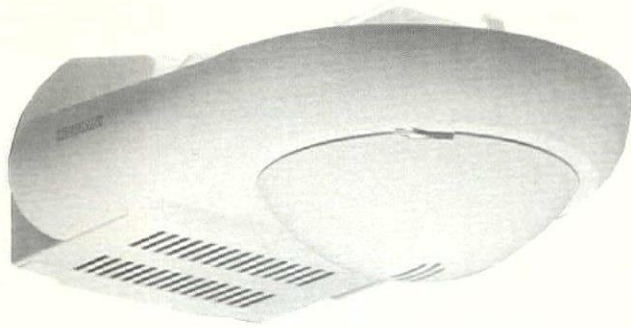
Tempo Collection

Distinctive trim accents and hangers enhance the look and styling of traditional RLM's.

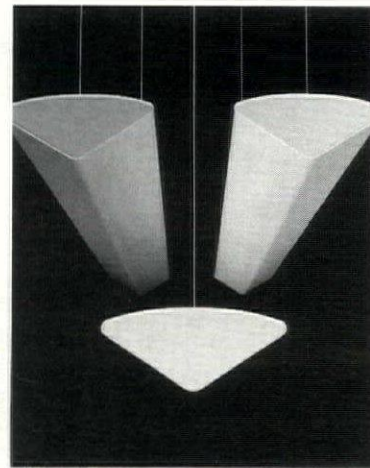
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REGGIANI'S SPACE LIGHTS are metal halide lamps that are multi-positional and provide designs for direct, indirect, and direct/indirect lighting. The fixtures are made of die-cast aluminum and can be adjusted horizontally in positions from zero degrees to 90 degrees. The Space Light can be mounted to the wall or the ceiling and can accommodate a range of light sources, including a 300-watt tungsten halogen quartz and a 250-watt double-ended metal halide. Reggiani USA, New Windsor, NY. Circle No. 75 on product card.



LITEWEDGE, AN INDIRECT LIGHTING SYSTEM FROM COAST LIGHT SYSTEMS, combines wide lighting distribution with maximum beam candlepower at 125 degrees, and offers uniform lighting levels suspended from ceilings as low as 8 feet, 6 inches. Coast Light Systems, a subsidiary of Jac Jacobsen Industries, Inc., Santa Ana, CA. Circle No. 76 on product card.



Year Of The Sun

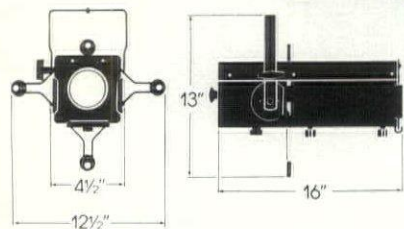
THE INTERNATIONAL LIGHTING COMMISSION (Commission Internationale de l'Eclairage, or CIE) and the World Meteorological Organization (WMO) have recently approved the establishment of an International Program of Daylight Availability Measurement and Education, beginning in 1990 with an International Daylight Measurement Year (IDMY), and extending into the last decade of the century.

During the past International Daylighting Conference (IDC), the need was recognized for daylighting data in several areas, including building design, research, and environmental impact. This perception led to wide participation of many countries in preparation of a CIE guide to recommended practice of daylight measurement, in which the daylighting quantities to be measured are described.

Currently, the following countries have established research, or a general class station within their research or educational institutions: Great Britain, France, Italy, Japan, USSR, Canada, Czechoslovakia, Singapore, and Australia. Facility locations in the U.S. include: Colorado, Florida, Michigan, New York, New Hampshire, and California.

In view of the above responses, there is clearly considerable interest and effort being made to make 1990 the IDMY. We can expect to obtain more information about daylight prediction techniques, where matters of energy conservation, and economic aspects of human productivity are to be considered.

MOJTABA NAVVAB ■ ASSISTANT PROFESSOR ■ COLLEGE OF ARCHITECTURE AND URBAN PLANNING, UNIVERSITY OF MICHIGAN ■ ANN ARBOR, MI

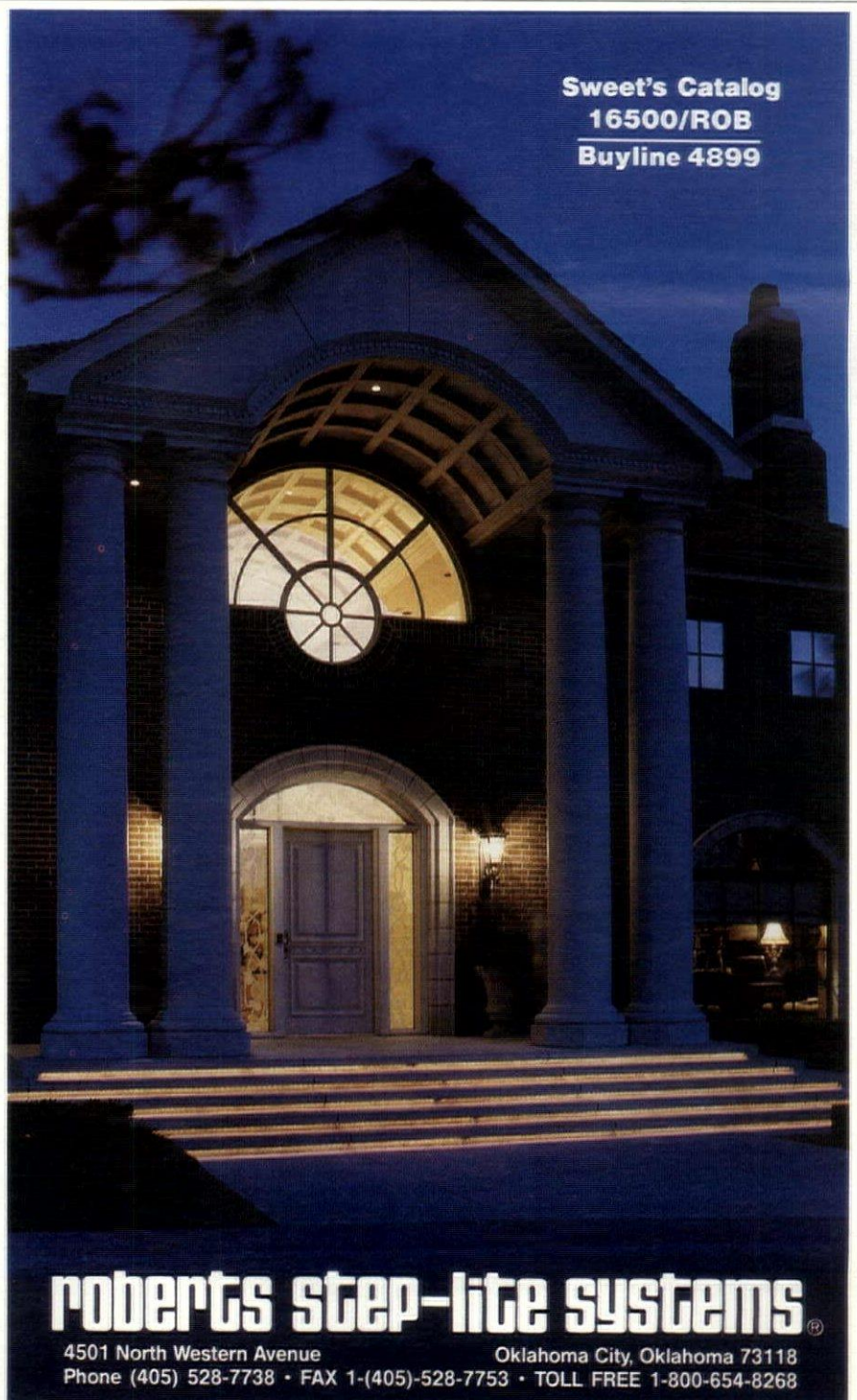


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Five top lighting designers share in the remodeling of GE's Lighting Institute

GARETH FENLEY
CONTRIBUTING EDITOR

When initiating the renovation of its Lighting Institute in Nela Park, OH, General Electric Co. (GE) looked to lighting experts to design an elegant, professional conference center where specifiers, users, and sales reps could experience real-world environments.

Five independent designers, all principals of top lighting design firms, were retained for the project. Gary Steffy, IALD, president of both Gary Steffy Lighting Design, Inc., Ann Arbor, MI, and the International Association of Lighting Designers, was designated as the coordinator for the design team. He helped select the remaining designers and "run interference" throughout the project, in addition to designing several areas of the building.

"We made sure that we blended a variety of lighting designers' thoughts and ideas," Steffy says, "and at the same time maintained a thread of continuity. Because of the purpose of this facility, the

CREDITS:

PROJECT: GE LIGHTING INSTITUTE
LOCATION: NELA PARK, CLEVELAND, OH
LIGHTING DESIGNERS: GARY STEFFY, IALD, JEFF BROWN, AND GARY WOODALL, GARY STEFFY LIGHTING DESIGN; HOWARD BRANDSTON, IALD, HOWARD BRANDSTON LIGHTING DESIGN; LESLEY WHEEL, IALD, AND ROBERT FRIEDMAN, IALD, WHEEL GERSZTOFF FRIEDMAN SHANKAR ASSOCIATES INC.; RAYMOND GRENALD, FAIA, IALD, GRENALD ASSOCIATES LTD.; DAVID A. MINTZ, IALD, DAVID A. MINTZ, INC.
ARCHITECT AND INTERIOR DESIGNER: KENT H. BRANDT, BRUBAKER/BRANDT, INC.
MECHANICAL AND ELECTRICAL ENGINEER: H.A. WILLIAMS AND ASSOCIATES, INC.
STRUCTURAL ENGINEER: KORDA/NEMETH ENGINEERING, INC.
INTERIOR DESIGNER (MERCHANDISING CENTER): JAY FITZPATRICK & ASSOCIATES
PHOTOGRAPHER: VANCE ROTH

architecture needed to respond to the requirements of the lighting."

GE gave the designers a virtually blank canvas, a raw space, with no limitations except for budget. The interior designers and architects worked around the lighting designers' concepts. The emphasis in the remodeled center is on lighting techniques and effects, rather than lamps per se; all GE product displays on the main level have been removed.

Previous renovations had blocked out the original mullioned windows, creating a maze of rooms lit exclusively by electric light. This time, the designers were encouraged to reopen the windows. "It shows a clear realization that if you want to compete in the real world, you've got to have an environment like

CONTINUED ON PAGE 43



Expert Advice

NIGHT MAGIC: Points of light add sparkle to dining room (above left). **LIFE'S SPICE:** Both the Merchandising Center (above right) and the Office Center (right) are equipped to show a wide variety of real-world effects.



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TERRY MCGOWAN ■ MANAGER OF LIGHTING TECHNICAL SUPPORT ■ GE LIGHTING ■ CLEVELAND, OH

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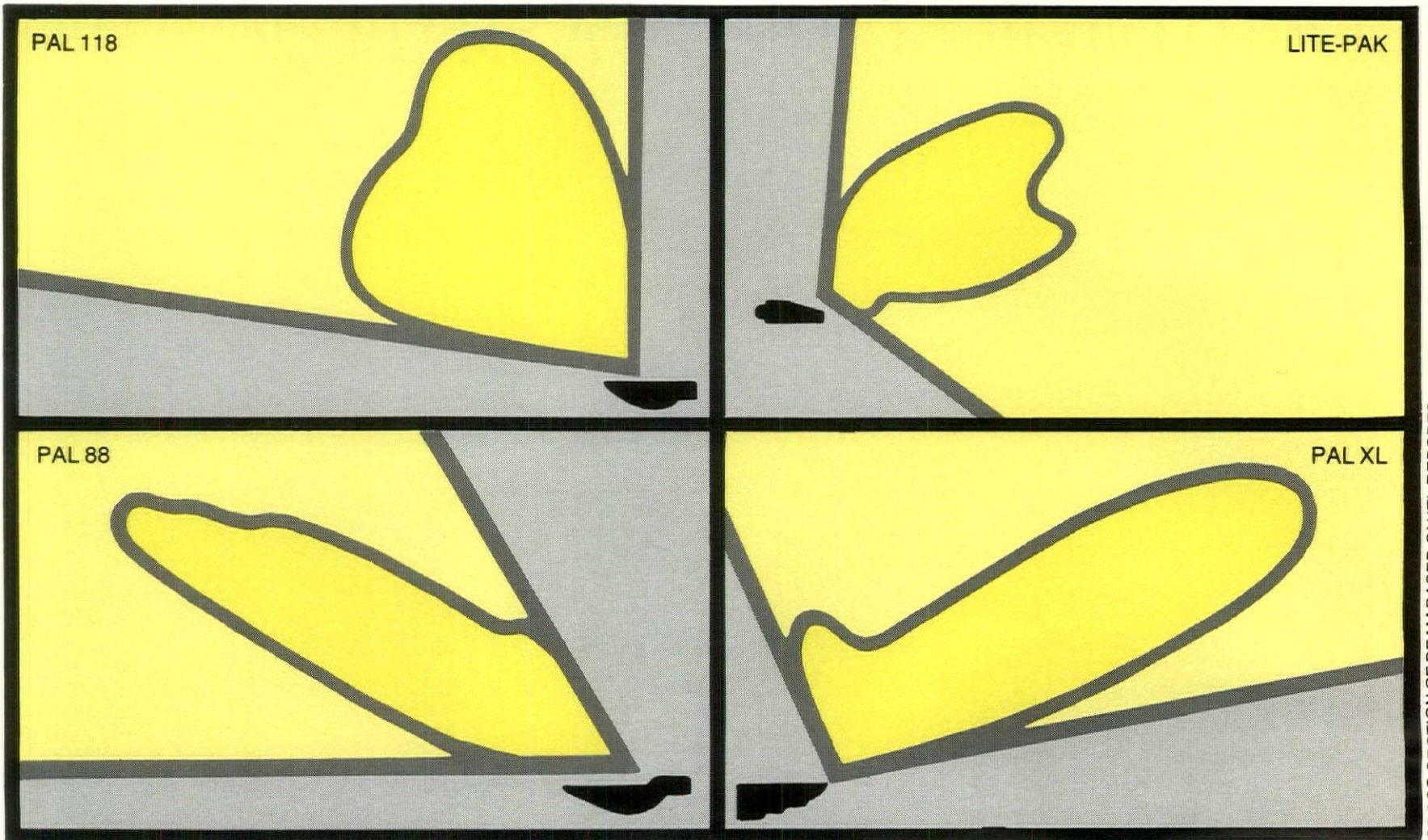
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Expert Advice

CONTINUED FROM PAGE 40

the real world," Steffy says. "So we integrated views and daylighting with the electric lighting system. We worked with the architect on selecting appropriate window coverings, so we didn't have to change glass."

Following are highlights of some of the remodeled areas.

LOBBY IS SUBDUED AND RELAXING.

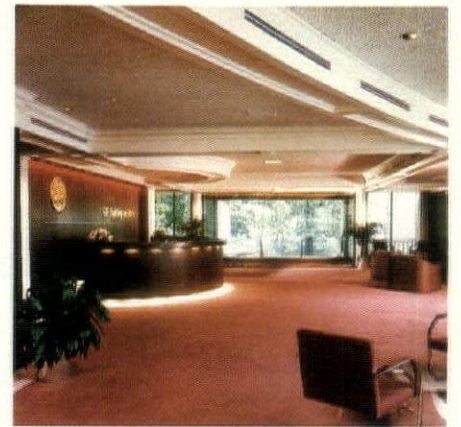
The current main entrance is actually a side door. "We had problems with the entry," says the lobby's lighting designer, Raymond Grenald, FAIA, IALD, Raymond Grenald Associates Ltd., Philadelphia, PA. "Ultimately, the architect altered it, which made a phenomenal difference."

Partially in response to Grenald's urging, a porte cochere was added and a large, obstructive column removed. GE insisted on retaining the spectacular view of the pool and fountain that faces an entering visitor. Grenald brightly lit the reception desk and the wall behind it, so it holds its own visually against the view from the window wall.

There are no lights in the middle of the reception room. At night, the center of the lobby is relatively dark, and even during the day it is subdued. "A lobby should be a place where you feel relaxed," Grenald explains, "not on stage with a light over



EDISON WOULD BE PROUD: Traditional and modern styling are combined in Edison Hall (left). Lobby lighting (below) is subdued and relaxed.



your head. The activities are clearly identified, the paths of circulation are unambiguous, and the space is comfortable, and unthreatening. You get that feeling by lighting the walls."

VERTICAL POINTS OF LIGHT BEDECK DINING ROOM.

Lesley Wheel, IALD, and Robert Friedman, IALD, Wheel Gersztzoff Friedman Shankar Associates Inc., New York and Los Angeles, collaborated on the dining room which overlooks the pool. Mirrored strips, dotted with small incandescent

lamps, run alongside the windows and continue onto the room's columns.

"My concept here," says Wheel, "was that people would come into the room and see mirrored panels, and they wouldn't think very much about it. But they'd come back at night for dinner and see lighted elements they didn't know were there."

The designers worked out a configuration of beams and coffers as well as a design for the custom luminaires. The fixtures combine two light sources: compact fluorescent to provide bright, "cool" light,


and incandescent for a dimmable "warm" light.

EDISON HALL COMBINES MODERN AND TRADITIONAL.

Lighting by Howard Brandston, IALD, Howard Brandston Lighting Design, New York, for the multi-functional Edison Hall includes two custom, Empire-style crystal chandeliers and 14 crystal sconces positioned around the perimeter of the room. With the help of mirror backplates, the sconces echo the draped basket shape of

CONTINUED ON PAGE 44

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Expert Advice

CONTINUED FROM PAGE 43

the large chandeliers. The rings of glittering candelabra lamps are dimmed separately from the clustered lamps inside the basket-shaped portion.

For audiovisual presentations, the clerestory windows are covered with a motorized curtain. The only downlights in the room are located over the podium, aimed to light the speaker.

"The design shows respect for historic architecture," Brandston says, "and still has modern-day theater excitement."

MERCHANDISING CENTER USES VARIED LAMP TYPES IN GENERIC SETTING.

The Merchandising Center is one of the few rooms at the Lighting Institute that will seem familiar to previous visitors. The ceiling is still equipped with remote-controlled panels. But, says lighting designer David A. Mintz, IALD, David A. Mintz, Inc., New York, NY, "We completely changed the light sources, and that's really the crux of what we did."

Mintz also arranged for GE to work with Jay Fitzpatrick, a store interiors designer, to build authentic store details.

"Because it is built for longevity, the store interior is plain and generic," Mintz explains. "We didn't want a decor package that would be out of style in a year or two. It's the geometry that is important: the relationship of accent lights to show-cases, feature walls, or hang rods."

Working with GE's Frank LaGiusa, Mintz laid out five independent systems on realistic spacings, so the light levels delivered are very close to those of an actual installation. The room can now demonstrate direct ambient lighting with incandescent, metal halide, and three different types of fluorescent lamps.

OFFICE CENTER SHOWS DIRECT AND INDIRECT EFFECTS.

Gary Steffy explains the rationale behind his design for the Office Lighting Center: "We wanted a center that would allow people to experience the whole gamut of office lighting techniques. Obviously, direct lighting is a part of that, but we wanted to make sure we included some indirect lighting too."

In addition to a furniture-integrated system on a rotating platform, the room has two pendant systems. One is a pair of typical, linear T8 fixtures. The other is a trio of custom luminaires that Steffy originally designed for Steelcase's new corporate research and development center. Each circular pendant has four compact fluorescent lamps arranged around the perimeter, with a lens and reflector to distribute light uniformly on the ceiling. The open center of the pendant holds a piece of slumped glass, which glows subtly with reflected light.

Both pendant systems can be raised and lowered by remote control. Because of this feature, Steffy says, "we are able to show people what kinds of luminances you can get across the ceiling just by varying the suspension length." ■



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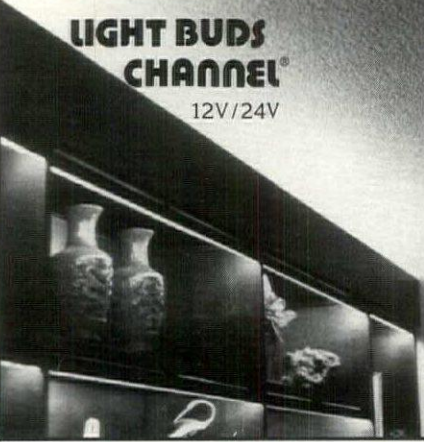


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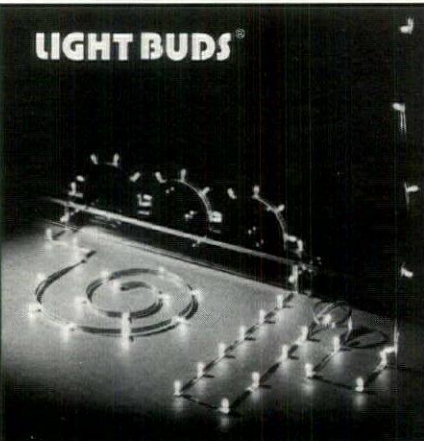


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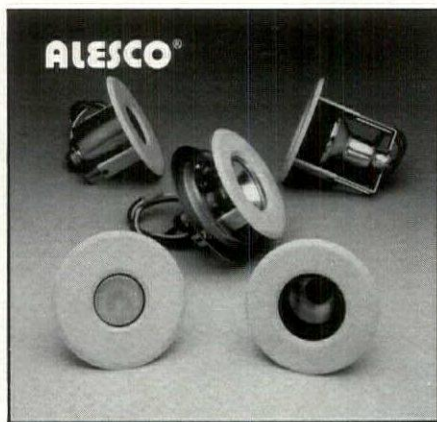
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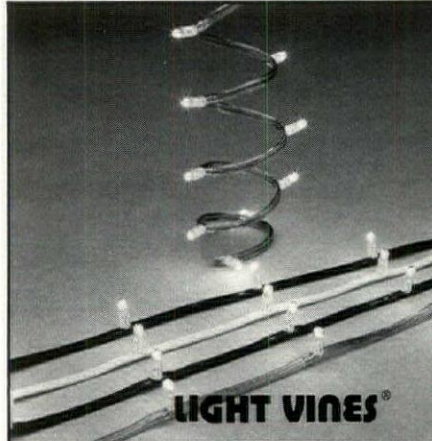
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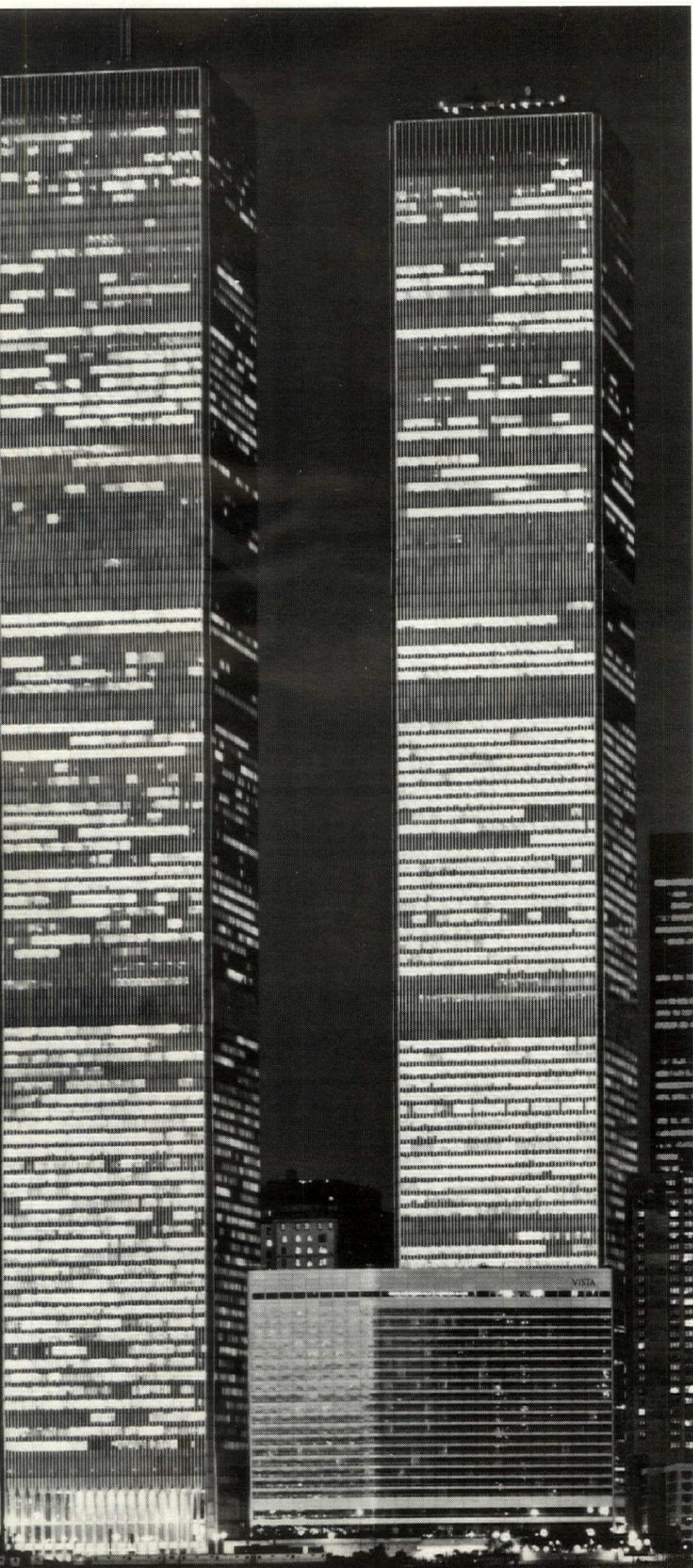
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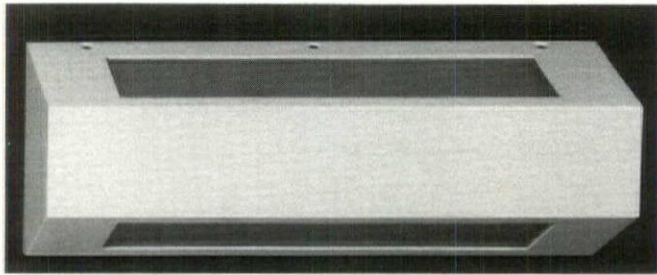
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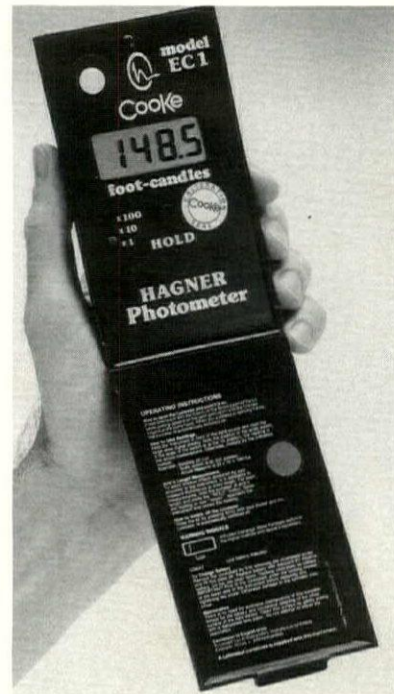


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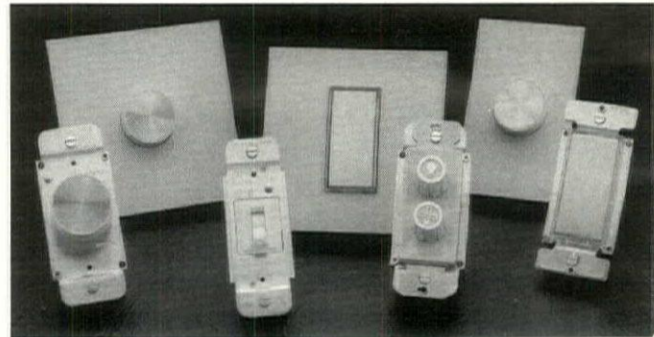
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- Greater interest in lighting and architecture among students. The growth in number and popularity of grants, and design competitions, such as The Howard Brandston Student Lighting Design Education Grant, not only benefits students, but lends credibility to, and increases interest in, lighting among faculty in architecture and design schools.
- Increased faculty interest in, and coordination of, light and architecture courses, influenced by the growth of opportunities to learn about the importance of lighting to architecture via courses offered by manufacturers and the IES, and information from periodicals.

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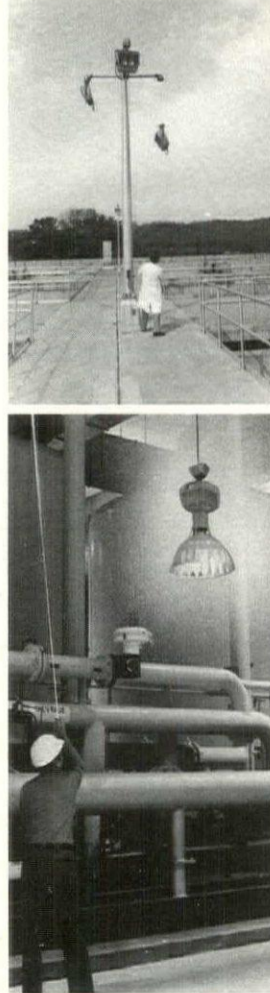
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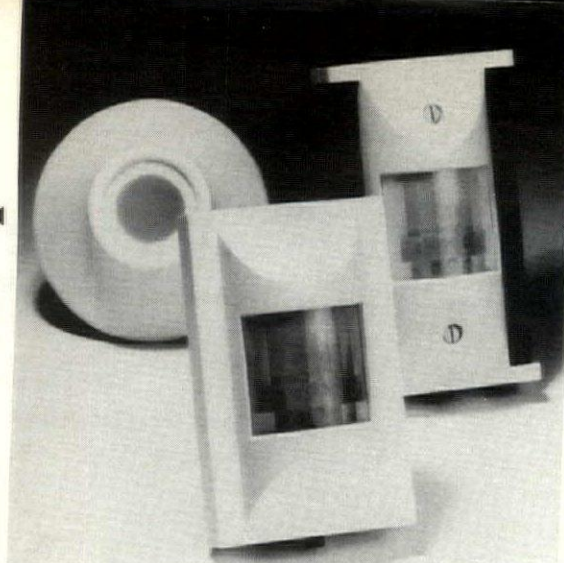
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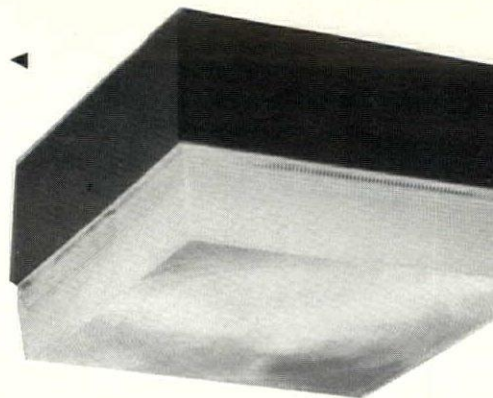


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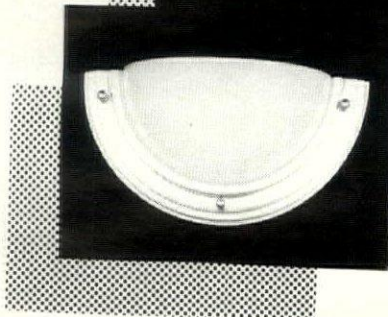
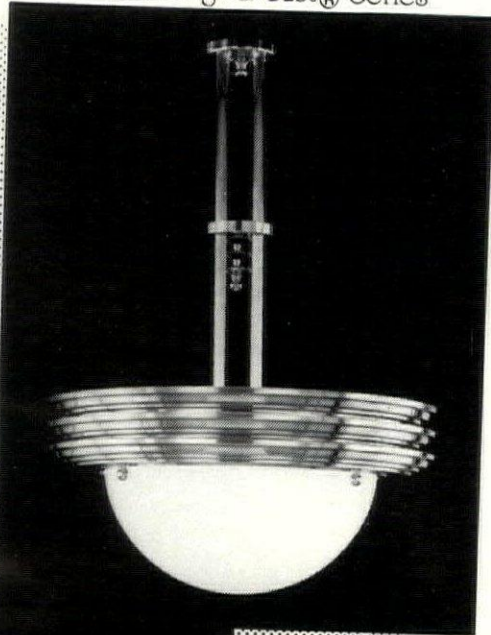


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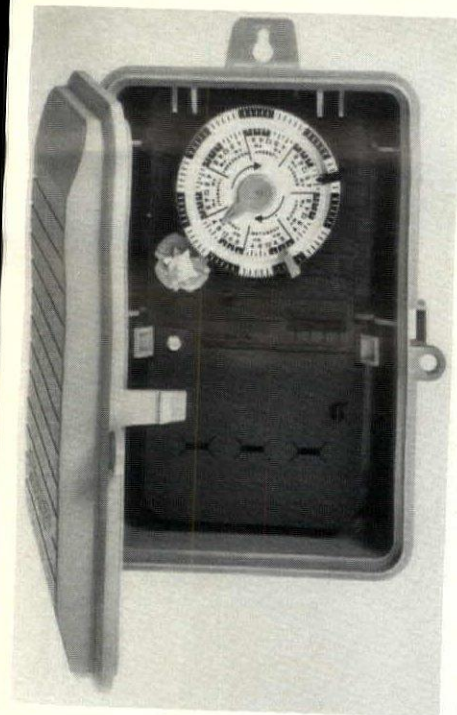
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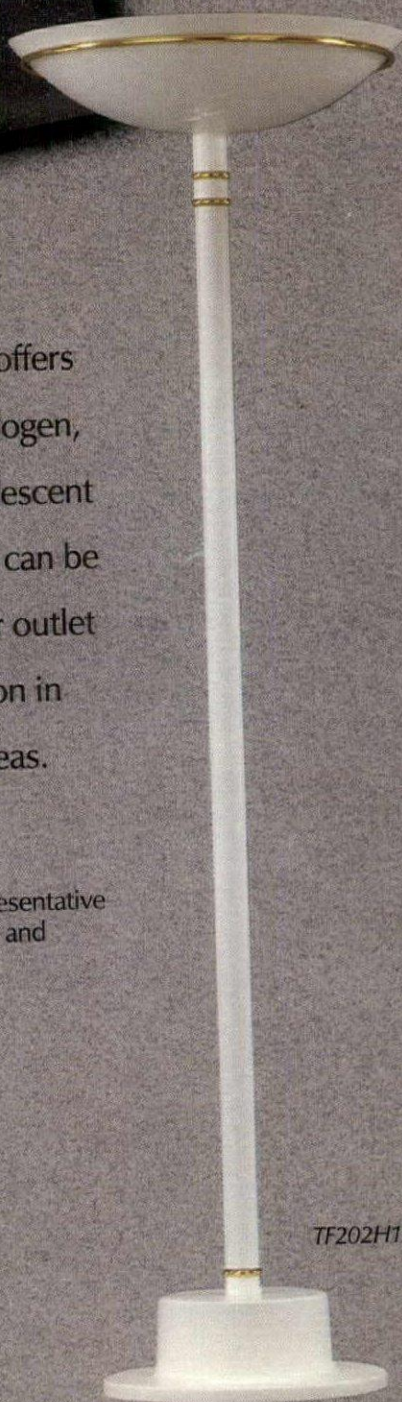
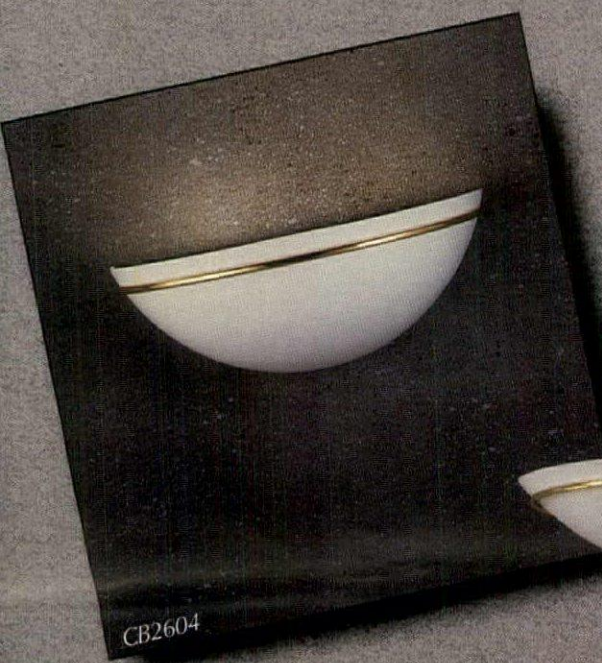
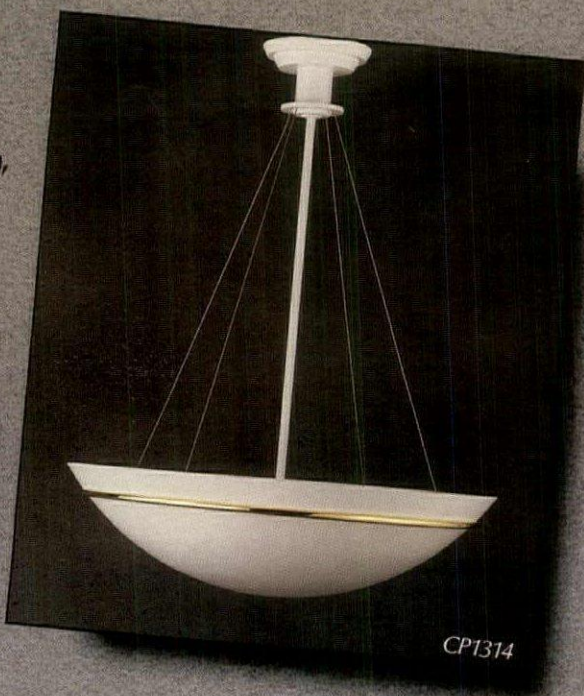
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Dedicated to Excellence in Lighting

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V I S A

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This Visa family of fixtures offers metal halide, tungsten-halogen, compact fluorescent and incandescent lamping. The portable torchiere can be permanently mounted to a floor outlet and is often used with this option in public lobbies and reception areas.

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Visa
Lighting

An Oldenburg Group Company

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Phone: (414) 354-6600
Fax: (414) 354-7436

Product Review

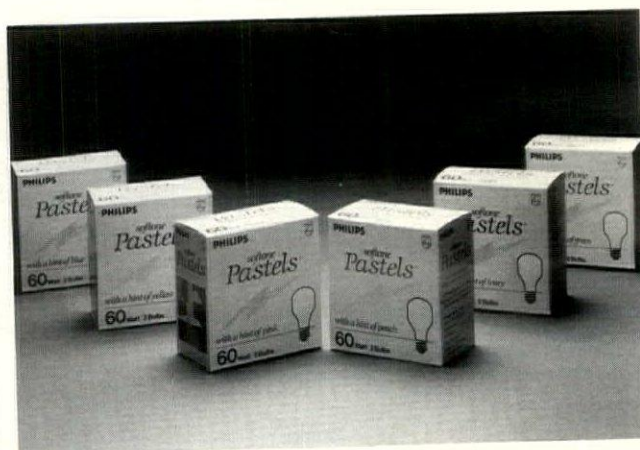
ADVERTISEMENTS

ARROYO CRAFTSMAN'S MONTEREY WALL-MOUNTED FIXTURE is made of solid brass and has a verdigris patina finish. Three styles are available with a choice of four glass colors. Arroyo Craftsman Lighting, Inc., Duarte, CA. Circle No. 96 on product card.



LAMAR'S LAMARB'L LINE OF PL FLUORESCENT WALL SCONCES AND VALANCES are made from a high strength polymer that resembles marble and is translucent. The units are available in a range of natural marble-type colors and textures. LaMar Lighting Co., Inc., Freeport, NY. Circle No. 97 on product card.

PHILIPS SOFTONE PASTELS COLLECTION from Philips Lighting provides soft white illumination with pastel hues. These 60-watt, square, T-18 shaped bulbs are available in peach, ivory, pink, yellow, blue and green. Philips Lighting Co., a division of North American Philips Corp., Somerset, NJ. Circle No. 98 on product card.



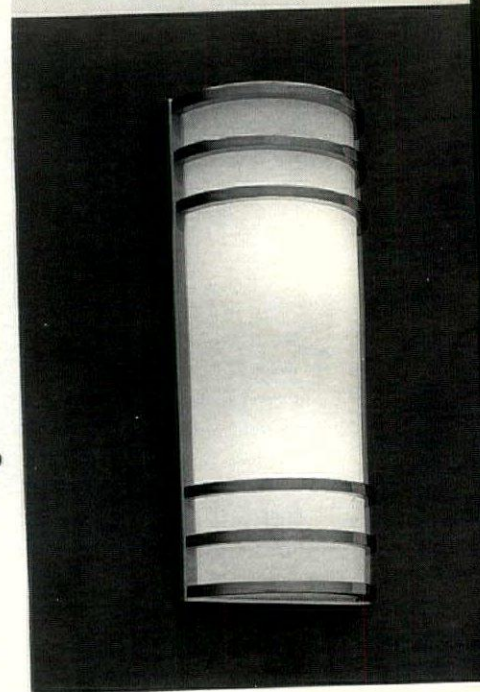
CONTINUED ON PAGE 52

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The first choice of the design community for custom lighting, architectural metal fabrication.

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AL 455 WS • 21" X 10" X 5" • SOLID POLISHED BRASS FRAME AND OPAL ACRYLIC LENS
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Circle No. 45 on product card.

◀ Circle No. 44 on product card.

Marketplace

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The Marketplace is a monthly feature of Architectural Lighting, offering readers easy access to lighting products and services for commercial, industrial, and institutional applications. Listings in this reference section are sold on an annual basis. First Line (Bold Face) \$990/yr. Additional lines \$690/yr. Mini Display \$3600/yr., \$1999/6 months.

Career Opportunities, Situations Wanted and Used Equipment For Sale Ads are sold on a monthly basis. Ads are \$28 per line with a 4 line minimum. Mini Display ads are \$160 (1X), \$140 (6X), \$110 (12X).

For full information and closing dates, contact Nancy Berman 800-950-1314 or 212-869-1300.

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MARCO LIGHTING, 6100 S. Wilmington Ave., Los Angeles, CA 90001 213-583-6551
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NL CORP., 14901 Broadway, Cleveland, OH 44137 Fax 216-662-9069 or 216-662-2080
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E. G. SCHLESSELMAN, INC., 2778 Banning Rd., Cincinnati, OH 45239 Fax 513-923-1654 513-923-1144
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MAXIMUM TECHNOLOGY, 80 Industrial Way, Brisbane, CA 94005 415-468-2560

AMBIENT LIGHTING SYSTEMS (INTERIOR)

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LITHONIA LIGHTING. We cover the lighting spectrum 404-922-9000
PEERLESS LIGHTING CORP., P.O. Box 2556, Berkeley, CA 94702 Fax 415-845-2776, Phone 415-845-2760

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CONTROLS

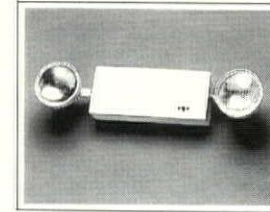
STRAND ELECTRO CONTROLS, 2975 S. 300 W., Salt Lake City, UT 84115 801-487-6111
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Must be capable of designing product line from concept through fabrication drawings, with full awareness of market and current lamp technology.

Salary based on ability, with full company benefits. Call for appointment to show portfolio.

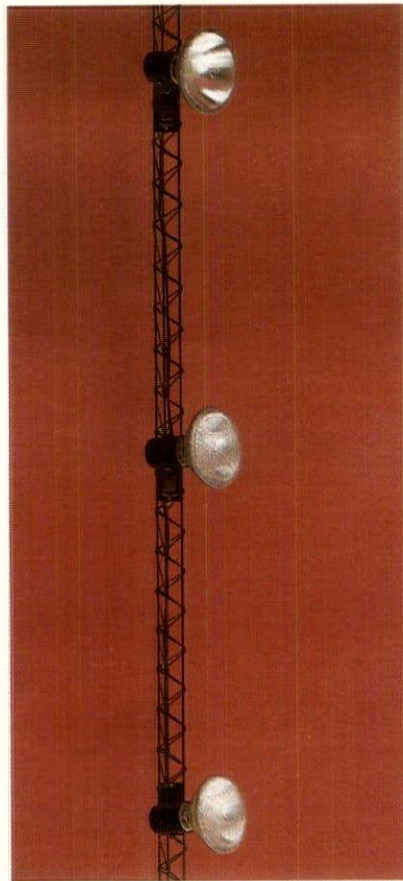
Contact: Joseph Oddi, Chief Lighting Designer
 (212) 675-0400 Ext.500

Product Review
ADVERTISEMENTS

CONTINUED FROM PAGE 50



VALMONT'S POWDER COAT COLORS, OR ARCHITECTURAL COATINGS for poles, pipes or tubing are chemical, abrasion, and corrosion resistant. The coatings are available in a variety of colors and finishes. Valmont Industries, Valley, NE. Circle No. 99 on product card.



ROXTER'S MINI-TRUSS comes in 4-foot lengths with a base plate for vertical use or an end cap for horizontal use. Standard-voltage halogen lamp fixtures are mounted on the mini-truss. Low-voltage models are also available. Roxter Manufacturing Corp., Long Island City, NY. Circle No. 100 on product card.



PHILIPS' WHITE SON, A HIGH PRESSURE SODIUM LAMP, operates on an electronically ballasted design and features an arc tube technology that provides uniform, high color rendition. White SON is available in 35, 50 and 100 watts, with respective initial lumen outputs of 1250, 2300 and 4700. Philips Lighting Co., a division of North American Philips Corp., Somerset, NJ. Circle No. 102 on product card.

hinkley
after hours™

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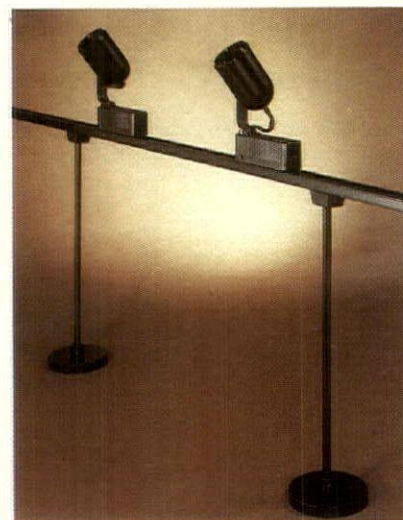
12600 Berea Road
Cleveland, Ohio 44111
(216) 671-3300

SHOWROOM
3600 Dallas Trade Mart
Dallas, Texas 75207

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No. 1571

Circle No. 46 on product card.



CON-TECH'S FIXTURE EXTENSIONS and stem kits are designed to bring light fixtures closer to the desired area of focus. The LA-1018-LV is used for 12-volt fixtures and has an 18-inch stem. The LA-1018 is a line voltage track fixture extension with an 18-inch stem. Both models are available in black or white. The LA-5018 18-inch pendant stem kit and the LA-5018A pendant stem kit, which can be used with 6-inch, 12-inch and 24-inch stems, are also available in black or white. Con-Tech Lighting, Deerfield, IL. Circle No. 101 on product card.



TARGETTI'S MINITONDO SYSTEM, a low-voltage, 12-volt, 32-amp track system features a range of miniature 50-watt halogen bipin and MR 16 spotlights. Minitondo is available for suspension or surface mounting. Targetti, Inc., New York, NY. Circle No. 103 on product card.



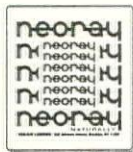
APPLETON LAMPLIGHTER'S WALL SCENCE is 14 inches square with a 3 1/2-inch projection. The fixture is illuminated by using a wall-recessed compact fluorescent lamp and is made from aluminum steel. The smaller disc is clear with a laser-cut pattern and the larger disc is etched and tinted. Appleton Lamplighter, Appleton, WI. Circle No. 104 on product card.

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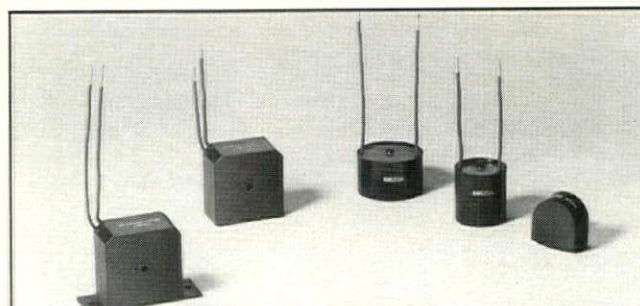
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	1-5/8"			1-1/2"	Centerhole
	1-1/2"			1-1/4"	Centerhole
SQUARE		2-3/32"	2-3/32"	1-3/32"	Vert/Horiz
"ARCH"		1-3/8"	1-3/8"	3/4"	PCB/Vert

Applications are recommended for all types of architectural light dimmers: accent, decorative, display, and nearly anywhere a noise-rejection system is required. Call or write for new Technical Bulletin/ Selection & Design Guide ALC-0689.



Quality Magnetics & Electronics

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TEL: (714) 634-2220, FAX: (714) 634-0905

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