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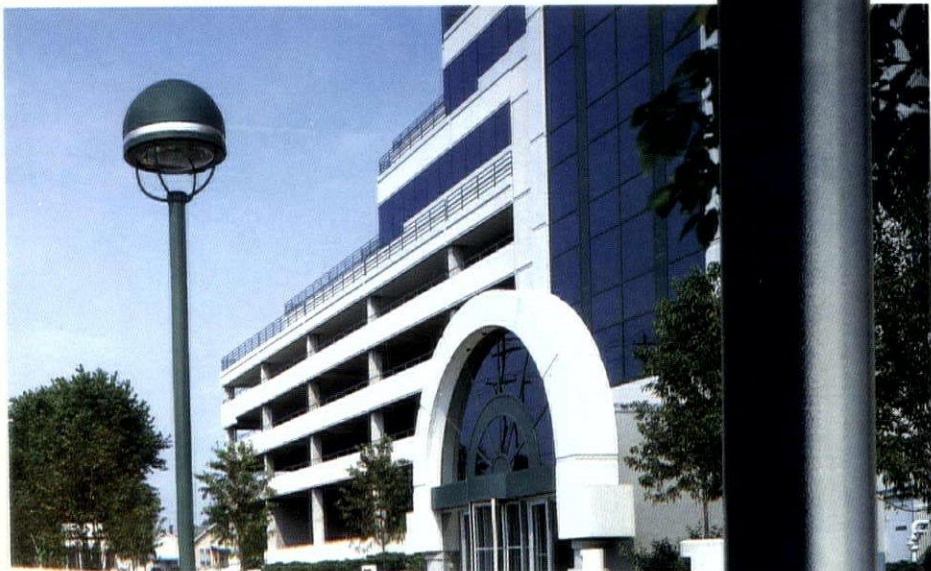
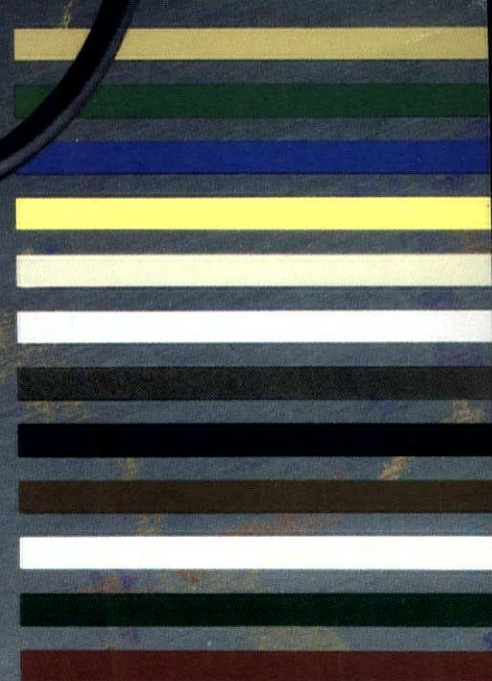
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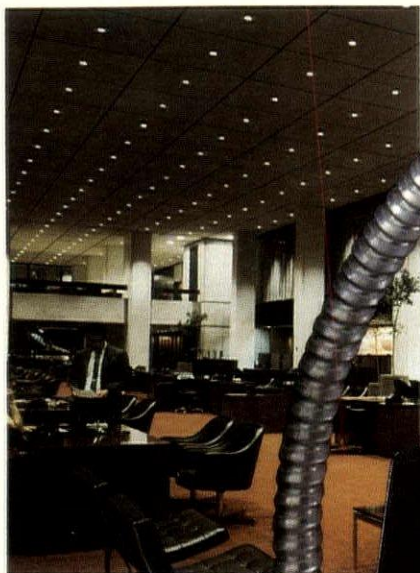
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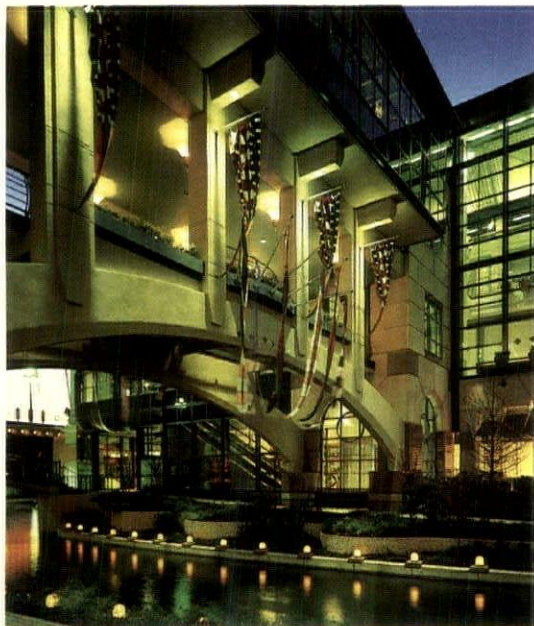
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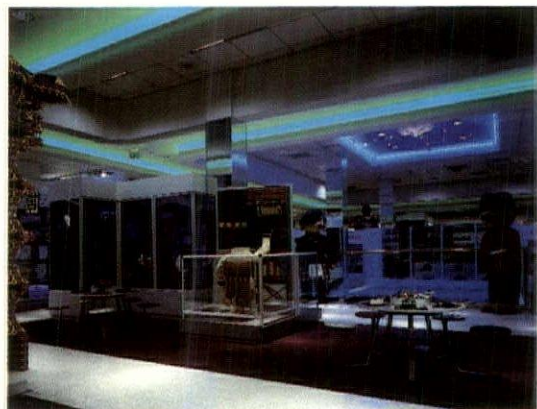
ARCHITECTURAL LIGHTING

SEPTEMBER 1990
VOLUME 4, NUMBER 9



COVER PHOTO BY R. GREG HURSLEY, INC.

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30 BEAMS IN TOYLAND

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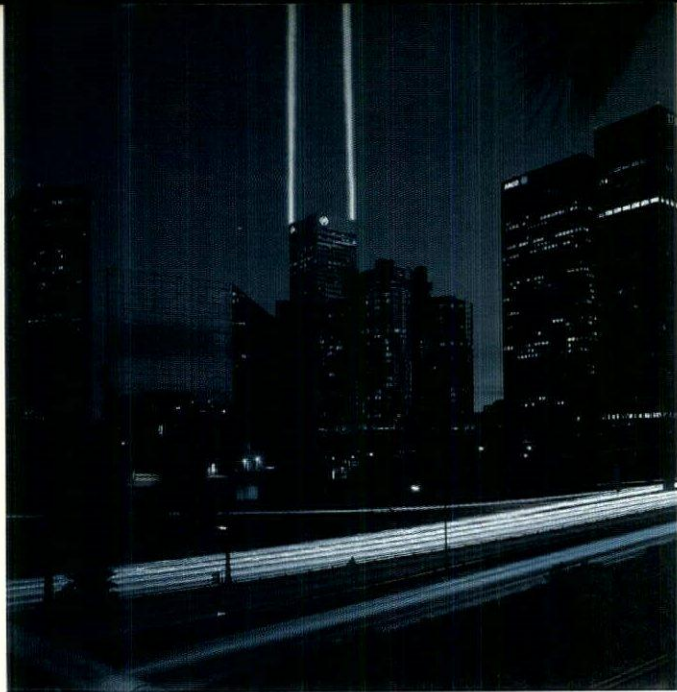
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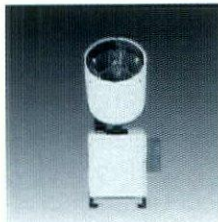
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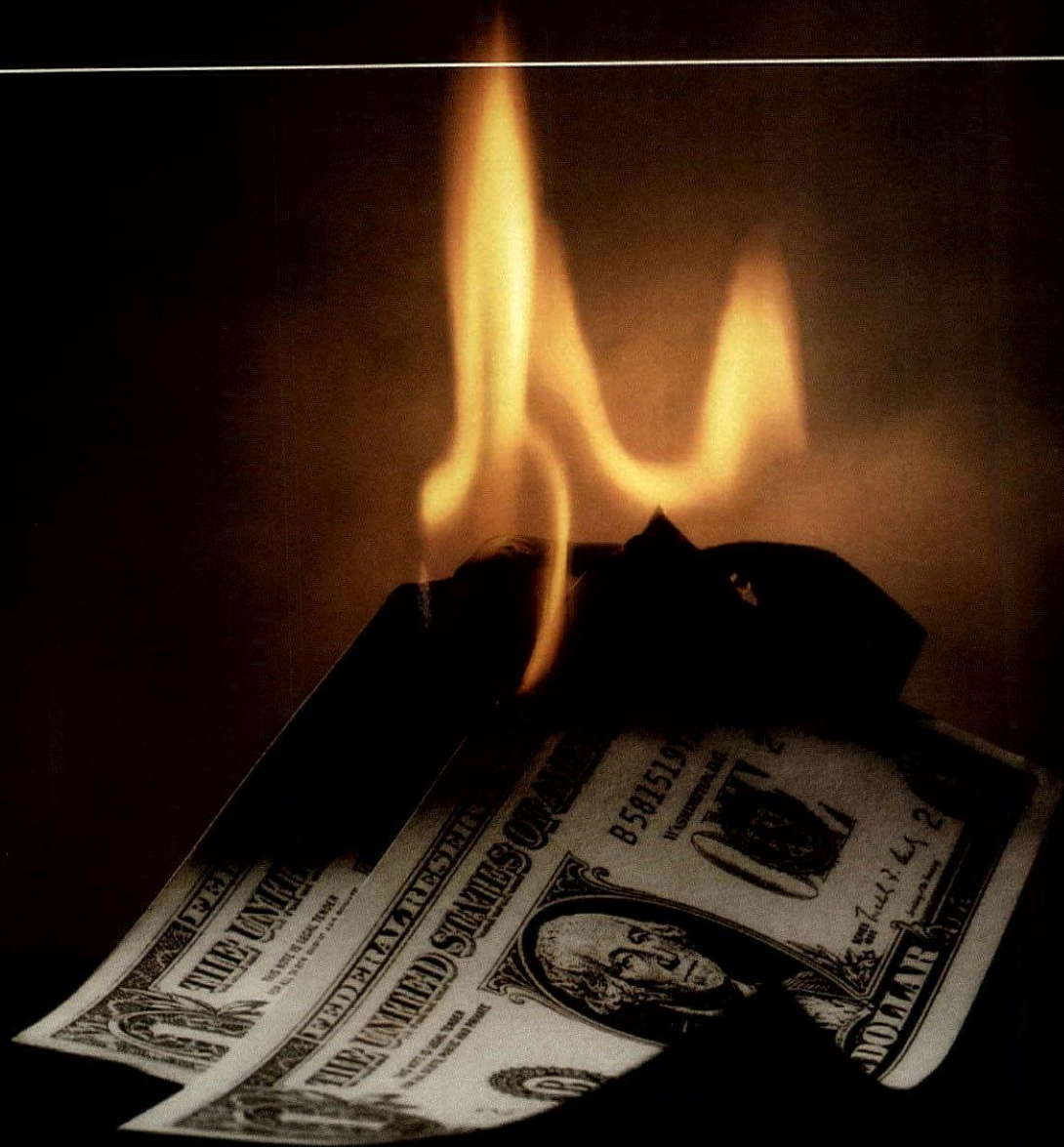
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Packaging Repartee, Part 2

DEAR EDITOR:

It seems quite clear from Jim Benya's rebuttal letter published in the August issue, page 8, what is the basic difference in our professional philosophies. We at Horton•Lees look at the lighting industry, identify its weaknesses and outright faults, and act to make it more fair towards the owners and users. When I read Jim's articles and letters, I cannot escape the conclusion that he, on the other hand, is willing to accept the status quo and to adapt to it. His Cassandra-like comments about "being packaged into submission" creates an impression that nothing can be done to cut the rapacious middlemen down to size. The truth is that it *can* be done and is being done, slowly but surely.

My advice for those affected by Jim's pessimism is: If you can't stand the heat, get out of the kitchen. Everyone who ever attempted to stand up against the wrongdoing in *any* field has been attacked, badmouthed, accused of dirty deeds, collusions, kickback—you name it; but the lie, as the saying goes, has short legs and cannot really hurt if you are "clean."

What does Jim mean by "holding a spec too dearly"? He admits that the client pays a fee "for a fair, independent specification," and thus expects the specifier to be clear about what, in his/her professional opinion is or isn't suitable for the

specific project, its budget, time frame, maintenance profile.

A good designer (be it an architect, interior designer, lighting designer, etc.) will insist at the outset of the project that the above parameters are clearly defined. Only too often the lead project designer is oblivious to the owner's real priorities, and the lighting designer, who is frequently cut off from the direct contact with the owner, may thus set too high standards in his/her specs. Live and learn, but don't just lie down and die. If by being "worldly and intelligent" Jim really means being Caspar Milquetoast, count us out. We didn't structure the lighting industry; the fact is that the quality of even so-called "mass-production" products vary greatly from one manufacturer to another—that's why so many mock-ups are built and viewed every day.

To conclude—this is a rough field, hardly a playground of angels; but those of us who love it will not be intimidated by self-serving manipulators or swerved by doomsayers.

Jules G. Horton, PE, FIALD, FIES

President

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CONTINUED ON PAGE 10

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Why Cook In A Hot Kitchen On A Hot Day?

CONTINUED FROM PAGE 8

IN RESPONSE:

I have the greatest respect for Jules and his firm. But we do have a philosophical difference. I agree with Jules' points almost completely, but in the end, I feel he is too idealistic:

- Lighting budgets are generally established by owners, contractors, construction managers and architects before the lighting needs, as addressed by a professional lighting consultant or qualified engineer, have been determined.

- These budgets are almost always too low, and the lighting budget becomes a sore point with all parties as it generally needs to be increased to allow for an appropriate quality of illumination.

- All projects come in over budget, and lighting is perceived as the easiest to reduce costs.

- Contractors offer "value engineering" and other incentives to encourage owners to perceive the lighting consultant or engineer has "overdesigned" the lighting. This perpetuates the concept that lighting is a commodity, further weakening the importance of the original design and specification.

- All of this is likely to occur. The stronger the specifier, the more likely the original specification will be held. The stronger the packager, the more likely the packager will prevail.

In any event, there is likely to be a battle, and the less fierce the battle, the more likely everyone will respect each other when it's over. That's why I believe in strategically planning for the inevitable forces to the industry's economics. Jules' tactics are the strategic equivalent of the English army marching in straight lines and red uniforms into battle; I'd prefer diplomacy when possible, and if not, smarter battle tactics. Anticipating your adversary's moves and taking minor corrective action seem like good tactics to me if battle is necessary. Using Jules' metaphor, why cook in a hot kitchen on a hot day?

James R. Benya, PE, IALD, IES
Senior Principal
LUMINAE SOUTER LIGHTING DESIGN
San Francisco

LETTERS CONTINUED ON PAGE 14



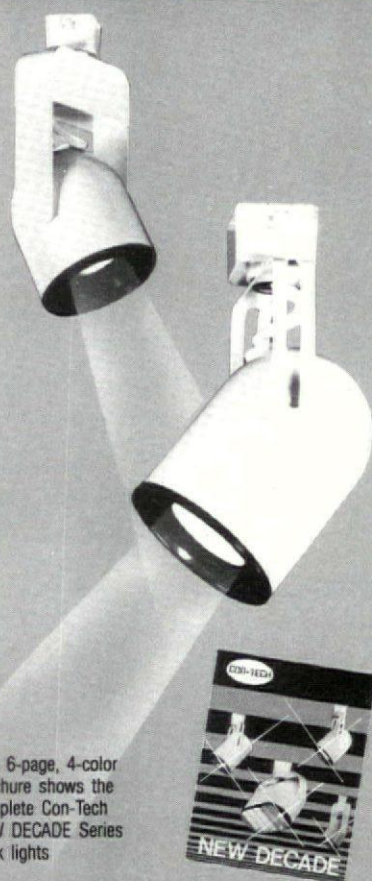
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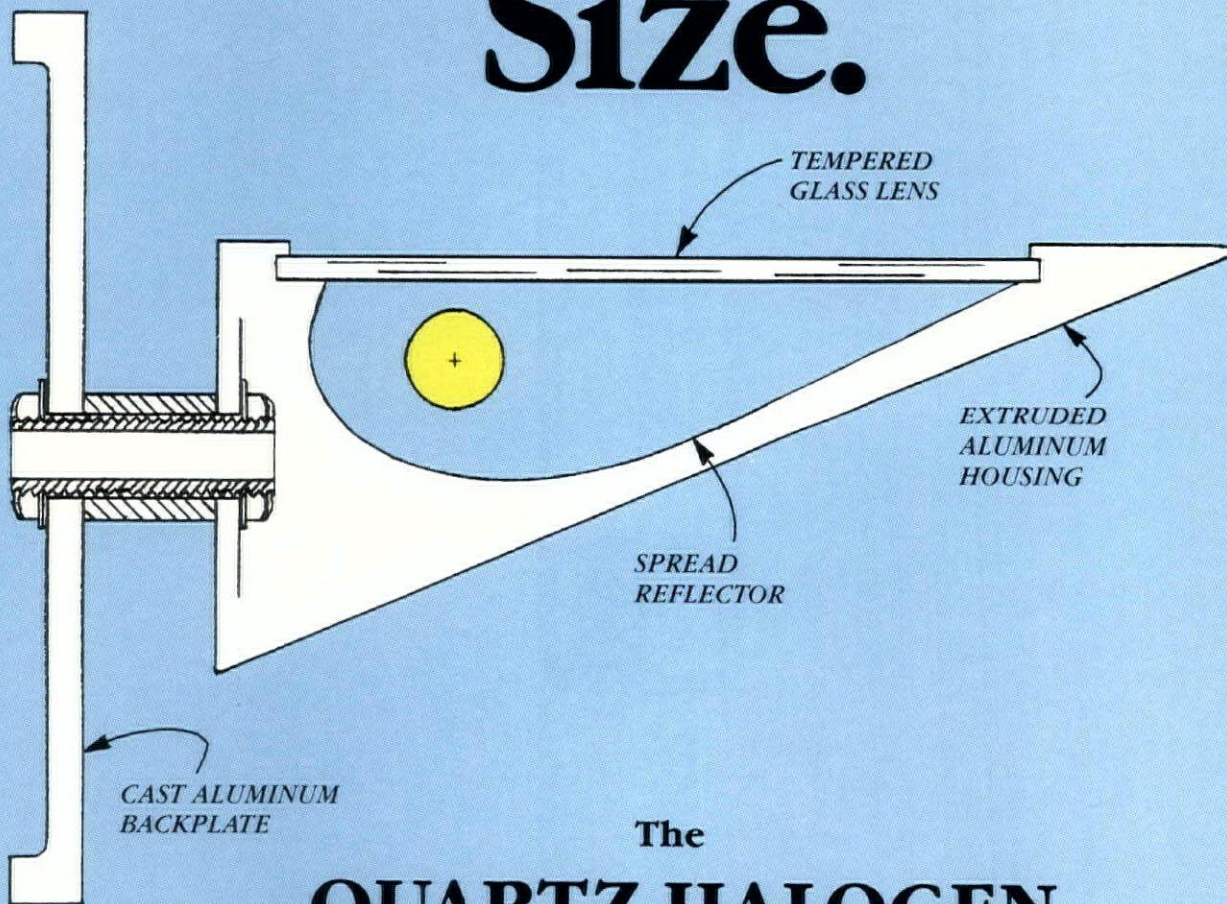


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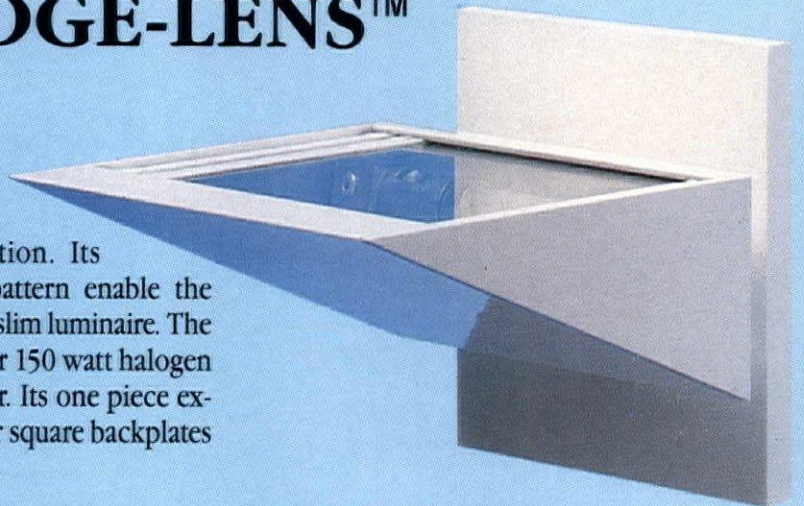
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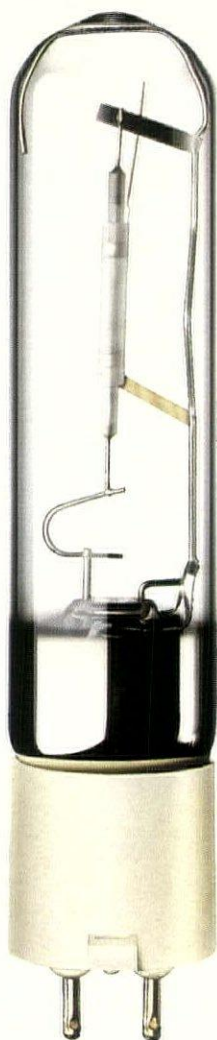


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PHILIPS

New Hotel To Light Up Times Square

A soon-to-be-constructed hotel in New York is being touted by developers as the building that will light up Times Square as never before.

The \$70 million, 27-story Hampton Inn Hotel, which will be built on 49th Street and Broadway in Manhattan, will feature 25,334 square feet of outdoor signage. The two signs, designed by Burson-Sant'Andrea Productions, will nearly cover the entire east and west sides of the building.

The signs' design components are programmed together to create a unified and integrated graphic message. Multi-layered neon messages will cascade from the hotel's summit and lead to massive walls made of 276 light panels that display both front-lit photography and rear-lit transparent photography. The bottom portion of the signs consists of a giant 21-foot x 28-foot television screen.

New York City Mayor David Dinkins was on hand recently to introduce the building's construction plans, which are slated to begin in the fall of 1990 and end in late 1991.

"The long-awaited revitalization of Times Square is well under way," Dinkins said. "The Hampton Inn will be an important part of the cultural and commercial renaissance of this area."

The hotel will offer 324 rooms, meeting rooms, a business center with computer workstations, and teleconferencing facilities.



LETTERS CONTINUED FROM PAGE 10

Reading Warranty Fine Print

DEAR EDITOR:

I have read with concern recent promotions for warranties on lighting fixtures that could be misleading. At first glance, it seems that the manufacturer is warranting the entire fixture for five years, when, in reality, the five-year warranty applies only to the ballast—or the fixture's electrical system.

Most of the time, lighting manufacturers offer a one-year warranty on their fixtures, which covers both materials and workmanship. If a unit is defective the manufacturer will correct the defect, at no cost, by repairing the unit or providing replacement parts.

Title 24—What Benya Really Meant

In my article, "Title 24 1991's Impact on Lighting" (May 1990, pages 19-20), I stated:

"Unfortunately, the 1985 Second Generation Office Lighting and the Second Generation Retail and Wholesale Store Standard have not been well conceived or implemented."

Please allow me to restate my position more clearly. The collaborative process of government and industry provided an excellent foundation for the second generation standard by recognizing the need for a simple compliance process as well as a more complex and detailed process for unusual or demanding situations. I regret that my earlier statement

In Holophane's case, all fixtures are warranted for two years and the high-intensity discharge (HID) electrical components for five years.

We feel that a promotion that implies that the entire fixture is warranted for five years is misleading and costly. If something goes wrong with a unit after the first year that does not involve the electrical system, the customer is on his own. It pays to read the fine print in a warranty. It can save a lot of time, grief, and money.

John Forbes
Vice President, Marketing
HOLOPHANE COMPANY, INC.
Newark, OH

appears to criticize the work of many individuals who conceived this foundation, most notably members of the IESNA Regional Energy Committee.

On the other hand, I stand by my statement that this foundation was poorly implemented. The actual Title 24 standard was unnecessarily complex, difficult to read, and made improper use of several words and concepts of "lighting language" to the confusion of designers and code officials alike. Even the state's own design manual was incorrect in interpreting the standard.

James R. Benya, PE, IALD, IES
Senior Principal
LUMINAE SOUTER LIGHTING DESIGN
San Francisco



Nadia Kazymyra-Dzioba (right) and Bruce Wiedmark from the National Archives of Canada's architectural collection examine plans, photographs, and drawings donated by the Rambusch Company.

Rambusch Donates Documents To National Archives Of Canada

The National Archives of Canada Cartographic and Architectural Archives Division has invited the Rambusch Company to donate more than 500 historical records representing work completed prior to 1960 in Canada by Rambusch. The firm's founder, Frode C.V. Rambusch, was active in Canada beginning in 1896. The date of the official transfer was June 28, 1990, when a special ceremony took place in Ottawa.

Jean-Pierre Wallot, the national archivist, accepted the "culturally significant documents" on behalf of Her Majesty Queen Elizabeth, Queen of England. Viggo Bech Rambusch, chairman, and his wife, Catha Grace Rambusch, the firm's archivist, represented the Rambusch Company at the ceremony.

Nadia Kazymyra-Dzioba and Bruce Wiedmark from the Archives paid a visit to the Rambusch headquarters in New York City's Greenwich Village in April of this year to examine and assess the Canadian material consisting of plans, drawings, ledgers, and photographs. Included are full-size drawings and design sketches that show the actual process of design from the original concept to the finished object.

One example is the design drawings and photographs of St. Anselm's Leaside church in Ontario, representing a Rambusch interior completed in 1968 for the architects Lenz & Taylor. Rambusch's work included designing and fabricating painted decoration, stained glass, art metal, processional

cross, candlesticks, and decorative lanterns. Another set of drawings shows the work done for St. John Baptiste Cathedral in Newfoundland, completed in 1954, for which John B. Hoskin was the architect.

The National Architectural Archives in Ottawa established the program to acquire, preserve, and make available for research collections of architectural records of national importance. The records of interest are not limited to graphic images, plans, drawings, and photographs, but include specifications, correspondence, account ledgers, and other written documents. These records complement the drawings and facilitate a reconstruction of the past. As well as providing the information necessary for the physical restoration of historic buildings, this material reveals a complete history of a building, including techniques and materials used in construction, costs, and function.

Rambusch of Canada, Ltd., based in Toronto, was incorporated in 1918. Some of its current work in Canada includes the complete redesigning of The Chapel at the Basilian Theological College, Toronto, the original architect of which was Ernest Cormier; the design and fabrication of lighting in the Senate Center Block, Houses of Parliament, Ottawa; the Legislative Assembly, St. John's, Newfoundland, which is equivalent to United States state capitols; and the largest single mosaic in Canada in the apse of the Cathedral of the Transfiguration, Markham, Ontario.

CSL Appoints Gerber President

Sy Gerber, who founded and was former president of Capri Lighting, which he later sold to Thomas Industries, is returning to the lighting industry as president of CSL Lighting Mfg., Inc.

Gerber, who is credited with bringing halogen lighting to the United States, says he joined CSL because the company is continuing to promote the usage of halogen.

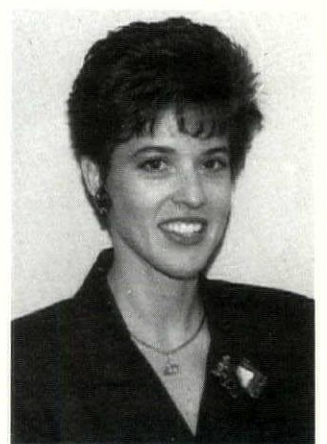
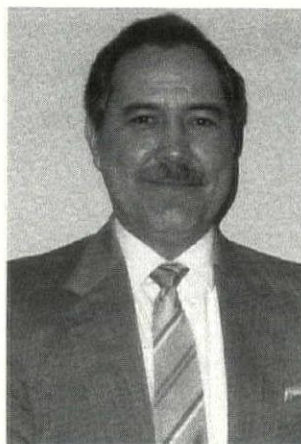
"It's an extension of what I stopped doing when Capri was sold," Gerber says. "Also, the lamp type expansion in the industry has been phenomenal, and CSL is a part of that."

Job one, Gerber says, is not to be the biggest, but the best.

"I'm aiming to make this company the best with innovative fixtures," says Gerber, who is also a principal of the company. "This isn't just a job for me. I wouldn't ever want 'just a job'."

ARCHITECTURAL LIGHTING Expands Sales Staff

The expansion of the ARCHITECTURAL LIGHTING advertising sales staff includes the addition of three experienced professionals: Leona Wish, Advertising Sales Manager; Chuck Bacon, Midwest Regional manager; and Helene Tepperman, Northeast Regional Manager.



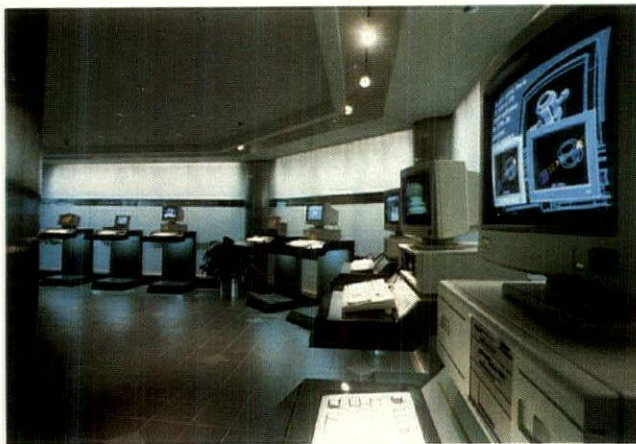
Lights & Bytes— Compaq's Computer Display

BY CHRISTINA LAMB
ASSISTANT EDITOR



CHALLENGE The product display area of the Compaq Computer corporate headquarters called for lighting that would accent the computers and also provide general illumination for viewers. The area is located beneath the lobby mezzanine and is adjacent to the main lobby, forming the end of the entrance view through the three-story skylit space. To some extent, this shields the display area from the abundance of natural light provided by the skylight.

DESIGN/TECHNICAL CONSIDERATIONS It was essential that the lighting in the seating and product literature area not detract from the illuminated product. Also, the lighting had to create contrast since the display area is surrounded by daylight.



METHOD General lighting and illumination over the seating and literature table is provided by 75-watt MR 16 pinhole adjustable accent lights. Each computer keyboard is accented with a 25-watt, 6-volt pin spot aimed at a 30-degree angle onto the keys. The light beam does not spill onto the screen or into the eyes, so visitors are comfortable activating the various programs. Slot housing the track heads as well as the pinhole luminaires maintains a clean surface and does not draw attention from the product display. Another slot houses 50-watt metal reflector quartz lamps that are used to back-light etched glass panels, and create a luminous background for the products and the space. The tops of these panels, located behind the terminals, are inserted into the slot to remove the chances of a shadow line. Black metal baffles placed between the lamps eliminate glare from the walkway located behind these walls.



FINISHED PRODUCT: Pinhole luminaires and slot-housed fixtures illuminate the space, accent the computers, and provide a backdrop in Compaq's product display area.

CONCLUSION The lighting for the main reception/product display area is on a four-scene preset dimming system for energy management and flexible lighting control. The lighting for this project, completed in 10 months, was awarded the IES Edwin F. Guth Award of Merit.

DETAILS

PROJECT: MAIN RECEPTION/PRODUCT DISPLAY AREA

CLIENT: COMPAQ COMPUTER CORPORATION

LOCATION: HOUSTON

LIGHTING DESIGNER: MICHAEL JOHN SMITH, AIA, IES, IALD

ARCHITECT: ROBERTO LOPEZ-MOLNE, ELMO VALDEZ; SPENCER-HEROLZ

ELECTRICAL ENGINEERS: I.A. NAMAN & ASSOCIATES

INTERIOR ARCHITECT: RICHARD BUDAY; BUDAY WELLS, ARCHITECTS

PHOTOGRAPHER: FRANK MARTIN

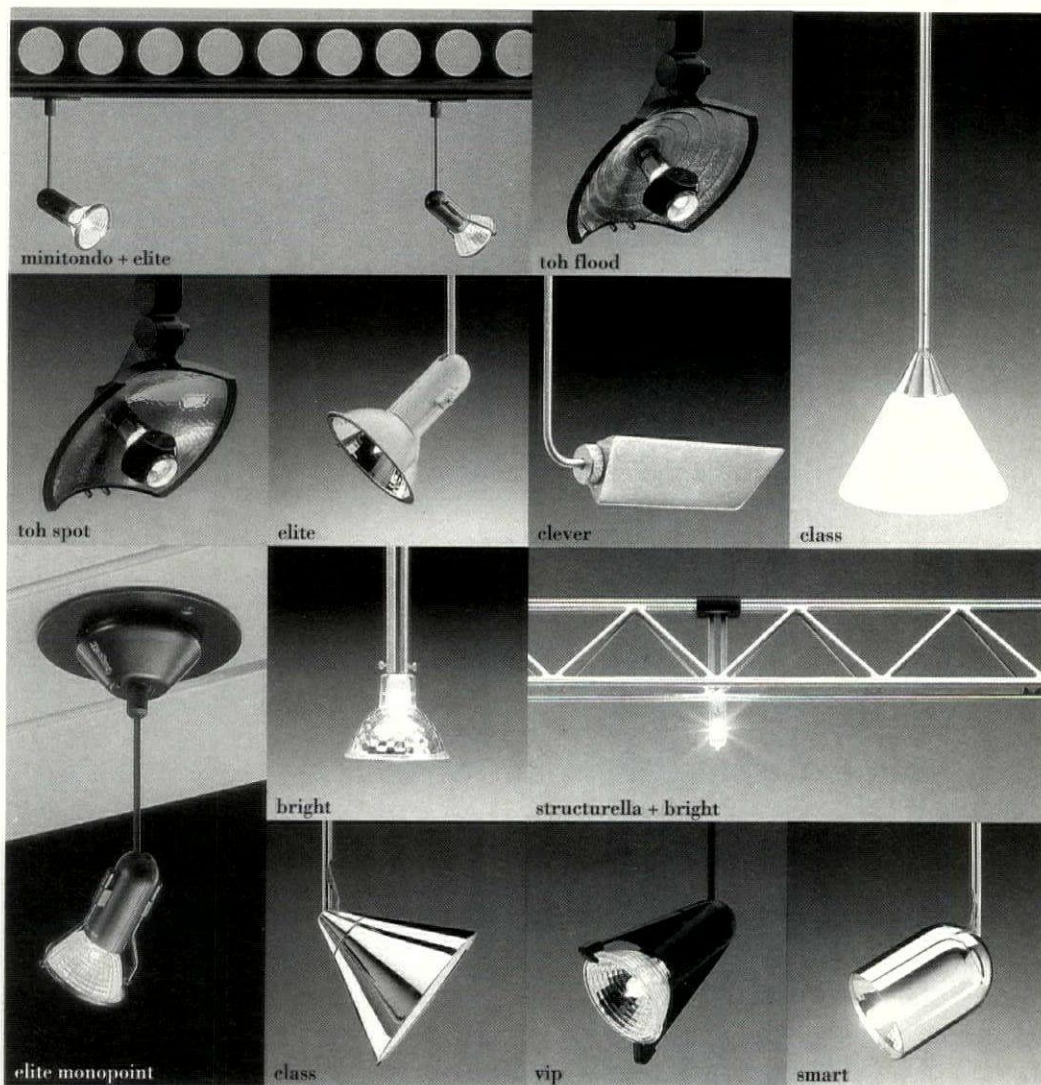
LIGHTING MANUFACTURERS: HALO: pinhole adjustable accent lights;

LIGHTING SERVICES INC.: track lighting; NORBERT BELFER: low-voltage

incandescent strip lighting; LUTRON: dimming controls

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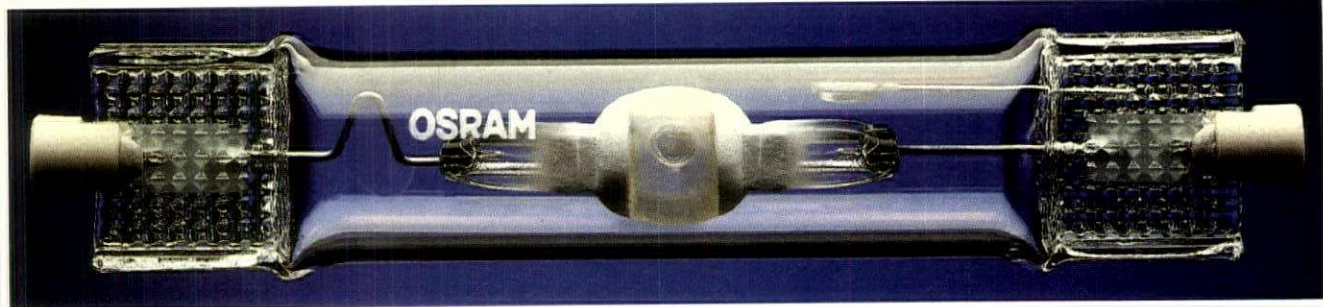
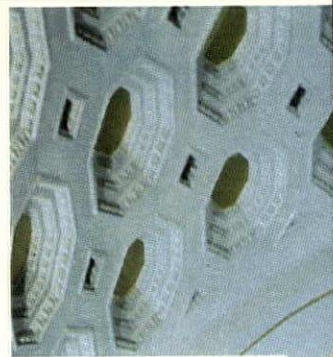
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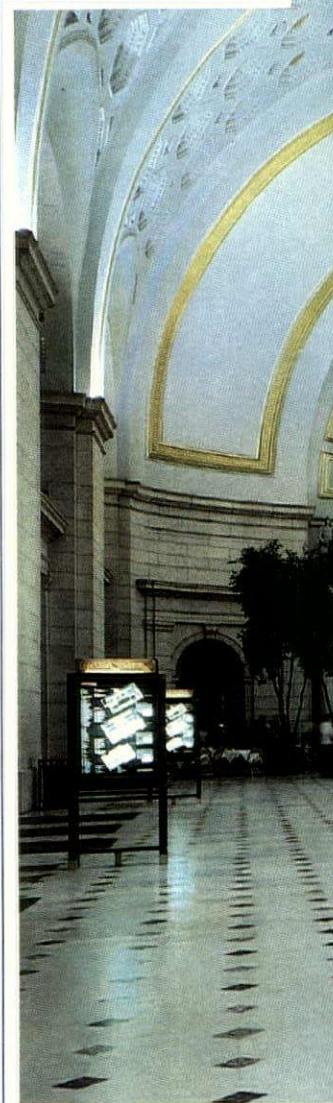
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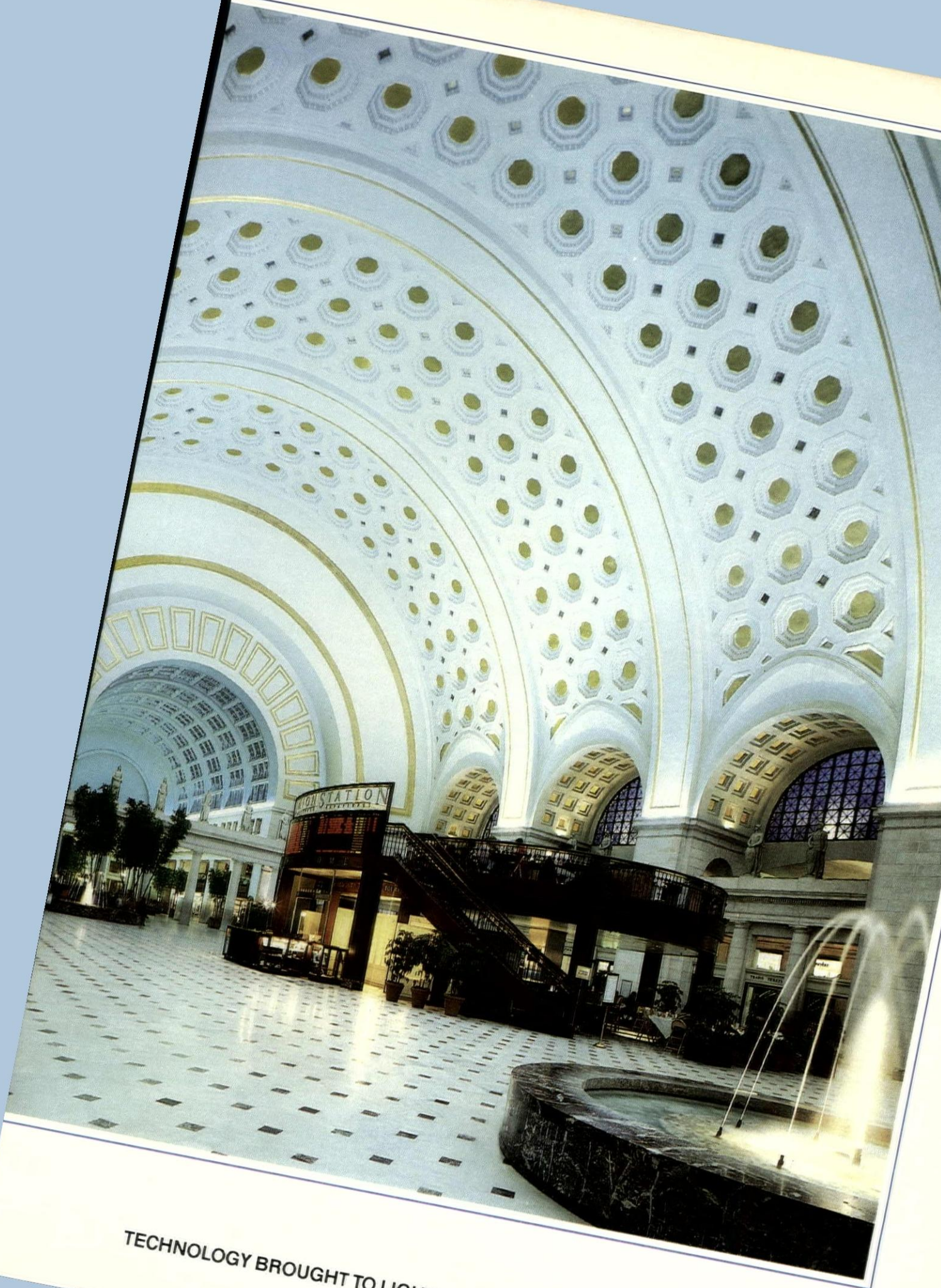
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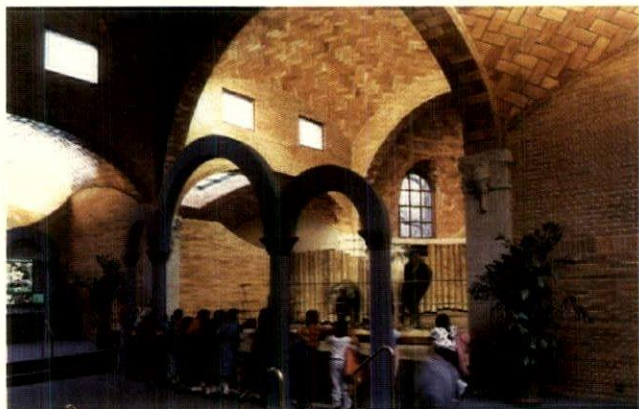
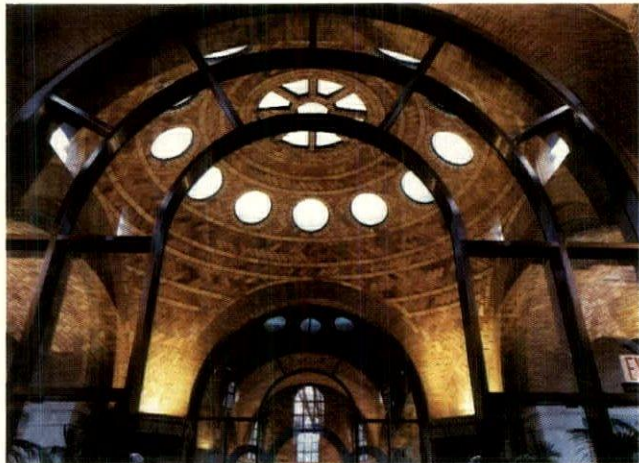


TECHNOLOGY BROUGHT TO LIGHT

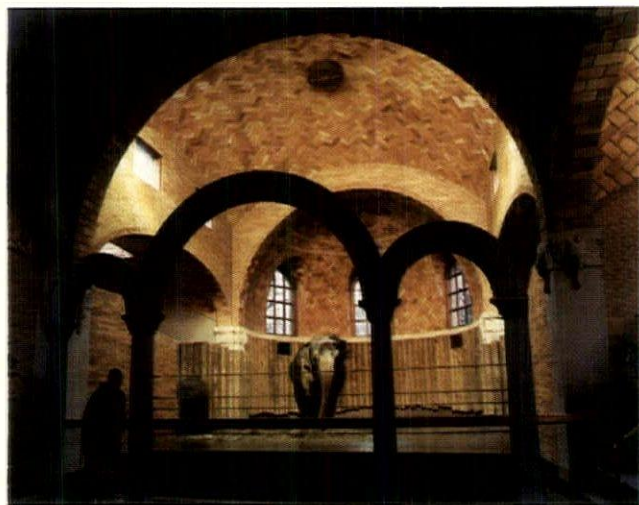
OSRAM

New Lighting Animates Elephant House

BY CHRISTINA LAMB
ASSISTANT EDITOR



MENAGERIE OF LIGHTS: A mixture of well-concealed quartz, HPS, and metal halide lamps provides illumination for the central rotunda (top) and the elephant exhibits (above and below) at the Bronx Zoo.



CHALLENGE Restoring the Elephant House at the Bronx Zoo included the renovation of its three major spaces: the rhino and elephant exhibit halls, and a central rotunda for visitor information and evening fund-raising functions. The facility required a lighting system that would present the animals in a favorable viewing light, while creating a comfortable and pleasant atmosphere for the public.

DESIGN/TECHNICAL CONSIDERATIONS The architectural form of the structure, with its arched beams and domed ceilings, required an indirect lighting system with concealed light sources. A challenge to this was presented by the variable cross sectional terra cotta brick-finished interiors, which prevented the fixtures from being recessed. The ceiling curves vary in each building section, which made it difficult to design the aiming and mounting details of the fixtures in a way that would maintain an even distribution of light.

METHOD For the display areas, a mixture of quartz, HPS, and metal halide floodlights are mounted on the vertical surface of overhead arched beams. By remoting the ballasts, and therefore reducing the space required to position and aim the fixtures, the floods are kept from public view. Dimmers for the quartz lamps and switching contactors were provided for flexibility in lighting levels and energy management. During visiting hours, 150 footcandles are maintained for the exhibit areas and 30 footcandles are maintained for the public areas.

The central rotunda is artificially illuminated through existing 20-inch diameter round milk-white glass skylights that utilize metal halide and quartz floodlights. The light emitted from above the glass appears natural, although it is the fixtures that are illuminating the space below. The cornices that mark the four corners of the rotunda house two flood uplights, which wash its ceiling. Three small recessed incandescent downlights illuminate the wall niches below.

CONCLUSION All of the fixtures, with the exception of the incandescent downlights, are entirely enclosed so they can be easily hosed-down by the zookeepers. The mixture of HPS, metal halide, and quartz lamps—the latter also serving as emergency lighting—efficiently illuminates the space.

DETAILS

PROJECT: ELEPHANT HOUSE AT BRONX ZOO

LOCATION: BRONX, NY

LIGHTING DESIGNER/ELECTRICAL ENGINEER: HARRY SPRING, WANK ADAMS SLAVIN ASSOCIATES

ARCHITECT: GODSTONE-HINZ

PHOTOGRAPHER: JOY ARNOLD

MANUFACTURERS: SPAULDING LIGHTING, INC.: quartz, metal halide, HPS floods; KURT VERSEN: incandescent downlights

Fostering The Maverick In All Of Us

Two days after Merle Keck, PE, FIES, 1990 IESNA Gold Medalist, gave his acceptance address at the IESNA Annual Conference held in Baltimore, July 29-August 2, people were still talking about it. I spoke with Merle, and here's some of what the fuss was about.

Keck believes the golden years of the IES were the 1950s and 1960s because "the coefficients of utilization enabled somebody to go to a three-day seminar and learn to calculate how much light there was on the work plane three feet above the floor. Then they could pick up the IES listings of the recommended levels and they were automatically lighting specialists."

The problem is that this system does not reflect how human visual performance really works. And to point it up, Keck, who has lighted many major league baseball stadiums during his long, distinguished career—including a stint as Engineering Manager of the Outdoor Lighting Division for Westinghouse—used a baseball analogy to drive home his point.

Imagine an outfielder in the stadium during a game waiting for "something to happen," Keck says. "The ball is pitched, the batter swings, connects, and the outfielder is off at the crack of the bat. He runs to catch the fly ball.

"It wasn't the sound of the ball on the bat that told him which direction to run and how fast," Keck says. "It was that he was able to see and track the ball in the first few feet of its travel, and calculate and determine its future trajectory. Part of these mental calculations involved visual process and speed, and it has to be done in a fraction of a second, and he has to continue to track the ball as it goes through its course, and make corrections so that he and the ball arrive at the same time.

"The relationship between the lighting and the ball is not a relationship based on the amount of light three feet above the playing field out in that baseball stadium, but that's still what we specify."

Keck feels little progress has been made in relating human performance to average levels of illumination calculated using coefficients of utilization.

"The coefficient method using radiative transfer theory doesn't give us very accurate determinations of average luminances," Keck says. "And we are making little effort to measure the directional reflectance of properties in the rooms and in the world around us, which we need in order to make accurate calculations of luminances."

The IES is a two-headed organization, according to Keck—one goal is to further the art of illumination; the other, to further the science.

"In my opinion, the science portion is behind in providing tools to the artist of the organization and what we really need is computer programs to evaluate the luminance of anything we look at in any direction, and print numbers on it so we can predict ahead of time for the artist what the brightnesses, the luminance, the colors, the reflectances, etc. are going to be."

Keck urged any members of IES application committees preparing recommended practices to give thought to covering the factors that govern human performance. Keck has practiced what he preached. The IES Roadway Lighting Committee, of which he is a member, has based their most recent recommended practice on pavement luminance and the visibility of the target, and not on horizontal footcandles, which, Keck says, "is a complete breakaway from the old IES tradition."

Lighting designer and author, Louis Erhardt, in chatting with me praised Keck's address and seemed relieved that what he has been writing about for years is being echoed by someone else. And then Erhardt said, "But I'm not a Gold Medalist. I'm only Lou Erhardt. Maybe they'll listen to a Gold Medalist."

I've spent over a decade writing about developments in lighting. And there's one thing I'm seeing over and over again. The contrary, outspoken, mavericks with the supposed oddball ideas that are different from the established norms are consistently ignored—and are really the ones who are turning out to be dead-on right about so many issues after all these years.

We shouldn't have to wait until someone wins a Gold Medal to listen to a critique of the status quo. It's only by constantly questioning the norms of the present that they can be confirmed as right, or changed for the better by searching out different ways of thinking and doing.

Listen to the mavericks, the harbingers of change. And listen even to the maverick that's lurking in each one of you.

WANDA JANKOWSKI
EDITOR

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L I G H T I N G



UNION STATION

INDUSTRIAL-STRENGTH FIXTURES:
Communication Arts responded to
the oversized industrial architecture



Communicating Character

**Communications Arts' custom mall fixtures
establish a sense of ambience and human scale**

BY CHARLES LINN, AIA
EXECUTIVE EDITOR

Market districts are as old as selling merchandise itself. The sights and sounds of shoppers and vendors interacting produce an energy that draws people into the hustle and bustle. As open air bazaars evolved into downtowns, countless cities the world over either grew or faded away, based upon the strengths of their markets and trading districts.

In post-World War II America, the emergence of suburban sprawl and the predominance of the automobile eroded the strength of the traditional market district. It was superseded (some say killed) by the shopping mall. With few exceptions, malls attempt to recreate the vitality of the market district inside sealed, electrically lit, air-conditioned buildings. Anchor stores contain the vast array of merchandise essential to drawing people to the mall, while pedestrian corridors lined with specialty shops provide attractive sights and

sounds. Automobile parking, of course, is only steps from the door.

Public comment regarding the sterility of malls, coupled with nostalgia for the marketplaces of the past, is today commonplace. However, designers and developers of all but a few malls have failed to comprehend and successfully replicate the qualities that made those discarded markets better places. Retail developers still build sterile malls, shoppers gravitate to them, and ignore the few merchants who still cling to almost vacant downtown shopping districts all over the country.

Some keenly sensitive mall developers understand that to recreate the vitality of marketplaces by establishing a sense of place, comfort, character—and even fun and playfulness—is to bring life to their shopping areas. The strategy attracts upscale retailers and keeps the shoppers coming.

Communication Arts, a design firm in Boulder, CO,

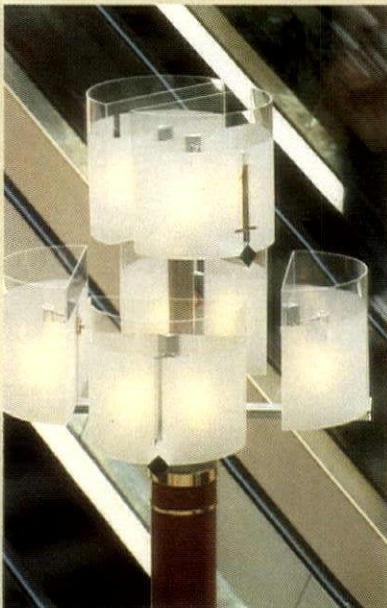
PHOTOS BY R. GREG HURSLEY, INC.

of Union Station's train shed with large fixtures made of channels, angles, straps and bolts, and industrial hammered-glass shades.



GALLERY AT HARBOR PLACE

SHIPSHAPE: These light fixtures use traditional yacht building materials—red bronze and mahogany—as a starting point. Fixture shades are made of clear and frosted glass, with chrome caps, clamps and details. Supports include cross-sections of painted metal triangular tubing.



has been involved in the design of several shopping areas that have opened over the past several years to rave reviews and heavy traffic. Key to the success of these projects is the firm's study of the interaction between people and places, fulfilled through a dedication to details and fine design work. Communication Arts is responsible for the design of the graphics, signage, seating, lighting, directory kiosks, neon signage, textiles, water features—everything right down to the details. The company's projects include Rivercenter, Gallery at Harbor Place, Bayside, St. Louis Union Station, and Ford City, which are shown in this article.

Extensive use of daylighting sets these projects apart from many other malls. It floods the pedestrian passageways, in some cases, from entire walls and roofs of glass, inspiring thoughts of the open-air markets of the past.

Also notable are the custom light fixtures.

"On the whole," says Communication Arts principal Henry Beer, "the purpose of the light fixtures we design has more to do with creating character than with basic building illumination. Our lighting is really there to provide a sense of visual richness and human scale rather than to provide task light, which is one of the reasons why we, rather than the lighting consultant, end up designing the fixtures."

DESIGN DEVELOPMENT

"Our overall objective is to create a transition between the huge volume of the building and the smallest objects, like the merchandise and mall furnishings. The primary scale is the space of the building itself. In the secondary scale are

the elements like handrails, storefront framing, major project signage, and so on. The tertiary level is the fine detailing—the pattern of the flooring, for example. Lighting is an important part of the secondary scale of elements, the size of fixtures falling halfway between the size of a human being and that of the space."

The fixtures also help to establish a sense of orientation for the visitor.

"If you look across the space," continues Beer, "there is an intermittent grid established by the light fixtures that helps a person understand at a subconscious level how long that space is. One of the ways we make the space feel comfortable is to help people understand it—they can read what it is immediately, and won't feel like they've been dumped into a maze."

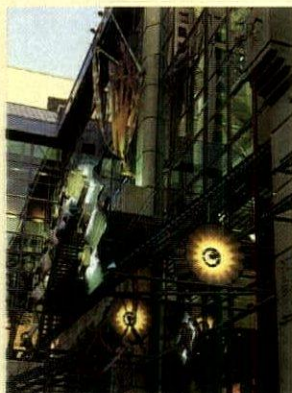
During the design development phase of the project, Communication Arts uses a number of methods to ensure that the scale of the light fixtures is appropriate. These include scale models, renderings, CADD simulations and full-size mock-ups.

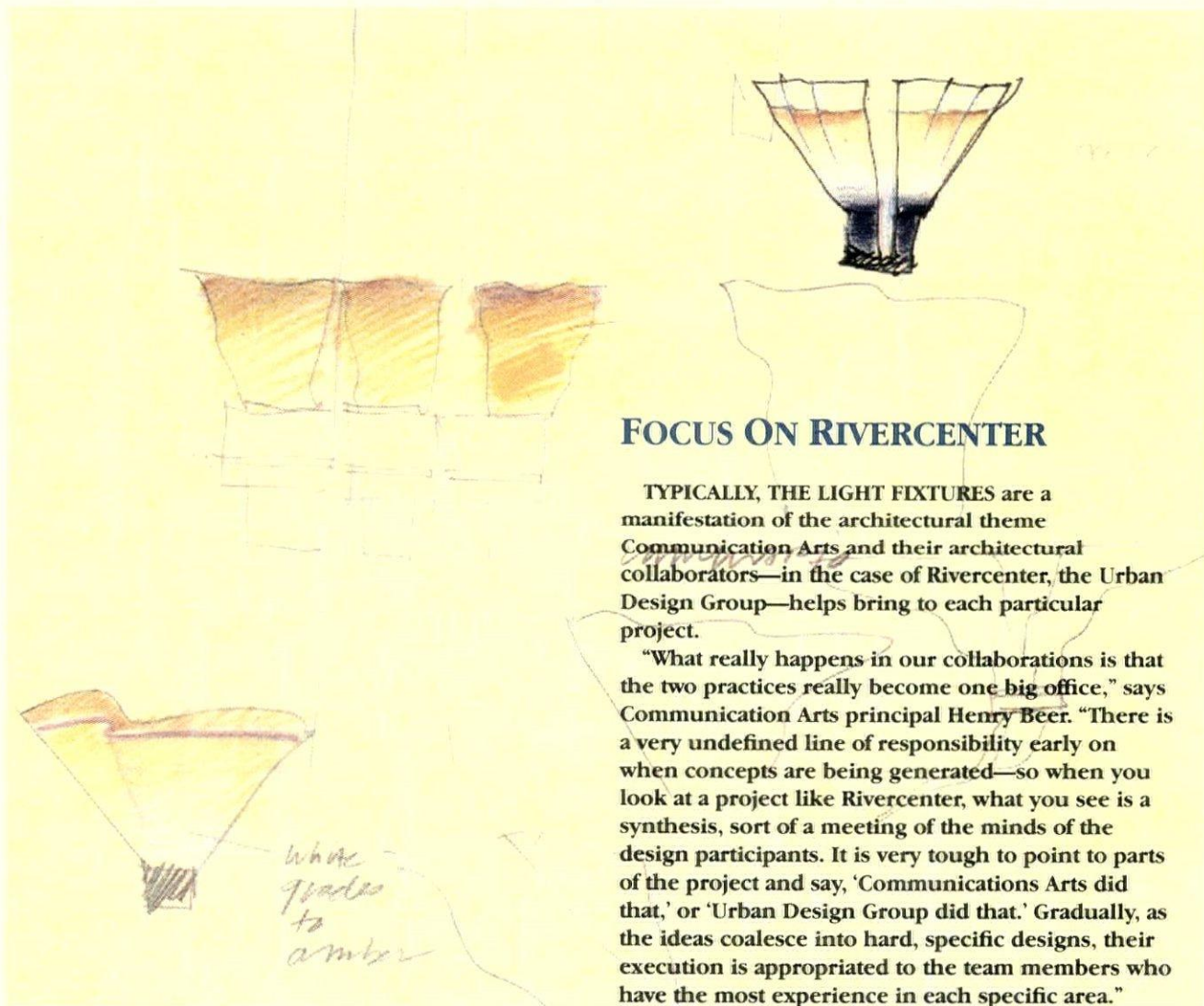
"You always want to make sure that the objects and elements you use to make sense of the space don't end up in a shouting match with the elements of the project that are truly important," Beer says. "For example, in a retail project, it is difficult to justify making anything more important than the storefronts. We go to great lengths to be sure that the lighting and signage are supplemental and accessory to the primary function of the space, rather than being the foreground element."

To secure design continuity from storefront to storefront, Communication Arts develops a ten-

RIVERCENTER

MEXICAN LIGHT DANCE: Twirling fiesta skirts provided the inspiration for the brackets and glass shades in this San Antonio project. A dichroic coating on the glass shades is used to "bring them back into the twentieth century," according to Communication Arts principal Henry Beer.





FOCUS ON RIVERCENTER

TYPICALLY, THE LIGHT FIXTURES are a manifestation of the architectural theme **Communication Arts** and their architectural collaborators—in the case of Rivercenter, the **Urban Design Group**—helps bring to each particular project.

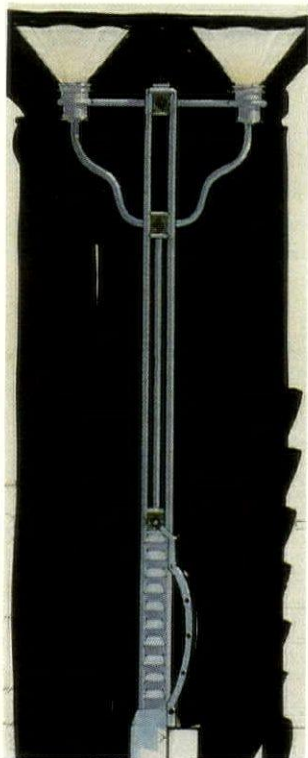
“What really happens in our collaborations is that the two practices really become one big office,” says **Communication Arts** principal **Henry Beer**. “There is a very undefined line of responsibility early on when concepts are being generated—so when you look at a project like Rivercenter, what you see is a synthesis, sort of a meeting of the minds of the design participants. It is very tough to point to parts of the project and say, ‘**Communications Arts** did that,’ or ‘**Urban Design Group** did that.’ Gradually, as the ideas coalesce into hard, specific designs, their execution is appropriated to the team members who have the most experience in each specific area.”

The collaborative design effort is “art directed” by the client, in this case, **Gene Williams**, of the **Williams Company**, the original developers for the project. “The client,” continues **Beer**, “reacts to what we’re doing, and indicates whether what the designers have come up with is, or is not appropriate.”

A different theme is established for each project. In the case of Rivercenter, in San Antonio, TX, references are made to the region’s Hispanic culture through motifs executed in indigenous materials and colors. For example, the shape of a twirling fiesta skirt is reflected in the castings that form the fixture brackets and the shape of the glass shades.

“Rivercenter in particular, had a language of gesture that gradually emerged as the project grew on everybody. Once that ‘visual dance’ started to take shape in the designer’s minds, it became infused into everything, from the lowliest signage elements through the lighting and into the major architectural elements. The sort of ethnic ballet that is part of the Hispanic culture gave wonderful impetus to the shapes and forms of the light brackets, the shades and so forth. When a designer has to go out looking for that in off-the-shelf parts, obviously you’re going to fall short.”

IMAGINATION LEADS TO REALITY from concept sketches and drawings (above and left) to the fabricated and installed fixtures (below).



ant design manual, which gives tenants' designers guidelines for storefront design, lighting and signage. Typically, this document discusses appropriate materials, scale, and technologies, and usually forbids the use of items that would distract from the overall design of the mall spaces, like flashing lights and electronic message boards. In the process of negotiating a lease, the landlord gives the guidelines to the prospective tenants, who in turn pass them on to their designers.

FIXTURE CHARACTERISTICS

Most of the custom fixtures shown in this article are lamped with incandescent sources, shielded by custom glass shades, although the firm is moving toward the use of compact fluorescent, color-corrected metal halide, and white high-pressure sodium lamps to satisfy maintenance and energy concerns.

Durability is always a concern where fixtures are installed in public spaces.

"It's fair to say," Beer says, "that we assume the worst. If something is climbable, it will be climbed. If something is chippable, it will be chipped. So, we avoid materials we know will fail. You start out using bullet-proof materials at floor level, and go with your grandmother's china at the top of the fixture. You don't put your grandmother's china at floor level and expect that it will withstand a hit by a thermonuclear 9-year old," Beer says.

These fixtures are typically not produced by lighting manufacturers, but rather by machine shops, sign manufacturers, and artists who specialize in making art glass. (The one exception is the fixtures used at the Gallery at Harborplace produced by Sterner.) Samples of the actual fixtures are submitted to Underwriter's Laboratories for safety testing by the fabricators.

The easy part of coming up with a budget for these projects is projecting how much money the owner of the project will earn from the leases. The difficult part is deciding what to spend the

FORD CITY

FACTORY FORMS: This building—once the largest single story building in the world—first housed an aircraft engine factory, then an automobile factory, and now a shopping mall. The fixtures are a tribute to everything that has gone on in the building.



BEER ON GLARE

SIDE LIGHTS COMMUNICATION ARTS principal, Henry Beer, realizes the importance of glare control in retail stores. "Overhead glare is

one of the worst problems in retail spaces," he says. "It will drive people out of a place without them even knowing why.

"Low-voltage display fixtures, for example, if they are properly shielded and positioned, can be a very effective means of displaying merchandise. They have great color-rendering capabilities, and they will enhance any specular material. But usually, the designer wants to display the fixture itself—and unfortunately, and the lamps in those fixtures are capable of fusing your retinas!" (Note glaring example below.)

"People don't care about your design or what your light fixtures look like. What they really care about is, 'Am I comfortable or am I uncomfortable?' even though they might not consciously ask themselves that question."



money on.

"There is an old saying," Beer says, "that goes, 'If you spend a dollar over here, you can't spend it over there.' Getting the most 'bang for the buck' is a hackneyed cliché, but to a degree, a lot of the success of a design depends upon how intelligently people distribute the money they do have. We think that lighting is the most important aspect right after the general space itself, and we devote a lot of the budget to making it right."

Beer says his company's work possesses "object integrity," the appearance that the design of an object is "the result of somebody paying attention and caring about it, and making sure that it's done right."

"But I don't give a hoot whether anybody ever notices that," he says. "The most important part of a project is the feel it creates, and when you design each object in a project with that attitude in mind, these things accumulate into something that is more than the sum of its parts. We don't

necessarily like our artifice to show. We'd like to have somebody walk out of one of our projects and say, 'Gee, that mall is great,' not 'Boy, what a beautifully articulated set of lighting details.' Those details are only a means to an end, the end being the human qualities of comfort, civility, pleasure, and calm." ■

DETAILS

DESIGN: COMMUNICATION ARTS; HENRY BEER, AND RICHARD FOY

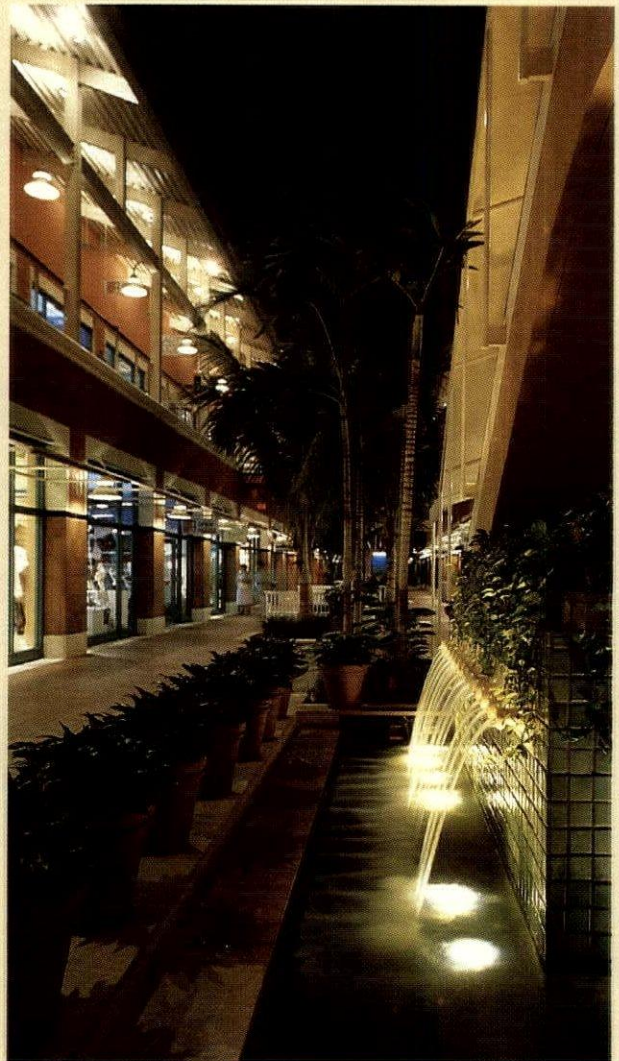
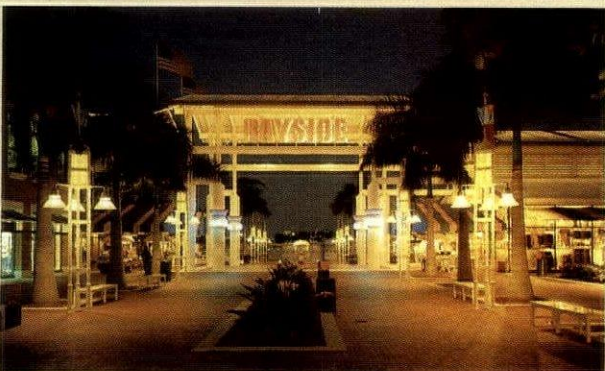
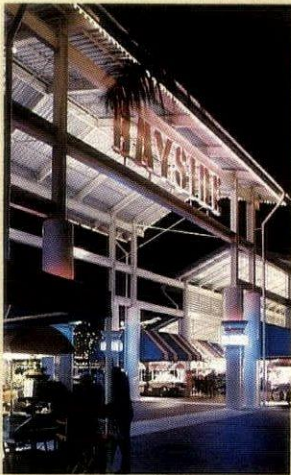
PRINCIPALS: MIKE DOYLE, BRIAN GOUGH, DOUG STELLING, designers

PROJECTS: RIVER CENTER, SAN ANTONIO: J. DEBARTOLO CORP., WILLIAMS REALTY, AND ALLIED STORES CORP.—developers; URBAN DESIGN GROUP—architects. THE GALLERY AT HARBORPLACE, BALTIMORE: THE ROUSE COMPANY—developers; ZEIDLER ROBERTS PARTNERSHIP—architects. BAYSIDE, MIAMI: THE ROUSE COMPANY—developers; BENJAMIN THOMPSON & ASSOCIATES—architects. UNION STATION, ST. LOUIS: THE ROUSE COMPANY—developers; HELLMUTH, OBATA & KASSABAUM—architects. FORD CITY, CHICAGO: EQUITY PROPERTIES AND DEVELOPMENT—developers; LOEBL, SCHLOSSMAN AND HACKL—architects

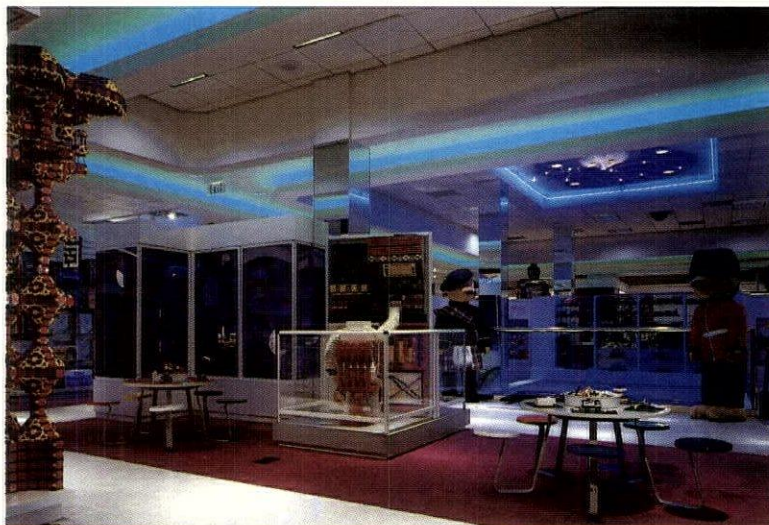
PHOTOGRAPHER: R. GREG HURSLEY

BAYSIDE

COLORS AND COLUMNS: The fixtures reflect a bolted-together-wharf personality in the corrugated porcelain shades on goosenecks, coupled with a Cape Canaveral gantry-type aesthetic.



Beams In Toyland



Sharp, shining lighting brightens FAO Schwarz

BY CATHERINE SCHEITTING SALFINO
MANAGING EDITOR

It's a place where children wish they could live and adults can relive their childhoods, if only for a few minutes. It's a wonderful playland where toys rule, and everything from Transformers to mini Ferraris are brightly displayed through the use of fun and functional lighting techniques.

The FAO Schwarz toy store in San Francisco is as large as a department store, but its lighting design called for a different approach than that used in a typical retail application. The store needed to be lit with an element of playfulness, and it needed to be done on a large scale. The store, which was constructed between December 1988 and spring 1989, turns out merchandise on three floor levels.

"The lighting considerations were three-fold," says Michael Klein, associate lighting consultant with Theo Kondos Associates, Inc., New York. "There is a lot going on architecturally in the space because it's a renovated older building. That created the challenge of interpret-

ing the architecture properly to incorporate the lighting. Also, the colors of the merchandise are just spectacular, so we needed a source that would really enhance them. And, since the merchandise is constantly changing, we needed a flexible lighting system."

The clock tower is the entry level's main focal point, which Klein further established with three surface-mounted neon hexagons. The 12 millimeter segmented neon tubes are installed directly above the smiling time tower. The warm white, 3,500-degree Kelvin tubes decrease in size by 3-foot increments: from 12 feet on the outside, to 9 feet, to 6 feet.

Because of the considerable ceiling height of the first floor, Klein says he chose incandescent lamps rather than fluorescent lamps to gain more light control. Klein says he specified recessed 150-watt PAR 38 quartz spots in the high ceiling areas of the first floor. In the dropped portions of the ceiling, Klein specified 120-volt, 90-watt

PHOTOS BY PETER PAIGE

HEXAGONAL HIGHLIGHTS:
FAO Schwarz's clock tower is surrounded from above by 12 millimeter segmented neon tubes. Recessed 150-watt PAR 38 quartz spots provide general illumination on the store's entry level. Bromo blue neon (opposite page) outlines the walkway of the store's top floor.





COLORFUL CRAFTSMANSHIP

SIDE LIGHTS

LIGHTING ACCENTS WERE ADDED to each department of FAO Schwarz under the guidance of Joanne Newbold and Joe Schkufza of

Newbold/Schkufza Design Associates, Inc., New York. They called on Bob Riddell of Brumfield Electric Sign Co., San Francisco, to complete the special effects.

On the third floor of the store, the design team specified cerise pink neon, which glows at 190 lumens per foot, to run along the casework. The fourth floor used a combination of green and bromo blue lighting, which glows at 215 and 81 lumens per foot, respectively.

The bromo blue neon surrounds a constellation effect on the fourth floor ceiling. Here, the design team applied a reflective material to the ceiling to form the constellations, which seem to light up when the neon is turned on.

In the children's clothing section, purple neon atop a column capital glows at 200 lumens per foot in a zebra pattern. Riddell says his team blocked out the tube every inch or so with special neon block-out paint to create zebra markings—not stripes.

PAR 38 spots. These lamps are housed in recessed adjustable fixtures with specular clear reflectors. In the walkway areas, downlights were used while Klein specified adjustable fixtures in the aisles and aimed them at the toy islands.

The perimeter lighting consists of 55-watt PAR 16 narrow flood lamps in track fixtures.

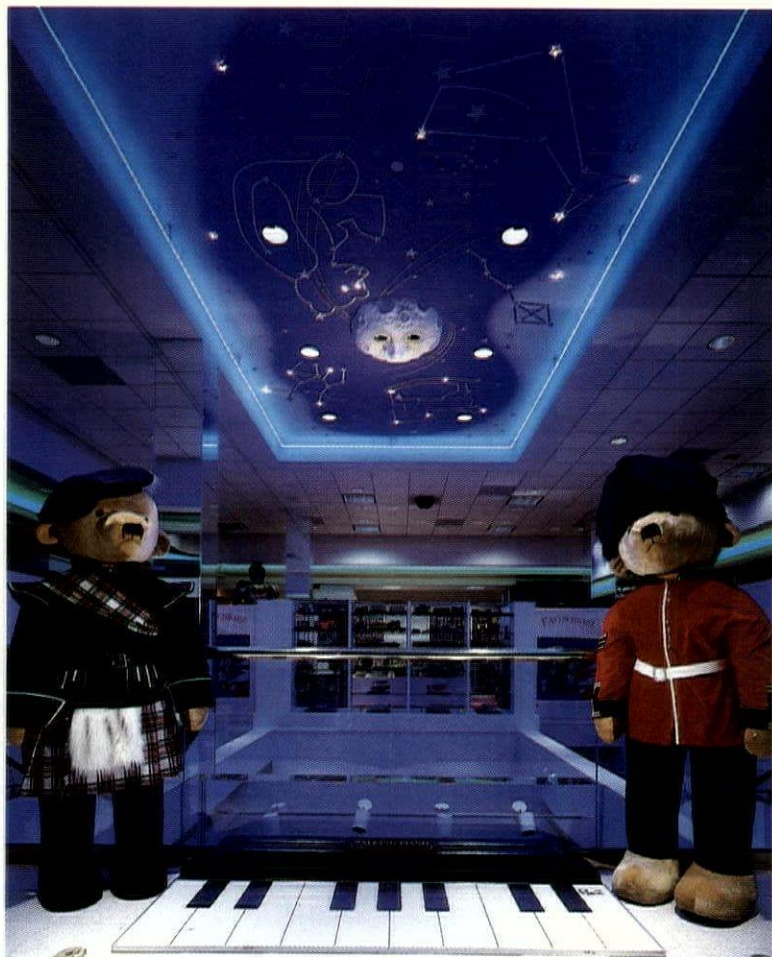
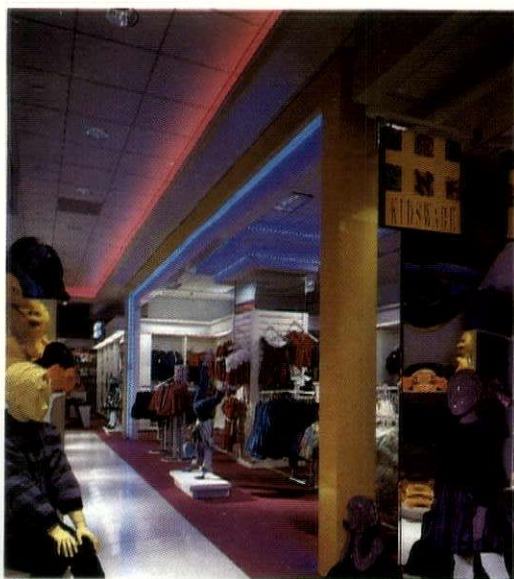
"These lamps eliminated the exorbitant costs and transformer complications associated with the MR 16 track fixture," Klein says. "The PAR 16 is a small unit but we're getting the same kind of punch out of it. And I think they work well."

Mostly, Klein says, the PAR 16s offer the ultimate flexibility since they are small and can easily be adjusted over the perimeter showcases.

Since the second floor of the building houses offices and a storage area, the retail continues on the third and fourth floors. The general merchandise lighting on both levels is accomplished by using 2-foot × 2-foot fluorescent fixtures, which contain 40-watt, U lamps. On these levels, surface-mounted neon was incorporated into some of the casework, and recessed neon covers outline the walkway areas.

"The neon served a dual purpose," Klein says. "It was used for color, which the architects chose based on the tints in the area of installation. And it serves as an indicator to let the customers know

“FAO Schwarz buyers say it’s a pleasure to purchase merchandise because they know how well it’s going to look.”



where the walkway is. Because of all the little shops, customers could get confused and lose sight of the aisle.”

The concept of a series of little shops within the department store meant there would be no spill light from other fixtures, since each individual area is segregated with merchandise walls. The recessed adjustable 90-watt PAR 38 lamps, which are 3 feet on center, and the PAR 16 track fixtures are installed around the perimeter of the floor—to accent the merchandise—and along the back walls.

Klein says that because most of the mini departments are lit with the 2-foot × 2-foot fluorescent troffers, this technique of using incandescent around the borders accentuates the face of the perimeter walls as well as illuminates merchandise from above.

“We use the aisle lighting to intrigue the customer—to get him into the department with the merchandise,” Klein says. “Once in the department, the customer doesn’t see the aisle anymore, so the back wall is very important, which is why we put the “major punch” accent light there. This is an old concept, but it works.”

The toy store has the basic lighting elements of most of Klein’s high-end projects—fluorescent and incandescent sources—but it’s been given a

spirited touch.

“I knew that the amount of accent lighting would have to be at a higher level than what is found in a clothing boutique because there is a lot more visual activity going on in this store,” Klein says. “It was a very exciting project because there was so much to take into consideration. And the FAO Schwarz buyers say it’s a pleasure to purchase the store’s merchandise because they know how well it’s going to look on display.” ■

DETAILS

PROJECT: FAO SCHWARZ TOY STORE

LOCATION: SAN FRANCISCO

CLIENT: FAO SCHWARZ, DIK GLASS, director of store design

LIGHTING DESIGNER: MICHAEL KLEIN, THEO KONDOS ASSOCIATES, INC.

ARCHITECT: JOHN HOLEY ASSOCIATES, CARL BRIDGERS, project representative

DESIGNERS: NEWBOLD/SCHKUFZA DESIGN ASSOCIATES, INC., JOANNE NEWBOLD & JOE SCHKUFZA, team design

ELECTRICAL CONTRACTOR: MACMILLAN ELECTRIC

GENERAL CONTRACTOR: A. J. CONSTRUCTION, LEONARD BASS, project director

PHOTOGRAPHER: PETER PAIGE, PETER PAIGE PHOTOGRAPHY

LIGHTING MANUFACTURERS: SYLVANIA: PAR 16, PAR 38 Capsylite spot and narrow flood fixtures; HALO: track and cylinder track fixtures; METALUX: 2-foot × 2-foot recessed fluorescent housings; EDISON PRICE: recessed downlight, recessed adjustable accent fixtures

MAXIMUM

MERCHANDISING: The toys at FAO Schwarz are given star treatment with 55-watt PAR 16 narrow floods, which are installed around the perimeter of the floors, and 90-watt PAR 38 lamps. Fluorescent troffers provide general illumination in each of the mini departments. Bright neon adds color to the casework and ceiling areas.

High-End Without

Gucci looks chichi with energy-saving lamps

BY CATHERINE SCHETTING SALFINO
MANAGING EDITOR

Well-heeled consumers expect a certain level of luxury in their shopping environs. Once corporate heads capture just the right appearance in their shops, they aim to please their clientele by mimicking the look from store to store throughout the country. But this formula for success isn't always as simple as it seems, as in the case of the Gucci boutique in Seattle, where energy restrictions played a hand in the store's distinguished lighting.

"Lighting the boutique was a real challenge," says Robert Taczala, vice president of Brand + Allen Architects, Houston. "Not only did we have to deal with the city's strict energy codes, but the client also mandated that there shouldn't be any shadows caused by the lighting."

Gucci America Inc., explains Taczala, wanted the merchandise to be brightly displayed.

"But I felt, as the lighting designer, that a company such as Gucci and its products deserved a little bit more than just floodlights," he says. "I knew we could illuminate their merchandise sufficiently while creating the impact and drama a luxury boutique requires."

Taczala says the project, which was started in February 1989 and completed in November of the same year, allowed for only 3.1 watts per square foot in the retail space, compared with up to 18 watts that is allowed in other states. To adhere to the codes, Taczala went about lighting the boutique with three types of lamps: 20-watt MR 16s and metal halides (instead of PAR lamps and higher wattage MR 16s), and cold cathode.

"I solved the energy restriction problem by using 100-watt recessed frosted metal halide lamps for the general ambient lighting," he says. "These energy-efficient fixtures are installed about 10 feet on center in the ceilings, which are 9 feet, 6 inches high."

Using fewer lamps to cover more ground is an energy-saving feature Taczala says he likes.

"The beautiful thing about metal halide is you can install it 10 feet on center and get good ambient light, and good color rendition, with a low-wattage lamp," he says. "Whereas with PARs—even 150-watt lamps—you almost have to install them at about 6 to 7 feet on



PHOTOS BY JAMES FREDERICK HOUSEL

High Energy



A WARM CLIMATE: Metal halides, 20-watt MR 16s, and cold cathode lighting combine to give Gucci Seattle the fashionable look expected of a designer boutique, while conforming to the city's strict energy codes.



center to get the same level of illumination."

Since lower-wattage lamps were specified for the project, the client was able to install smaller-sized cooling equipment, keeping initial and future HVAC costs down.

So that he could create drama and contrast, Taczala lowered a portion of the ceiling around the perimeter of the boutique and installed the recessed 20-watt MR 16 lamps in order to illuminate the wall display cases. The lamps, which are housed in a combination of flood and narrow spot fixtures, were installed approximately 19-20 inches on center. Each fixture was individually adjusted to an angle of about 45 degrees. The specified fixture features two adjustment angles that can be achieved with a power screwdriver, Taczala says.

The wall cases are backlit with 40-watt T 12 fluorescents.

"The intention was not so much to light the merchandise with the fluorescent lamps as to create a glow or halo effect around the store," Taczala says. "The back walls are lit very evenly within the cases."

The floor merchandise cases are illuminated with the MR 16 very narrow spots, which are installed 15 inches or less on center.

"The very narrow spots allow us to light the merchandise on the bottom shelves of the cases," he says. "Essentially, all the merchandise in the cases is lit from above. The MR 16s aid the curved fluorescent lightrail, which is placed toward the upper front of each case's interior and, by itself, doesn't provide enough light for the product."

The MR 16s also enhance the materials that were chosen for the project, Taczala says. The Birdseye maple wood that is used throughout the boutique appears more colorful when the light of the MR 16 hits the surface. Also, he says, the beige of the Italian Rose travertine marble and the white of the Rose Aurora marble worked well with the metal halide lighting.

"Because of the marble's light color, instead of there being a glare from the lighting, it glistens."

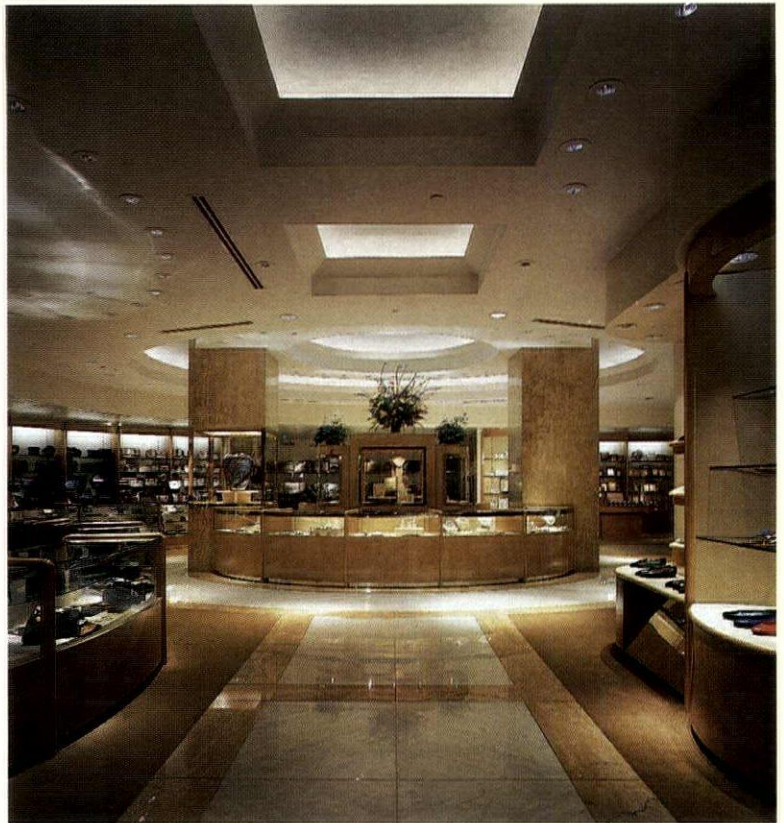
Three 7-foot x 7-foot ceiling vaults glow above the marble flooring, which serves as a natural promenade to the jewelry island. The circular dome and the vaults are illuminated with cold cathode lighting.

"Cold cathode was used instead of neon because neon just doesn't give you sufficient light, and fluorescent is hard to install in a circle. Also," Taczala says, "you end up with socket shadows with the fluorescent. Cold cathode allows you to have uninterrupted lighting, and it's much more energy efficient than the other sources."

Taczala says the fluorescent and PL lamps ranged from 14 to 20 watts per lineal foot, whereas the cold cathode was rated at 7 watts

per lineal foot.

The floral arrangement above the jewelry island is illuminated with a 175-watt metal halide



lamp, which is housed in a recessed high-intensity discharge fixture and installed in the center of the circular dome. Taczala installed the 20-watt MR 16s in the dropped portion of the ceiling to light only the merchandise in the cases.

"It's really a cornucopia of lights above the jewelry island," he says. "But each lamp type is very energy efficient. And combined, we create a great look for Gucci. I would definitely recommend this type of efficient lamp combination for a similar application. This was a real test of our ability to light a store, light it well, and satisfy everyone. We seem to have done it." ■

THE WALK OF LIGHT: Ceiling vaults illuminated with cold cathode mark the path to the shop's jewelry island, where MR 16 VNSPs highlight the product and a 175-watt metal halide accents the floral arrangement.

DETAILS

PROJECT: GUCCI BOUTIQUE

LOCATION: SEATTLE

CLIENT: GUCCI AMERICA, INC.

LIGHTING DESIGNER: ROBERT TACZALA, AIA, BRAND + ALLEN ARCHITECTS

ARCHITECT: LOC CHU, BRAND + ALLEN ARCHITECTS; JOANNE OWENS, AIA, GUCCI AMERICA, INC.

ELECTRICIAN: EVERGREEN ELECTRIC

ELECTRICAL ENGINEER: DAY BROWN RICE, INC., PHILLIP G. MILLER, P.E., PROJECT MANAGER

CONTRACTOR: SDL CORPORATION, MARK LEWINSKI, PROJECT MANAGER

MARBLE: NATIONAL TERRAZZO TILE & MARBLE, INC., GIAN-PAOLO GARRONE, PROJECT MANAGER

MILLWORK: CUSTOM CRAFT FIXTURES, INC., KIRK ROBBINS, PROJECT MANAGER

PHOTOGRAPHER: JAMES FREDERICK HOUSEL

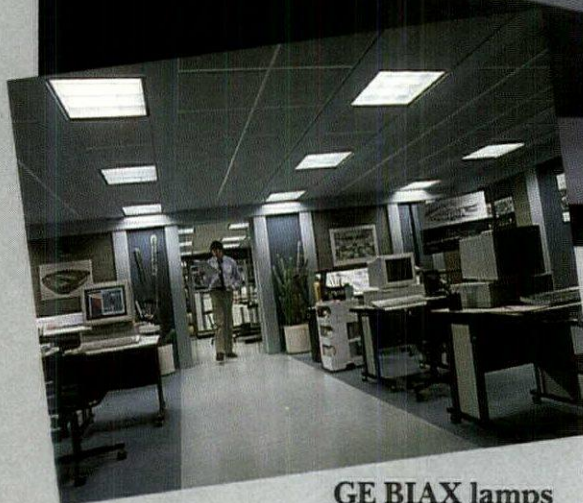
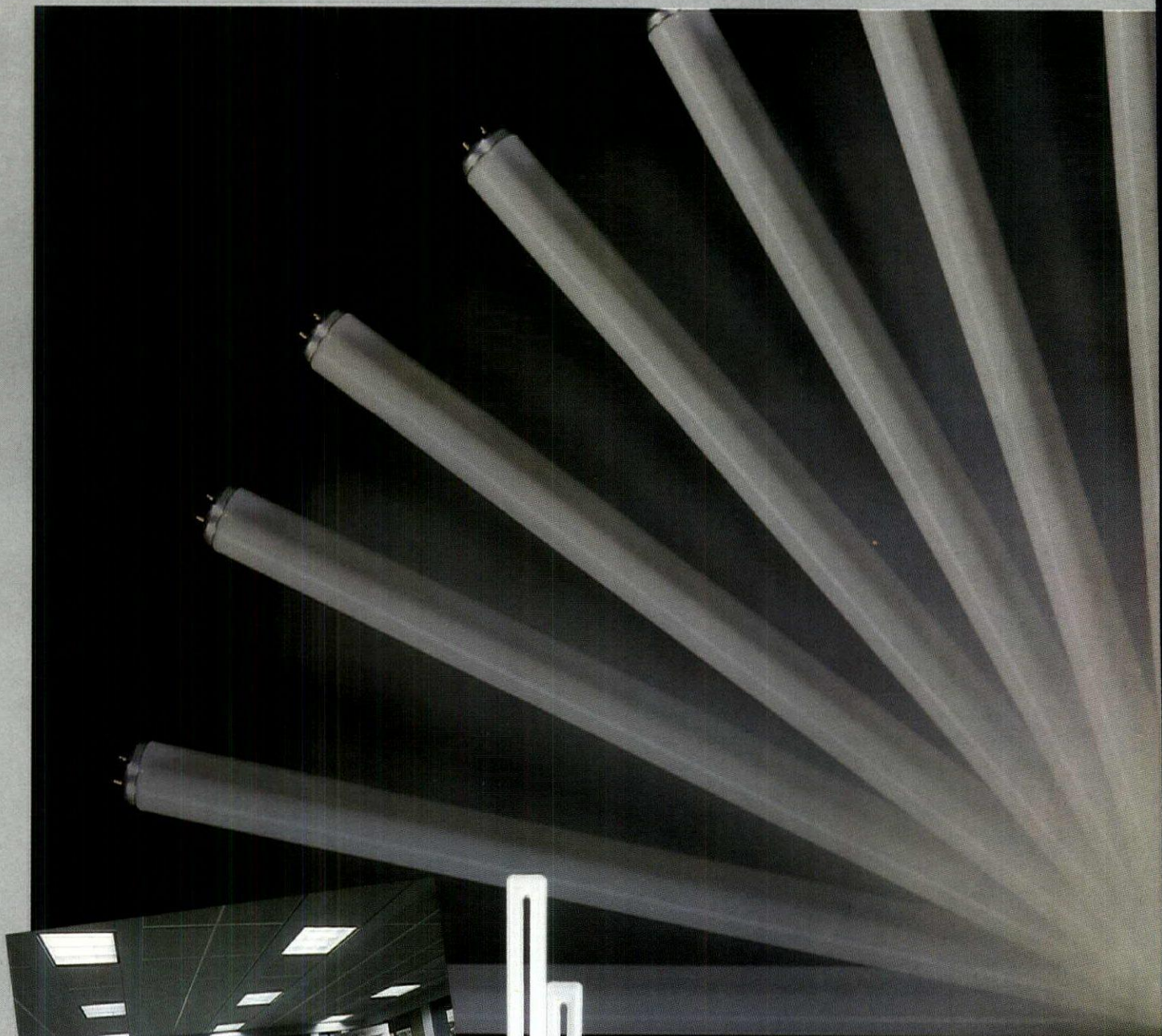
LIGHTING MANUFACTURERS: HALO LIGHTING: low-voltage MR

16 narrow and very narrow spot and flood fixtures; high-intensity discharge recessed downlight fixtures for 100- and 175-watt

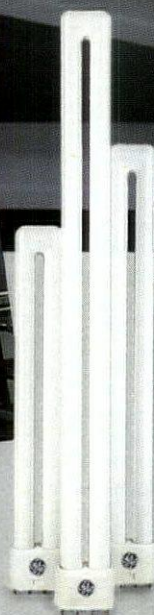
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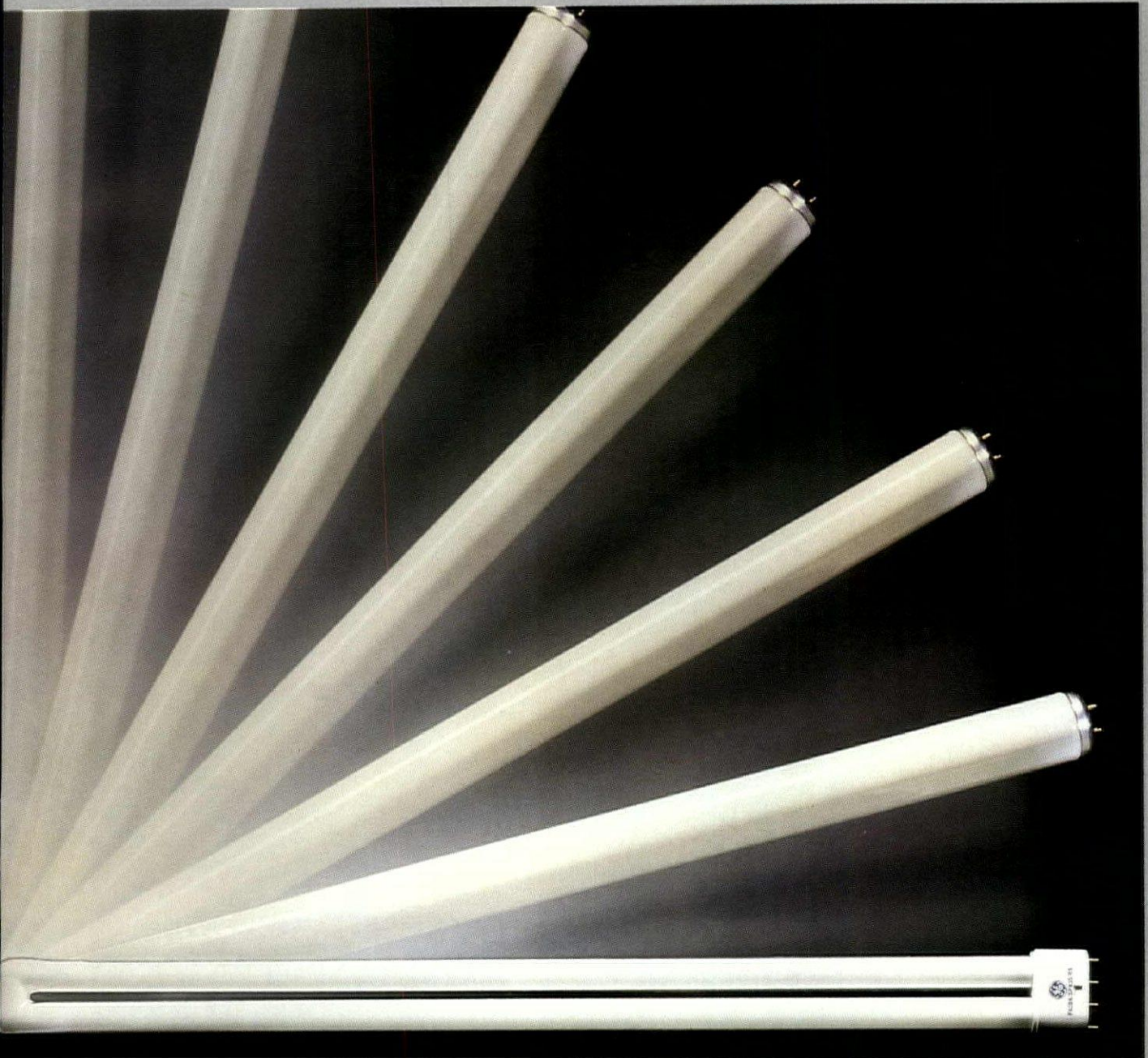


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Department Store Strategies— One View

BY WANDA JANKOWSKI
EDITOR



ALL PHOTOS BY STANLEY KAO

Norwood Oliver believes in happy marriages. And he has been happily marrying light with interior design and architecture in retail and other environments through Norwood Oliver Design Associates, Inc. for over two decades. (The firm celebrates its 21st anniversary this year.)

"I believe lighting is probably the most underutilized medium in design," Oliver says. "Light is becoming an important facet in combining the interior design and the architectural statement."

His philosophy-in-action is evident in two examples presented here—A&S Plaza at 33rd Street in New York City, and Hess' Department Store in Chattanooga, TN.



SOFT SILVER LEAF: Cove lighting reflects and refracts off the silver-leaf ceiling in A&S Plaza's Fur Department.

“The average customer will not remember the light capitals, or the faux stone. . . What they will remember is how they felt in that store—whether or not it is a pleasant environment.”

CAPITAL IDEAS

“Without the lighting, it wouldn’t have worked,” Oliver says of the design impact of the monumental columns that run throughout the first floor of A&S Plaza.

“We took the capitals of the columns and made them light fixtures, but they are really an expression that is both lighting and architecture,” Oliver says. “Marrying the two created a huge torchiere that is more than a torchiere. The column capitals set the tone of the store overall. Without them, this floor would have been nice, but it would not have been as drop-dead as it is. Just imagine the columns without the light.”

The building in which A&S Plaza now stands had formerly housed Gimbel’s department store. Though columns had existed previously in the first floor space, they were not as large as they appear now. Encasements of faux stone have been placed around the columns in a large enough scale to create a striking design statement. The lighting from the capitals comes from fluorescent PL lamps concealed behind acrylic plastic panels tinted to resemble glass.

An elliptical cove is used to define the central cosmetics areas of the first floor, and separate it visually from the accessories area beyond. “Once again, there would be no definition of the space without the lighting,” Oliver says. The cove is lit with double staggered, 2-foot fluorescent tubes, overlapped to avoid harsh socket shadows.

Cove lighting is used also in the Fur Department. The glowing silver-leaf ceiling contrasts with the sleek black granite flooring and walls, and brass detailing.

“The reflection and refraction of the lighting on the softness of the silver leaf makes the whole ceiling look like a light cove,” Oliver says. Wall sconces serve as decorative elements.

WINGED VICTORY

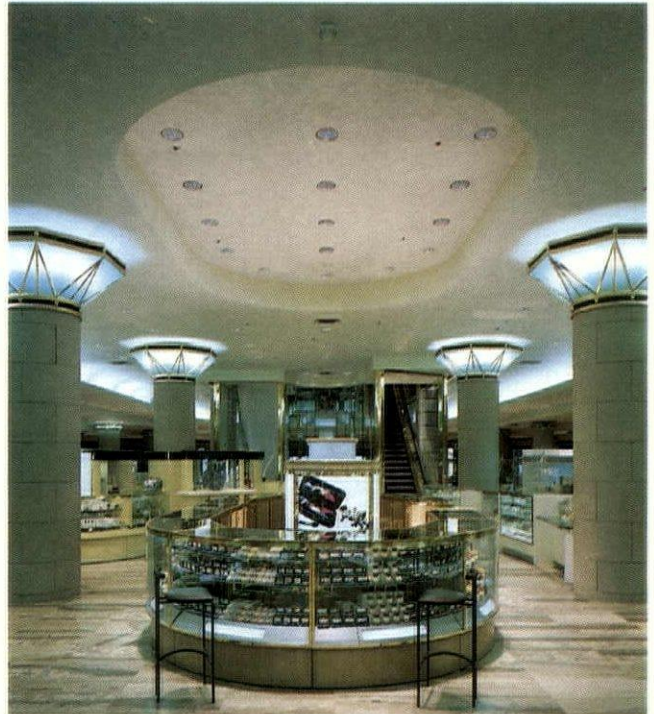
Hess’ in Chattanooga wanted the Junior Department to be a lively, kinetic space.

“We accomplished this in a sophisticated way using neon,” Oliver says. “Neon had been put into a category over the years, becoming associated with beer signs and diners. But today, the attitude towards neon has changed. It’s being thought of as a much more sophisticated light source. It’s contemporary and very soft.”

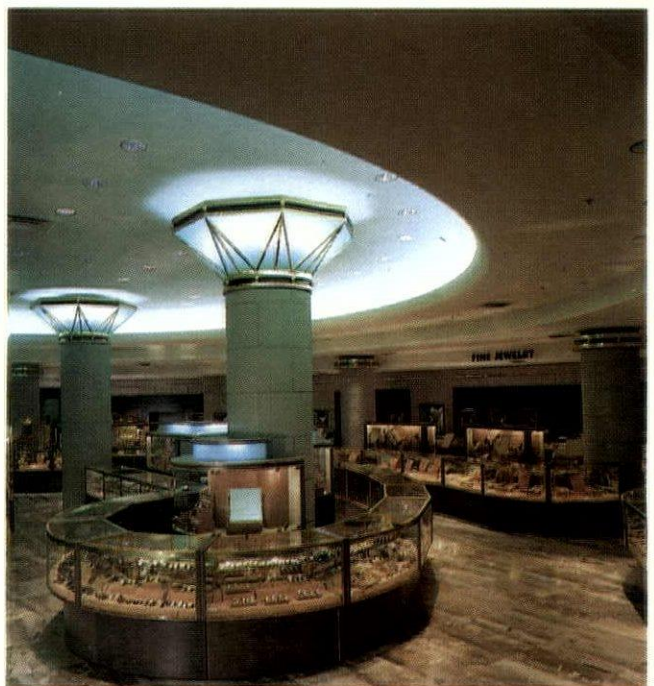
The winged, headless statue that is the focal point in the display is about 13 feet high. Its wings, as well as the architectural elements surrounding it, are outlined with neon. “Without the neon integrated as a decorative element, the space wouldn’t have worked,” Oliver says.

Though Oliver designs stores to operate within federal and state energy codes, he uses higher wattages where the lighting will create the most impact.

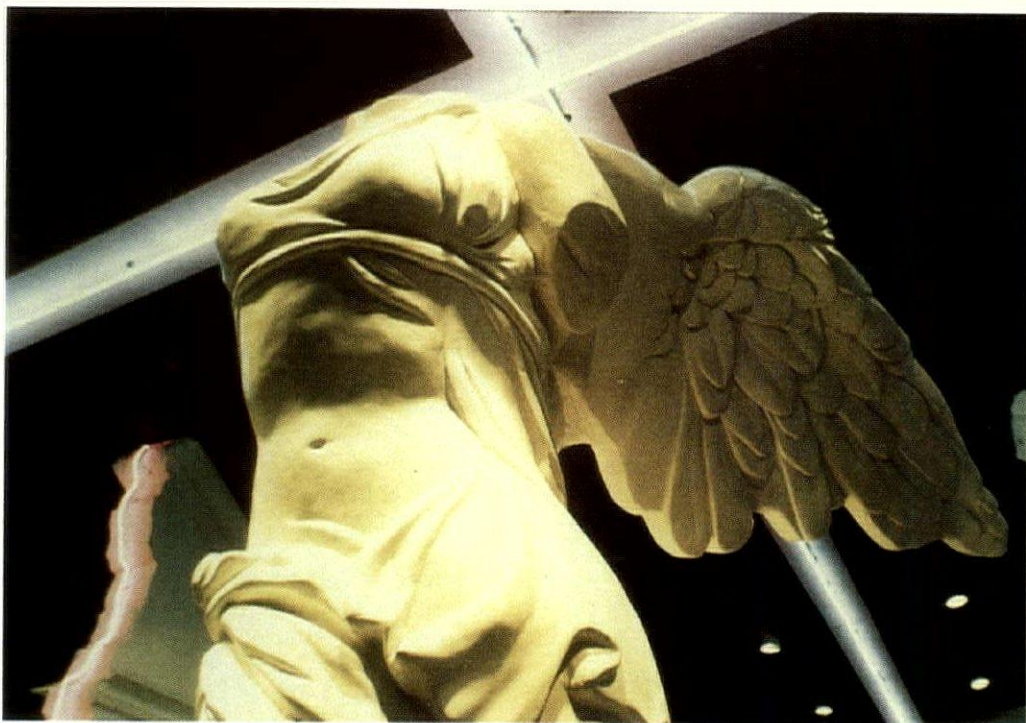
“We like to put the light out where the public is and cut



A&S PLAZA’S FIRST FLOOR: (above, below, and opposite page top) Interior design and lighting concepts: Norwood Oliver Design Associates, Inc. Lighting consultant: Cline Bettridge Bernstein. Column capital: Louis Baldinger & Sons, Inc.







down in the back areas and stock rooms, so we get as much bang for the buck as we can," Oliver says.

LIGHT AND SPACE

The trend of department stores to include less confined, more wide open spaces has emphasized the difference in approach between lighting a department store and more intimate specialty shops.

"The specialty store is a totally different environment that

HESS' DEPARTMENT STORE: (above and opposite page) Interior and lighting design: Norwood Oliver Design Associates, Inc. Neon fabricator: Signs By United. "Without the neon, the space wouldn't have worked," Oliver says.

allows a designer to experiment and play a lot more with lighting. The same arrangement of lamps and spotlights used to create drama in a small specialty store won't get the same impact in the department store, because it's lost in a sea of merchandise," Oliver says.

Are clients aware of the value of lighting?

"Actually the clients' requirement is always, 'Make sure my store's bright. Make sure my customer can see my merchandise,'" Oliver says.

Retail clients, Oliver notes, are usually used to knowing what they are getting, and this can make communicating a design concept challenging.

"Retailers are used to going to a manufacturer, looking at a dress or suit, turning it inside out, examining the seams, and saying, 'I'll offer you this much for it'. It's a known quantity. Whether it will sell or not is something else, but at least they know what they're buying."

Some clients have definite ideas of what they want. Others don't. "Many times you have to draw a client out. Sometimes a client says, 'I want this to be gray', and I know that he really wants it to be red. It's intuitive," Oliver says, "and you read between the lines."

"Few people realize what goes into creating a store," Oliver says. "When you take a vacation and see the Grand Canyon for the first time, you don't remember the gullies and ravines. You remember the overall feeling that you got.

"The average customer will not remember the light capitals, or the faux stone, or the color of the marble at A&S Plaza, for example. But what they will remember is how they felt in that store—whether or not it is a pleasant environment." ■

STORE DESIGN. . . .

. . . according to Oliver, "is one of the few professions that involves everything that a designer, artist or creative person would want. It involves people, graphics, theater, architecture, design, decorating, planning, and merchandising. And besides that, you're involved in the world of retail, which is one of the most interesting and toughest businesses."

CRYSTAL BALL. . .

"The problem for stores," Oliver says, "is that they all sell basically the same merchandise, and so the only thing that they can offer to create a difference is better service and a better ambience." Oliver feels more fine-tuning and research efforts will be put into understanding the needs of the customer in the future. This will, in turn, be reflected in more individualized environments, fixtures, and services. "Pilferage and breakage are also problems to be solved, along with the goals of making shopping quicker and easier in a more pleasant atmosphere," Oliver says.

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OCTOBER 3 IESNA Lighting School: "Lighting Color, Needs, and Sources." Bingham Office Center, Southfield, MI; (313)591-9441.

OCTOBER 8-12 Fundamentals of Commercial and Industrial Lighting. GE Lighting Institute, Cleveland; (800)255-1200.

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OCTOBER 11-13 Designer's Saturday. New York City; (212)249-5237.

OCTOBER 15-17 Lighting Conference for Consultants. The Lighting Center, Philips Lighting Co., Somerset, NJ; (201)563-3600.

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Conferences

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Representatives. The Lighting Center, Philips Lighting Co., Somerset, NJ; (201)563-3600.

OCTOBER 18-20 Lighting World/Los Angeles. Los Angeles Convention Center; (212)391-9111.

OCTOBER 27-30 ASLA Conference. San Diego; (202)686-2752.

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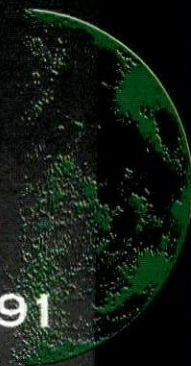
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Two categories of awards will be given: Award(s) of Excellence and Citation(s). Awards will be presented at the IALD dinner in March 1991 at Lightfair International in Chicago. Projects will be published in leading architectural and design publications, and included in the IALD slide library.

Judging

Judging will take place after presentation of the projects to the jury and an open discussion. Projects will be judged individually, based on aesthetic achievement, technical merit and according to the designer's concepts and goals.

Jury of Award

Karen Daroff, Daroff Design Inc.;
Raymond Grenald, FIALD, Grenald Associates, Ltd.;
Jules G. Horton, FIALD, Horton-Lees Lighting Design;
Diana Juul, IALD, Steven Mesh/Diana Juul Lighting Design;
Richard Renfro, IALD, Jules Fisher & Paul Marantz, Inc.;
two additional judges to be confirmed.

Eligibility

Anyone may submit a project. The project must be a permanent architectural lighting design solution, interior or exterior, for which construction was completed since 1 June 1988. Lighting products, lighting equipment and lighting design for theatrical performances are not eligible.

Submission Requirements

All submissions must be in an 8 1/2 x 11 format and, for impartial judging, must be without designer and firm identification. Please include all of the following:

Photographs: A maximum of ten 35mm slides of the project. Originals or high quality duplicates are required. The quality of the photography is important in the judging process. Professional photography is advisable. If plans and drawings are required to describe the lighting solution, we recommend photographing essential information and including them as slides.

Written statement: A written statement of the visual presentation keyed to each slide. In addition, a summary describing the architectural and lighting design concept, design criteria, special energy constraints, and the solution, not to exceed one page. Please use blank paper, not letterhead.

Registration form.

A self-addressed stamped envelope for the return mailing of your submission; otherwise it will become property of the IALD.

Address entries to:

IALD
International Association of Lighting Designers
18 East 16 Street, Suite 208
New York, NY 10003-3193 USA
Telephone 212 206 1281
Facsimile 212 206 1327

NEW Deadline

Submission must be received no later than 4 December 1990.

Call for Entries courtesy of Architectural Lighting Magazine



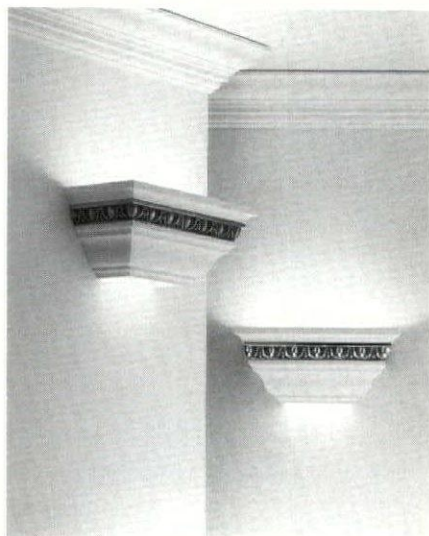
LIGHTOLIER

THE NIGHT MAGIC MINI-SPOT, part of the Night Magic landscape lighting system, is a spotlight best suited for accenting small outdoor areas. The fixture features a die-cast aluminum housing and glare shield, waterproof construction, and a serrated swivel. The spotlight can also be used for uplighting or cross lighting and can be used with low-voltage or line-voltage lamps. Lightolier, a Genlyte Co., Secaucus, NJ.

Circle 60



PHILIPS



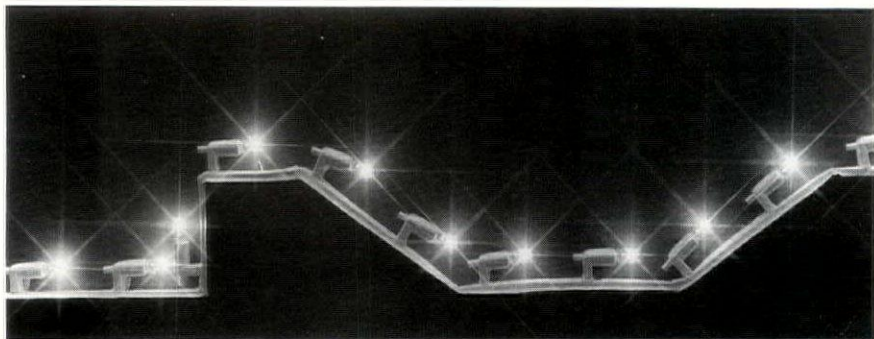
BOYD

TITAN IS AVAILABLE for incandescent or fluorescent lamping and for indirect or semi-indirect illumination. The fixture uses either two, A 19, 75-watt incandescent lamps or two PL 13, 13-watt lamps. Titan stands 6 inches tall, is 14 inches wide, and has a projection of 7 inches. The fixture is made of faux stone with sand-cast aluminum, brass, or bronze band. Boyd Lighting Co., San Francisco.

Circle 61

THE SQUARE MR 16 LAMP has a rugged filament that resists vibration and maintains a high level of brightness for 3,000 hours. Designed to transmit more than 80 percent of infrared heat through its back end, the lamp reduces potential heat damage to merchandise. It has power ratings of 20, 39, and 49 watts. Philips Lighting Co., Somerset, NJ.

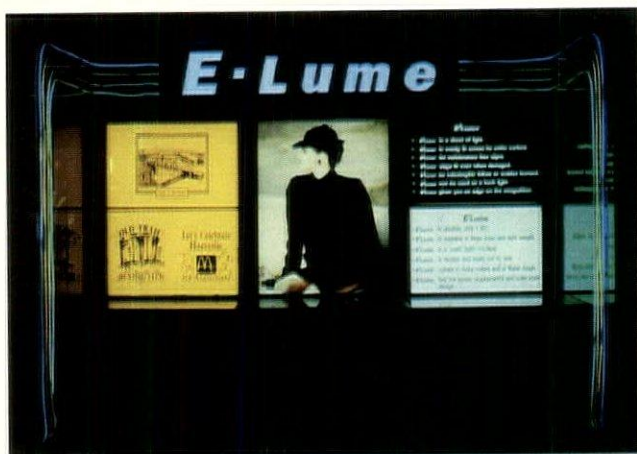
Circle 62



LINEAR LIGHTING

THE HORIZONTAL ACCENT LITE uses a 5-watt, 12-volt quartz halogen lamp, and a 1-, 2-, or 4-watt, 24-volt incandescent lamp. It features a push button lamp ejector and compact design. The system can conform to indoor and outdoor configurations, and it is offered in spacings from 2 to 12 inches. Linear Lighting Corp., Long Island City, NY.

Circle 63

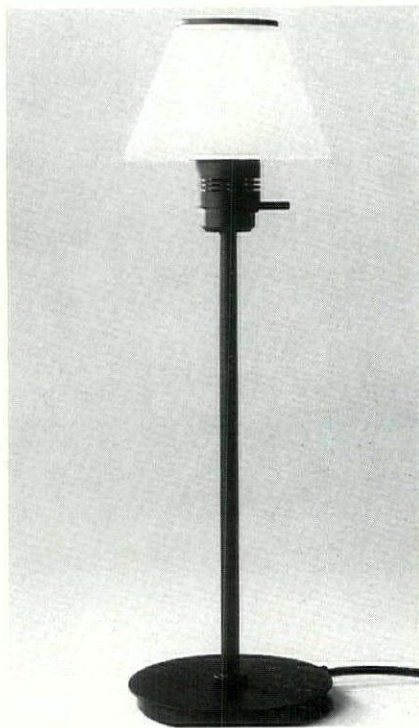


E-LUME

E-LUME IS AN ELECTROLUMINESCENT LAMP that consists of phosphor crystals located between aluminum foil and a transparent front surface. The phosphor is activated and gives off light when an AC voltage is applied to the device. The lamp is ultra thin, .019 of an inch, and requires only .35 milliamps per square inch of power. Each lamp can be cut to small dimensions or it can be produced in large sizes, and is virtually maintenance-free. Neff E-Lume Corp., Zanesville, OH. **Circle 64**



BEGA



NESSEN

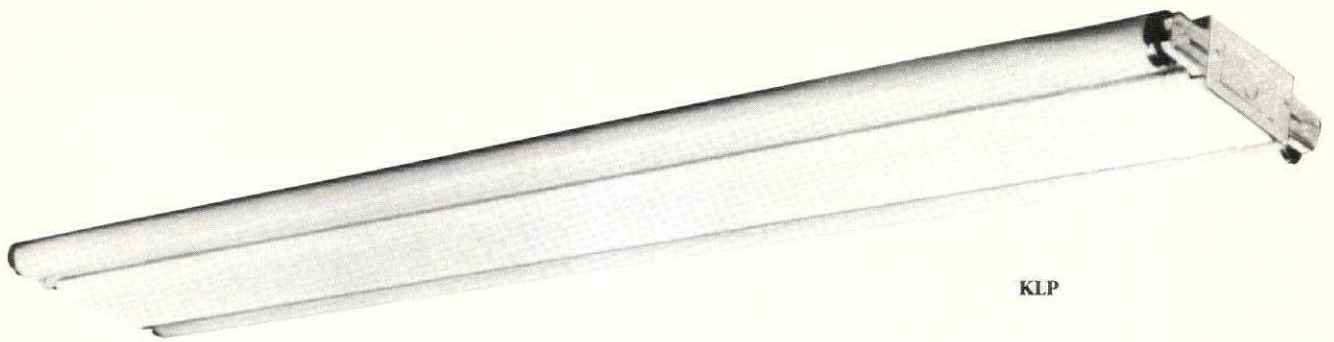
LOW-VOLTAGE LUMINAIRES, constructed of die-cast aluminum are UL listed for damp and wet locations. All fixtures are designed for connection to a 12-volt remote transformer. The 8680 bollard, shown, is part of a family of wall and beacon luminaires, garden floodlights, completely submersible swimming pool and underwater floodlights, recessed pathway luminaires, and stake-mounted floodlights. Bega/FS, Santa Barbara, CA. **Circle 65**

THE NESSEN/PRAGMA COLLECTION is hand-crafted using only solid brass. The fixture uses a 100-watt, 120-volt bayonet base halogen bulb and has a built-in dimmer. The fixture has a spun glass diffusing shade and is available in polished brass; polished chrome and black are available on special orders. Nessen Lamps, Port Chester, NY. **Circle 66**



FOCUS INDUSTRIES

WEATHERPROOF LOW-VOLTAGE LANDSCAPE lighting transformers are available in 100-, 300-, and 600-watt, single and twin circuits. Options available include Swiss made integral time locks, photo eye control (dust to dawn operation), and dimmers for mood setting or lamp longevity. Focus Industries, Inc., Santa Fe Springs, CA. **Circle 67**



KLP

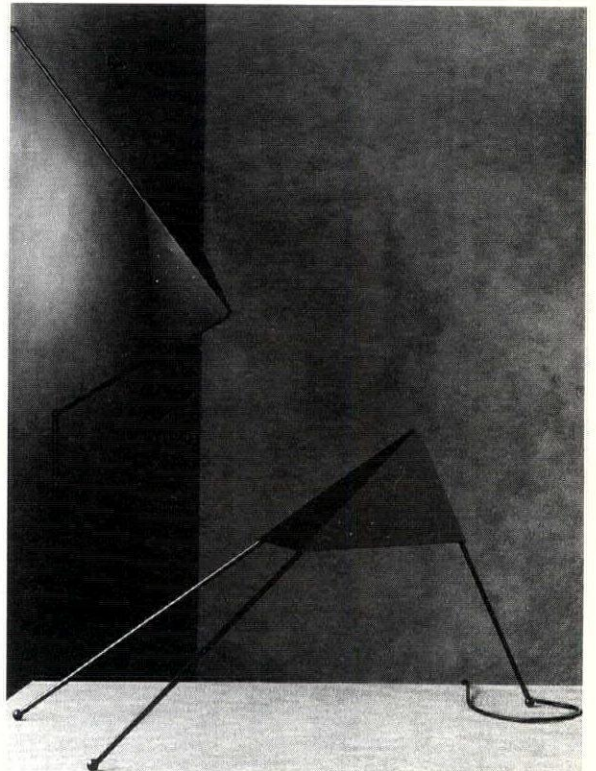
SIDE MOUNT STRIP fixtures are designed for low profile applications. The fixture has a 1 $\frac{7}{8}$ -inch deep die-formed channel housing with fully enclosed wiring. The strip comes in one and two lamp versions, which are both available in 24-, 36-, and 48-inch sizes. KLP, a Genlyte Co., Wilmington, MA.

Circle 68

THE LUNARAYL SYSTEM includes standard black Rayl tubes, standard black Luna fixtures with recoil cords, remote and quiet transformers, and hangers for horizontal or vertical mounting. The tubes provide up to 1,000 watts of 12-volt power and feature alternately controlled Luna fixture receptacles placed at 16-inch intervals. The Luna 111 low-voltage fixture is designed to accommodate the PAR lamp, and the Luna 16 is a compact, efficient MR 16 lampholder. Alva Lighting, San Francisco. **Circle 69**



ALVA LIGHTING



THE SCHAFER STUDIO

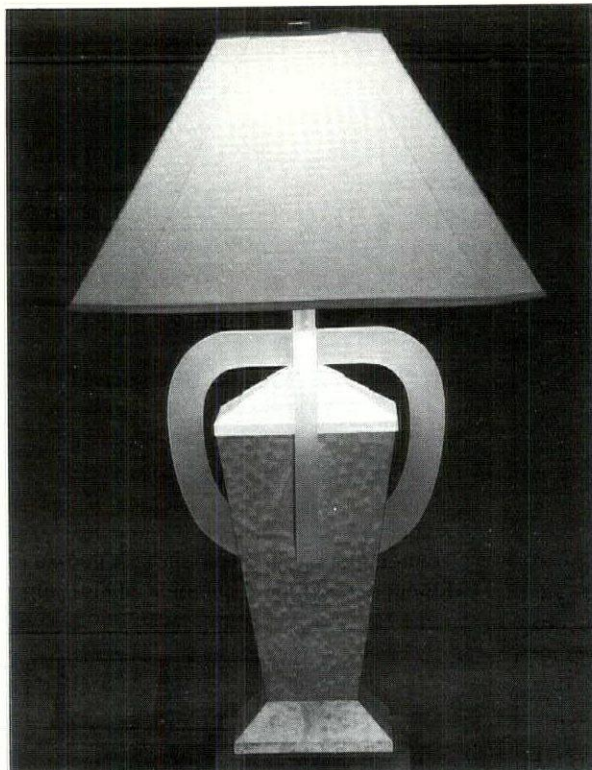
THE PRONG RELOCATABLE LAMP serves as a tabletop or wall hung luminaire. The fixture stands 15.75 inches tall, hangs 29 inches long, and has a width of 15.5 inches. The Prong uses a 50-watt, low-voltage tungsten halogen lamp with a G6.35 bi-pin base and is available in matte black or yellow ochre baked enamel. The Schaffer Studio, Los Angeles. **Circle 70**

A COMPLETE SERIES of halogen floating glass fixtures consists of 27 units—13 flush mount units and 14 hanging units. The tempered glass discs are available in 12-, 16-, or 19-inch sizes, and 12- and 28-inch stem kits are also available. The series comes in black, brass, white, and chrome finishes, and all are supplied with 100-watt halogen bulbs. Leiter Lites, Old Bethpage, NY.

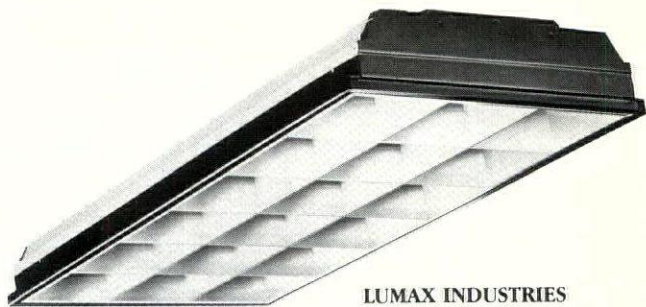
Circle 71



LEITER LITES



NU CENTURY COLLECTION



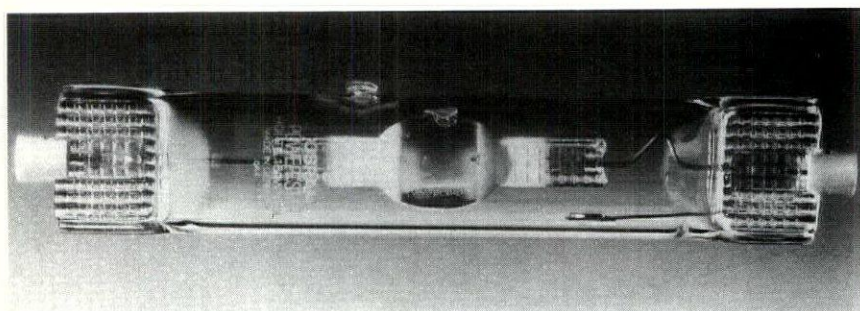
LUMAX INDUSTRIES

THE LUMAPAR 3-inch deep cell parabolic luminaire is available in 1×4, 2×2, and 2×4 foot sizes and a wide selection of lamp and ballast types, air functions, and louver styles. A new hinge design offers the safety and precise alignment of a captive hinge, and allows louvers to be removed only at a certain angle. Lumax Industries, Inc., Altoona, PA. **Circle 72**

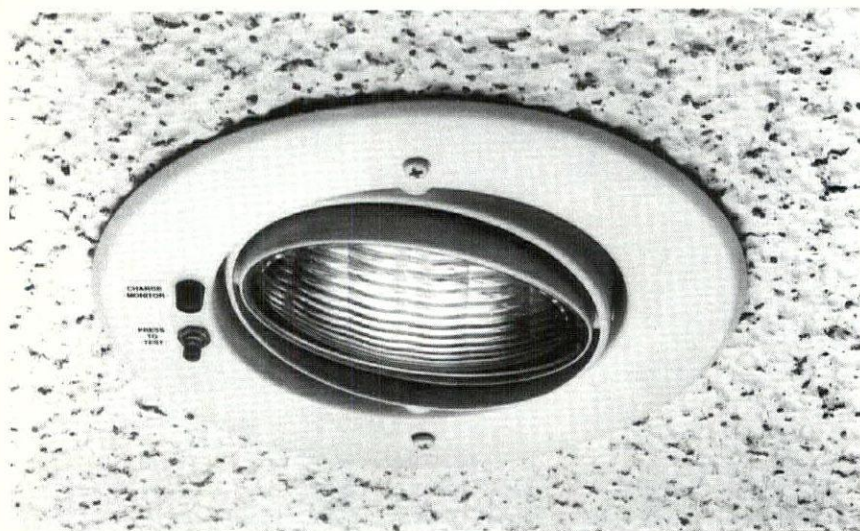
THIA, designed by Herbert Fruchtnicht, combines Birdseye wood with sand-etched acrylic accents. The fixture is 32 inches in height and features a 7-inch × 20-inch × 13-inch cut corner linen shade. Nu Century Collection, Port Richey, FL. **Circle 73**

HQI LAMPS use less power than incandescent PAR lamps, have an average rated life of 10,000 hours, and a color rendition index of up to 93. Osram Corporation, Trenton, NJ. **Circle 74**

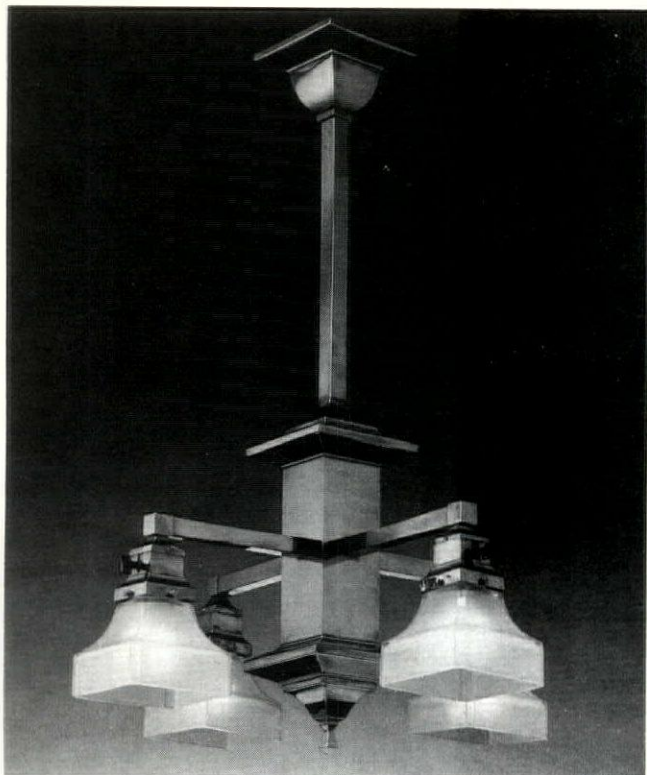
THE EXT-122-EM recessed emergency lighting fixture comes with a maintenance-free sealed lead calcium battery with a 10-year life expectancy, and a high output 80-watt halogen sealed beam-type lighting head. Also included are a fully automatic solid state charger with low-voltage battery disconnect, test switch, and charge pilot light. The fixture features an aluminum extruded housing and a formed aluminum gimbal assembly. Dual-Lite, Newtown, CT. **Circle 75**



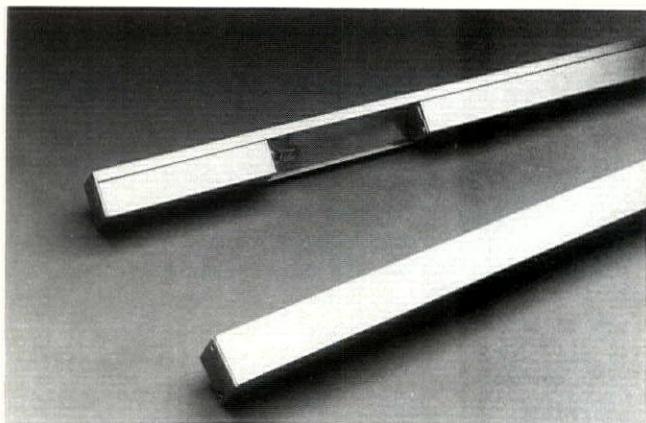
OSRAM



DUAL-LITE



REJUVENATION LAMP & FIXTURE

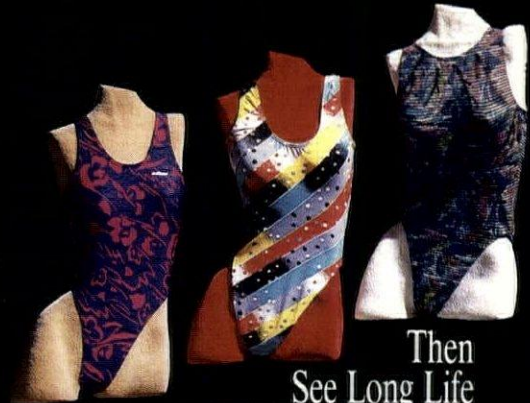


DANALITE

THIS SOLID BRASS CHANDELIER, reproduced from the Arts & Crafts period of the early 20th century is available in a variety of finishes and lantern shades in caramel white, green, or pink colored art glass. The fixture stands 36 inches long, has a 23-inch diameter, and uses 60-watt bulbs. Rejuvenation Lamp & Fixture Co., Portland, OR. **Circle 76**

THE DANALITE 8100 SERIES is a slim profile lighting fixture that can fit into an opening as small as 1 3/8 inches x 1 3/8 inches. The series uses high intensity, low-voltage halogen lamps in various wattages, with a 2,000-hour rating. The light strip is available in lengths from 6 inches to 12 feet, featuring a snap-together, two-part aluminum extrusion design. The 8100 comes with 12-volt lamps, 96-inch wire leads, left-hand feed, and a flex connector and mounting clips with .25-inch spacers. Danalite, Huntington Beach, CA. **Circle 77**

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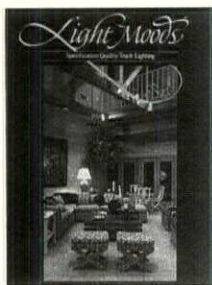
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TRACK LIGHTING

A 16-page, full color Light Moods application guide and catalog describes the Light Moods Specification Quality track lighting line. The system is designed to offer a variety of track head styles to accommodate any track lighting application. Track heads are available in both incandescent and low-voltage lamp sources, including the MR 16. The track is a 40 amp, two circuit system, that can be subrace or pendant mounted. Hubbell Lighting, Christiansburg, VA. **Circle 40**



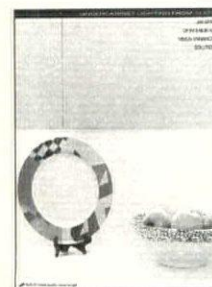
LIGHTING CONTROLS

Three pieces of literature, which incorporate the additions to the Lumécia family of lighting controls and accessories, are available. This line includes preset dimmers, switches, and receptacles, and is color coordinated to match any decor. The selection guide features product descriptions, application photos and an ordering guide; the mini brochure includes a summary of information provided in the selection guide; and the specification & application guide provides all of the information necessary to specify and install the products. Lutron Electronics Co., Inc., Coopersburg, PA. **Circle 41**



FLUORESCENT LUMINAIRES

A color catalog illustrates a line of fluorescent luminaires in sizes to accommodate straight, circular, or U-shaped lamps. Many are available with oak or walnut frames. Brodwax Lighting, Deerfield Beach, FL. **Circle 42**



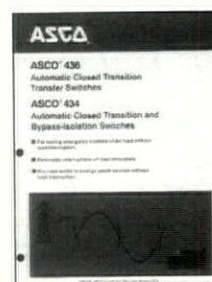
UNDERCABINET FIXTURES

Undercabinet lighting fixtures are displayed in a 24-page, four color catalog. Also included are fixtures that feature adjustable light levels, lensing and louvers for brightness and glare control, accent lighting modes and lenseless designs for indirect over-cabinet lighting. Alkco, Franklin Park, IL **Circle 43**



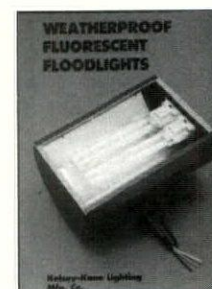
COMPACT FLUORESCENT

An 8-page design guide enables specifiers to rapidly perform lighting calculations when choosing compact fluorescent fixtures. The guide, with the use of tables, allows specifiers to select the appropriate fixtures and layouts for particular requirements. Edison Price Lighting, New York. **Circle 44**



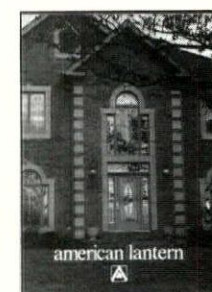
AUTOMATIC SWITCHES

A two-color, 12-page brochure describing the ASCO 434 automatic closed transition transfer and the ASCO 434 automatic closed transition transfer and bypass-isolation switches contains informative electrical performance and construction information as well as dimensional and current rating tables, technical data, specifications, and ordering information. ASCO automatic switches are designed for applications where electrical loads must be transferred without power interruptions. Automatic Switch Co., Florham Park, NJ. **Circle 45**



FLUORESCENT FLOODLIGHTS

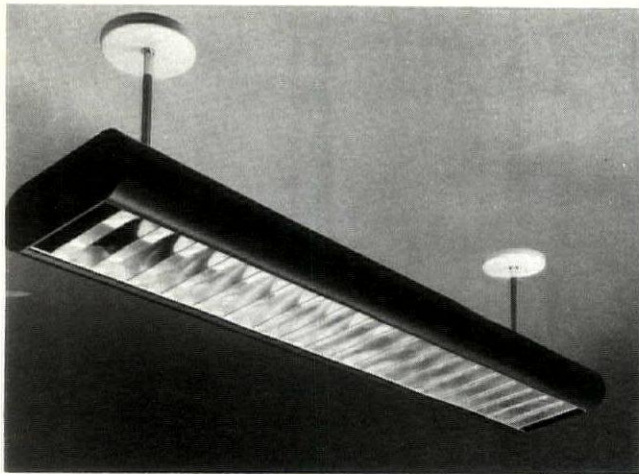
Kelsey-Kane Lighting's fluorescent floodlights have durable, weatherproof PVC housings and come in single- and multiple-lamp versions for several compact fluorescent sources. A brochure lists features and accessories. Kelsey-Kane Lighting Manufacturing Co., Fort Lauderdale, FL. **Circle 46**



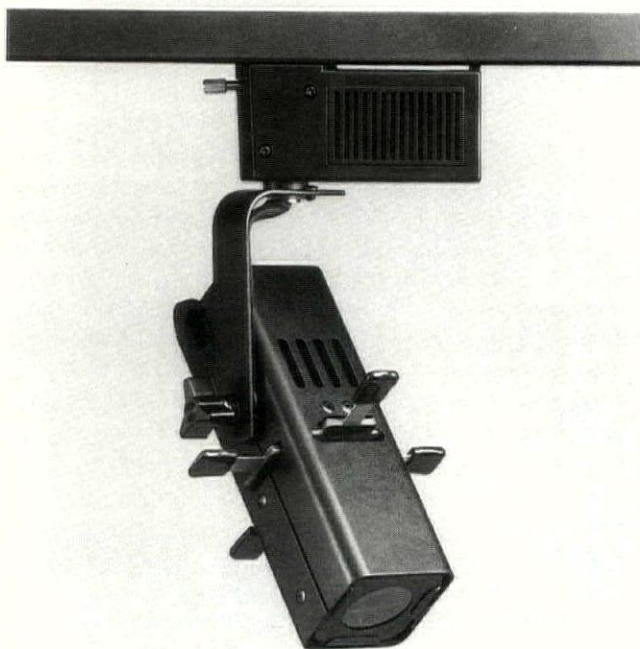
PRODUCT VARIETY

A 160-page product catalog features more than 600 products presented in seven different product categories: outdoor decorative, outdoor utility, chandeliers, entry and foyer, pendants and close-ups, vanity and bath, and indoor utility fixtures. The catalog also includes a visual sizing index and features site shots that show the setting for which the fixtures were designed. American Lantern Co., Newport, AR. **Circle 47**

PRODUCT ADVERTISEMENTS REVIEW



THE SERIES 66DIP DIRECT/INDIRECT pendant mounted fixture features a soft edge extruded aluminum shape; a 16-inch standard stem (other lengths available); one or two T 12 lamps (three available); and a standard white finish (custom colors optional). Neo-Ray Lighting, Brooklyn, NY. **Circle 48**



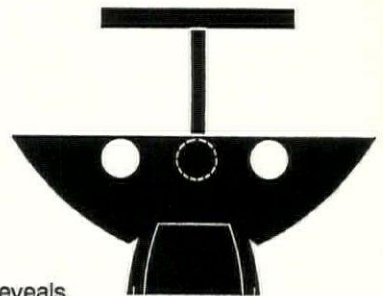
THE MR 35 FRAMING PROJECTOR utilizes a 12-volt, 35-50-watt MR11 lamp and features a two-position lens design. The unit can frame any display or artwork, as well as project custom or standard patterns. The framing projector can mount on Times Square track or be adapted to others. Times Square Lighting, Stony Point, NY. **Circle 49**

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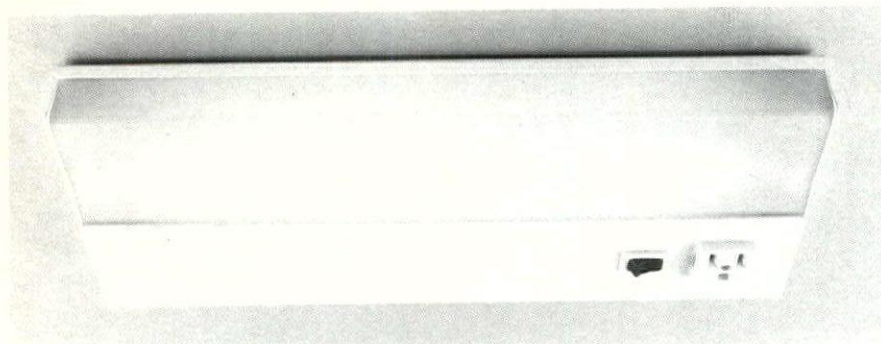
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PRODUCT ADVERTISEMENTS REVIEW



A HIGH-PERFORMANCE BALLAST has been added to the Little Inch undercabinet lighting fixtures. The new ballast operates completely without a starter and will start any T 5 lamp without flickering. The ballast componentry is tailor fit inside an injection molded case, minimizing the fluorescent "buzz." The new ballast also makes the Little Inch more energy efficient and cooler. Alkco, Franklin Park, IL.

Circle 50

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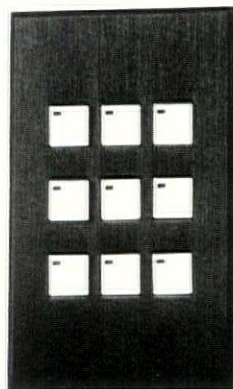
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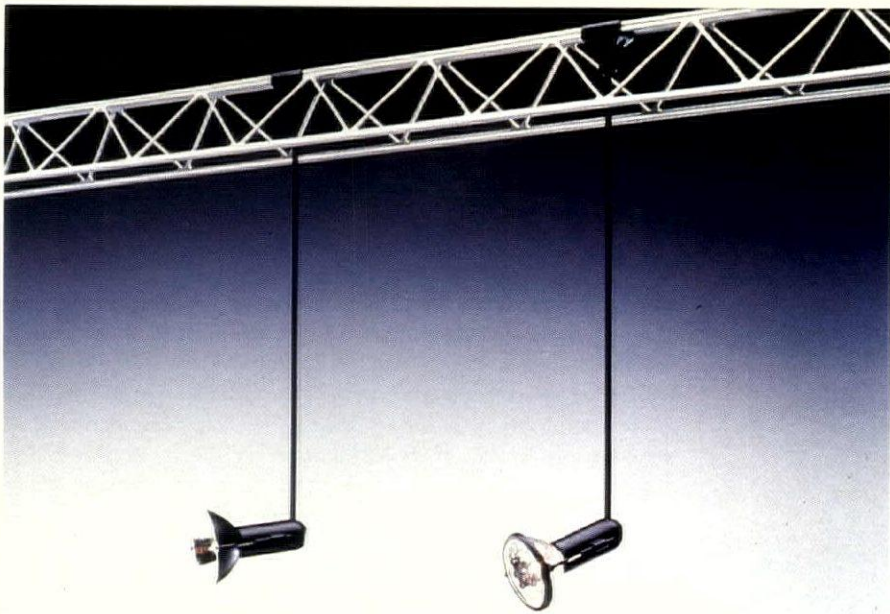
THE OPTIMAX UPGRADE KIT is designed for use with the 2-foot x 4-foot, 3-lamp Paramax luminaire with 3-inch deep louvers. The kit converts the fixture into a fully functional Optimax luminaire, which also provides exceptional control of reflected glare. The kit consists of two replacement brackets for the lamp sockets, two replacement covers for the ballast channels, and an Optimax louver assembly. No rewiring of fixtures from the ceiling is necessary. Lithonia Lighting, Conyers, GA.

Circle 51



LITETOUCH 2000 OFFERS A TOTAL CONTROL system with a single micro-processor. The device not only switches light and motor loads on and off, but also allows full range dimming for incandescent, fluorescent, neon, cold cathode, and low-voltage loads as well. LiteTouch 2000 also offers many custom opportunities with features such as telephone interface, built-in time clock, unlimited preset capabilities, and random vacation mode. LiteTouch Inc., Salt Lake City. **Circle 52**





THE LOW-VOLTAGE STRUCTURELLA SYSTEM consists of miniature extruded aluminum three-dimensional frames that function as insulated electrical conductors as well as supports for its collection of miniature halogen spotlights. The system can be suspension or wall mounted and the halogen and dichroic spotlights interchange between Structurella and other Targetti low-voltage systems. Targetti, Inc., New York. **Circle 53**



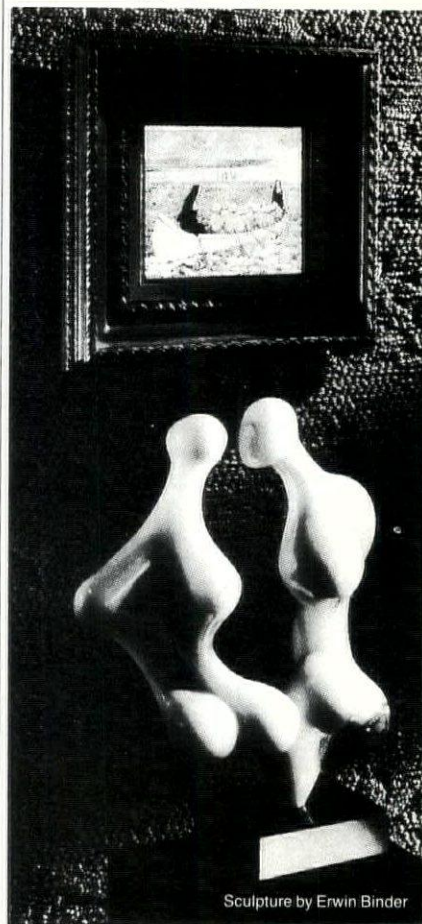
THE SLIMTRON SERIES, patterned after the Exitron 600 Series, is a new line of LED driven exit signs. The sign has a 2-inch profile, an 8.5-watt output, and a life expectancy of more than 1,000,000 hours. Exitronix, a division of Barron Manufacturing Corp., Gurnee, IL. **Circle 54**

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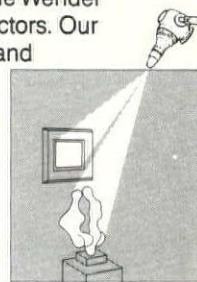
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Lab Offers Energy-Wise Resources

Lighting directly and indirectly accounts for over half of commercial energy use in the Pacific Northwest, where commercial energy use rose 4% between 1983 and 1988, according to reports. To encourage designers to specify more efficient lighting in buildings under development or renovation, the Lighting Design Lab in Seattle is offering its facilities and technical support.

The lab aims to be a Northwest regional source for those interested in energy-efficient design. It offers free technical assistance and use of its facilities to architects, engineers, lighting designers, and commercial building owners. Resources include a mock-up room where designers can experiment with different lighting scenarios, a reference library, product demonstrations, computer modeling, and educational programs.

Lighting systems and products displayed at the lab are selected based on their energy efficiency. More than 40 manufacturers and distributors have made equipment donations totaling more than \$40,000.

"Lighting can represent one of the highest energy costs in a commercial building," says Diana Campbell, project director. "According to the Northwest Power Planning Council, 50 percent savings in energy consumption are possible in the commercial sector by 2010." The Lighting Design Lab is the largest facility in the Northwest where designers can experiment with high-efficiency lighting systems.

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