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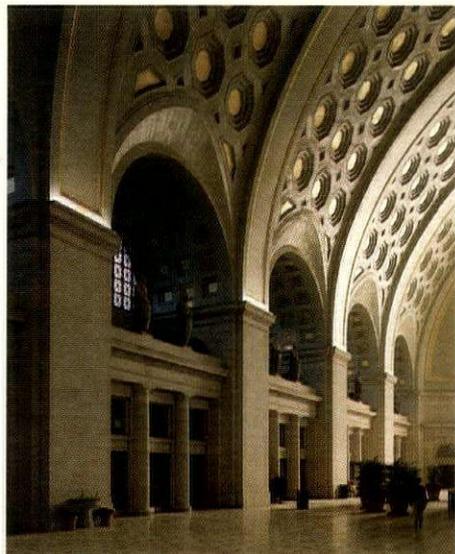
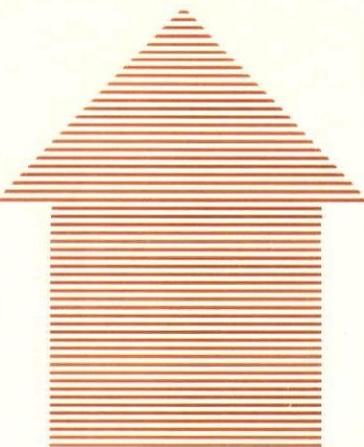


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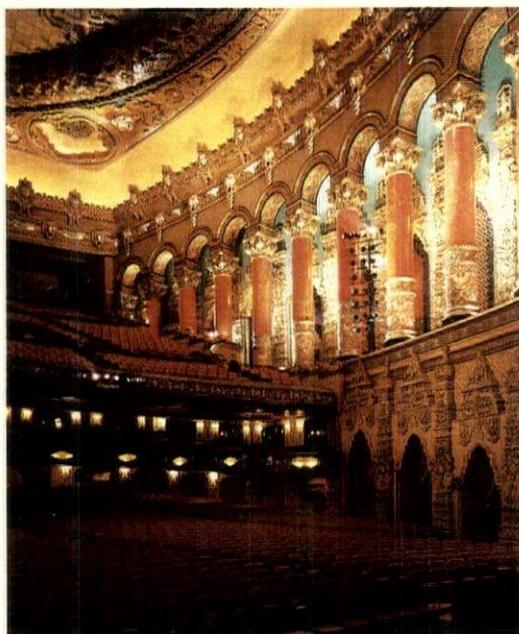
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ARCHITECTURAL
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MARCH 1990
VOLUME 4, NUMBER 3



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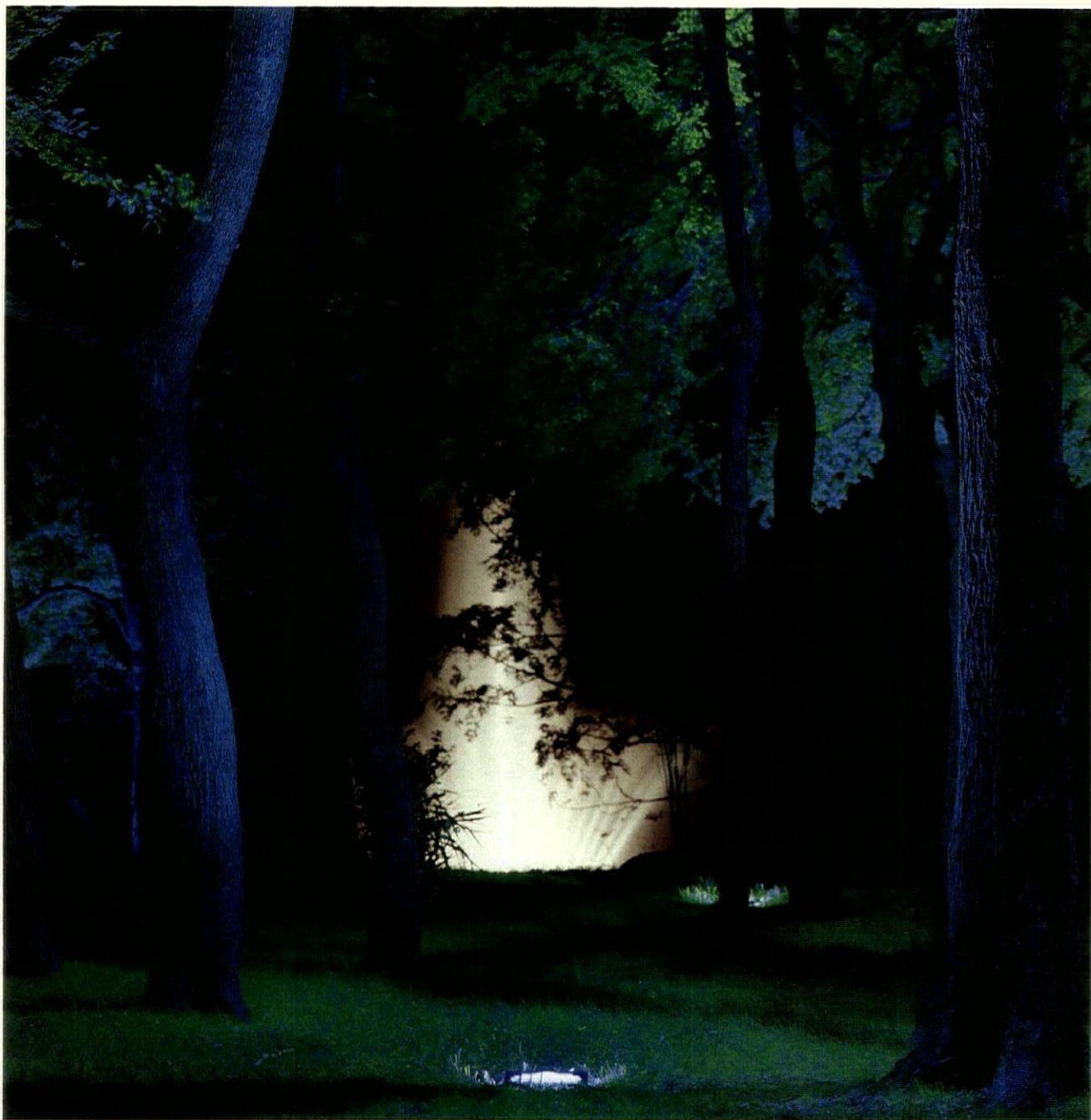
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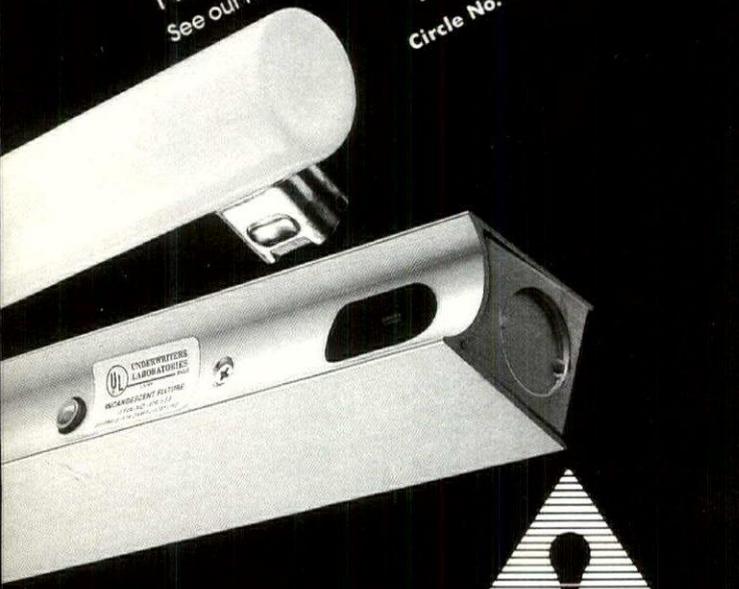
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Changing Times In Residential Lighting

GUEST COMMENTATOR: *Glenn Johnson, founder/
president of Lighting By Design, Los Angeles. The firm
specializes in high-end residential lighting design.*

CURRENT PROJECT: *Lighting for the 7,000-square-foot
Weisman Pavilion is being designed with the aid of
computers. The Pavilion will hold a portion of industrialist
Frederick Weisman's 2,000-piece art collection.*

My father was a lighting designer, and I have two brothers who are lighting designers—we each have separate businesses. When I was growing up in lighting, it was at times frustrating because we were doing strictly high-end residential projects, and we would get new projects only by word of mouth. Not until the past three years has it been standard that every large residential project have a lighting professional on it.

“The smallest amount of the interior design/architecture budget has traditionally been allocated to the lighting design. But today, when I come in on a project and the client is looking at a \$100,000-\$150,000 lighting budget, not including the dimming system, we really go through an education process with the client.

“Another sign of changing times is computers—we started using them almost a year ago. There is a tremendous difference in speed and efficiency. It still takes a good portion of time to input information, but changes are so easily made—and in residential, there is always a wall moving, or variations in furniture placement. Now in less than half an hour's time we can make lighting changes that ordinarily could take weeks if we had to redraw by hand. The artistic element, the actual lighting design, of course, is done outside the computer.

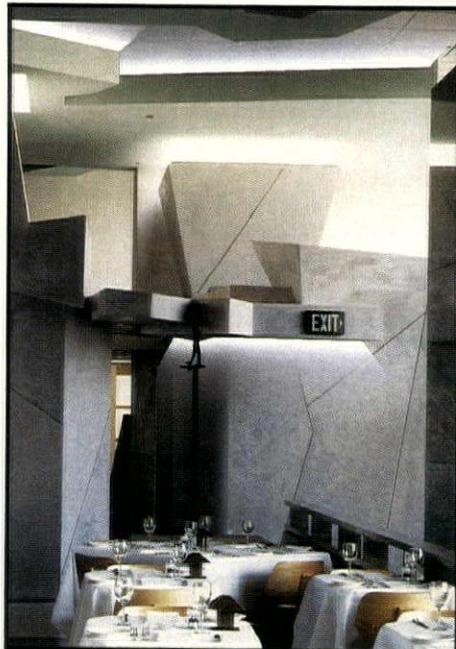
“We believe there isn't anyone else in residential lighting who is using computers and software on the par with electrical engineers and architects that we are. In addition to producing all layouts with AUTO-CADD, we go one step further and use available lighting software, as well as our own, to verify our designs. Footcandle levels, luminance ratios, beamsreads, and fixture placement can all be worked out on the computer very quickly.”

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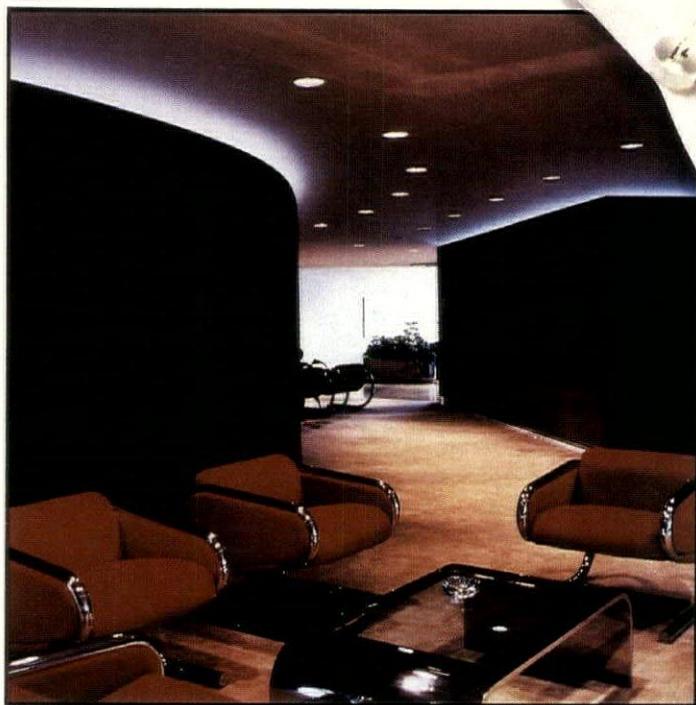


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Coping With '90s Gloom And Doom

“Signs of a deepening down cycle abound...says F.W. Dodge Group, new office construction will slip 8 percent in 1990...also expect an 8 percent drop in contracts for retail space...Fewer people will have money to buy houses or the things that go in them...Many investors discarded the speculative spirit of the 1980s—in preparation for a lean new decade.”

LARRY LIGHT
for *Business Week*,
January 8, 1990

Economic prophets are predicting the 1990s will be a belt-tightening decade. The degree of slowdown in the design and architecture fields, however, is varying across the country.

“Large projects are slowing down in New York already,” says Edward Effron, *Designing With Light*, New York. “The high-end job is always there. It’s the low and middle range projects that go on hold or get cancelled.”

Randy Burkett, Randy Burkett Lighting Design, St. Louis, reports, “We’re being hit like Houston and other cities already have. St. Louis is into an overbuilt situation. There is a 25 percent vacancy rate.

“But Chicago, where our firm also has projects, is fairly strong, and overall the Midwest is still in good shape.”

“In our part of the country,” says Randall Whitehead, Light Source Inc., San Francisco, “construction is usually suspended at this time of the year because it’s traditionally been the rainy season. But construction has continued these past few years due to the drought.

“Also, because of many buyouts by Japanese conglomerates, corporate clients are available that would not ordinarily be there without foreign influence.”

Here are two suggestions on how to cope if tight money times come your way:

Be flexible and go with the flow. “Lighting design firms such as ours are specialized and usually small,” says Burkett. “We can change our focus to adapt to changes in the economy. In the past, we have been heavy in corporate projects, and now our focus has switched to retail.

“A lot of A/E firms, though, are becoming expert in one type of facility. They might experience problems as those areas peak and decline.”

Encourage clients to proceed with portions of a project, rather than cut back completely. “We’ve found that instead of having clients completely cut back on projects or postpone them, we can break them down into phases,” Whitehead says. “We’ll do three rooms of a home, for example, and the rest at a later time when money is available. Spreading a trimmed budget around to cover an entire project leads to a job that won’t be done right.”

WANDA JANKOWSKI
EDITOR

CONFERENCES & EXPOSITIONS

APRIL 11-12 Southwest Builds '90. Phoenix Civic Plaza, Phoenix, AZ; (213)477-8521.

MAY 8-10 ShowTech Berlin. Berlin Fairgrounds; (312)245-5230.

MAY 12-15 NADI. Jacob Javits Convention Center, New York City; (212)213-2662.

MAY 19-22 AIA Conference. Houston; (202)626-7396.

JUNE 12-15 A/E/C Systems '90. Georgia World Congress Center, Atlanta; (203)666-6097.

JUNE 14-16 Lighting World/Chicago. McCormick Place, Chicago; (212)391-9111.

JUNE 18-20 16th Annual Conference of the Solar Energy Society of Canada. World Trade Convention Centre, Halifax, Nova Scotia; (613)236-4594.

JUNE 19-21 International Lighting Exposition. Metro Toronto Convention Centre,

Toronto, Ontario, Canada; (416)890-1846.

JULY 29-AUGUST 2 IESNA Annual Conference. Omni Inner Harbor Hotel, Baltimore; (212)705-7269.

SEMINARS & WORKSHOPS

APRIL 5 "Lighting Building Exteriors," (IES seminar). Merchandise Mart, Chicago; (312)527-7981.

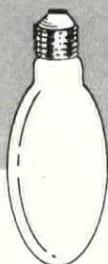
APRIL 10 Lamp technology preparing for the 21st

century, (DLF event). San Francisco; (415)626-1950.

APRIL 19 California's advanced lighting guidelines, (IES event). San Francisco; (415)495-7711.

APRIL 21 Basics of fine lighting design: display and gallery, (IES workshop). San Francisco; (415)982-9832.

MAY 3 The Impact of Color and Light on Office Exteriors, (IES seminar). Merchandise Mart, Chicago; (312)527-7981. ■

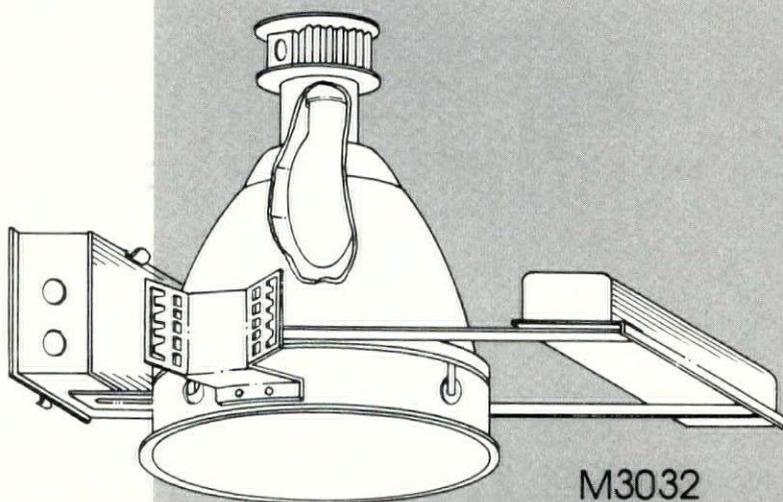


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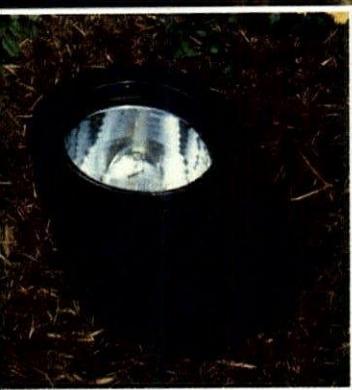


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Equestrian Enterprise



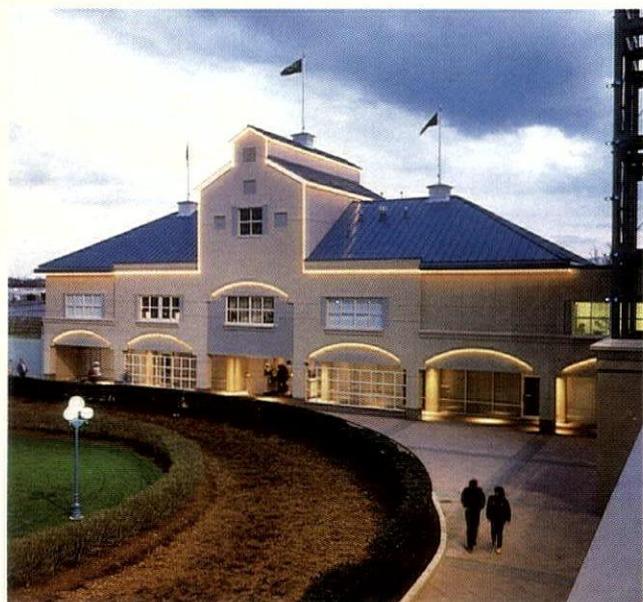
BY CHRISTINA LAMB
ASSISTANT EDITOR

CHALLENGE Since Turfway Park's racetrack features nighttime horse racing, a special emphasis must be placed on the lighting. It is important that the racetrack stand out from its surroundings so as to attract people to it, and also that it be installed with appropriate light levels for viewing the races.

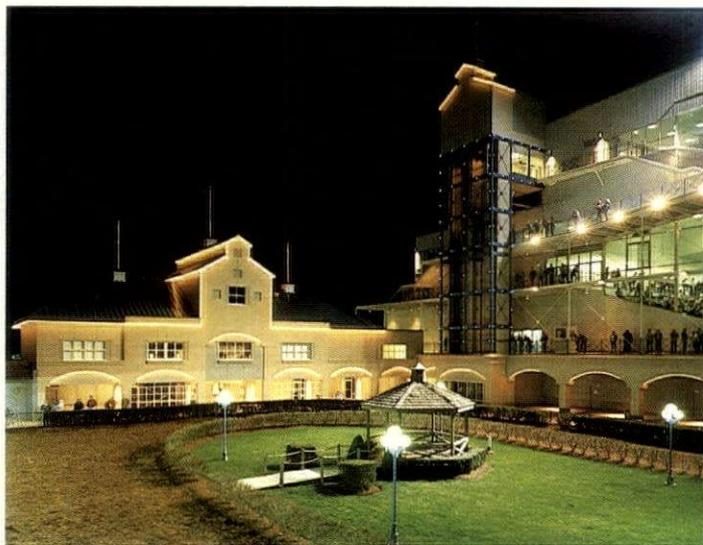
DESIGN/TECHNICAL CONSIDERATIONS Lighting for the racetrack required fulfilling both aesthetic and functional roles. The lighting design had to enhance the architecture and outline the building's form from a distance.

METHOD The five-level pedestrian corridor is a steel frame structure on posts with a glass block exterior. The glass block is backlit with fluorescent and incandescent lamps to create a subtle glow behind the crossbracing at night. There is exposed structural steel crossbracing beyond the glass block wall, accented with blue "pickle jar" lights. These vapor tight fixtures, each featuring a blue glass globe and a 60-watt incandescent lamp, outline the building with points of light. Glitter strip lighting, with 11-watt S 14 clear lamps, forms a continuous outline of the structure, reinforcing the design's character. Bracketed, recessed, and surface-mounted 150-watt quartz PAR 38 incandescent downlights were added to the exterior wall of the grandstand to add pools of light on the floor and scallops on the wall. Multi-globe decorative pole fixtures provide general illumination.

CONCLUSION The renovation of the Turfway Park racetrack, one of few tracks in the country that features racing every night of the week, was completed in seven months.



TRACK LIGHTING: Glitter strip lighting outlines the Kentucky racetrack facility (top) and accents portions of the building (above). Blue pickle jar lights on the steel crossbracing (right), highlight the structure at night.



DETAILS

PROJECT: TURFWAY PARK RACETRACK
LOCATION: FLORENCE, KY
OWNER: CARROLL & ASSOCIATES
ARCHITECT: COOPER CARRY & ASSOCIATES
LIGHTING DESIGNER: THEO KONDO ASSOCIATES
PHOTOGRAPHER: CHRIS HAMILTON, CHRIS HAMILTON PHOTOGRAPHY
MANUFACTURERS: SENTINEL: glitter strip lighting; APPLETON ELECTRIC CO.: pickle jar accent lights; STERNBERG: pedestrian lighting; OMEGA: incandescent downlights; PITTSBURGH CORNING: glass block wall

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Marriott Rivercenter, San Antonio, Texas. © 1989, Lucifer Lighting Company.

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Designers Display Creativity For AIDS Benefit

BY CHRISTINA LAMB
ASSISTANT EDITOR

CHALLENGE Light Source, San Francisco, worked with top designers to create display windows at the Western Merchandise Mart for the DIFFA (Design and Interior Furnishings Foundation for AIDS) benefit. The designers developed the ideas for the displays, and Randy Whitehead, lighting consultant for the project and president of Light Source, helped to execute these ideas with light. It was necessary that the lighting enhance the scenes in order to create exciting displays that would inspire donations.

DESIGN/TECHNICAL CONSIDERATIONS "It's important to light the display so that the textures are shown off," Whitehead explains.

CONCLUSION Six windows were set up over a two-day period and remained on display for four months. Two of the windows are shown below. The project was sponsored by manufacturers, and both materials and time were donated. The benefit brought in over \$22,000 for AIDS research.

DETAILS

PROJECT: DIFFA WINDOWS

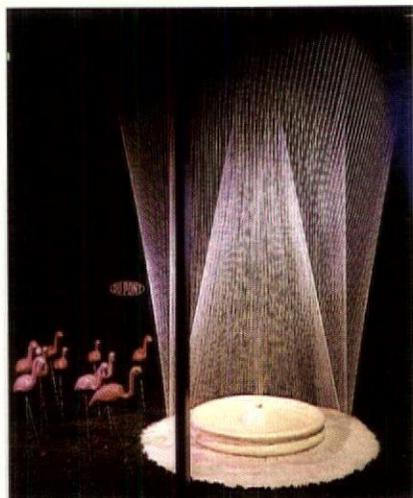
LOCATION: WESTERN MERCHANDISE MART, San Francisco

CLIENT: DESIGN MART/DIFFA

LIGHTING DESIGNER: RANDY WHITEHEAD, LIGHT SOURCE

PHOTOGRAPHER: DONNA KEMPNER, DONNA KEMPNER PHOTOGRAPHY

MANUFACTURERS: COLORTRAN; theatrical ellipsoidal fixture with color wheel;
LIGHTOLIER; track heads



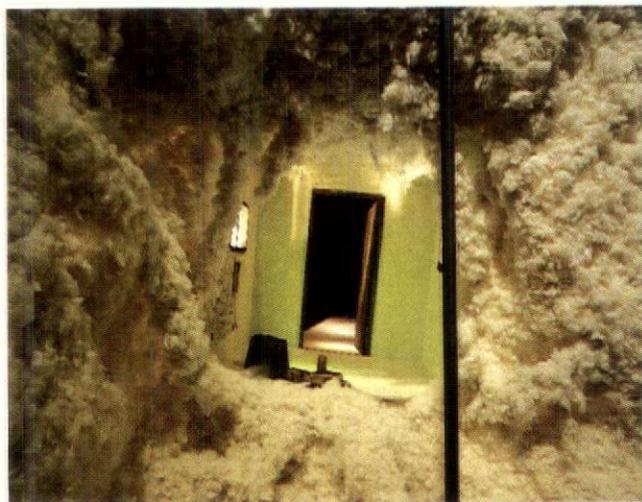
FOUNTAIN OF CORD

LIGHTING CONSULTANT RANDY WHITEHEAD and interior designer Andrew Belschner illuminated Belschner's fanciful white nylon cord "fountain" with an everchanging flow of color. They wanted to create the effect of movement from a static object by lighting the intertwining strands of cord.

A theatrical ellipsoidal fixture with a variable-speed color wheel, placed in the corner of the display, is used to enhance the fountain-like effect of the cord.

"Slowly colors change from blue, to yellow, to magenta, to red—creating an effect of movement where it really doesn't exist," Whitehead says.

On the floor, spotlights, angled at 45 degrees, also help to give this display added dimension.



WOOLLY VORTEX

IN ANOTHER DISPLAY, lighting consultant Randy Whitehead joined forces with designers Michael Owens and Bill George from Industrial Light and Magic to illuminate a room that appears to float in a woolly vortex. A computer terminal occupies the room, and an opening in the space reveals a walkway that seemingly leads to infinity.

Backlighting the wool cloud in the small room with 150-watt PAR 38s produces an internal glow. A gelled 75-watt R 30 flood inside the computer throws a greenish glow into the space creating the appearance of a room illuminated by a computer screen. In the walkway, track fixtures with MR 16 lamps in ever-decreasing beamspreads are used to give the illusion of an extremely long hallway.

LIGHTING TIPS FOR THE 90'S

There are three glaring problems with lighting a computerized office



1. FIXTURE GLARE

Glare from over-bright fixtures can reflect back from the VDT screen and become an absolute pain in the eye.



2. VEILING BRIGHTNESS

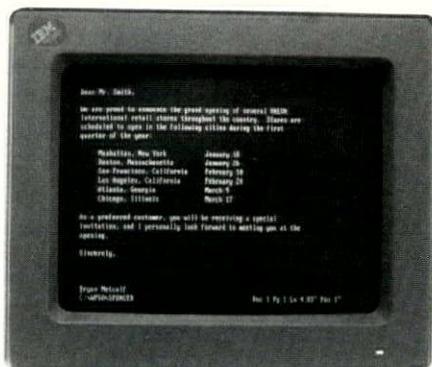
Excessive ambient light "scatters" across the surface of the screen, creating a haze which reduces contrast and legibility.



3. REFLECTED SURFACES

Those same excessive footcandles "light up" the reflections of papers, clothing, etc. A problem from any point of view.

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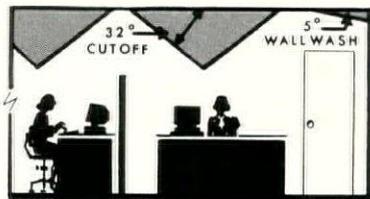


No Fixture
Glare, No
Veiling Bright-
ness, and No
Annoying
Reflections

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Beams And Blobs—Seeing The Shape Of Light

BY ROBERT T. PROUSE
IES, IALD

The author is a partner in H.M. Brandston & Partners, Inc., Lighting Design, NY. This article is based on a presentation made by Mr. Prouse as part of the October 13, 1989, Designer's Saturday events at IDCNY in Long Island City, NY.

Often, I have found myself groping for graphic ways to illustrate light, and also patiently trying to explain to designers/

clients why their favorite lighting fixture isn't the perfect solution for a space.

Perhaps those two trains of thought are related. Maybe many non-lighting designers have a hard time with lighting because they can't draw it. All the rendering options available today—from standard lighting plans to computer-aided drawing and professional photography—still fall short of providing a true sense of what light is and does to a space.

We come up against prob-

lems representing light because it is so inherent to our sense of the volume and character of the space. Any two-dimensional representation is bound to fail if it's trying to be realistic and capture this three-dimensional phenomenon. More than with any other design tool—like color or texture—one has to be within it and experience it to know light.

Light has a dynamic quality, and is rarely seen by us in the static position that the camera or computer captures. Our perception of what

SHAPES OF LIGHT GLOSSARY

These terms refer not to the look of the fixtures, but to what happens to the light when it gets out of the fixtures—its direction, intensity, and distribution.



BLOBBY LINES

A "line" with diffusing material around it

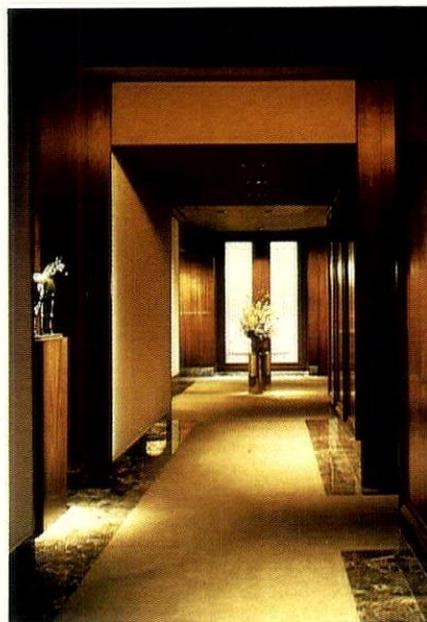
AT THE GRAND UNION in Paramus, NJ, (above)
linear pendant fixtures provide both uplight and downlight.

BEAMS

Downlights, adjustable accents, and track lights

BEAMS AT DALLAS' TOWER CLUB (below)

light limited areas of a corridor.



a space "feels" like also has subjective elements—it depends on where you come from and how you're feeling generally.

We can touch fabric and tile samples, but we can't touch light. And too often, too early in the design process, client discussions turn to fixtures. It is too easy to select a lighting fixture, and too difficult to select light.

Lighting manufacturers have consistently produced some of the most beautiful, interesting, and well-designed fixtures. Look at the

resources our industry puts into selling fixtures: beautiful showrooms, elaborate catalogs, highly trained sales staffs, trade show participation, and seminar sponsorship.

But no one is selling light. Perhaps it's more accurate to say that most designers are buying lighting fixtures, not light.

Of course, we are living in a time when it's fashionable to see the source of illumination. That has not always been true. By the 1950s, a handful of designers and fix-

ture manufacturers in this country had brought lighting design to the point of exquisite control and finesse. It was also anonymous lighting design, in the sense that a casual visitor to a space would only remember some holes in the ceiling.

The fact that some of these holes produced luminous walls, others created sharp beams of light to highlight

**"Too often, too early
in the design
process, client
discussions turn to
fixtures."**

BLOBS

Glowing wall sconces, pendant globes, and some portable fixtures with translucent shades

BLOBS ARE GENERATED seemingly indiscriminately from large chandeliers (below) at Macy's on 34th Street in New York.



POINTS

Bare incandescent and some fiber optic systems

POINTS OF LIGHT emanating from this chandelier (above) at New York's Palace Hotel lend a sense of elegance to the room.

sculpture, and others provided "general" lighting, was lost on most observers.

In the 1960s, however, the approach to lighting design changed. We took readily visible fixtures and put them in our living rooms and restaurants. We took neon off the billboard and brought it back indoors.

The province of the interior designer is to select any objects that appear in a space. Since a visible lighting fixture is part of the decor, an architect or interior designer can't help but select one that is harmonious within the scene. But designers many

times select fixtures for their suitability as objects in a designed space, and the accompanying, almost incidental, lighting quality is overlooked.

It is my thesis that one should select the *light* as carefully as one selects the lighting fixture.

I decided to simplify life for us all by categorizing lighting fixtures by the "shapes" of light they produce, as illustrated here. If you just deal with "beams and blobs," you can do quite a bit towards bringing light to its full potential as a design tool. ■

BLOBBY BEAMS

Fluorescent downlights, and lensed incandescent or high-intensity discharge downlights

AT TRW CO. IN LYNDHURST, OH, (below) the blobby beams overlap and create uniform planes of light on desk surfaces and the floor.



WASHES

Incandescent, fluorescent, or high-intensity discharge wall washers; pendant or wall-mounted uplights; coves; valances; and luminous ceilings

WASHES ILLUMINATE PAINTINGS (below) on the walls of the San Antonio Museum of Art.



LINES

Neon, cold-cathode, exposed fluorescent, closely-spaced incandescent lamps, and some fiber optic systems

NEON LINES ADORN Porter Square Station in Boston.

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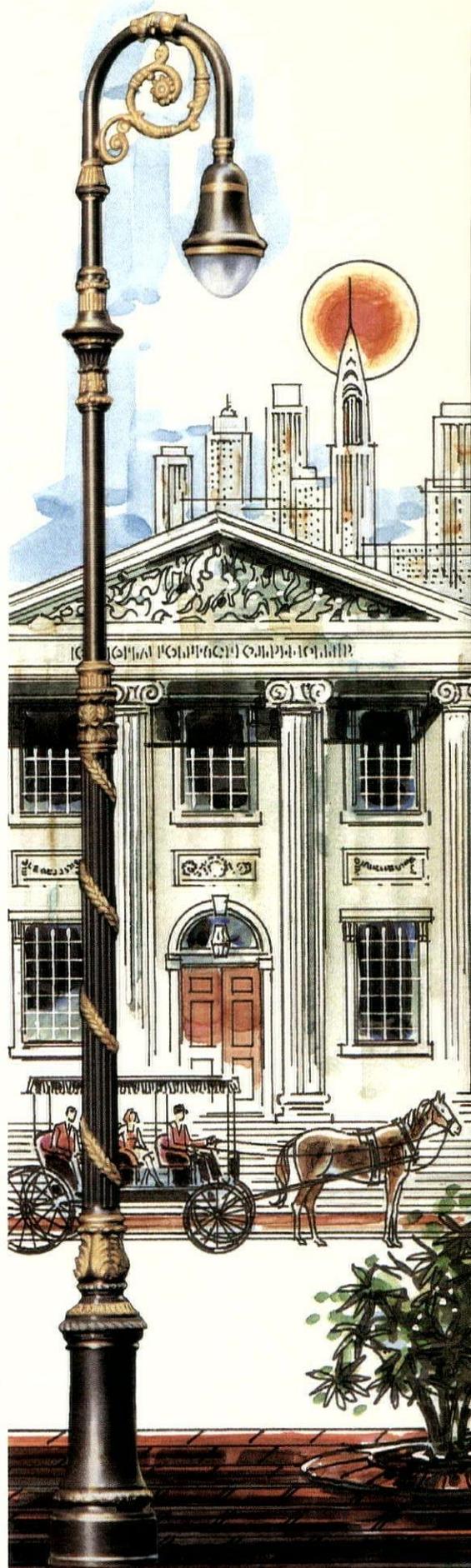
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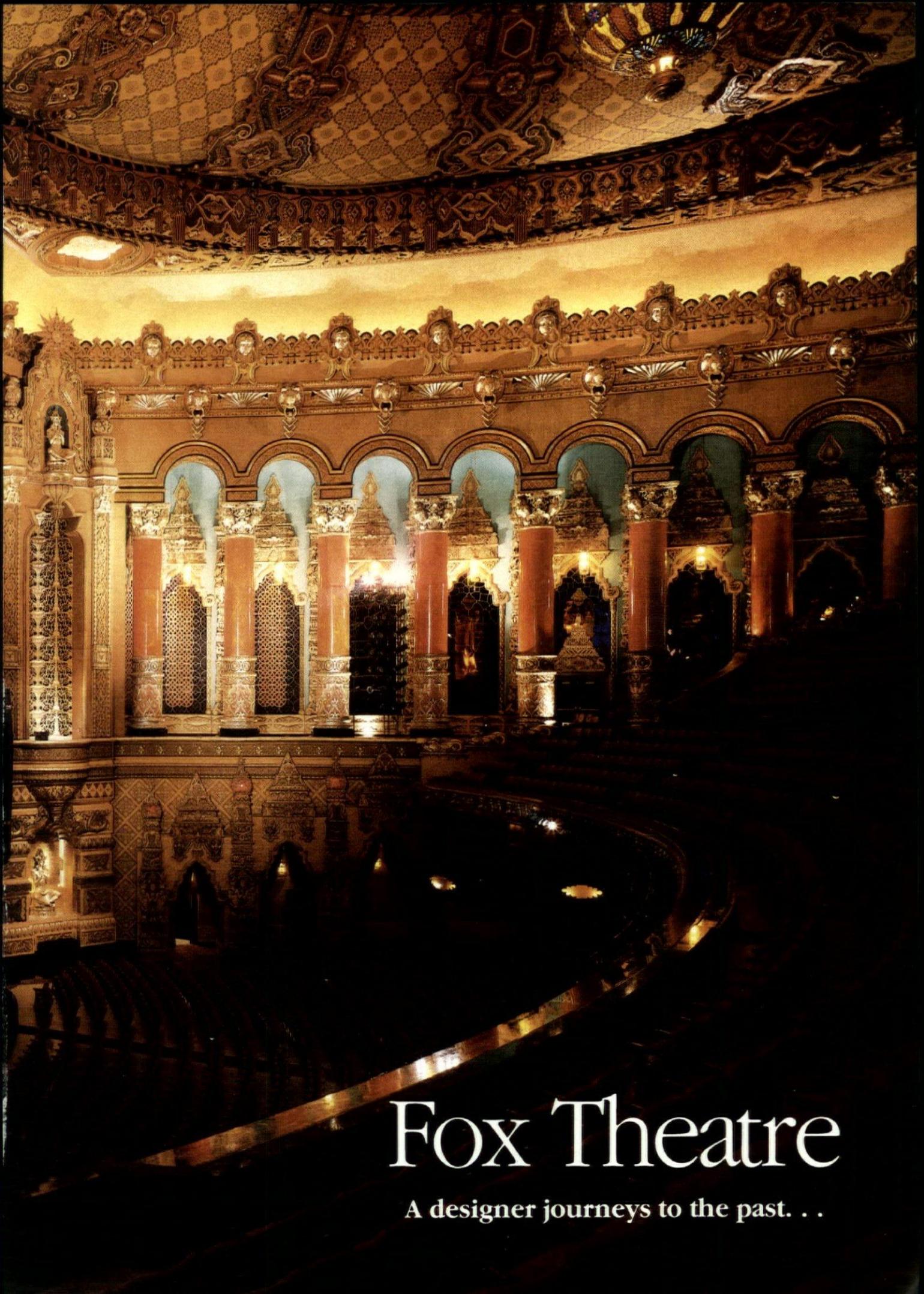
EDGEWATER
POST

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BISHOP'S CROOK
POST





Fox Theatre

A designer journeys to the past. . .

. . .as part of the team that restored the original



RIDING THE RAIL: The proscenium illumination includes rail lights mounted on the first balcony, and 500-watt PAR 56 spots aimed upward and positioned at an angle to prevent glare on the gilded surfaces.

splendor to Detroit's Siamese-Byzantine showplace



BY RON HARWOOD

The author is principal and senior designer at Illuminating Concepts, Farmington Hills, MI.

Show me your I.D.," commanded the uniformed guard at the backstage entrance. The clamor of construction on the inside had a strange blend of cacophonous sounds and surreal indiscernible rhythms from a myriad of transistor radios.

"Look out!," screamed a voice from the dark, cavernous interior.

"You have to get a hard hat and watch your step," implored a more familiar voice.

It was Ray Litt, the electrical contractor and engineer entrusted with the awesome responsibility of refurbishing the Fox Theatre's 60-year-old electrical system.

Ray became our guide through the bowels of what was once one of the most phenomenal movie houses in the world. Dressed for an important presentation, my associate, Rose Allaire, and I instantly realized, however, that we were not prepared for the Fox Theatre we were to see.

We learned from that experience, though. Our preparation for future visits would require blue jeans, shirt-sleeves, and the readiness for a lot of gut wrenching hard work.

But that first day, with cases of lighting instruments and cords in hand, we found our way through a maze-like labyrinth of scaffolding. The theatre was truly unrecognizable. How could one begin to design a lighting scenerio for a 168,000-square-foot theatre with a 10-story ceiling if the entire space was filled with scaffolding? The monstrous columns were

PHOTOS BY SCOTT SUTTON

DETAILS

PROJECT: THE FOX THEATRE

LOCATION: DETROIT

CLIENT: MICHAEL AND MARIAN ILITCH, LITTLE CAESARS

LIGHTING DESIGNER: RON HARWOOD, ILLUMINATING CONCEPTS

ORIGINAL ARCHITECT: HOWARD CRANE

ARCHITECT OF RECORD: WILLIAM KESSLER ASSOCIATES

THEATRE CONSULTANT: RAY SHEPARDSON

TECHNICAL CONSULTANT, STAGE/ELECTRICAL: BILL COUNTER, AARDVARK

ELECTRICAL ENGINEER AND CONTRACTOR: RAY LITT, LITT ELECTRIC

PHOTOGRAPHER: SCOTT SUTTON

LIGHTING MANUFACTURERS: SYLVANIA, GE LIGHTING, LITELAB

AWARD RECEIVED: 1990 IALD AWARDS PROGRAM CITATION

KEY QUOTE: "It is strange, almost uncanny, that the original architect had the foresight to leave niches for us to add lighting."—Ron Harwood



obscured, the chandeliers were undergoing restoration, the seats were removed, and most views of the ceiling were blocked by miles of planking.

Quickly, we decided that the only way to begin the lighting design process was to find a focal point that would help generate creative ideas. Our inside journey through the Fox began with climbing successive staircases leading up to an iron pipe ladder at the pinnacle of the grand lobby ceiling, and then ascending above the ceiling to the attic 90 feet from the floor. It was there that our initial imaging for re-illumination began.

Armed with the storybook background provided us by Ray Shepardson, the renowned theater restoration expert in charge of restoring the Fox, we began to perceive the aura that he wanted to create with the renewal of this Siamese-Byzantine architectural jewel.

"Think of it," he said, "this theater was built in 1927-28. . .the days of Jolson and Valentino."

It is also the nation's largest movie house, Shepardson says. Opened in 1928, the Fox Theatre is one of five Siamese-Byzantine theme theatres built by the Fox Corporation. It houses over 5,000 seats. Howard Crane, one of the world's leading movie house architects, was contracted to build this \$6 million entertainment space.

Crane's unique style of mixing glitz with Old World elegance also incorporates Far Eastern, Babylonian, and Indian themes into the theatre's architecture and decor. Although the construction period was only 18 months, meticulous attention

to detail was given throughout the theatre. The Fox's interior characteristics feature gold-leaf embellishments, hand-stenciled walls, brass ornamentation, leather-lined elevators, and thousands of sparkling glass "jewels" embedded in decorative figures.

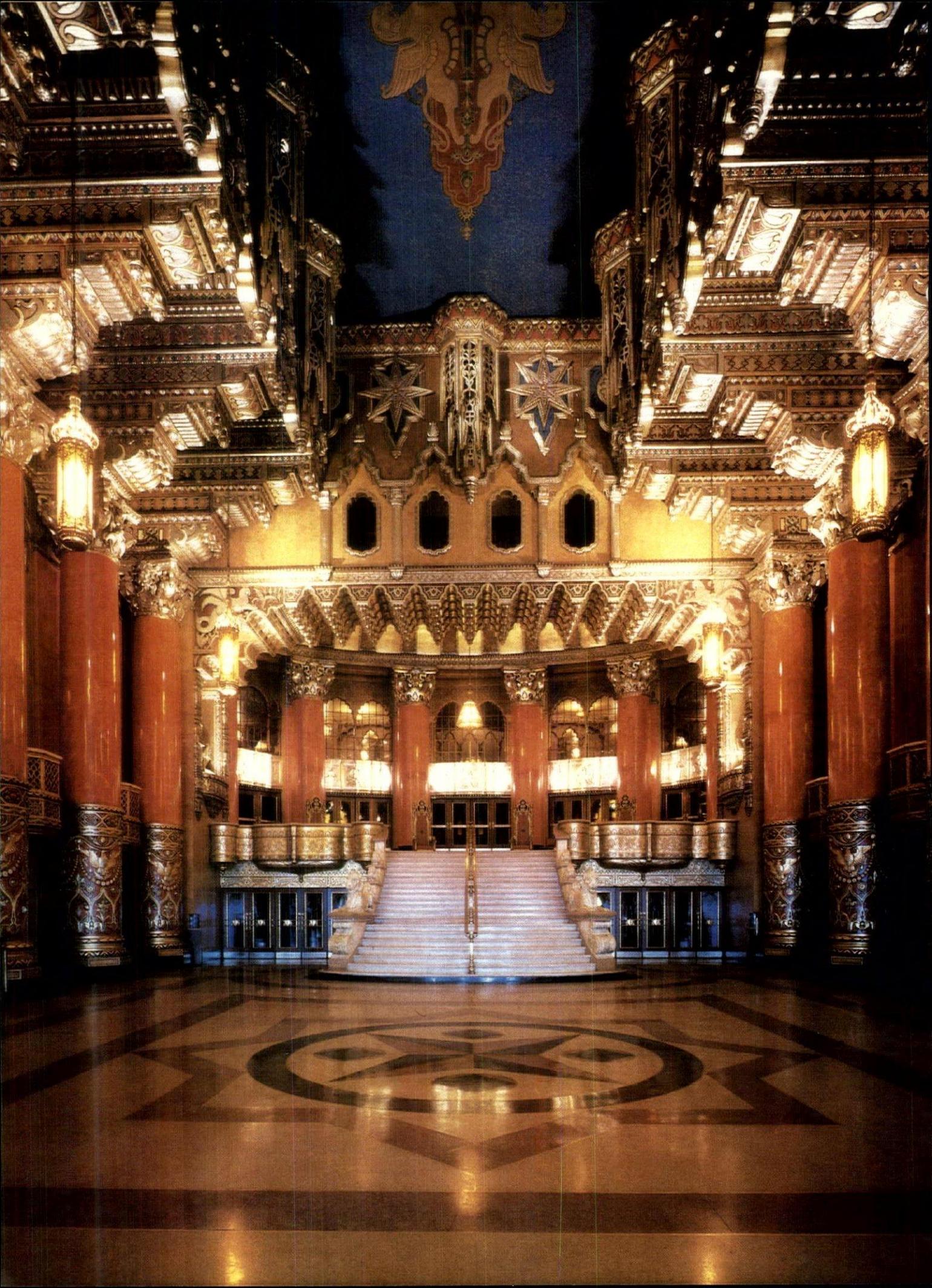
Our primary design objective was to integrate new lighting technology without compromising the theatre's architectural integrity. Selection of the lighting tools required effective use of existing power and load circuitry. In the process of determining new light levels, we found too much light destroyed the allure of the theatre's architecture. The challenge was to recreate the same mystical aura that had drawn millions of patrons in the 1920s by re-interpreting it using today's new and more demanding standards.

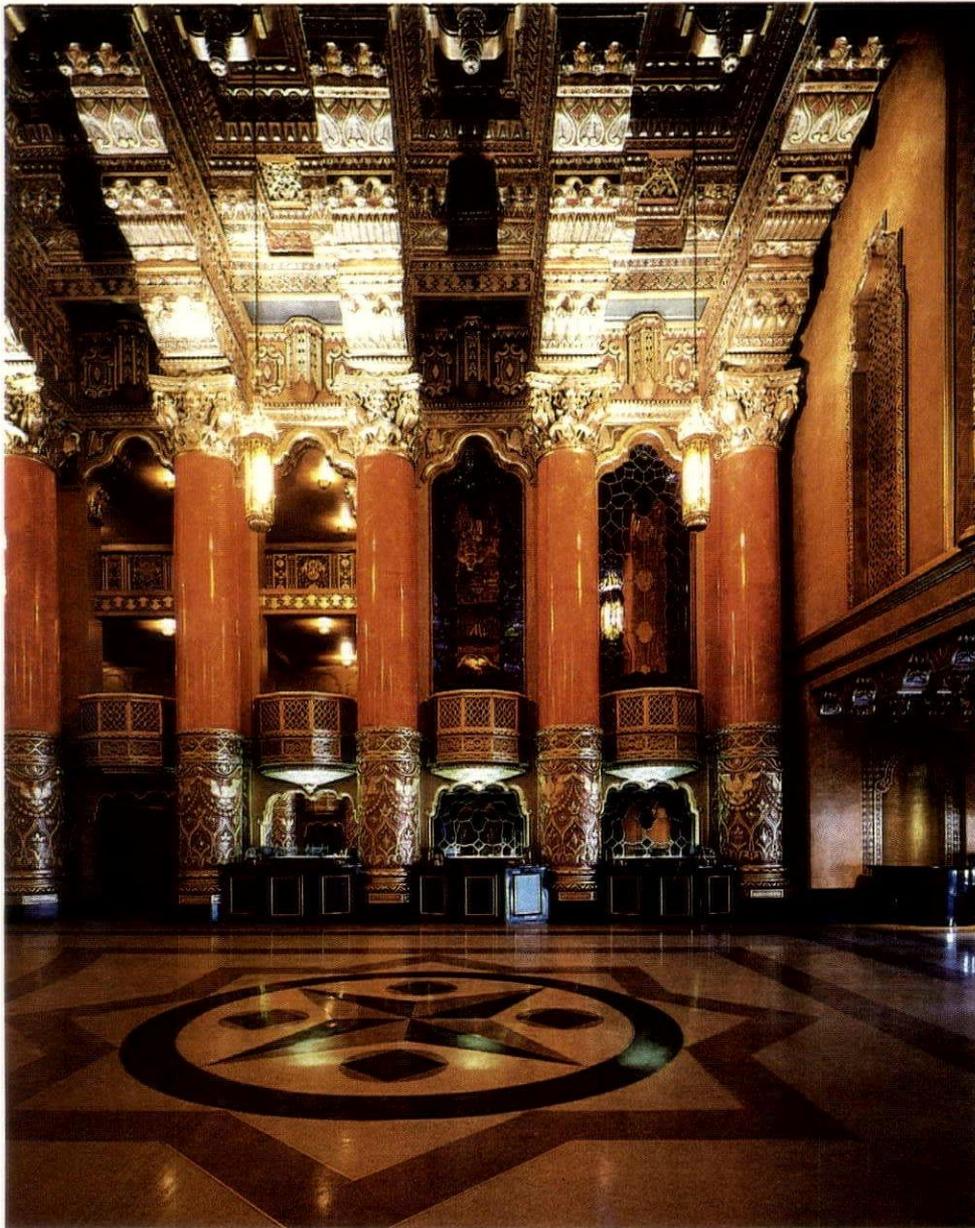
With photometrics available to the original engineering staff, the theater had been designed from virtually a photographic blowup of previously built, smaller theaters. Thus, with no real understanding of what would happen perceptually to the space when it grew to this magnitude, the Fox was originally under-illuminated.

Bill Counter, the technical consultant in charge of stage lighting and theatrical lighting installation from Aardvark, did much of the physical aiming of the instruments. Bill, like many of the designers, was like the "Phantom of the Fox." Ever-present and tenacious, he searched through the catacombs of the theatre with us to find the right position for our simple and inexpensive lighting instruments.

The grand entrance and foyer needed a total

AZURE EXPLOSION:
The 250-watt PAR 38 halogen spots have been added to the top of the two-ton center chandelier (above) so the azure color of the center ceiling fresco would visually explode. In the grand lobby (right), totally concealed sources aimed at the columns, capitols and other recesses intensify shadows created by modelled details.





MOVIE PALACE STYLE

SIDE LIGHTS

"THE FOX THEATRE IS A NATIONAL LANDMARK," says Ray Shepardson, the Fox's theatre restoration

consultant, "and one of two or three of the most spectacular movie palaces ever built."

It may have been eclipsed slightly in size by New York's Capitol Theatre, and in ornamentation by New York's Roxy Theatre, according to Shepardson, but neither of those theatres are in existence today.

The Fox Theatre had been in full use before it was restored, home to Broadway and variety shows, and concerts. It was, however, in dire need of repair.

"It was dirty, with a lot of water and plaster damage," Shepardson says.

There are two basic styles of movie palaces, according to Shepardson. The first incorporates the flavor of Versailles, German Baroque, and Rococo types of architecture. The temple style, seen in the Fox, reflects Egyptian, Siamese, Byzantine and other Eastern influences.

The same techniques used in creating the original ornamentation and fixtures also were used in the restoration process. Shepardson believes restorations should "look like finely maintained antiques." Preserving as much of the original materials as possible is essential to achieve this.

"Approximately 80 percent of the original finishes have been saved at the Fox," he says.

STARTLING STATISTICS

8

million dollar
restoration budget

300

workers plus
employed for over
300,000 labor hours

330

stained glass and
crystal chandeliers
repaired to their
original splendor

4,804

original chair seats
rewoven to match
the original fabric

7,000

yards of carpet
to match the
original fabric

300,000

sheets of gold leaf
to repair the
ornamentation

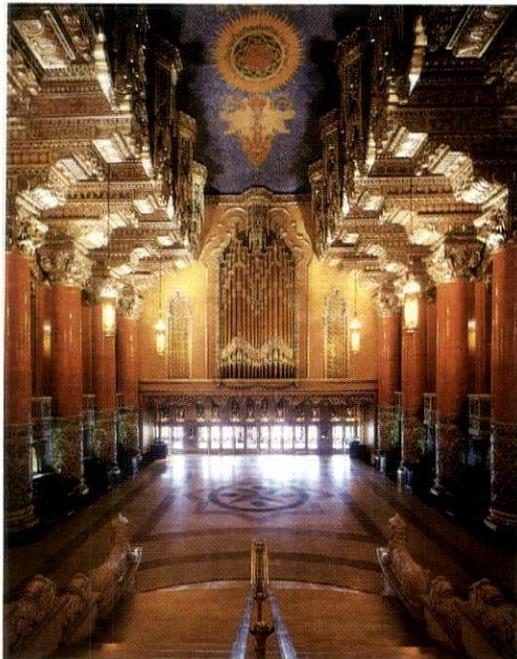
redesign. Lighting levels were doubled almost entirely by indirect illumination to provide the feeling of security and a heightened awareness of the grandeur that was about to unfold in front of the audience. Working with totally concealed sources aimed precisely at the columns, capitols, and associated recesses, we intensified the shadows created by the extensive modeling of the architecture.

The staircase to the first balcony area leads one's eye to the golden balustrade that literally bisects the faux marble columns. The heavily leafed panels are illuminated with 75-watt, PAR 16 narrow spot lamps mounted on, and perpendicular to, the columns at the exact intersection of the two architectural features. By severely angling the light, we were able to accentuate the relief nature of the architecture.

Concealed behind the uppermost part of the common capitol and within the grill work, theatrical instruments hold 250-watt PAR 38 quartz spots and floods, which enhance the brilliant blue, red, and gold of the ceiling fresco. The Mueller pipe organ in the grand lobby is dramatically illuminated with similarly angled quartz halogen spots that enhance the undulation of the tubes.

ORGAN-IC LIGHTING:

Lighting levels have been almost doubled by indirect illumination in the grand lobby (left). The Mueller pipe organ (right) in the lobby is lighted with angled quartz halogen spots to enhance the undulation of the pipes.



A grand vista unfolds at the center entrance of the second balcony in the theater. The proscenium front, bejewelled and mystical, has been substantially illuminated from the rail lights on the first balcony. The 500-watt, PAR 56 spots have been added, aimed upward, and positioned on an angle to eliminate the ever-present glare potential, which occurs when lights are aimed directly at gilded surfaces.

The Buddhas to the left and right of the stage are lit with new high-intensity PAR 36 5.5-watt display lights hidden within architectural niches. The massive grillwork above the Buddhas is uplit with both red gelled and ungelled halogen PAR 38 lamps that are controlled by the same house light dimming system which controls all the architectural lighting elements.

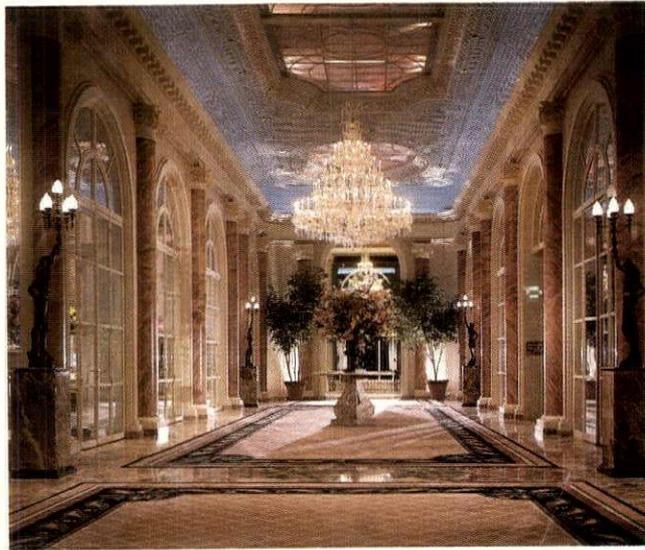
The colonnades have become a focal point of the theater following the restoration of chandeliers and newly installed indirect PAR 56 floods below the columns. Our goal was to enhance the undulation of the arches, which have a tapestry fabric applied to the bottom side of them.

The 250-watt PAR 38 halogen spots were added to the top of the two-ton, 200-lamp center chandelier embedded with 1,240 glass jewels so that the azure color of the center fresco would visually explode. The light levels of the entire ceiling were balanced so dimming isn't needed to achieve contrast with the house lights on full brightness. Thus, on a "shoestring" budget and with virtually no exposed light sources, the Fox Theatre once again has been brought to life.

From the time we started working on the Fox until the moment of this writing, the eerie sensation of the days amidst the dirt and clamor has remained with me. It is strange, almost uncanny, that the original architect had the foresight to leave niches for us to add lighting.

Directable lighting used to accent architectural elements was almost nonexistent in the 1920s, yet Mr. Crane and his staff left a myriad of opportunities to assist us with our resurrection of this magnificent facility. Today, the Fox Theatre is rated as one of the top theatres for productions in the nation.

One wonders, in 60 years when the Fox will again need to undergo an architectural reinterpretation, how the lighting designer will critique our efforts. ■



GRAND ENTRANCE: The casino's sweeping double staircase (opposite page) gleams with quartz PAR lamps and a sparkling crystal chandelier. The same lighting is used in the Grand Gallerie (left), with the addition of ornate sconces and a custom-designed backlit glass ceiling.

Glamour, Euro Style

Decorative details and a reserved elegance capture the spirit of France's Casino de Deauville

BY CATHERINE SCHETTING SALFINO
MANAGING EDITOR

In Deauville, France, where the elite meet to party and play, the Casino de Deauville stands as a symbol of the town's glamorous image.

The resort's dramatically elegant lighting was designed with the intent of making the casino and its clientele look as good as the jewelry they wear, says Jeffrey I. L. Miller, IALD, president of Lightsource, Seattle, the company that designed the casino's lighting.

"This had to be instantly recognized as a very special place because it's a playground for many of Europe's fashionable people," Miller says. "The casino had to look fashionable and timeless and elegant; not aggressively designed."

The casino lighting, Miller says, needs to lend sup-

port to the interior design.

"This means the lighting can't 'shout,'" Miller says. "And, since this is a reserved elegance to people who know the difference, there's no need to shout."

The casino's early 20th century Belle Epoque style of decorative detail is noted upon entrance, where guests are struck by the grandeur of the double staircase. Specially-designed rose and white marble steps with ornate brass-topped railings swirl up to a balcony that boldly displays huge decorative pillars. Giant pots of flowers sit on either side of the entry that leads to boutiques, restaurants, and lounges. And above it all is a magnificent crystal and gold chandelier.

"For the most part, in the public spaces of Deauville,

PHOTOS BY JAIME ARDILES-ARCE







AN ORIGINAL: The glass ceiling (opposite page) of the Grand Gallerie is backlit with eight 150-watt quartz flood lamps. The main attraction of the Salle des Jeux is the "Temple d' Amour" (above).

there is an intent to do what is called motivational lighting," Miller says. "This is where you take one large decorative fixture, in this case a chandelier, and support that light with concealed, in this case, recessed lighting. This way it looks like the space is being lit by the chandelier."

This is a lighting technique Miller says originated in the theater and works well in large spaces like hotels and casinos. The illumination of the chandelier is supported with recessed 250-

watt PAR quartz downlights. The quartz lamps were chosen, Miller says, for their very brilliant white light, which offers excellent color rendition.

In the Grand Gallerie, Miller says the quartz lighting increased the ambient level of the space, where uplighting on the trees and a sparkling chandelier make an immediate impression. The focal point of the area, however, is the backlit glass ceiling.

"It gives the impression that there is a skylight



VARIATION ON A THEME

SIDE LIGHTS

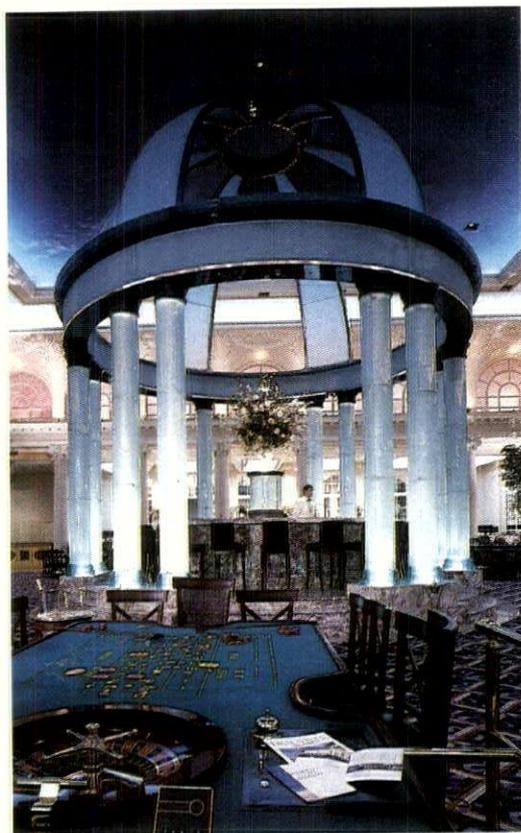
SINCE IT IS A MERE 90-minute drive from Paris, the town of Deauville has always attracted Parisiennes

interested in the races, the quaint Normandy countryside, and the casino. The new look of the Casino de Deauville is intended to attract sophisticated, demanding high rollers.

One area of the Deauville that is sure to garner the attention of the clientele is the Salle des Machines, the country's first slot machine room. The neon glitter of this game room is a departure from the reserved lighting design in the rest of the resort. The manufacturers of the slot machines installed the space's colorful neon.



ORNATE DETAILS:
Another view of the Grand Gallerie (above)—crystal wall sconces and floor-to-ceiling windows that flood the hall with daylight. The blue-tinted glass ceiling of the Salle des Jeux (right) is indirectly lit with concealed neon tubes.



in the space," Miller says. "But it's purely an effect. We took a very heavy, marbled piece of glass and backlit it with eight quartz flood lamps. The 150-watt double-ended base lamps shine through the red, orange, and white marbled glass, creating an eye-catching hall."

A foliage pattern is cast upon the glass by the 75-watt, low-voltage quartz uplights that shine through the tree leaves.

The subdued drama of the lighting continues in the Salle des Jeux gaming room, where the illuminated gazebo bar, or "Temple d'Amour," draws attention. The kiosk's columns are large glass tubes that are etched inside. Miller says the inside of the tubes are lined with a thin film that works like large-scale fiber optics in that it enables the tube to be lit from one end and illuminated through its length. Twelve low-voltage MR 16 lamps are placed in accessible cavities at the bottom of each column, creating a warm ivory glow in the 450-millimeter-wide glass tubes.

"Even though the gazebo is a large structure that is being used as a focal point, its lighting is still somewhat underplayed," Miller says. "It could have been brighter and it certainly could have been glitzier or Las Vegas-like, but we wanted it to be more in the background. It stands



out because of its position and its size. But it's quite elegant—it's a beautiful carved glass piece."

The room's blue-tinted glass ceiling is indirectly lit from behind with recessed neon that is concealed in coves. The warm white, clear glass coated HP 74 neon lamps cast a vibrant glow across the ceiling's expanse. In between each large arched window are 50-watt, low-voltage uplights, which illuminate the ornamental plaster that borders the ceiling.

The gaming tables are lit by 750-watt ellipsoidal spotlights that have been placed in theatrical framing projectors. The fixtures are concealed in portholes in the perimeter of the ceiling.

Overlooking the gaming room is the Restaurant le Banco, a gourmet dining area that offers a respite from the excitement of the Salle des Jeux. Soft neon light comes from recessed coves above the dining tables. The etched glass partitions between each table glow from the quartz downlights that are placed above them. Miller says the lighting in the restaurant is somewhat downplayed so that the gamblers keep their attention focused on the gaming tables.

"I think the lighting design throughout the

casino found its character within the interiors," Miller says. "And this design was accomplished in a six-month time frame. We started in December 1988, and Deauville was open for the May '89 season."

Miller points out that this kind of speed on a project of this scale is quite exceptional.

"It meant we had to do it right the first time," he says. "When working with the people in Europe, we had to make sure they had a clear understanding of what we wanted, to the point that when we weren't there, they would follow through. And they did so very well. I think the lighting speaks for itself." ■

DETAILS

PROJECT: CASINO DE DEAUVILLE

LOCATION: DEAUVILLE, FRANCE

CLIENT: SOCIETE DES HOTELS ET CASINO DE DEAUVILLE

LIGHTING DESIGNER: LIGHTSOURCE

INTERIOR DESIGNER: HBA INTERNATIONAL

ARCHITECT: SERGE MADELINE ARCHITECTE, D.P.L.G.

PHOTOGRAPHER: JAIME ARDILES-ARCE PHOTOGRAPHY

LIGHTING MANUFACTURERS: BAKALOWITZ: Chandeliers;

LEGEND STUDIO: Bronze Torchieres; COLORTRAN: Ellipsoidal

Spotlights; CLAUDEPOCHE: Uplights; 3M: Optical Film;

CONCORD: Quartz Downlights; MASONLITE: Neon Lamps; ADB:

Dimming Controls

KEY QUOTE: "Take a chandelier and support it with concealed lighting. It looks like the space is lit by the chandelier."—Jeffrey Miller

THE SOFT TOUCH: The Restaurant Le Banco glows with neon light recessed in coves above the dining tables. Quartz downlights emphasize the etchings of the glass partitions.



Unconventional Center

The Orange County Convention and Civic Center integrates lighting into architectural details

BY CHARLES LINN, AIA
EXECUTIVE EDITOR

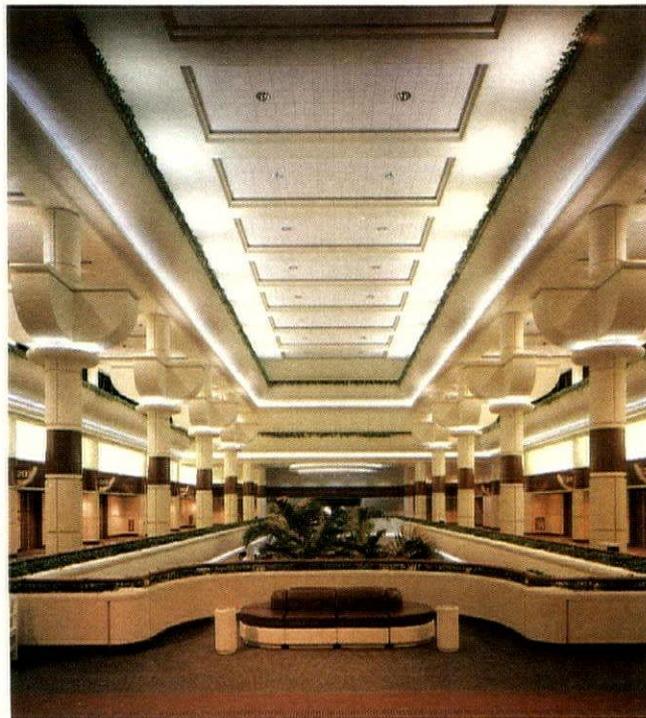
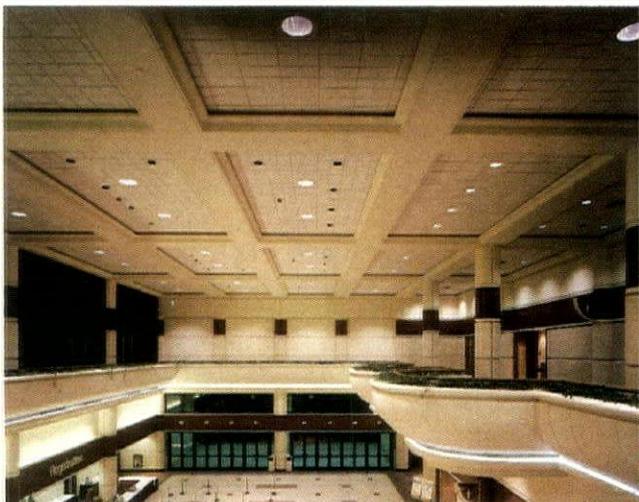
When planning a new addition to their convention center, officials of Orange County, FL, decided they wanted a building that would present an image worthy of what they hope will become one of the nation's leading convention and civic centers. Hellmuth, Obata & Kassabaum's designers responded by departing from the usual warehouse-like exteriors

and non-descript interior public spaces often associated with convention centers.

"The client wanted something distinguished, and certainly 'Floridian' in nature, but not trendy, not something people point to and say, 'You can tell they built that back in the 1980s,'" says project lighting designer Randy Burkett, who was, at the time, in charge of HOK's

PHOTOS BY RICH FRANCO

MAIN CONCOURSE: Palm trees in the main concourse (opposite page) are uplit with 6-volt, PAR 64 lamps beneath tree grates. The registration lobby (below left) has 500-watt PAR 56 accent lights. Luminous tubing is concealed in bullnose details (below right) under planters, balcony railings, and column sconces.





**INDIRECT
COMPLEMENT:** The indirect lighting is an integral part of the building's otherwise restrained ornamentation, emphasizing its rounded contours, and softening the downlights.

lighting group. (He currently is president of Randy Burkett Lighting Design, St. Louis.)

Much of what makes the building unusual is that many of the architectural details have been designed to contain lighting.

The building is outlined with phosphor-coated luminous tubing filled with a mixture of argon and mercury gases, and concealed in a recess in the precast concrete parapet wall. The phosphor coating yields a soft, warm white color.

The round overhang above the second floor is evenly lit by a series of fixtures lamped with high color-rendering metal halide lamps, concealed in planters just outside the windows on the second level concourse, and aimed away from the glass to avoid glare and reflections.

The underside of the porte cochere is lit by metal halide fixtures with a narrow distribution reflector concealed in the quarter-round sconces attached to each column. These pool the light in the front of each column.

"You'll notice," says Burkett, "that almost all of this sort of indirect lighting in the project used wide-distribution reflectors to produce uniform washes of light. Here, a soldier-like progression of uplight puddles is used instead to emphasize the rhythm of the columns along the walkway."

Lighting for the interior concourses that lead to meeting rooms and exhibit halls comes from a combination of direct and indirect sources. Metal halide downlights with 100-, 175-, and 250-watt, 3,000K color-corrected lamps provide most of the lighting, and are coupled with metal halide uplights concealed in quarter-round column-mounted sconces. These sconces project light onto the upper ceilings of the central atrium and the ceiling inside the clerestory above the second level.

Bands of luminous tubing are concealed in a bullnose detail, softly lighting the undersides of planters and balcony railings, as well as outlining a circular band of bullnosing beneath the column sconces.

Palm trees in the main concourse are uplit by groupings of narrow distribution, 120-watt, 6-volt PAR 64 lamps recessed beneath the tree grates. The beams graze the trunks of the trees, and highlight the underside of the foliage.

"We had to use that narrow distribution lamp," says Burkett, "not only to get the effect on the palm tree, but because people look down into that space, and we didn't want glare from the uplighting."

Two lighting components are contained in a shelf that runs over the meeting room doors. The

DETAILS

PROJECT: ORANGE COUNTY CONVENTION AND CIVIC CENTER

CLIENT: ORANGE COUNTY, FL

LOCATION: ORLANDO

ARCHITECT, LANDSCAPE ARCHITECT, AND INTERIOR

DESIGNERS: HELLMUTH, OBATA & KASSABAUM, TAMPA, FL

LIGHTING DESIGNER: RANDY BURKETT, RANDY BURKETT

LIGHTING DESIGN

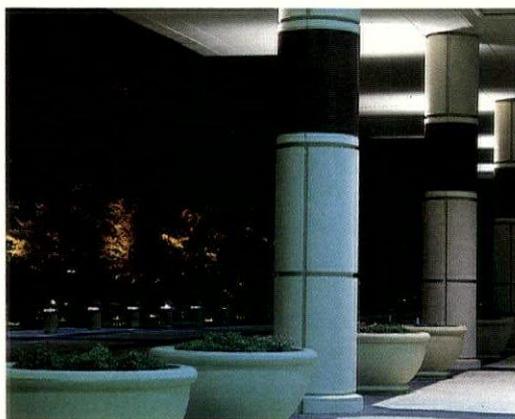
ELECTRICAL ENGINEER: SVERDRUP CORPORATION,

ORLANDO, FL

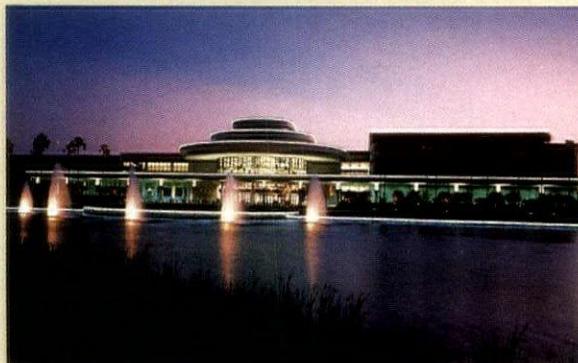
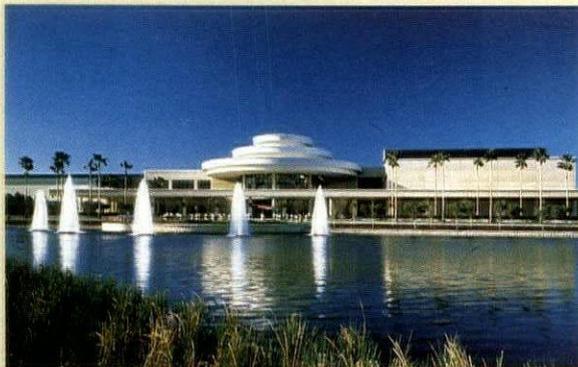
PHOTOGRAPHERS: GEORGE COTT, CHROMA, INC., two photos

below in "Sidelights;" RICH FRANCO, all others

LIGHTING MANUFACTURERS: DAY-BRITE: fluorescent uplighting and cove lighting; ELLIPTIPAR: fluorescent uplighting and cove lighting; GENERAL ELECTRIC: lamps; GREENLEE: landscape lighting; GTE SYLVANIA: lamps; HEATH CORPORATION: exterior luminous tubing; HOLOPHANE: exhibit hall lighting; HONEYWELL: energy management system; HYDREL: landscape and fountain lighting; LUTRON: central dimming control system; MILWEB: interior luminous tubing; OMEGA: recessed metal halide and incandescent fixtures; ROBERTS STEPLITE: exterior low-voltage strip lighting; STERNER: interior concourse and exterior canopy metal halide uplights; TIMES SQUARE: framing projectors; VENTURE: lamps



TREE LIGHTS: The canopies of medium-height trees are uplit with wide-distribution, low-voltage PAR 56 lamps in the in-ground luminaires. Taller palm trees are lit with the same fixture using a narrow distribution lamp. All incandescent landscape lighting fixtures are run under voltage to extend lamp life.



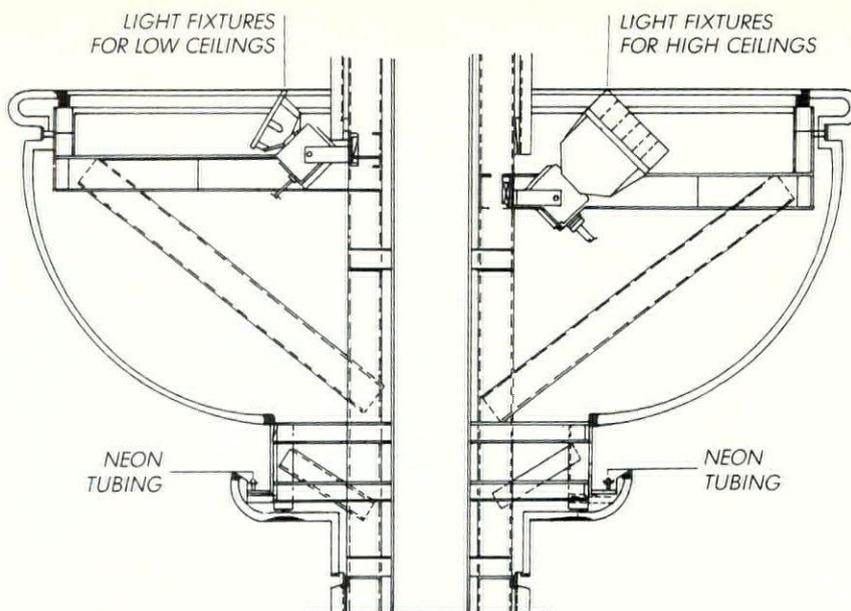
PROTECTING THE WETLANDS

SIDE LIGHTS

A PORTION OF THE project site is a protected wetlands area. This land, situated between the building site and a nearby main thoroughfare, International Drive, shelters nocturnal animals. The amount of light trespass allowed into the area was regulated by the Florida Land Management Department.

"We couldn't blast the area with light. For the roadway lighting, we used shorter poles with optically precise luminaires spaced closer together, rather than fewer high-mast fixtures; we used bollards and sharp-cutoff uplights to avoid trespass into light sensitive zones," Burkett says.

The entire building site is underlined by a band of light at the top edge of the retaining wall that borders the lake. The light comes from a strip of 2-watt, low-voltage subminiature lamps spaced closely together, and enclosed in polycarbonate tube. The tube is pressed into a metal extrusion concealed within the wall edge. Each of the five water jets in the lake is lit by two low-voltage submersible pool fixtures, with PAR 64 lamps.



IN THE SHELF:
 "Shelves" outside meeting rooms contain fluorescent uplights and incandescent downlights. Hallway artwork is lit with framing projectors concealed in the planter.

first is a series of staggered 3,000K fluorescent lamp strips recessed into the top of the shelf. These provide uplighting in the cavity above the shelf, and are turned on to indicate when the room is in use.

The other component is downlight provided by a series of A-lamp wall-washers recessed into the underside of the shelf. These graze the door and adjacent walls.

"This is the only incandescent light in a sea of metal halide," Burkett says. "People gather here before going into meetings, and the wall space is used for graphics and posters. We used a different color of light here not only to identify the location of the meeting rooms, but also because it is the most 'human' space."

A registration lobby with a two-story ceiling located just inside the entry has two groups of 500-watt recessed adjustable PAR 56 incandescent downlights focused in two areas. These areas are used for the display of objects related to the theme of the current exhibition.

"They can use one group of lights, or the other, both, or neither, depending on the display needs," Burkett says.

Opposite the registration hall, a clerestoried, barrel-vaulted hall leads to more meeting rooms. The vault is uplit by 3,000K high color-rendering fluorescent strips concealed in a planter that runs parallel to the clerestory. Theatrical framing projectors hidden in the planter illuminate artwork on the opposite wall.

In the meeting rooms two lighting systems are used: conventional PAR-lamped incandescent downlights and deep-cell parabolic fluorescent troffers. The fluorescent lighting is used for general meeting situations.

The incandescent downlights, which provide dimmable light from 0 to 20 footcandles for slides and note taking, are spaced throughout the room and around the perimeter. Burkett used the downlights to create a curtain of scallops on the wall rather than wall-washers, which would have created glare when partitions in divisible rooms were moved away.

The typical meeting room is divisible into at least three smaller rooms; the larger multipurpose meeting rooms can be divided into as many as six rooms. A centralized dimming system is used to provide all possible lighting combinations.

The dimming system that Burkett and engineers from Sverdrup Corporation, the electrical engineers for the project, selected allows the set-up of all lighting for meeting rooms from one central location, no matter how the rooms have been configured, or where they are located in the





building. The control station in each meeting room has four buttons, one for each combination of light levels available.

The exhibit halls are lit by clusters of incandescent, high-pressure sodium, and metal halide luminaires.

"We chose to combine metal halide and high-pressure sodium to maximize system efficiency and get the best color rendering," says Burkett. "We can also turn off the high-pressure sodium and use metal halide only, for a lower light quality that is still somewhat white."

For situations requiring low light levels of 20 footcandles or less, the high-wattage incandescent is used. The controls for the exhibition hall

are zoned bay by bay, source by source.

"Regarding long-term maintenance, the majority of spaces are lit with long-life, luminous tubing or high intensity discharge sources.

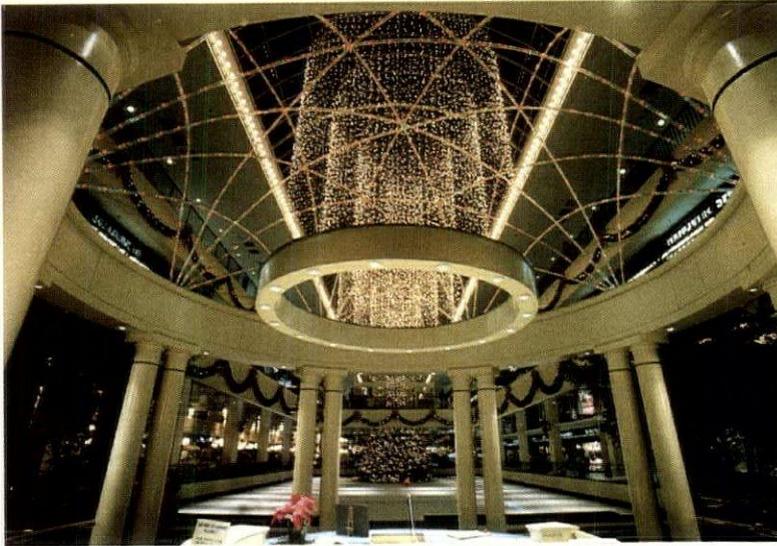
"Most of the incandescent fixtures used are operated under voltage to extend life," Burkett says. "The major reasons for using incandescent are its color rendering, beam control, and dimmability. Incandescent is still the best source for solving certain lighting problems.

"There was a conscious effort made not to make the lighting a visible element," Burkett says. "That directive came from the client. Where lighting was necessary to embellish the architecture, it became one with it." ■

LIGHT IN ARCHITECTURE: The quarter-round, column-mounted sconces that contain metal halide lamps are underscored by bands of luminous tubing concealed in a bullnose detail.



DOMES OF LIGHTS: The Ice Capades Chalet, where tickets are sold for the skating rink, features a dome (below) created with lexan tubes and low-voltage incandescent lamps. The rink (right) is the central attraction of Houston's Galleria Shopping Complex.



BY CHRISTINA LAMB
ASSISTANT EDITOR

Located in the heart of Houston's Galleria Shopping Complex, under a barrel vault skylight, is the Ice Capades Chalet and skating rink. The rink, open year-round for public skating and skating instruction, has been in operation for about 20 years. In December 1988, it was redesigned by the team of Ziegler Cooper Architects and Michael J. Smith, AIA, IES, IALD, Houston, for Gerald Hines Interests when the firm called for a fresh look. From design to completed installation, the renovation was finished in four months—lighting the way to a festive appearance.

The temple-like chalet structure, which is the main attraction, serves as the ticket sales area for the Galleria ice rink. The versatile lighting that graces the dome is what makes this structure so attractive and appealing to both shoppers and skaters. The dome is formed with ribs composed of half-inch diameter lexan tubes. Three clear tubes run parallel to each other and are bundled with nylon ties. Two of the tubes are empty, and one is filled with gel. The gel-filled tube houses half-watt, 24-volt incandescent lamps, and the other tubes provide extra support in forming the arc.

"The clear, inert gel helps to guard against vibra-



PHOTOS BY FRANK MARTIN AND AKER PHOTOGRAPHY

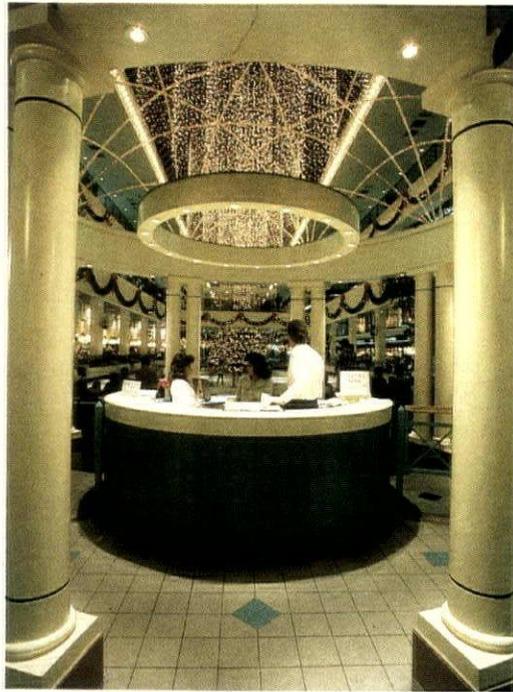


Enticing Ice

Houston's renovated Ice Capades
Chalet skating rink radiates a festive
appearance year-round



RINK RELAMPING: Skaters glide on ice (opposite page top) illuminated by quartz PAR floods. Chase circuits allow for kinetic color effects in the "dome" (opposite page below) above the temple structure. The decorative chandeliers suspended over the ice rink (right) were temporary holiday fixtures, and not part of the renovation.



DETAILS

PROJECT: ICE CAPEDES CHALET
LOCATION: THE GALLERIA, HOUSTON
CLIENT: GERALD HINES INTERESTS
ARCHITECT: ZIEGLER COOPER ARCHITECTS
LIGHTING DESIGNER: MICHAEL JOHN SMITH, AIA, IES, IALD
PHOTOGRAPHERS: AKER PHOTOGRAPHY, bottom photo on page 42, FRANK MARTIN, all others
ELECTRICIAN: POLLOCK ELECTRIC
MANUFACTURERS: TIVOLI: light tubes; MINIATURE LIGHTING PRODUCTS: MR 16 recessed downlights; PRESCOLITE: recessed incandescent accent lights; WENDELL LIGHTING: Phantom incandescent strip lights; NOVA INDUSTRIES: louver for recessed accent lights; LUTRON: control system

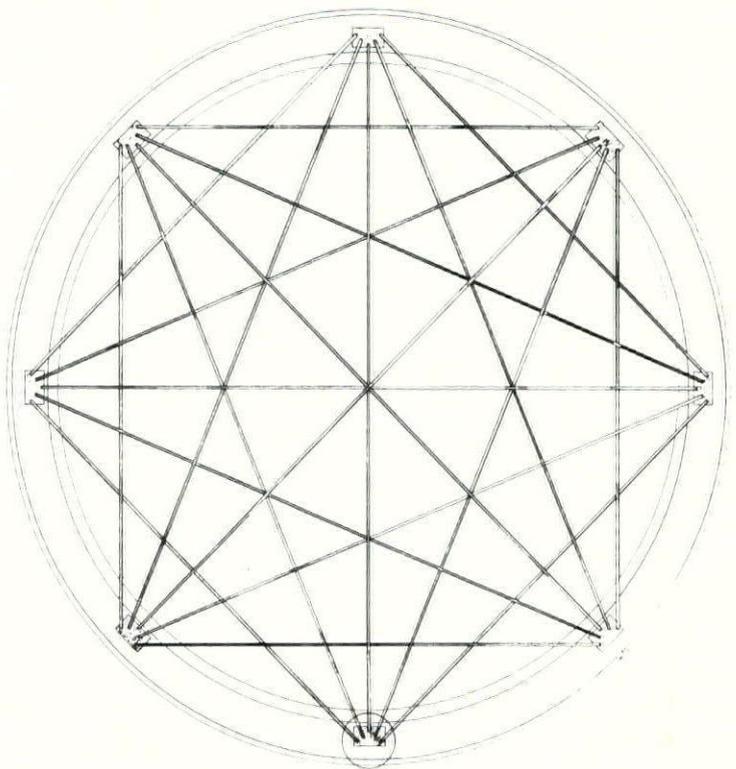
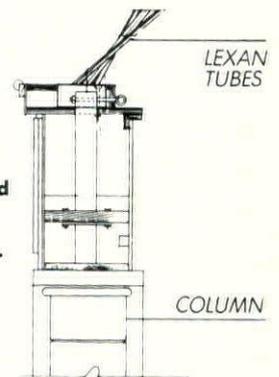
tion," says Michael J. Smith, lighting designer for the project. "Without the gel, the lamps will shake within the tube, causing the filaments to break. With the gel, there is no chance of movement independent of the tube."

The lamps, spaced 1.5 inches on center within the tubes, alternate red, clear, blue, and green. Each color is on one of four chase circuits. For different holidays or occasions, other color combinations can be activated. For a more conservative appearance, only clear lamps can be energized in a steady state. To add to the variety of possibilities, the tubes can also be matrixed—an effect where all the lights simultaneously flash on and off in each tube to produce a rotating effect.

Small aperture MR 16 recessed low-voltage downlights, housed in a cable-supported ring, provide task lighting over the ticket counter. This same lamp type also illuminates the dome's columns. These fixtures are recessed in the outer ring of the structure. A wall box dimmer provides local control.

Light levels on the ice have been increased by relamping the existing downlights with 150-watt quartz PAR floods. Additional adjustable accent lights, housing 250-watt quartz PAR floods have been installed underneath the street-level balcony to project the light inward toward the center of the rink. These recessed accent lights are fitted with 45-degree cut-off louvers, designed by Michael Smith's office, to eliminate glare. For ease of operation, lamp life extension, and energy conservation, all lighting for the rink and its surrounding area is controlled by a time-clock-activated, six-zone, four-scene preset dimming system. ■

PLAN DETAILS: (Right) Lexan tubing is connected to the structure above each column. (Below) Overview of plastic tube "dome" configuration.



LightFair Preview

LightFair, the International Lighting Exposition and Conference, premieres April 10-12, 1990, at the New York Hilton and Towers. LightFair is produced by AMC Trade Shows East, (a John Portman Company). For more information on LightFair, contact Lynne Weller, communications manager, LightFair, 240 Peachtree St. NW, Suite 2200, Atlanta, GA 30303, or call (404) 220-2107.

SEMINARS

TUESDAY, APRIL 10, 1990

"WHO'S REALLY MAKING THE DECISIONS?"

An American Institute of Architects & McGraw-Hill presentation for LightFair exhibitors, lighting manufacturers and their sales representatives

7:30 - 9 A.M.

Seminar leaders: Ann Oliveri, senior marketing director, American Institute of Architects

"LIGHTING LEADS THE WAY TO THE NEW CENTURY: THE CULTURAL ASPECTS OF LIGHTING"

9 - 10:45 A.M.

PANELISTS: Professor Gerhard Auer, Technische Hochschule, Braunschweig, West Germany
Motoko Ishii, founder, Motoko Ishii Lighting Design Inc., Tokyo, Paris, Los Angeles

Andre Tammes, founding partner, Lighting Design Partnership, Edinburgh, Scotland

MODERATOR: Art Golden, publisher, *Architectural Lighting* magazine

"THE EFFECTS VIDEO DISPLAY TERMINALS HAVE ON THE OFFICE ENVIRONMENT"

11 A.M. - 12:30 P.M.

PANELISTS: Sam Berman, Ph.D., senior scientist, Lawrence Berkeley Laboratory, Berkeley, CA

Mitchell B. Kohn, architectural lighting consultant, Highland Park, IL

Willard L. Warren, executive vice president, The Lighting Group, New York

MODERATOR: Len Corlin, associate publisher/special editorial & industry projects, *Contract* magazine

"NUTS, BOLTS & EMOTIONS: BEYOND DECORATIVE LIGHTING, A VISUAL HEARTBEAT FOR RESTAURANTS"

11 A.M. - 12:30 P.M.

PANELISTS: Pat Kuleto, Kuleto & Associates, San Francisco

Pam Morris, *Exciting Lighting* by Pam Morris, San Francisco

MODERATOR: Mary Jean Madigan, editor/co-publisher, *Restaurant/Hotel Design International* magazine

"NEW PRODUCTS PORTFOLIO"

3 - 4 P.M.

Sponsored by *Interiors* and *Architecture* magazines.

MODERATOR: Justin Henderson, senior editor, and Peter Barna, lighting editor, *Interiors* magazine

WEDNESDAY, APRIL 11, 1990

"ENLIGHTENED CONTRACTS—ILLUMINATING THE PROFESSIONAL SERVICES AGREEMENT"

8 - 9 A.M.

PANELISTS: Alfred R. Borden IV, director, The Lighting Practice, Philadelphia

Hollye C. Fisk, Esq., partner, Fisk & Fielder, Dallas

MODERATOR: Gary A. Dugan, publisher and founder, *Lighting* magazine

"LIGHTEN THAT TASK" - SPONSORED BY DESIGNERS LIGHTING FORUM OF NEW YORK (DLFNY)

9 - 10:30 A.M.

RECONVENES FROM 11 A.M. - 12:30 P.M.

PANELISTS: Noel Florence, Noel Florence Associates, New York

Connie Jensen, Lighting Professionals Inc., Montvale, NJ

Babu Shankar, WGFS Lighting Designers, New York

MODERATOR: Wanda Jankowski, editor, *Architectural Lighting* magazine

"MOONLIGHTING: WHAT IS IT? WHY USE IT? HOW IS IT ACHIEVED?"

9 - 10:30 A.M.

SPEAKER: Rob DiSchino, Nightscaping, Wakefield, MA

INTRODUCED BY: James G. Trulove, publisher & editor-in-chief, *Landscape Architecture* magazine

SEMINAR REGISTRATION HOURS

TUESDAY, APRIL 10 7 A.M. - 7 P.M.
WEDNESDAY, APRIL 11 7:30 A.M. - 7 P.M.
THURSDAY, APRIL 12 8:30 A.M. - 5 P.M.

EXHIBIT HALL HOURS

TUESDAY, APRIL 10 11:30 A.M. - 7 P.M.
WEDNESDAY, APRIL 11 11:30 A.M. - 7 P.M.
THURSDAY, APRIL 12 11:30 A.M. - 5 P.M.

"URBAN STREETScape LIGHTING"

11 A.M. - 12:30 P.M.

SPEAKER: Gary Steffy, Gary Steffy Lighting Design, Ann Arbor, MI

INTRODUCED BY: Constance Webster, past president, New Jersey Chapter of the American Society of Landscape Architects

"THE SPECIFICATION OF CUSTOM AND DECORATIVE LIGHTING FIXTURES"

2 - 3:30 P.M.

PANELISTS: Robert Friedman, WGFS Lighting Designers, New York

Mark Kruger, Kruger Associates, New York
J. Woodson Rainey Jr., Kohn Pedersen Fox Conway, New York

MODERATOR: Andrea Loukin, market editor, *Interior Design* magazine

THURSDAY, APRIL 12, 1990

"LIGHT SOURCES"

9 - 10:30 A.M.

MODERATOR: William F. Blitzer, president, Litecore Division, Genlyte Group, Secaucus, NJ

"LIGHTING FOR AN AGING POPULATION"

10:45 A.M. - 12:15 P.M.

SPEAKER: Naomi Johnson Miller, principal, Luminae Souter Lighting Design, San Francisco

"WHY UTILITY COMPANIES ARE WILLING TO PAY YOU REBATES FOR THE INSTALLATION OF HIGHLY EFFICIENT LIGHTING EQUIPMENT"

10:45 A.M. - 12:15 P.M.

PANELISTS: Charles Copeland, P.E., senior vice president, Goldman Copeland Batlan & Oxman, consulting engineers, New York

Peter Flynn, director, Demand Planning, New England Power Service Company, a subsidiary of New England Electric, Westboro, MA
Alfred Ornstein, director, Commercial and Industrial Energy Management Services, Consolidated Edison, New York

MODERATOR: Joseph Knisley, senior editor, *EC & M* magazine, New York

CONTINUED ON PAGE 46

SPECIAL EVENTS

TUESDAY, APRIL 10, 1990

ARCHITECTURAL LIGHTING HALL OF FAME AWARDS
5 - 7 P.M.

Architectural Lighting will sponsor this complimentary reception and awards ceremony. Join us in recognizing several leaders who have made significant contributions to the lighting community.

WEDNESDAY, APRIL 11, 1990

"RICHARD KELLY AWARDS LUNCHEON" SPONSORED BY THE NEW YORK CHAPTER IESNA

12:30 - 2 P.M.

SPEAKER: Richard Hayden, Swanke Hayden Connell Architects, New York

Advance registration is necessary. For more information, contact Dee Murray, Lighting Dynamics, (212) 268-9222.

COST: \$125.

LIGHTFAIR PREVIEW CONTINUED

"DEPARTMENT STORE LIGHTING -
STAND OUT FROM THE CLUTTER"

2 - 3:30 P.M.

SPEAKER: David Apfel, Hambrecht Terrell International,
New York

INTRODUCED BY: Lorraine Tierney, associate editor and
editor apparent, *Canadian Interiors* magazine, Toronto,
Canada

"HOW TO MANAGE MONEY
AND ENERGY WITHOUT SACRIFICING QUALITY"

2 - 3:30 P.M.

PANELISTS: John Feters, senior engineer, energy
management/lighting consultant, AT&T Network Systems,
Columbus, OH

Robert Fey, director of property management, Saks Fifth
Avenue, New York

Jeff Kessel, P.E., University of California, Berkeley, CA

Jack Lindsey, senior engineer, Southern California Edison

Sandra Stashik, principal, Grenald Associates,

Narberth, PA

MODERATOR: Mark Dunbar, technical editor, *Energy User
News*, New York

CONTINUING EDUCATION UNITS

THURSDAY, APRIL 12, 1990

"THE BASICS OF FINE LIGHTING DESIGN"

9 A.M. - NOON, RECONVENES FROM 2 - 5 P.M.

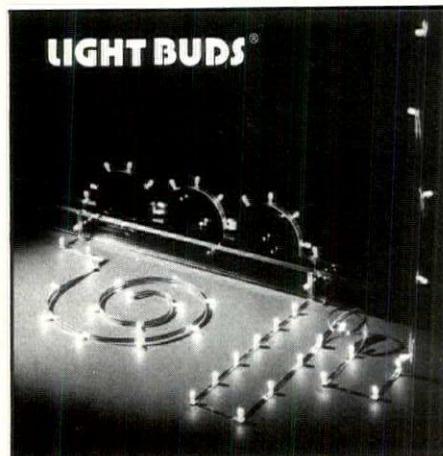
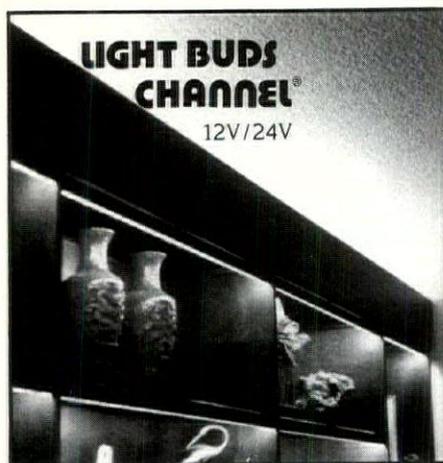
SPEAKER: James R. Benya, senior principal, Luminae
Souter Lighting Design, San Francisco

Students should have had a college level lighting
fundamentals class prior to registration for this CEU. This
course is accredited by ASID.

"LANDSCAPE LIGHTING - A SCULPTURAL APPROACH THAT
INTEGRATES INTO THE NEIGHBORHOOD"

9 A.M. - NOON, RECONVENES FROM 2 - 5 P.M.

SPEAKER: Janet Lennox Moyer, ASID, Jan Moyer Design,
Berkeley, CA

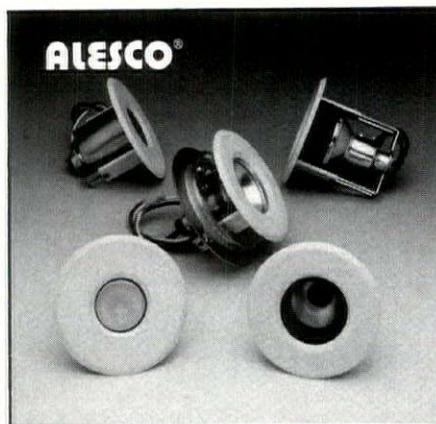


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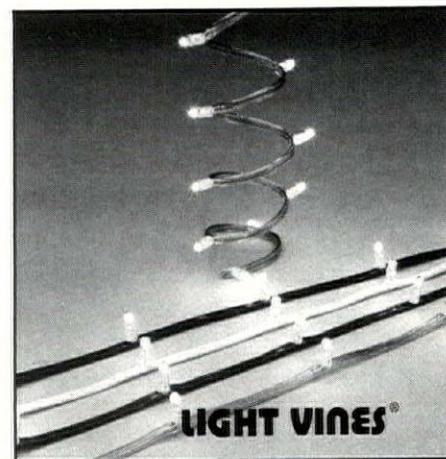
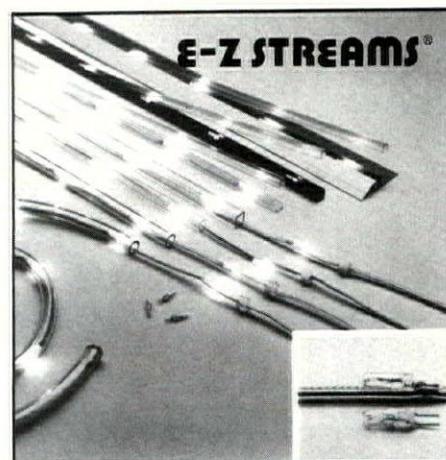
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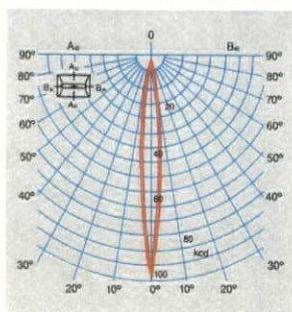
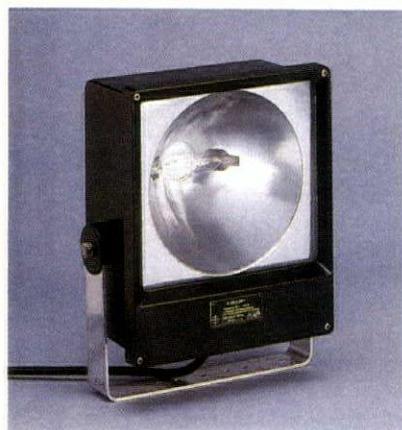


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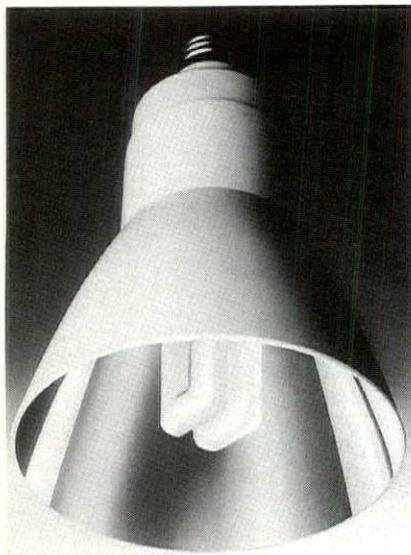
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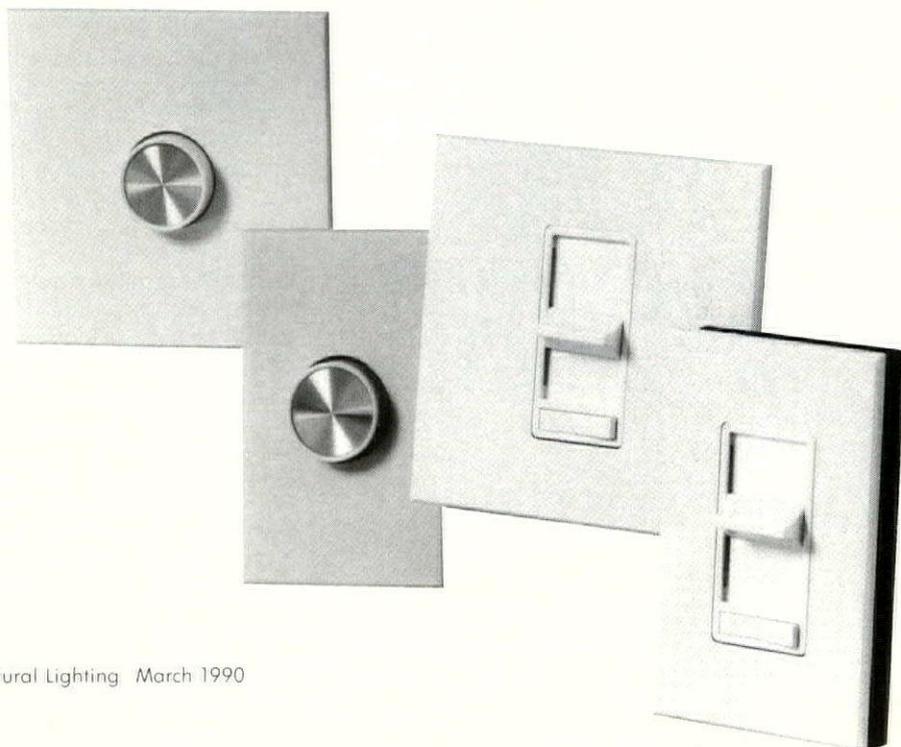
OSRAM'S DULUX EL REFLECTOR CONSUMES 75 percent less energy, lasts more than 10,000 hours, and provides a warm quality incandescent-like light. The 11-watt and 15-watt Dulux EL reflectors can be used to replace 50-watt R 30 and 75-watt R 40 incandescent lamps. Osram Corp., Trenton, NJ. CIRCLE 35



AUTOMATED ENTERTAINMENT'S H D DICHROICS offers 38 colors in 12 diameters and different matte sizes. The fittings provide colors designed to match any environment. Automated Entertainment, Burbank, CA. CIRCLE 36



THORN LIGHTING'S THORN ARIA is a new range of low-voltage track and halogen lamps. The Aria 50 (shown) and the Aria 35 are low voltage track fixtures, available with MR 16 or MR 11 lamps, respectively. The cowl extension, twin disc, and half cowl are offered for use with the Aria 50; a dish flare, diffuser disk, and catchlite are used with the Aria 35. Micro-lamp Inc., Boca Raton, FL. CIRCLE 37



LEVITON'S NEW LINE OF UL LISTED ARCHITECTURAL preset slide and rotary dimmers for control of incandescent, low voltage, and fluorescent lighting are available in illuminated, three-way, and single pole models. Dimmers are available in white, ivory, brown, and gray; illuminated models in white and ivory. Leviton Manufacturing Co., Inc., Little Neck, NY. CIRCLE 38



NINE NEW HUNTER-ROYALTYE ALABASTER lighting styles are available from the Hunter Fan Co. The line includes a variety of wall sconces (shown), and a hanging chandelier. These new styles join an assortment of hanging bound glass chandeliers, wall and post lanterns, flush mount ceiling fixtures, and track lighting kits and accessories. Hunter Fan Co., Memphis, TN. **CIRCLE 39**



GTE'S SYLVANIA WATCH-KAT unit generates infrared light rays that can be seen by standard closed circuit TV cameras. The device is approximately 9 inches cubed and comes with three lens configurations of narrow spot, medium flood, and wide flood. The fixture lamp is rated at 300 watts and has an average life of 4,000 hours. GTE Security Lighting, Fall River, MA. **CIRCLE 40**



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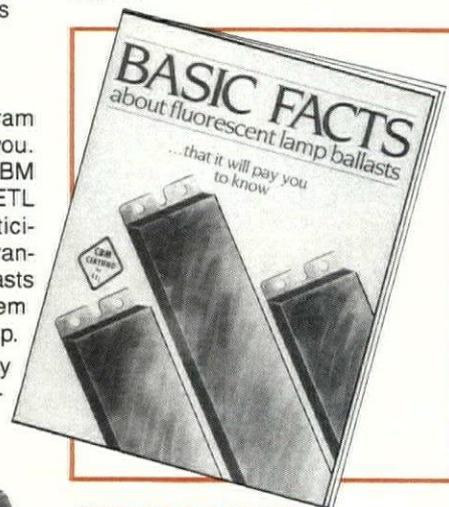
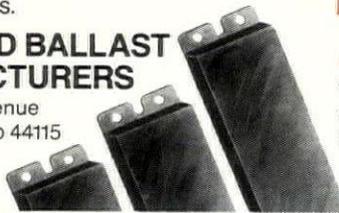
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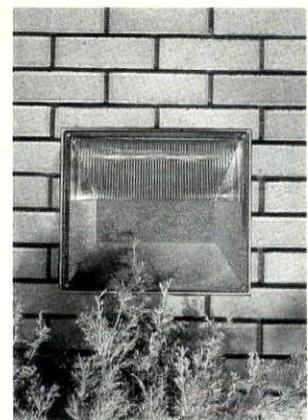


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LITHONIA LIGHTING'S ARCHITECTURAL OUTDOOR FAMILY offers a low-mount recessed floodlight with a directional capability that eliminates the need to specify beam throw direction in advance. The KLD Series features a bi-adjustable lamp socket that permits left, right, and up-and-down adjustment of the light distribution

at installation. The KLA Series produces a broad symmetric oval of uniform area lighting, and the KL Series recessed floods are available for incandescent and all HID lamps. Housings are cast aluminum, and lenses are one-piece, UV stabilized polycarbonate. Lithonia Lighting, Conyers, GA. **CIRCLE 42**

PRE-REGISTER AND SAVE!

INTERNATIONAL LIGHTING EXPOSITION

THE INTERNATIONAL LIGHTING EXPOSITION IS BACK!

Visit The ILE, Canada's only trade show dedicated to the lighting industry, returning to The Metro Toronto Convention Centre, June 19, 20, 21, 1990.

See over 150 exhibitors displaying the very latest in residential, commercial and industrial lighting products and services.

Experience first hand demonstrations of entertainment and theatrical lighting techniques and technology.

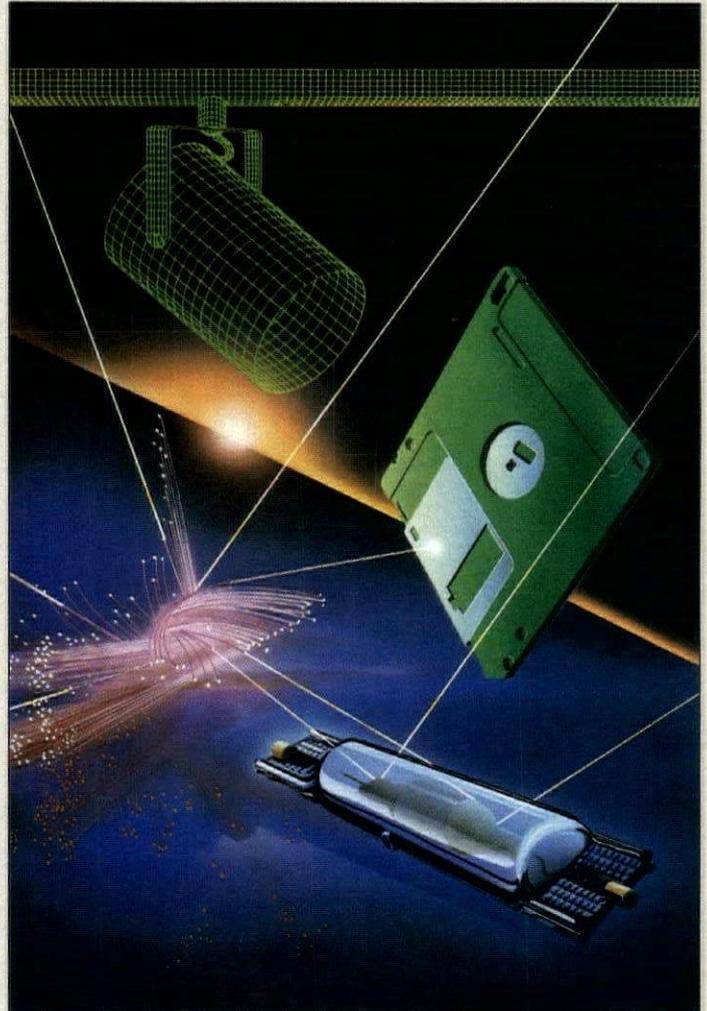
Educate yourself on the latest lighting advances with a diverse seminar program produced by The IES - Toronto Section.

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INTERNATIONAL LIGHTING EXPOSITION
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TORONTO, ONTARIO, CANADA
JUNE 19•20•21•1990

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Tuesday, June 19
11:00 a.m. - 7:00 P.M.

Wednesday, June 20
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Seminars
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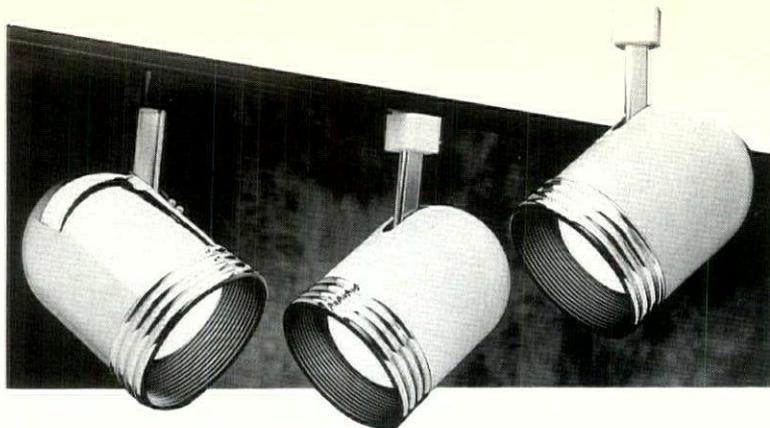
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Company: _____

Address: _____

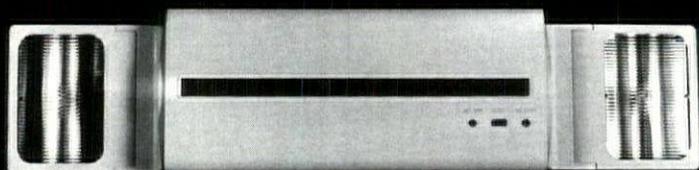
City: _____ Prov.: _____

Postal Code: _____ Tel.: _____



HALO'S POWER TRAC LINE OF ROUND BACK LAMP HOLDERS has expanded to include a mix of painted finishes that feature brass accents. The series includes: the L-1550, a 75-watt R 30 100-watt Z10 roundback cylinder; the L-1551, a 50-watt R and PAR 20, and 55-watt PAR 16. Both models have a banded decorative cap with coilex baffles. Halo Lighting, a Division of Cooper Lighting, Elk Grove Village, IL. **CIRCLE 43**

QUALITY EMERGENCY LIGHTING



Yorklite's sleek A2 series gives the designer a new option in emergency lighting—

STYLE.

Available in different colors to suit your decor.
The A2 meets UL & OSHA standards.
For better consideration of your lighting needs:

YORKLITE

P.O. Box 19425
Austin, Texas 78760

512/385-1773

Circle No. 17 on product card.



STONCO LIGHTING'S SERIES OF INCANDESCENT AND HID LAMP-HOLDERS and accessories are suited for landscape lighting applications. The 900 series lamp-holders are offered with a variety of lamp sources such as metal halide, mercury vapor,

and incandescent. The 6000 series lampholders are offered in a range of shapes and finishes. Lamp sources such as incandescent and tungsten halogen are available, as well as guards and louvers. Stonco Lighting, Union, NJ. **CIRCLE 44**

PRODUCT ADVERTISEMENTS REVIEW



REJUVENATION'S SOLID BRASS WALL BRACKET, the Arlington, is part of the new Sheffield Collection. It is available in a variety of metal finishes and matching glassware shades. The fixture measures 7 inches x 9 inches, has an 8-inch projection, and utilizes a 60-watt bulb. Rejuvenation Lamp & Fixture Co., Portland, OR. **CIRCLE 45.**



CHICAGO'S WATERTOWER PLACE EXTERIOR OCTAGON WALL SCNCE is manufactured by Appleton Lamplighter and designed by Green Hiltcher, Shapiro. The fixture measures 32 inches x 44 inches with a 9-inch projection. The fixture is made of polished stainless and satin bronze, and the frosted lens is backlit with white neon. A 250-watt quartz lamp provides downlight. Appleton Lamplighter, Appleton, WI. **CIRCLE 46.**

INTRODUCING THE ANSWER TO TIRED EYES, ACHING NECKS AND ENDLESS COMPLAINTS.



LUXO ASYMMETRIC TASK LIGHTS.

Much of the lighting for today's offices is a disaster. So much light is provided for keyboards and desks that computer screens are washed-out and obscured with glare. Productivity decreases, complaints increase.

Luxo solves the problem

with a breakthrough lighting technology—asymmetric task lights. These new task lights use computer-designed reflectors that sharply cut off the light to prevent wash-out and glare, and compact fluorescent lamps for ample illumination.

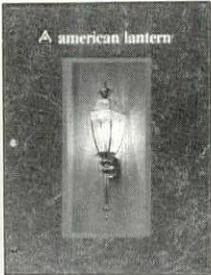
Light spreads across a wide area. Lamp heads can be placed outside of the work area. Desks and keyboards are well lit; computer screens aren't. Call: 1-800-222-LUXO (In NY) 914-937-4433



Available in 13W, 18W and 24W lamping. Mounts on desks, walls, inclined surfaces or with Space Saver Rail Mount.

Circle No. 18 on product card.

Architectural Lighting March 1990 53



Glass Fixtures

American Lantern's 12-page color booklet features some of the company's new series of products including the "Double Dome," "Glass over Glass," and "Double Crown." Each series offers a range of sizes, mounting options, and finishes. American Lantern Co., Newport, AR.

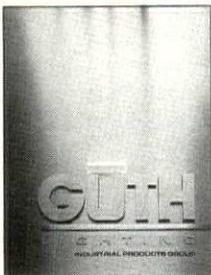
CIRCLE 47



Designer Pendants

Gross Chandelier's series of brochures introduces four new designer pendant collections: the Classic Cafe (fluted glass); Tempo (factory shades); School House (period glass); and Sophisticate (designer glass). Options include pendant, sconce, and wall bracket designs. Gross Chandelier Co., St. Louis.

CIRCLE 50



Industrial Lighting

Guth Lighting's 180-page Industrial Products Handbook features the company's industrial lighting systems. Also featured are 50 product families for lighting assembly areas, hazardous locations, and dock and inspection areas, in addition to aisle, high-stack, and general lighting. Guth Lighting, St. Louis.

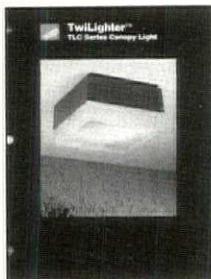
CIRCLE 48



Custom Lighting

The new four-color brochure from Mark Lighting features information on a new program to aid specifiers with custom lighting projects. Mark Lighting Inc., Moonachie, NJ.

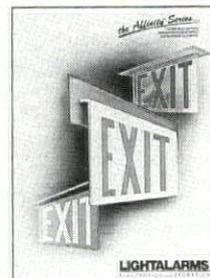
CIRCLE 51



Canopy Light

Stonco Lighting's two-page brochure on its TwiLighter TLC Series canopy light details product features and benefits. Four-color photographs illustrate the fixtures, and diagrams show the dimensions. Stonco Lighting, Union, NJ.

CIRCLE 49



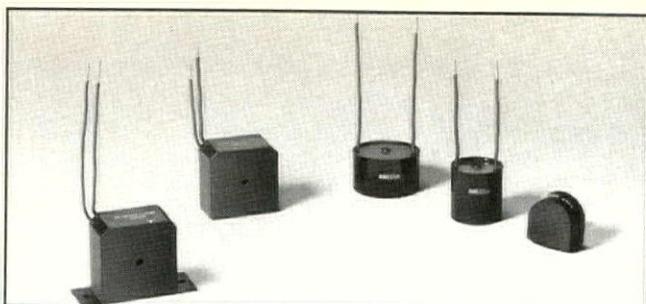
Exit Signs

Lightalarms Electronics' brochure describes the Affinity Series recessed edgelit exit signs. This series utilizes fluorescent lamps and polished acrylic panels. The signs are available in both AC and self-powered models. Lightalarms Electronics Corp., Baldwin, NY.

CIRCLE 52

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New Packaged Debuzzing Chokes Offer No Noise In No Time . . .

Extremely quick and easy to install for both new and retrofit applications, Amecon's new line of architectural chokes essentially eliminate noise in dimmers, lamps and fixtures. The chokes are professionally packaged to dramatically reduce installation time

as they mount to standard recessed fixtures, remote areas and wall boxes. They're built with high temperature, high impact, fire retardant UL recognized materials. Attractively priced, they're rated at 50 and 75 watts at 12 volts, and 400 to 750 watts at 120 volts.

CONFIG.	DIA.	HEIGHT	WIDTH	DEPTH	MTG.
CIRCULAR	2"			1-3/16"	Centerhole
	1-5/8"			1-1/2"	Centerhole
	1-1/2"			1-1/4"	Centerhole
SQUARE "ARCH"		2-3/32"	2-3/32"	1-3/32"	Vert/Horiz
		1-3/8"	1-3/8"	3/4"	PCB/Vert

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



AMECON Quality Magnetics & Electronics
 Amecon, Inc., 1900 Chris Lane, Anaheim, CA 92805
 TEL: (714) 634-2220, FAX: (714) 634-0905

Circle No. 19 on product card.

TOP BRASS



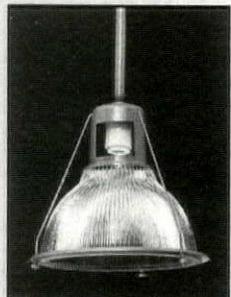
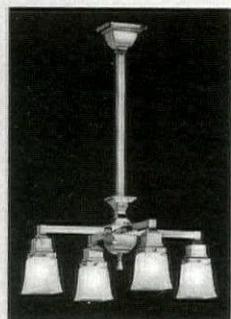
Sold Direct nationally to architects, designers and homeowners who appreciate quality and good design.

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Residential • Commercial • Corporate Interiors
 Send for catalog.

Brass Light Gallery

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Circle No. 20 on product card.

Appleton Lamplighter.

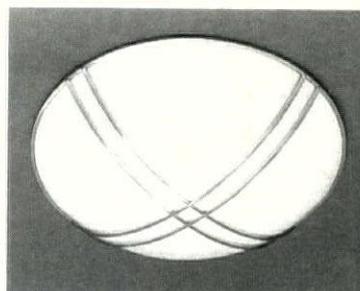
The first choice of the design community for custom lighting, architectural metal fabrication.

GUARANTEEING:

- Integrity of design • Quality materials and products • American craftsmanship
- Professional staff • Engineering • Delivery
- North American wide representation
- Affordability

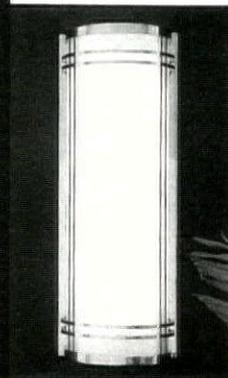
AL 227 P

3'0" x 8"
 Polished brass bar,
 Opal acrylic
 One 100 watt Metal
 Halide lamp



AL 438 WS

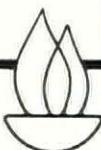
1' x 6" x 6"
 Polished brass & chrome
 Opal acrylic lens
 Two 40 watt T-10 lamps



AL 228 P

3'0" x 10" x 3'0"
 Polished brass bar,
 Opal acrylic
 Four A-19 lamps



 **APPLETON
 Lamplighter™**

P.O. BOX 1434, APPLETON, WI 54913 USA
 PHONE: 414-739-9001 FAX: 414-739-1656

Specifiers catalog available on request.

Call for the contact in your area.

Circle No. 21 on product card.

RATES

The Marketplace is a monthly feature of Architectural Lighting, offering readers easy access to lighting products and services for commercial, industrial, and institutional applications. Listings in this reference section are sold on an annual basis. First Line (Bold Face) \$990/yr. Additional lines \$690/yr. Mini Display \$3600/yr., \$1990/6 months.

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

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

ACCENT AND DISPLAY LIGHTING (INTERIOR)

DANALITE, 16392 Gothard St., #A, Huntington Beach, CA 92647 Fax 714-848-1669 714-841-4325
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FIBERSTARS, Int. & Ext. Lighting, 47456 Fremont Blvd., Fremont, CA 94538 800-327-7877

MARCO LIGHTING, 6100 S. Wilmington Ave., Los Angeles, CA 90001 213-583-6551

Recessed Architectural Lighting: Compact Fluorescents—Low Voltage Capsylite—HID—Incandescents.

NL CORP., 14901 Broadway, Cleveland, OH 44137 Fax 216-662-9069 or 216-662-2080

Recessed HID and incandescent; decorative; custom; church; 20, 30 & 60 amp track; fluorescent lighting systems. Call for more information.

ACCESSORIES AND COMPONENTS

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PEERLESS LIGHTING CORP., P.O. Box 2556, Berkeley, CA 94702 Fax 415-845-2776, Phone 415-845-2760

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One of America's leading manufacturers. Offering a complete product line of commercial and residential luminaires and accessories for a wide variety of applications: automobile dealerships, shopping centers, sports facilities, industrial, landscape lighting, and extensive custom capabilities. U.L. listed, HID, and fluorescent. Call for local representative.
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FAX 800-537-2892 PH. 800-544-4871

EMCO LIGHTING, 7300 50th St., P.O. Box 1640, Milan, IL 309-799-3111

SPRING CITY ELECTRICAL MFG. CO., Spring City, PA 19475 Call 215-948-4000 or Fax 215-948-5577

Historically authentic, cast iron ornamental lighting posts, bollards and adaptations.

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- Full 180° rotation
- Use on fixtures to 20#

Western Lighting Ind.
3540 Valhalla Dr., Burbank, CA 91505
818-841-7896 (FAX: 818-841-8910)

CONTROLS

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Manufacturing full line of lighting controls and dimmers for Restaurants, Hotels, Board Rooms, etc.

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CONSTRUCTION SPECIALTIES INC., 55 Winans Ave., Cranford, NJ 07016 (Sight & Sunscreens) 201-272-5200

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FAX 617/661-4400 TEL 617/876-9220

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OSRAM CORP., 110 Bracken Road, Montgomery NY 12549 914-457-4040

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CAREER OPPORTUNITIES

LIGHTING DESIGNER or CONSULTANT needed for Las Vegas architectural/interior design firm specializing in large-scope hospitality projects. Shall be responsible for fixture and control systems design, layout and specification. Please respond in writing with resume and references to: Mr. John Barger, c/o Atlandia Design, 3380 Arville Street, Las Vegas, NV 89102. Portfolio required if interview is requested.

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Young and aggressive manufacturer's rep is searching for a financially sound manufacturer with excellent products, to represent as an agent or rep. 10 years experience as a rep for a major lighting fixture manufacturer in residential, commercial and specification markets. Excellent track record. Contact: Barry Shendell, 305-946-5769, 525 N. Ocean Blvd., Apt. 1221, Pompano Beach, FL 33062.