

A R C H I T E C T U R A L

LIGHTING

APRIL/MAY 1993 \$6.00

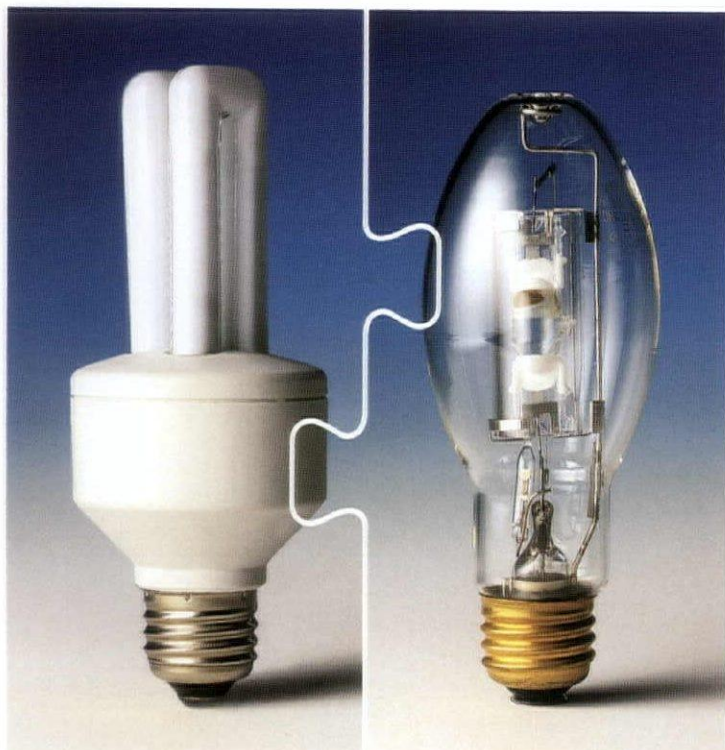
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LIGHTING PRODUCT GUIDE
AND RESIDENTIAL/DECORATIVE SPECIAL SECTION

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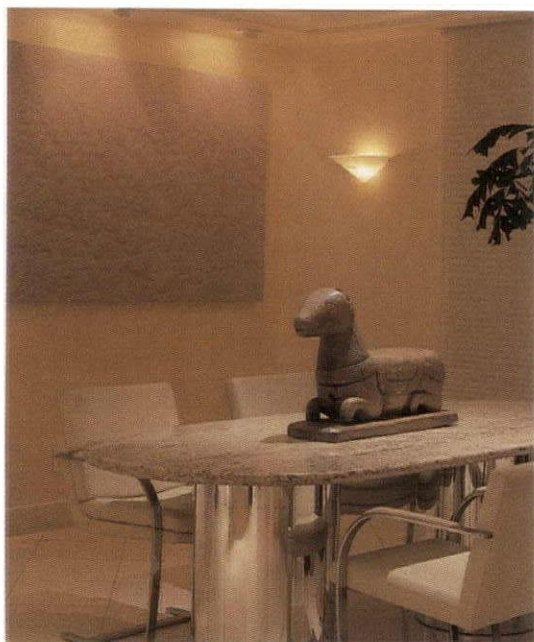
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ARCHITECTURAL
LIGHTING

APRIL/MAY 1993

VOLUME 7, NUMBER 2



42 FRENCH VANILLA & BLUE ICE
Cover Photo by Kenneth Rice



60 BACCHUS

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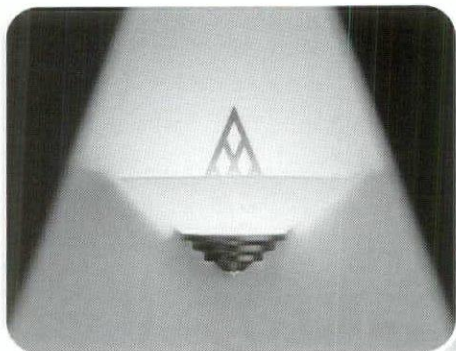
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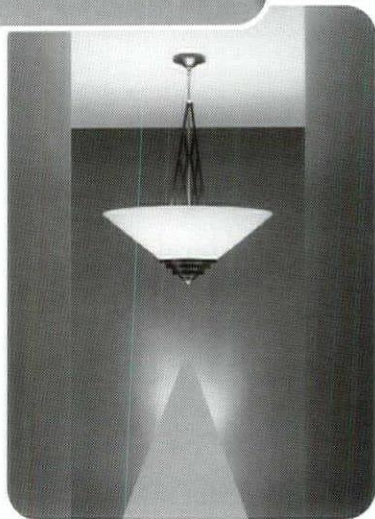
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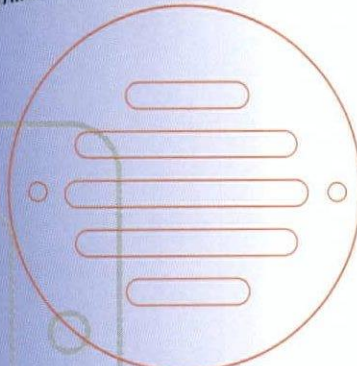
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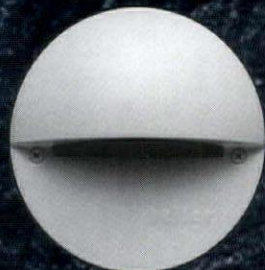
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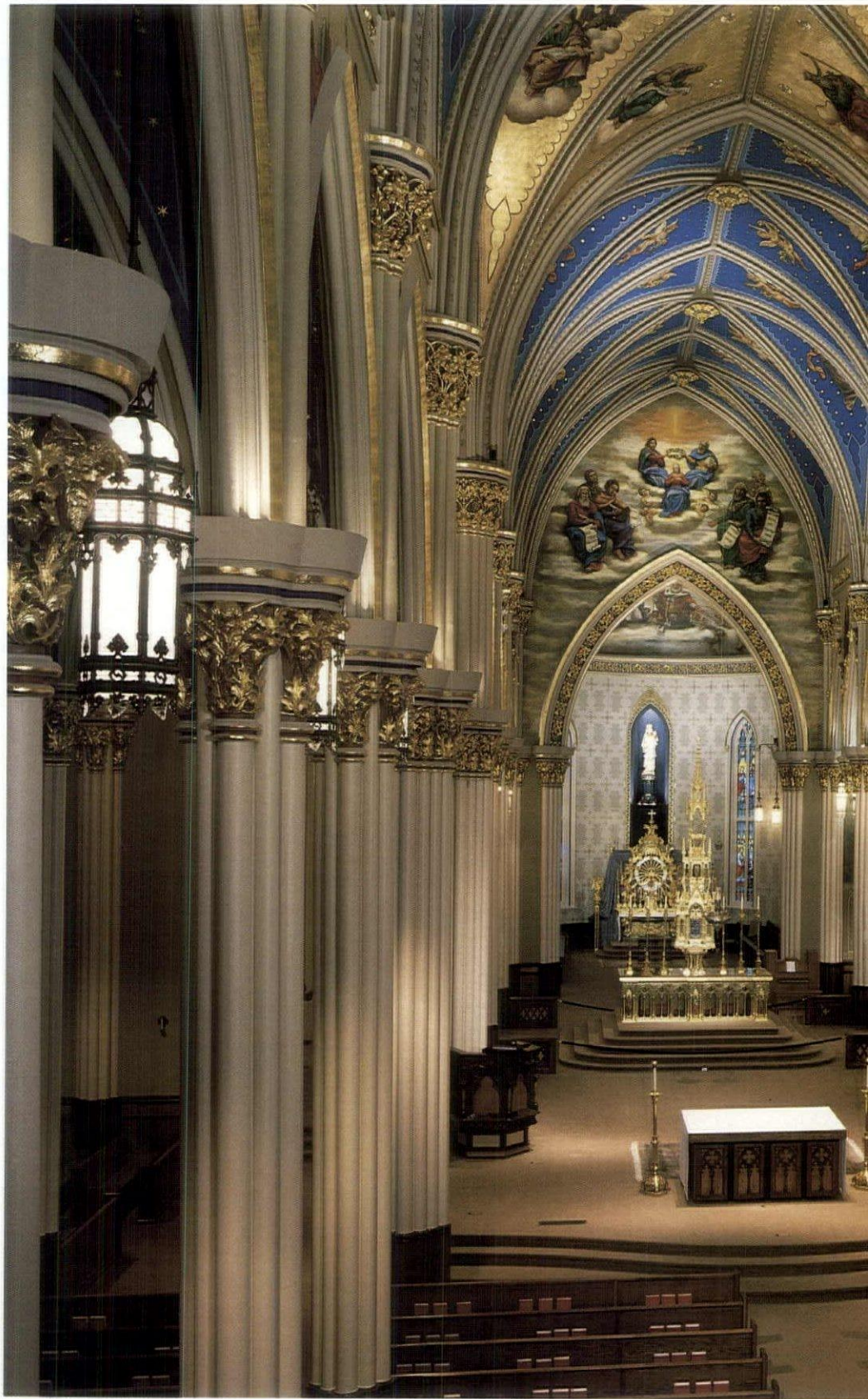


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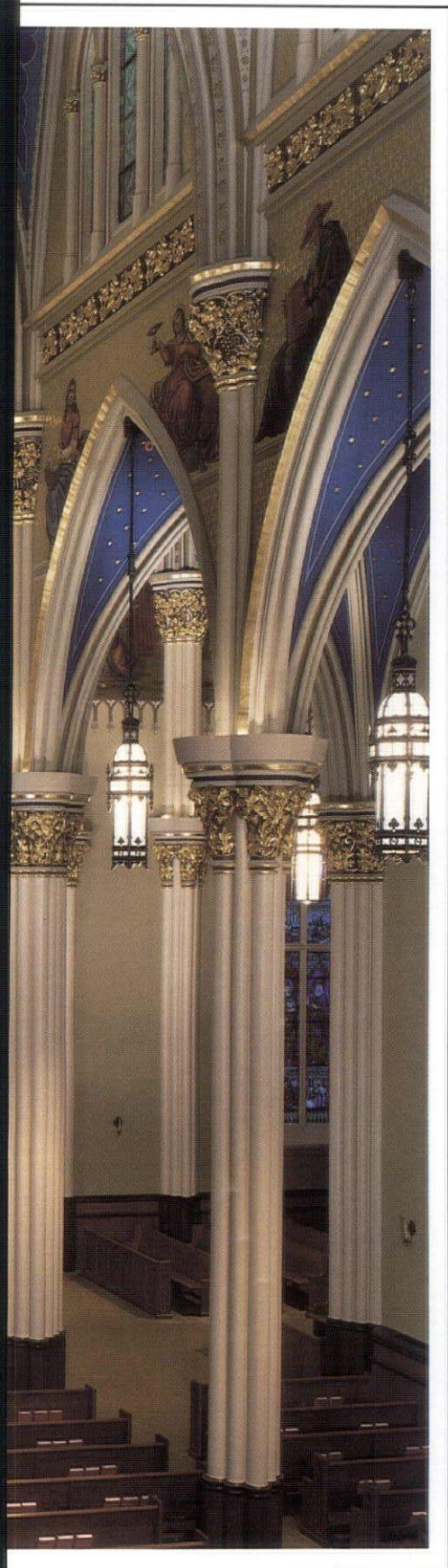
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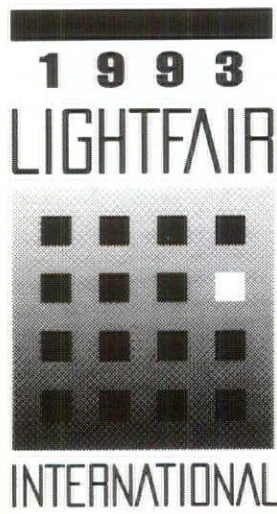
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LightFair International, to be held May 10-12, 1993 at the Moscone Center, in San Francisco, CA, is produced and managed by AMC Trade Shows and sponsored by The Illuminating Engineering Society of North America (IESNA), The International Association of Lighting Designers (IALD), Golden Gate Section, IESNA, and Western Committee, IALD. Expected attendees include architects, engineers, interior designers, lighting designers, facility managers, landscape architects, developers, contractors and other lighting specifiers.

LIGHTFAIR AND EPRI

The Electric Power Research Institute (EPRI) has taken an active role in planning and sponsoring the educational semi-

LIGHTFAIR PREVIEW

nars at LightFair International, and will be found, along with some of its member utilities, in the Exhibit Hall. The participation of EPRI signifies the importance of energy-efficient lighting to the electric utility industry. Funded through annual dues from some 600 member utilities, EPRI'S work covers a wide range of technologies related to the generation, delivery, and use of electricity, with special attention paid to cost-effectiveness and environmental concerns.

PACIFIC ENERGY CENTER

Three LightFair International seminars will be held in the Pacific Energy Center, an interactive resource facility containing a Daylighting Lab, a Lighting Mock-Up Lab, a Lighting Classroom/Demonstration Lab, and the Heliodon Station. The Center is located at 851 Howard Street, just one block from the Moscone Center. (See program for subjects, dates, and times).

MONDAY, MAY 10

7:30 A.M.-9:00 A.M.

HOW TO READ YOUR CUSTOMER'S MIND

(Free and for exhibitors only.)—Kerry L. Johnson, Ph.D., International Productivity Systems, Inc.

Discussion includes how subliminal messages influence your customer, and how people decide to buy.

9:00 A.M.-10:30 A.M.

NEW PRODUCT SHOWCASE

Mark D. Kruger, IALD, Kruger Associates, and Craig A. Roeder, IESNA, IALD, Craig A. Roeder Associates, Inc.

Featured are products introduced in the past year and submitted by exhibitors. Categories include outdoor, commercial/fluorescent, downlights, decorative fixtures, industrial/commercial, lamps/ballasts, controls/components, custom applications, software, design tools, publications, and accessories.

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

INNOVATIVE TECHNIQUES FOR LIGHTING THE CUSTOM HOME ENVIRONMENT

Julia Rezek, IALD, DLF, IESNA, Lighting Design Alliance
Unusual applications demonstrated that are possible when the lighting designer has free reign to customize a high-end home, including a review of controls, equipment, and codes.

DSM—WHAT IS IT?

Karl F. Johnson, IESNA (Moderator), Electric Power Research Institute; Don Wood, San Diego Gas & Electric; Stephen W. Lees, IALD, MIES, Horton-Lees Lighting Design; Michael Lane, IESNA, Lighting Design Lab

The panel will explain demand side management (DSM) programs, why utilities and the federal government are encourag-

ing energy conserving retrofits and new installations, and specifics on incentives, design assistance and shared savings.

2:30 P.M.-4:00 P.M.

BUILDING FLOODLIGHTING

Chip Israel, IALD, Lighting Design Alliance

Discussion of distant views, drive by/walking views and entrances to public areas, as well as aesthetics and technical requirements of floodlighting, neon, cold cathode, custom fixtures and internal crown illumination via case studies.

LIGHTING ENERGY LEGISLATION TODAY AND TOMORROW

James M. Yorgey, PE, IESNA, IEEE (Moderator), Lutron Electronics Company, Inc.; Hayden N. McKay, AIA, FIES, IALD, Hayden McKay Lighting Design; Jo Anne S. Lindsley, Synergy Consultants, Inc.; James R. Benya, IESNA, IALD, NSPE, Proven Alternatives, Inc.; Robert G. Davis, Lighting Research Center, Rensselaer Polytechnic Institute
Focus on national and state energy legislation, status of revisions to ASHRAE/IES 90.1 standard, and state activities.

4:15 P.M.-5:45 P.M.

HOW TO HIGHLIGHT YOUR FOLIAGE FROM GROUND COVER TO REDWOODS

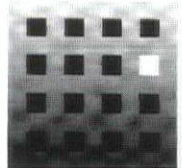
Janet Lennox Moyer, IALD, IESNA, ASID, Jan Moyer Design, Berkeley, CA

Slide presentation explores characteristics considered in choosing methods to light various types of plants, and techniques for integrating plants into lighting schemes.

ENVIRONMENTAL IMPACT OF DISPOSAL OF LAMPS AND BALLASTS

Peter A. Bleasby, NEMA (Moderator), OSRAM Corporation;

1993 LIGHTFAIR



INTERNATIONAL

John M. Chilcott, IESNA, AEE, APEM, Lighting Resources, Inc.; Elizabeth Cannon, U.S. Environmental Protection; Jim Roewer, Edison Electric Institute
The EPA's Green Lights program and the utilities' demand side management programs encourage the use of energy-efficient lamps and ballasts, but installers have no clear direction on how to treat the resultant waste material. The legal and practical aspects of this subject, at both state and federal levels, will be reviewed.

7:30 P.M.-9:00 P.M. OUTDOOR LIGHTING WORKSHOP, PART 1: PALACE OF FINE ARTS: LIGHTING AN ARCHITECTURAL MONUMENT

Ross De Alessi, IALD, Luminae Souter Lighting Design, Lighting Consultants and Designers

As an introduction to the Outdoor Lighting Workshop that follows, provided is a look at difficulties encountered working on a landmark project, including approval processes, owner-contractor relationships, and private fund raising. The slide presentation will incorporate historic book plates of the 1915 Panama-Pacific Exposition, and trace the steps that transformed it into today's masterpiece.

9:00 P.M.-10:00 P.M. OUTDOOR LIGHTING WORKSHOP, PART 2

Ross De Alessi, IALD, Luminae Souter Lighting Design; Chip Israel, IALD, Lighting Design Alliance; Janet Lennox Moyer, IALD, IESNA, ASID, Jan Moyer Design

The workshop, conducted after dark at the Palace of Fine Arts, 3601 Lyon Street, will include demonstrations of floodlighting techniques, and a tour of the building. (Shuttle available from the Marriott and Moscone beginning at 5:30 PM.)

TUESDAY, MAY 11

9:00 A.M.-10:30 A.M. THE TRUTH ABOUT ELECTRONIC BALLASTS

Hyman M. Kaplan, IESNA, IALD, CIE (Moderator), Belden, Inc.; Jim Hagar, MagneTek; Michael J. Ostaffe, AEE, IESNA, Advance Transformer Company

The panel will discuss basic operation, performance characteristics, advantages, disadvantages, availability, utility rebate qualification, recommended applications, reliability, and legislation.

THE PHYSIOLOGICAL EFFECTS OF LIGHTING

Craig Bernecker, IESNA, IALD, CIE, Penn State University;

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George Brainard, IESNA, CIE, Jefferson Medical College
A summary of valid existing knowledge of light's effects on shiftwork, jet lag, and seasonal affective disorder, reports on a joint research effort to study architectural integration of these effects, and explores the implications on lighting design.

10:45 A.M.-12:15 P.M. LIGHTING RETROFIT: PRODUCTS & PROPER APPLICATION

(Held in Pacific Energy Center)—Robert G. Davis, IESNA, CIE, IALD (Moderator), Rensselaer Polytechnic Institute; Neil P. Chamblee, IllumElex Corporation; C. Charles Occhino, CLMC, President, NALMCO, and Vice President/General Manager, Aetna Corporation; Nick Bleeker, Philips Lighting
Results to date from the National Lighting Product Information Program, including discussion of products such as electronic and hybrid ballasts, power reducers, specular reflectors, occupancy sensors, compact fluorescents, parking lot luminaires.

THE RELATIONSHIP OF LIGHTING TO ERGONOMICS

Mark S. Rea, Ph.D., FIES, and Russell P. Leslie, Lighting Research Center, Rensselaer Polytechnic Institute
The speakers will discuss the impact of daylight on productivity, people's biological needs, fatigue, and comfort levels from different perspectives, and make recommendations for the lighting design process in today's workplace. (Coffee service provided by Luxo Corporation.)

2:30 P.M.-4:00 P.M. CONTROLS: DEVICES AND SYSTEMS

James Benya, IESNA, IALD, NSPE, Proven Alternatives, Inc.

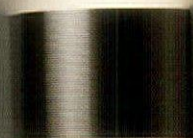
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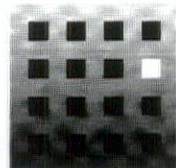
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Included is clarification between "architectural" and "energy management" controls, and the exploration of modern lighting controls in residential and commercial applications, with details on a case study of the Media City Mall in Burbank, CA.

SAFETY, SECURITY & IDENTIFICATION THRU LIGHTING

Christopher Hugh Ripman, IALD, IESNA, Ripman Lighting Consultants

After a short presentation of the psychology of light and space perception as it affects the sense of safety, security, and identification through lighting, common problem areas will be addressed.

4:15 P.M.-5:45 P.M.

LUMINAIRE EVALUATION FOR THE HOME: FOR THE RICH, THE NOT-SO-RICH, AND THE ENERGY CONSCIOUS

Stefan Graf, IALD, IESNA, Illuminart, Lighting Consultation and Design

Case studies, illustrated with slides, of residential projects from various designers are presented with explanations of memorable solutions to energy requirement problems.

POTENTIAL HARMFUL EFFECTS OF LIGHTING EQUIPMENT: RUMOR VS. REALITY

Paul Walitsky, Philips Lighting Company

Epidemiological studies on the effects of electromagnetic fields on children are reviewed, including EMF from household appliances, the proper use of halogen lamps to minimize ultraviolet exposure, and mercury in the food chain, with recommendations for proper disposal methods.

WEDNESDAY, MAY 12

9:00 A.M.-10:30 A.M.

LIGHTING FOR HIGH-TECH MANUFACTURING FACILITIES

Mitchell Kohn, IALD, IESNA (Moderator), Mitchell B. Kohn Lighting Design; John Fetters, IESNA, AEE, AT&T; John J. Kennedy, IESNA, G.E. Lighting Institute; David Komonosky, IESNA, Peerless Lighting Corporation

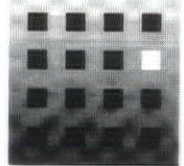
Quality imperatives, productivity, and worker health and comfort issues impact the success of manufacturing processes. The panel discusses the complicated visual requirements of today's demanding tasks, and describes innovative lighting solutions for today's high-tech manufacturing facilities.

WHY DO THEY MAKE IT THAT WAY?

(Held in Pacific Energy Center)—Henry Muller, MIES, DLF, Lightlior Inc.

The seminar covers product design/ development, the considerations that drive the selection of materials, and the processes used for producing a luminaire. Using product samples, finishes and selection criteria are discussed.

1993
LIGHTFAIR



INTERNATIONAL

9:00 A.M.-3:30 P.M.
RESIDENTIAL LIGHTING ASID CEU
COURSE NO. 6035 (.5 CEU's)

(Will break for lunch; lunch is not included.) Presented by the Designer's Lighting Forum of Los Angeles, Lesley Wheel, FIALD and Mary Lou Maneff, Co-Program Chairs—Lesley Wheel, FIALD, Wheel Gersztzoff Friedman Shankar Lighting Design Inc.; Edward Effron, IALD, Edward Effron Lighting Design; Babu Shankar, IALD, Wheel Gersztzoff Friedman Shankar Lighting Design Inc.; Craig A. Roeder, IESNA, IALD, Craig A. Roeder Associates, Inc.; Michael Souter, IALD, Luminae Souter Lighting Design; Allan Leibow, IALD, Wheel Gersztzoff Friedman Shankar Lighting Design Inc.; Sean Murphy, DLF, Sean Murphy Lighting Design

The interactive workshop will be divided into sections, with each section representing one area of a residence. Drawings of each area will be given to attendees, who will devise a lighting scheme for the space(s) within 10 minutes. Lighting designers will present their own versions of lighting for the same space(s), and open discussion will follow.

10:45 A.M.-12:15 P.M.
VDT LIGHTING: SHOULD THE LIGHT GO UP OR DOWN?

Naomi Johnson Miller, IESNA, IALD, DLF, AIA, Architectural Lighting Design and David Malman, IALD, Architectural Lighting Design

Is there a perfect solution to lighting for VDT-intensive spaces? What factors should you weigh in selecting a lighting system? What do workers prefer? Two lighting designers will face off to debate the issues and show examples of projects. (Coffee service provided by Luxo Corporation.)

HOW TO COMPARE LUMINAIRE PERFORMANCE

(Held in Pacific Energy Center.)—Randy Burkett, IALD, IESNA, Randy Burkett Lighting Design, Inc.

The goal is to provide the attendee with the tools to appraise and compare the performance characteristics of lighting equipment. Case study slides, fixture samples, table top demonstrations, and handouts are included. The designer's process for evaluating product substitutions is explored in detail.

2:30 P.M.-4:00 P.M.
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Nancy E. Clanton, IESNA, Clanton Engineering, Inc.

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Private offices located in residences, office buildings, factories, hospitals, etc. have visual needs that are complex, because activities may include computer entries, reading, and conversing. This seminar identifies the issues and assists participants in achieving successful lighting designs.

"LIGHT BEYOND FUNCTION": THE INSPIRATIONAL, EVOCATIVE, ENTERTAINING, AND EXCITING QUALITIES OF LIGHT

Pam Morris, Pam Morris Designs Exciting Lighting
This presentation uses slides and actual illuminated works to convey how light enriches our lives. Beauty must be brought into functional spaces so they will be effective from a human standpoint, not just efficient or technically correct.

SPECIAL EVENTS PROGRAM

SUNDAY, MAY 9

8:30 A.M.-9:00 A.M.

WELCOME TO SAN FRANCISCO ORIENTATION

The presentation familiarizes attendees with historical and cultural aspects of the city. COST: Complimentary

9:00 A.M.-1:00 P.M.

SAN FRANCISCO INSIDE AND OUT

City coach tour includes Golden Gate Bridge, Chinatown, Pacific Heights, Nob Hill, Cliff House, Seal Rocks, and Golden Gate Park. Buses board at the Marriott. COST: \$19 per person

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1993 LIGHTFAIR INTERNATIONAL

9:00 A.M.-4:30 P.M. NAPA VALLEY WINE TOUR

Travel to Napa Valley vineyards via bus, and tour two different wineries, sampling fine wines. Stop for lunch on one's own, with time to browse through a restored brick winery now home to shops and restaurants. COST: \$40 per person

5:00 P.M.-? A CELEBRATION OF LIGHT ON THE BAY

Sponsored by Designer's Lighting Forum (DLF) and ARCHITECTURAL LIGHTING magazine—The San Francisco Bay Area Chapter of Designer's Lighting Forum and ARCHITECTURAL LIGHTING magazine invite you to a dinner tour of San Francisco Bay aboard the elegant Hornblower fine-dining cruising ship. Afterwards, a nightcap of "Light as Art" as part of the LIGHTescapes will be hosted at the Limn Showroom. Enjoy an evening of dining, dancing, and visual delight. Roundtrip transportation from the Marriott Hotel at 5:00 p.m. sharp is included. COST: \$55 per person. Checks only, payable to DLF. **Advance registration is required by May 4.** Contact and send checks to, Catherine Overman, 38 Portsmouth Rd., Piedmont, CA 94610, 510-839-8901.

MONDAY, MAY 10

12:15 P.M.-2:15 P.M. LIGHTING EDUCATORS LUNCHEON

(851 Howard Street) Luncheon and focus group for lighting educators is hosted by, and held at the Pacific Energy Center. Discussions center around methods and tools used in lighting education in the U. S. COST: Complimentary

6:00 P.M.-7:30 P.M. EXPLORATORIUM RECEPTION

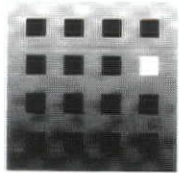
(3601 Lyon Street) Sponsored by LightFair International and Record Lighting—Displays include a kinetic light, radio wave "lightning," and Light Strokes, an exercise in "finger painting" that produces extraordinary results. Fisherman's Wharf, Chinatown, and North Beach buffets, a hosted bar and a classical music trio included. Free to LightFair International attendees and exhibitors. LightFair badge is required for admittance. Free shuttle buses depart from the Marriott and Moscone Center.

TUESDAY, MAY 11

6:30 P.M.-? IALD AWARDS RECEPTION & DINNER

(At The City Club of San Francisco, The Stock Exchange Tower, 155 Sansome Street, 10th Floor)—Join colleagues to honor outstanding achievement in lighting design. Marvel, too, at Diego Rivera's 30 foot high fresco, the collection of other art

1993
LIGHTFAIR



INTERNATIONAL

and ornate furnishings in the historic Art Deco building. COST: \$80 per person

HEADQUARTERS HOTEL is the San Francisco Marriott, 55 Fourth Street, a half-block from the Moscone Center. When registering, identify yourself as a LightFair attendee. Room rates (\$143 Single or Double) apply to weekends prior to and after the show also. Cut-off date for discounted rates is April 19, 1993. After that date, rates are subject to availability. Call (415) 896-1600.

AMERICAN AIRLINES is the official carrier. Call American Airlines at 1-800-433-1790, and ask for Starfile #S0253V7.

ALAMO RENT A CAR is the official car rental company. Special discounted rates (from \$27 to \$37 per day, or \$109 to \$209 per week) are available one week before and after LightFair, and include unlimited free mileage. Call 1-800-732-3232, provide group number 90129, and request Rate Code GR.

FOR REGISTRATION INFORMATION: LIGHTFAIR INTERNATIONAL, P.O. Box 675409, Marietta, GA 30067, Phone 1-800-841-4429. Fax 404-952-6133. VISA, AMEX OR MC credit card accepted. Deadline for pre-registration is April 15.

ON-SITE REGISTRATION HOURS: Monday, May 10 and Tuesday, May 11, 7:30 A.M.-6:00 P.M.; Wednesday, May 12:

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7:30 A.M.-3:00 P.M. (You may also register at the Pacific Energy Center prior to the seminars held there.)

EXHIBIT HALL HOURS: Monday, May 10, and Tuesday, May 11: 10:00 A.M.-6:00 P.M.; Wednesday, May 12: 10:00 A.M.-3:00 P.M.

CANCELLATION POLICY—Full refund is given if requested in writing, postmarked by April 15. No refunds after that date. Send requests to: LIGHTFAIR INTERNATIONAL, 240 Peachtree St., N.W., Suite 2200, Atlanta, GA 30303.

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continued from page 13

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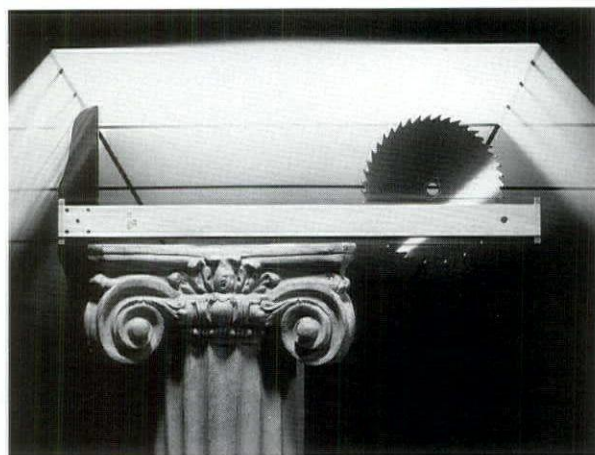
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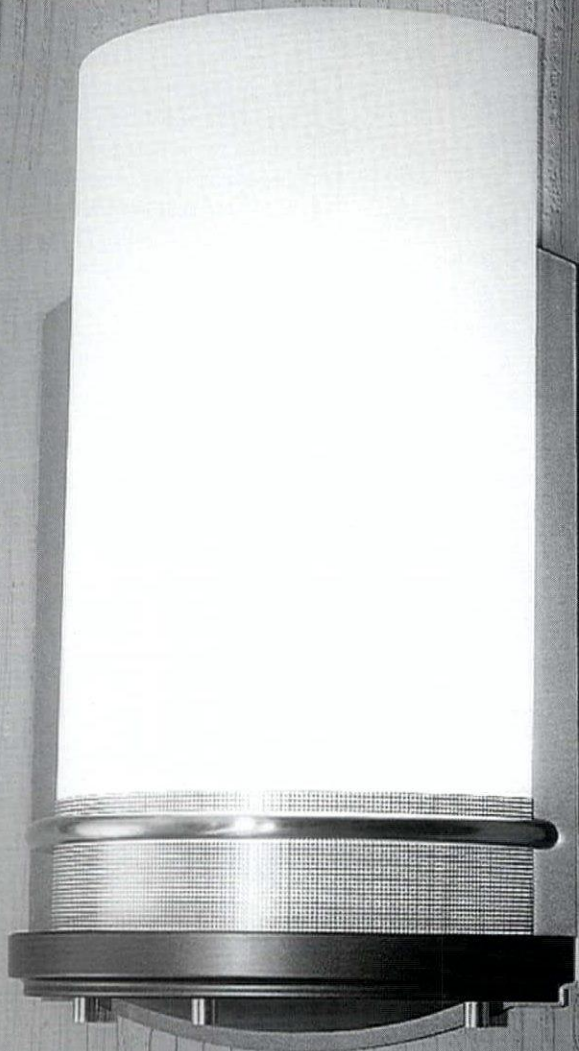
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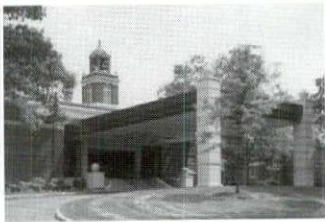
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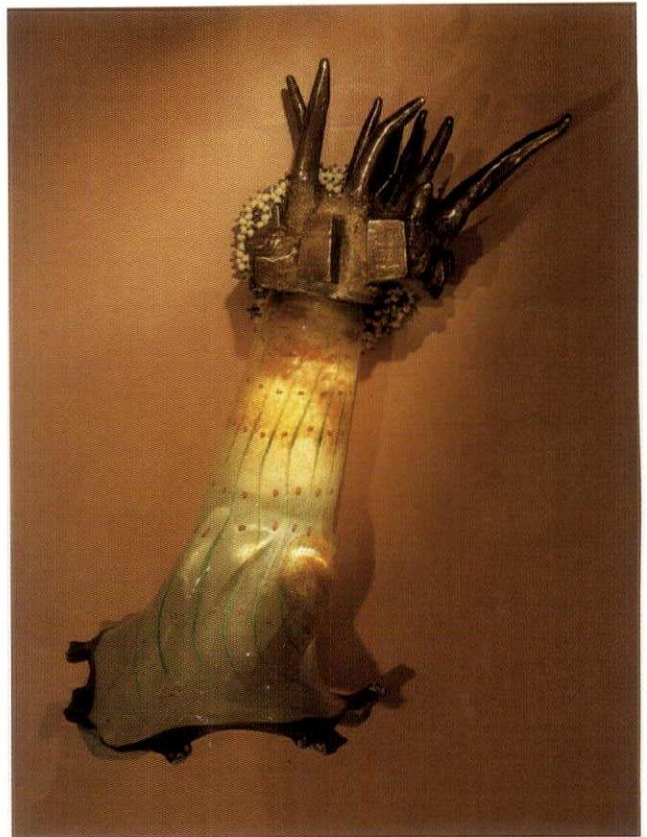
UPDATES

BAY AREA CELEBRATES THE MAGIC OF LIGHT

What began as the desire to present a seminar on light as art at a monthly meeting of San Francisco's Designer's Lighting Forum (DLF) has blossomed into a month-long plus whirlwind of exciting activities focused on the celebration of light as art by Bay area artists and designers.

How did it happen? The Designer's Lighting Forum wanted to focus on the topic of "Light as Art," and so a subcommittee was formed to plan the program that included Catherine Overman and Edward Bartholomew.

In canvassing the art and lighting design communities, Edward Bartholomew found the response to the topic energetic and profound. It was soon apparent that nothing short of a five-week show of installations and sculptures, photography, performance and lectures was warranted. Thoughtful planning resulted in the scheduling of activities to begin with the April DLF "Light As Art" presentation, and end after LightFair Inter-



"CELEBRATING LIGHT" ARTIST: Pam Morris, Exciting Lighting, has created Dancing Seapod Sconces, that depict whimsical aquanauts in jade seawater, filtered through shallow, sunlit tropical seawater. Ivory "bubbles" foam around the attachment point.

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SUNDAY, MAY 9, 1993

BEGINNING AT 5:30 P.M.

ENJOY A DINNER TOUR OF SAN FRANCISCO BAY ABOARD
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EXHIBIT AT THE LIMN SHOWROOM

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That's just one of the critical questions you'll find answered in the April Metropolis, the award-winning Urban Magazine of Architecture and Design. In a special issue dedicated to the most far-reaching innovations in lighting, top architects and designers will discuss the new concepts in lighting that will reshape building and interior design in the future. Other articles will range from an examination of the lifelong achievements of

famed Italian fixture designer Achille Castiglioni, to an exploration of the ways lighting designers illuminate—in every sense of the word—Manhattan's unique skyline.

Handsomely illustrated and packed with ideas, this special issue is a must-read for anyone involved in lighting design. Come April, it will be available at selected bookstores. But you may receive a copy absolutely free.

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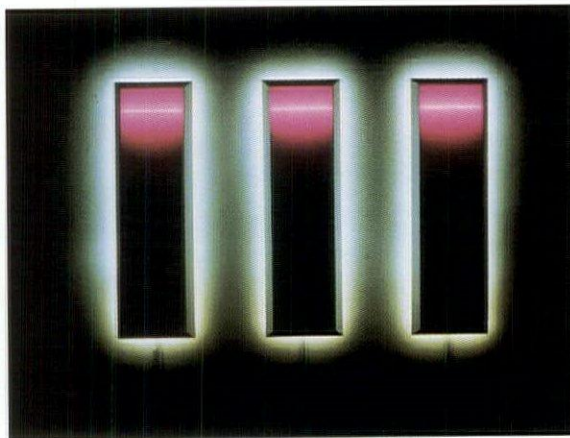


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UPDATES



"CELEBRATING LIGHT"
ARTIST: Dan Kuppe says, "My installations deal with the variable nature of lighting and our perception of space as that light changes." Shown is an untitled piece using neon and screens.

Bartholomew and Catherine Overman.

A call for artists to participate in the activities was then announced in

national, which this year is in San Francisco from May 10-12.

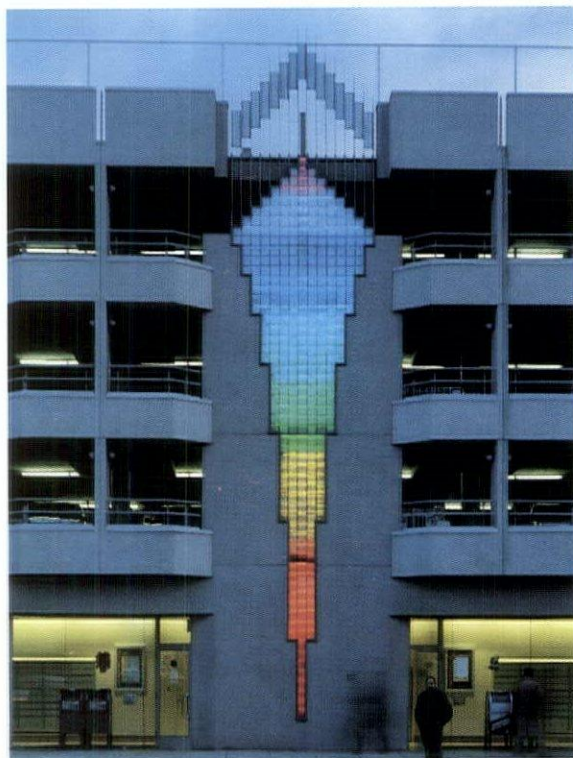
A solicitation was sent out to members of the art and lighting communities to gather a core group of people who would be interested in working toward making this ambitious project a reality. The talented professionals who were willing to commit time and effort included Caprice Carter, Pam Morris, Josie Iselin, Stephanie Johnson, Sabrina Merlo, Wade Clement, Michele Rabkin, Terry Ohm, Jim Henderson, Betty Jo Costanzo, Lee Roy Champagne, Fentress Hill, Mark Donnelley, who, along with Edward

Artweek ads, industry newsletters and via word of mouth in the arts and lighting design communities. Dan Friedlander of the Linn Gallery and Michael Christman of Opts Arts Gallery generously committed gallery spaces for exhibition events held during the five week celebration.

After much hard work and dedication, the following "Celebration Of Light As Art" events have become realities:

April 13—"Light As Art" seminar at the Exploratorium held as part of DLF's monthly meeting is a presentation of the more enchanting, evocative and artistic uses of light moderated by Pam Morris of

Exciting Lighting. Slides and videos are accompanied by discussion from a panel that includes: Dr. Leonard Schlain, author of "Art and Physics: Par-



"CELEBRATING LIGHT"
ARTIST: Lee Roy Champagne is the founder of the National Neon Institute and the creator of this architectural installation permanently located at 2200 Lombard Street in San Francisco. "Light historically in cultures has been accepted as a symbol of hope, healing, higher state of being and prosperity," says Champagne. "These are the attributes and virtues a community aspires toward. My sculptures with neon metaphorically illuminate these enlightened concepts and concerns."

"CELEBRATING LIGHT" ARTIST: Cork Marcheschi's Just Sa Poo Jin combines brilliant colors with delicacy of line. To date, Marcheschi has given 150 lectures in the U.S. and Europe dealing with light and sculpture.

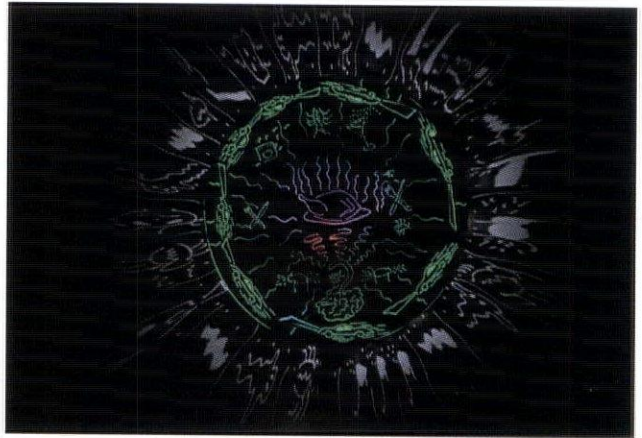
allel Visions in Space, Time & Light"; Sydney Carson, cofounder and artistic director of NightLetter Theater; Gordon Huether, Architectural Glass Design; and Barbara Dorsey, Prismatic Dispersions.

April 16—marks the grand openings of artwork exhibitions in two gallery spaces. The Limn Gallery, 290 Townsend at 4th St. in San Francisco, will feature 29 Bay area light artists working in art mediums ranging from photography and kinetic sculpture to unique lighting fixtures through May 21. Through May 19 Opts Art Gallery, 250 4th St., San Francisco, includes the works of 17 artists who have created installations specifically to alter the gallery space and transport the audience into an exciting light environment. (The Opts exhibit will also include a special section called Blue Sky Thinking: drawings, models and videos of nine artists and designers who will be presenting speculative ideas that utilize light. The long-term goal of the Blue Sky Thinking

project is to create a slide registry for these projects, which would be available to public art specifiers throughout the world.)

April 23-25—At Opts Art, LIGHT-escapes presents an evening performance by prominent Bay area performers such as NightLetter Theater, Larry Reed, respected Balinese Shadow Puppeteer, and Earl Michaels' Code Blue directed by Betty Jo Costanzo. The Augustino Dance Company also will perform in collaboration with Theresa Lahaie, a light artist who has created the sculptural Illuminated Buoys that the performers dance among.

May 9—San Francisco DLF and



Architectural Lighting magazine have organized a party for LightFair attendees and the local art and design community. Aboard the elegant Hornblower Monte Carlo cruise ship guests will enjoy not only the view of San Francisco cityscape, but a fine meal freshly prepared on board. After disembarking at Pier 33, attendees will be taken by bus to

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UPDATES

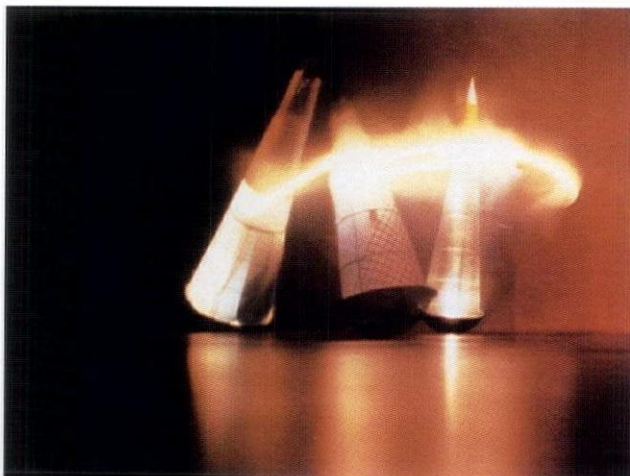
the nearby Limn Gallery for a nightcap of "Light As Art" exhibits and special events. The evening will begin at 5:00 (when buses depart the Marriott for the pier) and end about 10:00 p.m. Shuttle bus transportation is included in the \$55.00 per person ticket price.

May 10—During LightFair's opening evening at the Exploratorium, a large scale slide show will become the silent backdrop for the reception and will feature enticing images of art and light from artists whose work is showing at the LIGHTescapes exhibits.

May 12—On Wednesday afternoon, Pam Morris of Exciting Lighting will be presenting at LightFair a seminar on the topic of "Light Beyond function."

For five weeks the Bay area's attention will be focused on light in a way that has never existed before, providing a unique opportunity to stimulate the imagination of the public, as well as professional lighting and art communities. By presenting light as art, hopefully the public's perception of the quality of light and the impact it can have when utilized creatively will be increased.

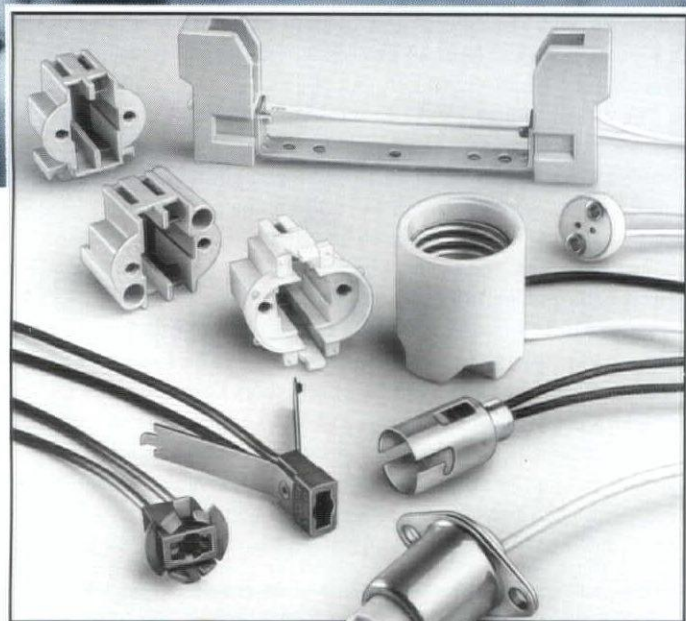
LIGHTescapes, the nonprofit organization formed to produce these events celebrating light, will continue on after the 1993 Celebration Of Light As Art in the hope of making it an annual event. Send contributions to: LIGHTescapes, 350 Townsend, Suite 300A, San Francisco, CA 94107, tel. 415-776-7376, or fax 415-543-0456. For information on DLF-sponsored events, contact Catherine Overman, 38 Portsmouth Road, Piedmont, CA 94610, Tel. 510-839-8901, fax 510-339-1034.



"CELEBRATING LIGHT" ARTIST: Therese Lahaie's Illuminated Buoys are mixed media sculptures made of nautical charts, mylar, welded steel and gels. A cell-operated light source is contained within. Viewers are invited to rock and spin the buoys and experience the intriguing changes the emitted light and sound create in the environment.

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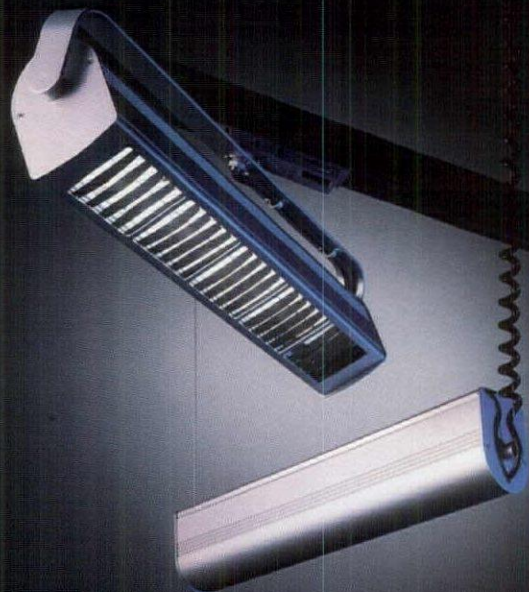
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UPDATES

FA LA LA LA LIGHTS: NEW YORK DLF EXHIBITS LIGHTED OBJECTS CONTEST ENTRIES

The Designers Lighting Forum (DLF) of New York scored a success with the DLF Student Holiday Lighting Exhibition, held December 9, 1992 through January 15, 1993 at the Parsons School of Design in New York.

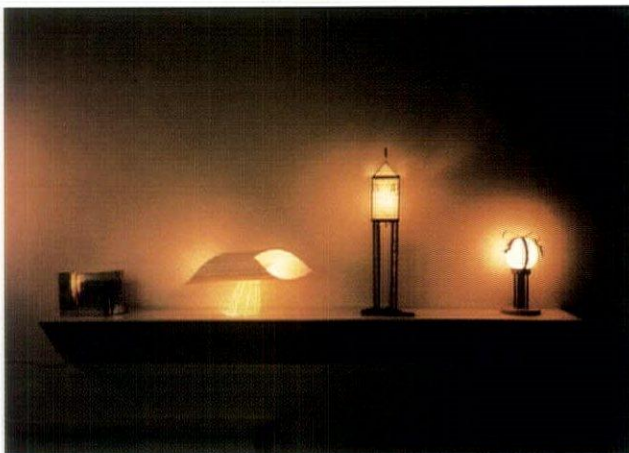
The exhibition was the culmination of the DLF-sponsored "Lighted Objects" contest. Limited only by wattage and the scope of their creativity, Metropolitan New York design students were invited to make "something" whose illumination comes from electricity, and which reflected that joyous time of year.

A total of 34 entries were received from the Fashion Institute of Technology (FIT), Pratt Institute, Parsons School of Design, the New York School of Interior Design, the New York Institute of Technology, and Trenton State. The first prize (\$500) went to "Christmas Dip" by Bari Larsen, a student at FIT; second prize (\$300) to "Silhouettes" by Monica Cohen, Trenton State; and Honorable Mentions (\$100 each) to "Star of Bethlehem" by Christopher Mountain of Parsons, "Tree Lamp" by Matthew Shultz of FIT, and "Seretler" by Paul J. DeSimone of FIT. The cash awards were donated by Edison Price, Elliptipar and Lightolier.

The judging panel: David Apfel, IALD, HTI/Space Design International; Charles Pavarini, ISID, Charles Pavarini Associates; and Richard Shaver, Edison Price Lighting Inc., were impressed with the quality of the craftsmanship and the creativity. Kudos to Maureen Farrell and Stephen Lohm for organizing the contest, and the cocktail party that accompanied the grand opening celebration for the exhibition.

This is only one example of the continuing creativity, enthusiastic spirit and dedication shown by the Designers Lighting Forum of New York. The Designers Lighting Forum of New York was founded in 1934 and is dedicated to the broader understanding of lighting principles, design and applications. For information on continuing events, and membership, contact DLF/NY, c/o Lighting Professionals, Inc., 70-K Chestnut Ridge Road, Montvale, NJ 07645.

Part of the exhibit at Parsons School of Design of entries in the student holiday lighting contest sponsored by Designers Lighting Forum of New York.



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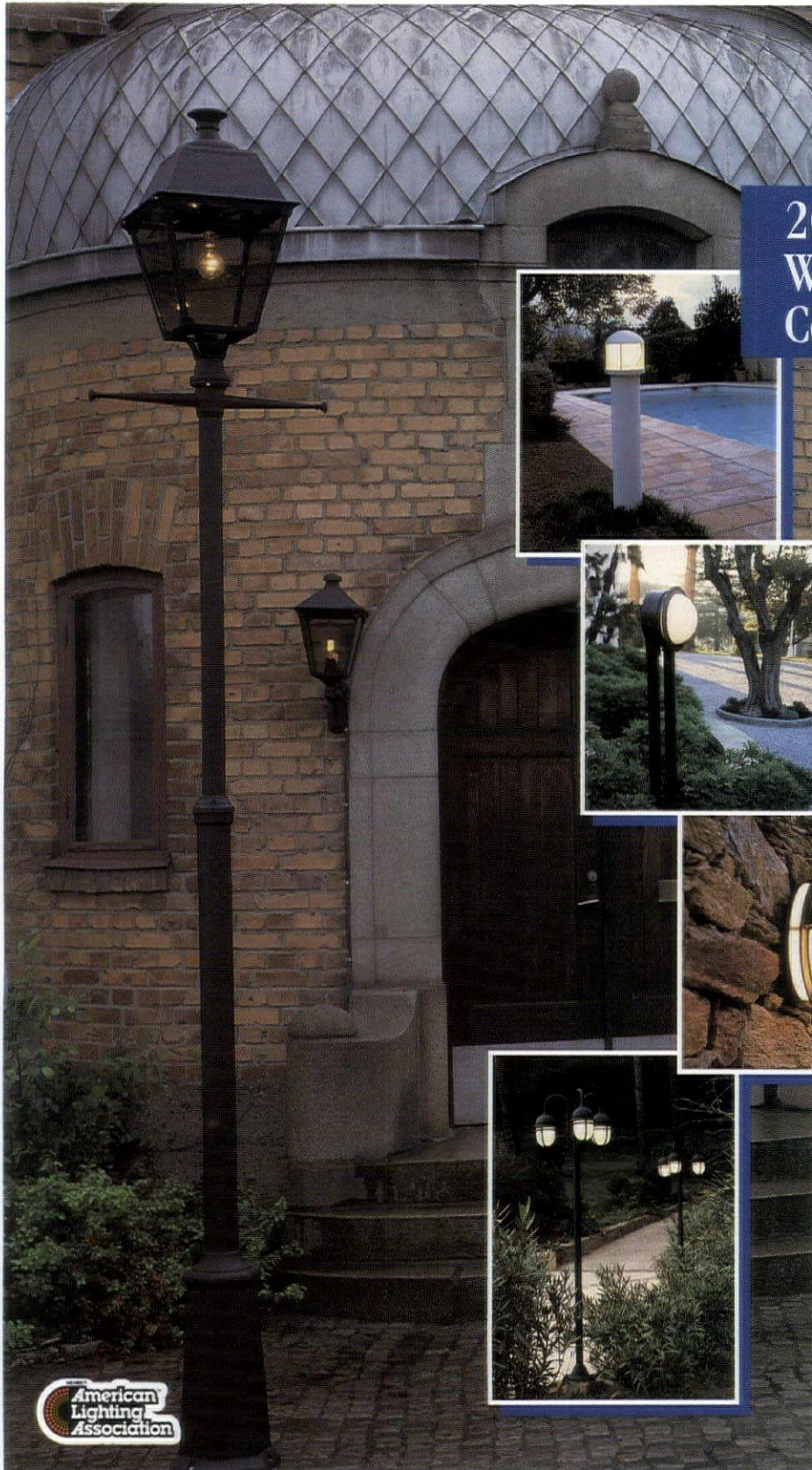
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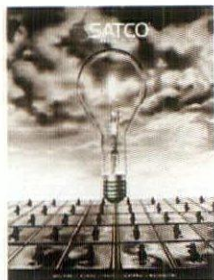
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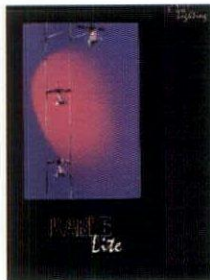
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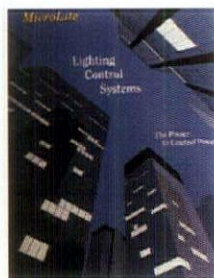
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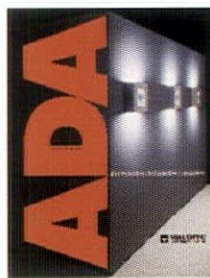
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*Shown above: Patented series of mini bollards from Lumiere.

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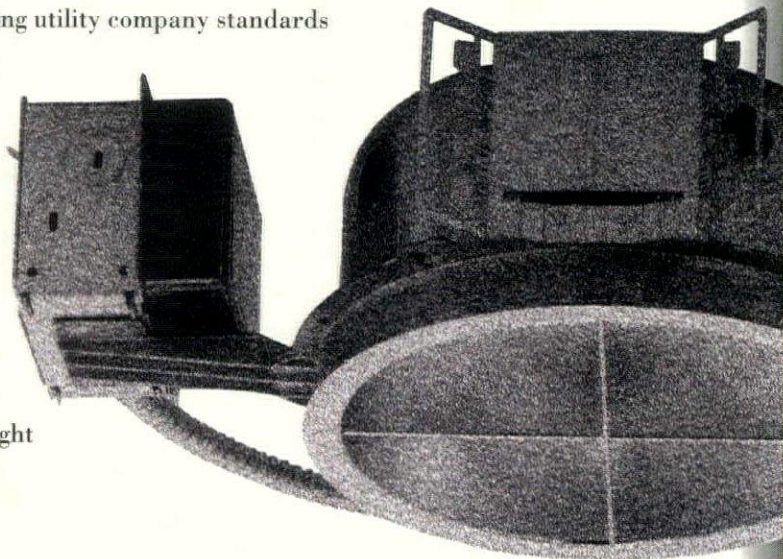
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LIGHTOLIER

**PARSONS MFA PART OF
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Starting with the 1992-1993 academic year, the Master of Fine Arts (MFA) in Architectural Lighting Design program offered at the Parsons School of Design in New York City is located in the Department of Architecture and Environmental

Design. Susan Toree is the chair of the department, and Robert Prouse is the acting director.

The MFA in Lighting is a two-year program distinguished by a core Studio sequence that is required in each of the four semesters. Other courses are offered in areas such as human factors in lighting, visual representation, technology and standards, history of lighting, illuminating engineering, luminaire design, and computer modeling.

Headquartered in the Greenwich Village campus of Parsons in lower Manhattan, the MFA in Lighting Design takes advantage of its location by drawing faculty from New York's distinguished lighting design community, as well as by providing architectural seminars from some of the leading thinkers in the field.

Students in the program have come from a variety of backgrounds including architecture, environmental design, interior design, engineering and theatre crafts. For more information, contact: Admissions Office, Parsons School of Design, 2 West 13th Street, Ground Floor, New York, NY 10011.

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Independent Testing Laboratories, Inc. (ITL) will conduct its Institute "Basics of Lighting" in Boulder, CO, from May 24-26, 1993. The three-day training course covers the basic concepts of illumination, with emphasis on the use of photometric reports in application engineering. For more information, contact: Elizabeth Karsk, Independent Testing Laboratories, 3386 Longhorn Road, Boulder, CO 80303, tel. 303-442-1255, fax 303-449-5274.

PHILIPS LIGHTING COURSES

Upcoming courses to be held at the Philips Lighting Center:

May 24-26, 1993: Lighting Application Workshop for Distributor Sales Representatives. This introductory course is open to all electrical or lighting wholesalers requiring a specialized understanding of lighting technology and application. (This is a technical lighting course; not a sales course.) Course fee: \$275

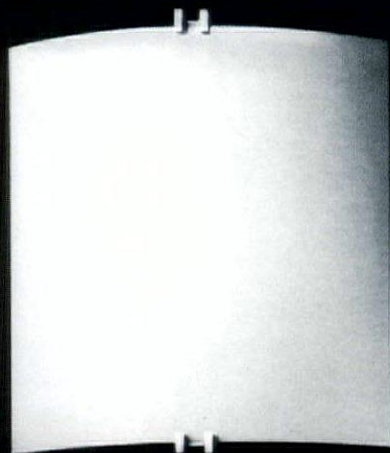
June 7-9, 1993: Lighting Conference for College & University Professors, is designed to familiarize educators with principles of interior lighting design. Applicants must submit outlines of lighting courses taught and program curricula selected. No fee.

Contact: Philips Lighting Center, 200 Franklin Square, Somerset, NJ 08875-6800, tel. 201-563-3000.

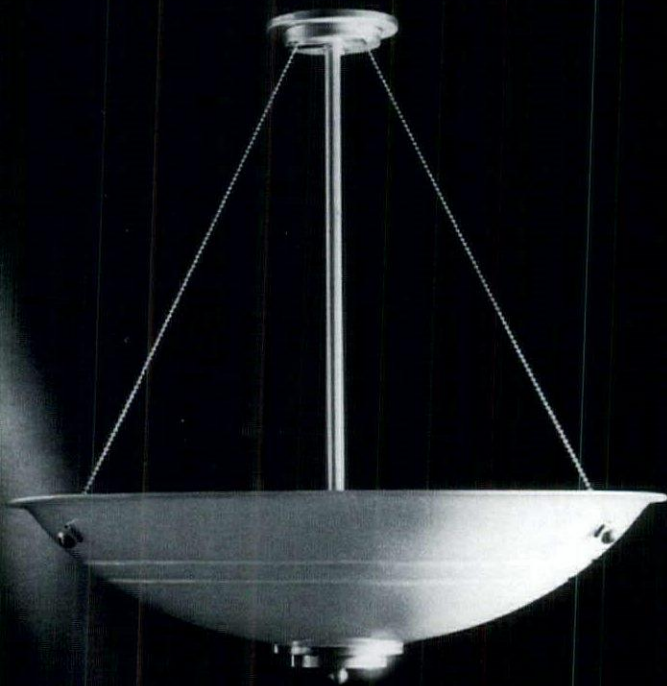
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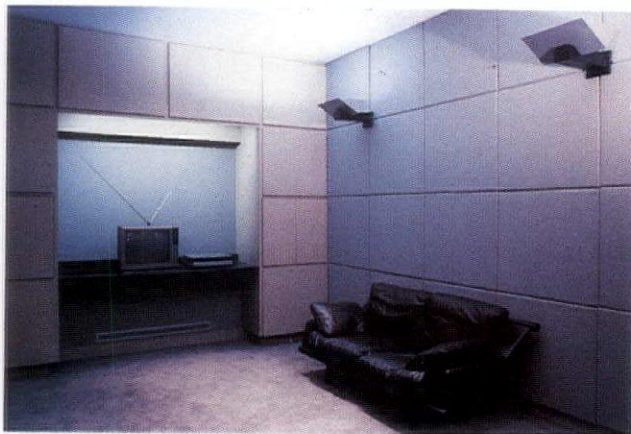


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SUBTLE SHOWCASING

PRESENTATION ROOM:
(Below) The metal halide sconces provide ambient light, quartz downlights provide task lighting and have dimming capabilities, and a linear asymmetric unit washes the alcove.



ENTER, PLEASE: (Below) The entry is marked by etched glass panels that, when grazed by light, look like sheets of light. The grid pattern is repeated in design elements throughout the office.



CHALLENGE The client, a lighting manufacturer's representative firm, didn't want the space to look like a showroom, but did want it to showcase the lines they carry and demonstrate the products in the type of atmosphere for which they might be specified. "The lighting had to first be functional for the employees, who have to work within it, and also incorporate as much product as possible without looking like a showroom. The challenge was to present diversity without chaos," says the lighting designer, Nancy Traylor, IBD, ASID.

DESIGN/TECHNICAL CONSIDERATIONS The narrow site and client's request for a passive solar heating system dictated interior spaces that were configured to provide unusual lighting opportunities. For example, though public areas for entertaining and educating the A&D community connect visually through glazed daylighting partitions, separate identities needed to be established via the lighting.

METHOD The spaces are distinguished by subtle detailing and materials combinations. A repeated rectilinear grid used on interior finishes serves also to order the lighting techniques.




Public spaces are defined by a mullioned floor-to-ceiling glazing system. Portions of the divider have an etched pattern treatment to facilitate grazing the glass for a "sheet of light" effect. Lower light levels in the lobby area move the visitor further into the offices, and draw them toward the glowing meeting room.

In the presentation space, a pair of metal halide arm-mounted sconces with asymmetric reflectors provide ambient light, small aperture quartz downlights furnish task light, and the presentation alcove is evenly washed by a fluorescent asymmetric concealed unit. The overall effect is an interplay of light and dark planes so that attention is focused on task areas by the modulated light levels. Low-voltage dimming controls are used throughout.

The building's heat is supplied by a hybrid passive solar design in which the greenhouse across the south end functions as a collector. This space also supplies daylighting to the reception and meeting areas through the glass partitions. Proper heat distribution required a high ceiling that mirrors the pitched roofline. Given the inherent drama of this space, a "statement" approach was used here for the lighting: a pair of starkly contrasting, large-scale tubes indirectly flood the ceiling with light, emphasizing its volume and angles. Low-voltage adjustable downlights in the tube can be used to accent floor displays during presentations. "Fluorescent lamps concealed within the tube and mounted laterally beside a strip of plexiglass, allow uplight to 'leak' through," says Traylor. "There are many colors of plexiglass that aren't clear enough to transmit light through and produce the kind of electric color we wanted to achieve." A mock-up of the fixture was done to insure the desired results.

Filing and storage functions built centrally into the corridor maintain the grid motif used throughout the project.

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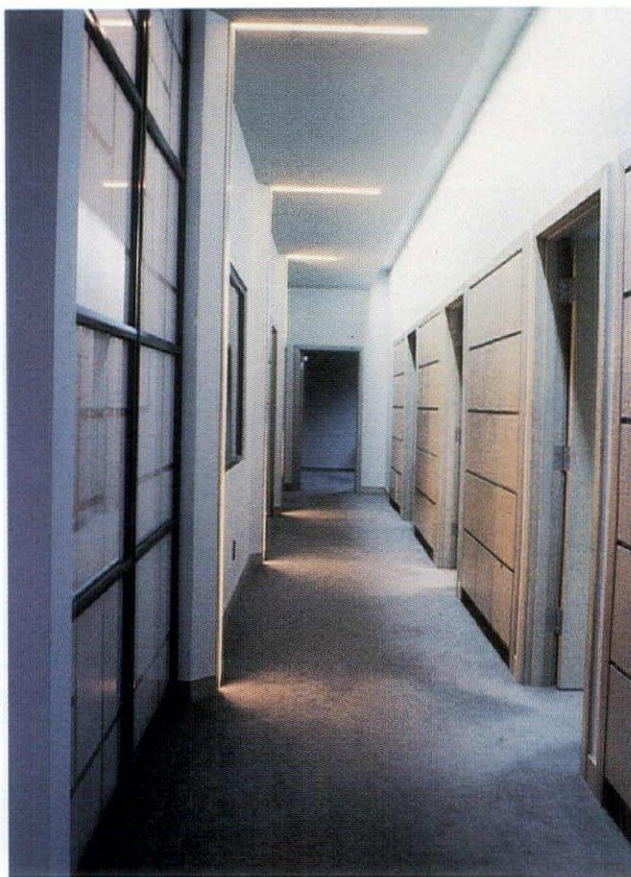
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MAKING A STATEMENT: (Above left) The striking tubular pendant fixture provides downlight from low-voltage adjustable downlights, and uplight from a fluorescent-lit plexiglass panel.

COLUMNS OF LIGHT: (Above right) Linear incandescent lamps concealed behind maple-trimmed acrylic panels produce a line of vertical light magic.



(continued from page 28)

The ceiling height is 12 feet, and achieving sufficient foot-candles at the bottom tier of the files was an important criterion. A continuous, concealed slot, asymmetric fluorescent unit washes the wall to the floor and provides indirect illumination to the hallway.

Three vertical "light columns," composed of floor-to-ceiling maple-trimmed acrylic panels that conceal linear incandescent lamps, have been positioned at regular intervals. They punctuate the even wash on the opposite wall and continue across the ceiling in a 2-inch wide recess in the sheetrock.

The building facade is detailed with smooth and rough-faced CMU, its texture grazed by uplight from flush-mounted metal halide fixtures. A small peak-roofed porch is lit with surface-mounted decorative metal halide units to define the entry. The porch's form echoes the gable elevation, whose south-facing end is darkly glazed to the peak to absorb the sun's rays.

CONCLUSION The project has received an Honorable Mention in the Lighting Division of the 1992 Best Buildings Contest sponsored by the *New Mexico Business Journal*.

DETAILS

PROJECT: LEIKER-MILLIGAN PARTNERSHIP

LOCATION: ALBUQUERQUE, NM

ARCHITECT: FANNING/BARD/LARSEN

LIGHTING DESIGNER: NANCY TRAYLOR, IBD, ASID

PHOTOGRAPHER: RICHARD I. MILLER

LIGHTING MANUFACTURERS: KURT VERSEN, ELLIPTIPAR, GARDCO, BEGA, LITETOUCH

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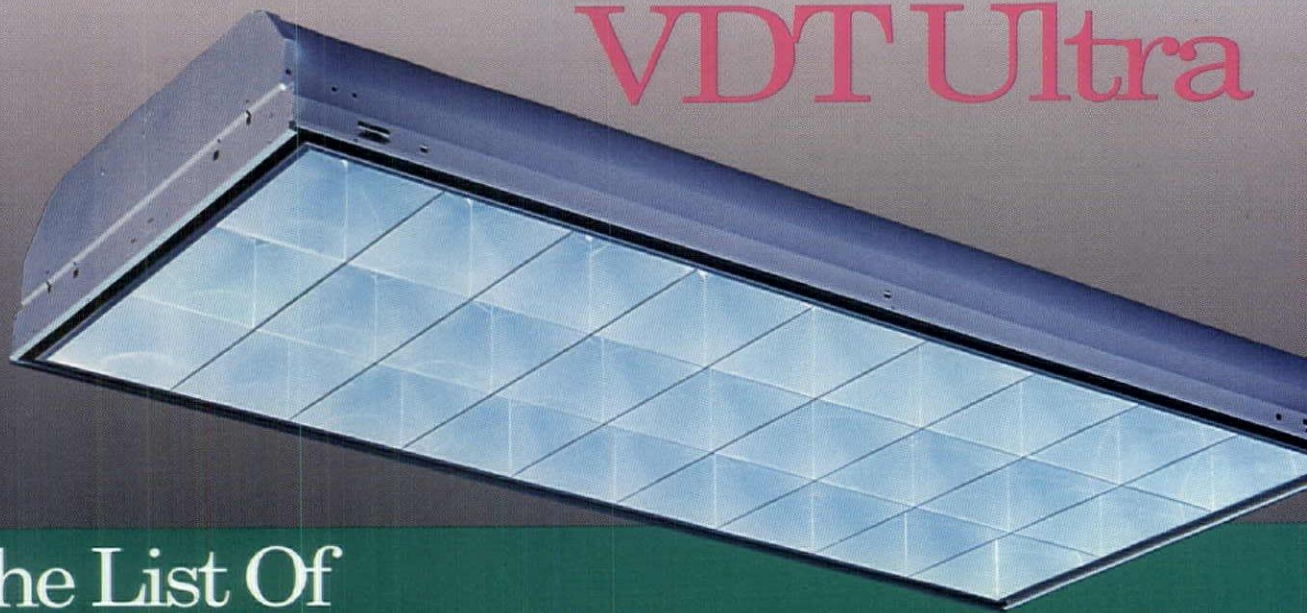
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LEGISLATIVE TRENDS IN ENERGY: POLICY OR POLITICS?

BY GARY K. MARKOWITZ, MIES

The changing of the guard in Washington, D.C. has been far from uneventful. Aside from troop commitments in Somalia, the bumpy ride of the Middle East peace talks, and the peaceful humanitarian involvement of the U.S. in the Baltic republics conflict, with the passing of the baton from the Republican Party to the Democrats came a general release of pent-up optimism for the future of the country. Two months later, we are discussing the reapplication and redirection of the defense industry brain trust into the area of saving the earth: preserving our environment and our natural unrenowned resources.

With the help of federal funding, environmental legislation is already undoing many of the travesties we've committed against the earth. Perhaps the most important legislation to come from Washington, D.C. in some time that has the "teeth" to really make a difference in both the environment and in our country's energy security, is the much-heralded Energy Policy Act of 1992.

This concise and effective piece of legislation directs the Department of Energy to embark upon a mission of aiding the public sector (commercial, industrial and residential) and federal agencies in the reduction of energy consumption. Specific goals have been set by the federal government, including energy reductions that must be in place by the year 1995. These reductions insure a minimum reduction in utilization of 10 percent over a base year's statistics (1985 as the base year). This legislation further states that federal facilities shall further this conservation effort by reducing their consumption by a total of 20 percent by the year 2000.

The former Secretary of Energy, James D. Watkins, called this legislation the "most comprehensive and balanced energy legislation ever enacted....It will bring new jobs, greater energy security, and a cleaner environment." According to the official newsletter of the Department of Energy, "FEMP FOCUS," the Energy Policy Act of 1992 has the potential to reduce the level of oil imports by 4.7 million barrels per day by the year 2010. FEMP FOCUS continues to project the impact of this legislation with a potential savings to consumers of up to \$250 billion (1990 dollars) over the next 15 years, and renewable energy

resources will increase by 20 percent with a 50 percent increase in the use of alternative fuels.

The legislation includes specific sections on the establishment of a task force to oversee the implementation of the legislation, and the formation of regional technology transfer centers, with some federal funding available. The legislation also commissions a study to report to Congress on the feasibility of providing financial incentives for specific projects through a revolving type of fund. Although the Energy Policy Act is far-reaching into several areas of resource conservation, this article examines the impact that this legislation has upon the lighting design community.

The Energy Policy Act of 1992 affects the lighting design community through direct changes in the minimum efficiencies for lamp/ballast combinations, and in incandescent efficacy. The specifics are fairly straightforward: low efficacy fluorescent lamps will become illegal to manufacture and apply (once stores of lesser efficiency lamps are depleted) in general purpose lighting, within the specified period, for each type of lamp (pursuant to the date of enactment of the Energy Policy Act). (See **Tables 1 and 2.**)

A FLY IN THE OINTMENT?

The initiative to invest in energy conservation has always been based upon the factors of return on the initial investment (ROI), utility-based financial contributions to the projects, and a deep-seated conscience. Regardless of which reasons one has

used to justify investment in energy conservation, for most companies and individuals, the ROI and utility "carrots" have been the primary stimuli.

For over 10 years, the concept of demand side management has yielded a win-win situation for both the utility and the customer. The ROI also has been a helpful impetus in the expenditure of capital

funding for energy improvements. Energy conservation has flourished due to the overwhelming benefits. The future of energy conservation lies in the hands of the Clinton administration.

The Clinton administration is struggling with the reality of an immense, underestimated budgetary deficit compounded by 12 years of Republican rule. The realization of how serious the

TABLE 1. ENERGY POLICY ACT REQUIREMENTS FOR FLUORESCENT LAMPS

Lamp Type	Rated Wattage	Minimum CRI	Minimum Lamp Efficacy (Lumens Per Watt)	Effective Date (Months)
4 ft. medium bipin	>35	69	<75	36
4 ft. medium bipin	<35	45	<75	36
2 ft. U shaped	>35	69	<68	36
2 ft. U shaped	<35	45	<64	36
8 ft. slimline	65	69	<80	18
8 ft. slimline	<65	45	<80	18
8 ft. high output	>100	69	<80	18
8 ft. high output	<100	45	<80	18

problem is has resulted in a mad rush to remedy the situation through cuts in the budget and an attack upon the life-blood of an economy that has yet to prove that the economic recovery has arrived.

Despite the country's optimism for the change in leadership, there, in the dark shadows of the potentially bright future, lurks an assassin...the proposed Energy Tax. This tax holds only one promise: to stymie economic growth of industry, and impose a domino effect furthering unemployment and churning up the seas of uncertainty.

The National Association of Manufacturers' newsletter, "NAM Briefing," in the February 22, 1993 issue (Volume 18, Number 3) quotes NAM president Jerry Jasinoski as saying, "The reality is that the energy tax [according to NAM econometric analysis] will raise prices [1.3 percent], slow growth [2.3 percent], and reduce employment [by 1.8 million jobs]."

COMMENTARY

We cannot afford a broad-based energy tax that will only serve to make the United States lose its competitive edge, cause more pain for the American peo-

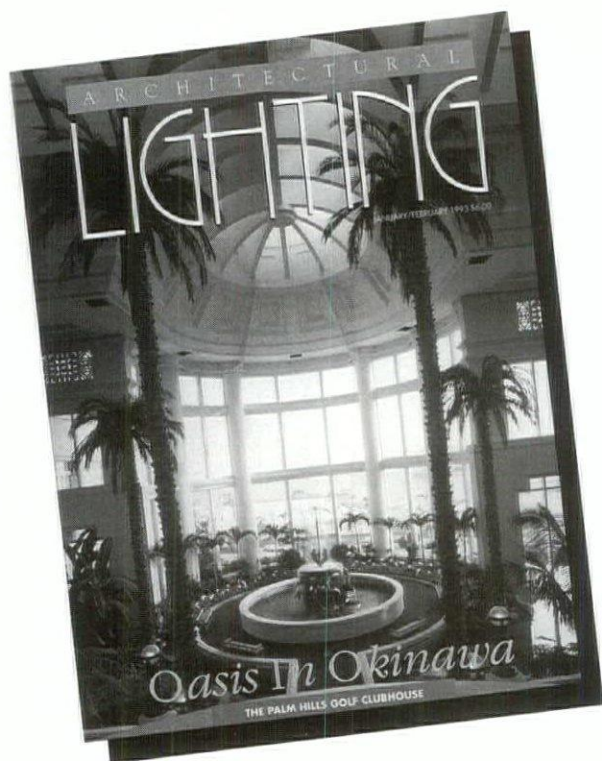
ple, and increase the sense of insecurity for the future. In this author's opinion, it truly is unfortunate that the Clinton administration has decided to pursue this avenue.

The answers to our economic mess are not down this avenue. Perhaps if the government would improve their own energy efficiency, there would be less of a need to impose the financial burden on the public sector. As a technical resource, the Energy Policy Act is an excellent blueprint for the government to invest in energy conservation, take advantage of utility incentives, and reap the financial benefits of a more efficient operation.

Gary Markowitz is with Raytheon Company, Missile Systems Laboratories, Tewksbury, MA, and is a member of the ARCHITECTURAL LIGHTING Editorial Advisory Board. Opinions expressed in this column are those of the author and do not necessarily reflect the views of ARCHITECTURAL LIGHTING, but readers' viewpoints and reactions are welcome. Write to: Editor, Architectural Lighting, Miller Freeman Inc., 1515 Broadway, NY, NY 10036.

TABLE 2. ENERGY POLICY ACT REQUIREMENTS, INCANDESCENT REFLECTOR LAMPS

Lamp Wattage Nominal	Minimum Average Lamp Efficacy (Lumens/Watt)	Effective Date (Months)
40-50	10.5	36
51-66	11.0	36
67-85	12.5	36
86-115	14.0	36
116-155	14.5	36
156-205	15.0	36



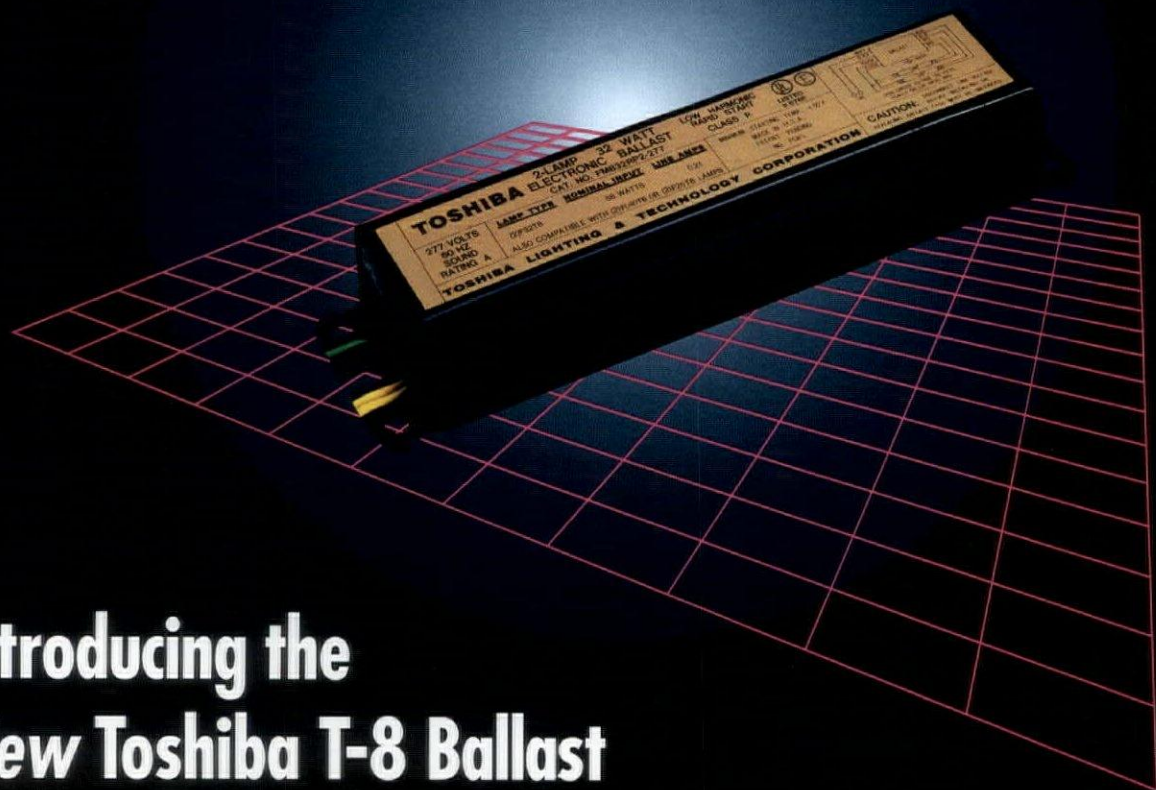
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UNITY & DIVERSITY

All of us experience unity and diversity in many ways in our lives—a family lives and grows together, yet each member plays out a different role within it. The same is true in our work lives. All of us share the common goal of making a living in the lighting field—an industry filled with fragments and pockets of specialized interests and expertise.

Architectural Lighting experiences unity in a special sense. As part of the Commercial Design Network—we're approaching our second year anniversary—we draw for management, marketing and sales support from the same, stable bank of experts that guide our sister publications, *Contract Design* and *Facilities Design & Management*. This unified Network is pleased to bear fruit this month in the form of the "Lighting Product Guide," featured on pages 73-76. The Guide will also be appearing in the May issues of *Contract Design* and *Facilities Design & Management*.

This month's *Architectural Lighting* is also a direct reflection of the multi-faceted industry we serve. Our "Energy Watch" columnist, Gary Markowitz, presents up-to-date details on the specific new lamp requirements established in the 1992 Energy Policy Act. The sophisticated San Francisco residence that kicks off the special section on Residential & Decorative Lighting has an energy-conscious lighting system that enhances the subtle beauty of the interior design as well.

Lighting designer, Corinne Strumpf, IALD, shares insights drawn from her own experience and backed up by real-world data in the article on "Guidelines For Specifying Low-Voltage Lighting."

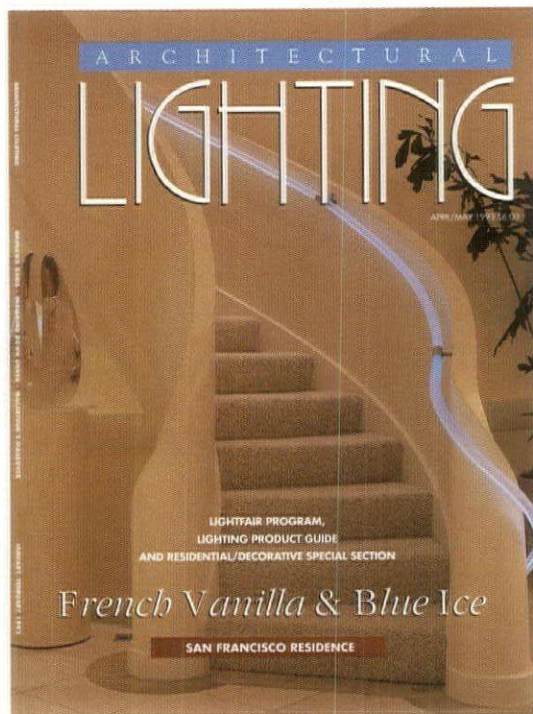
The intriguing concept of "Architecture As Decorative Luminaire" is explored in depth by lighting consultant, Mark D. Kruger, whose research on the history and craftsmanship of decorative luminaires is extensive.

The design features include two restaurant applications with completely different rationales and styles—Bacchus in New York designed by Robert Singer, and the Silver Diner in Towson, MD, designed by Charles Morris Mount. For those interested in outdoor lighting, Edward J. Stone & Associates shares how the lighting has helped to revitalize the riverfront area in Fort Lauderdale, FL.

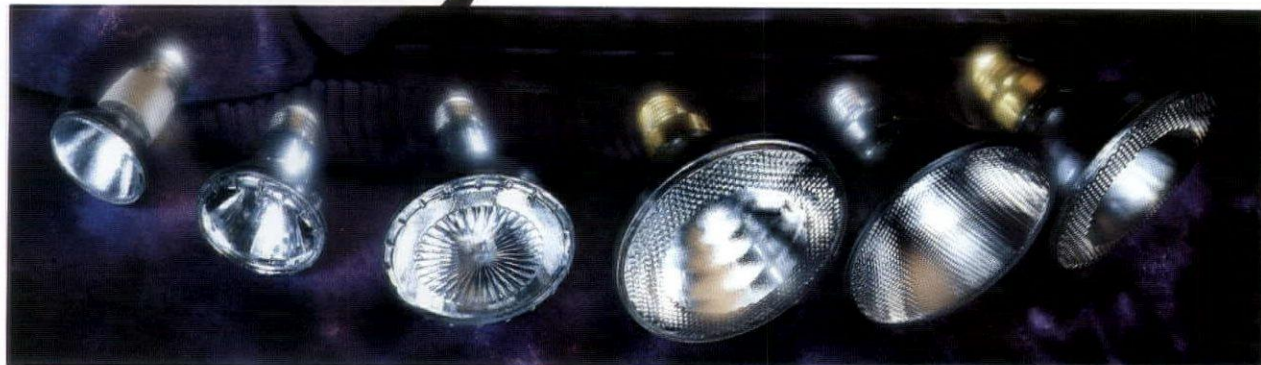
Many of you will come together in the unified cause of learning more about the state-of-the-industry at LightFair International, which runs from May 10-12 at the Moscone Center in San Francisco. Included in this issue is not only the LightFair program, but a behind-the-scenes look at how a month-long-plus celebration of "Light As Art" that includes several LightFair events, began and developed through the dedication and enthusiasm of the Designers Lighting Forum of San Francisco. *Architectural Lighting* is proud to be a cosponsor with the Designers Lighting Forum of a dinner cruise aboard the Hornblower on Sunday evening, May 9th (see the LightFair Program, or the notice on page 16 for details—reservations required by May 4th!)

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WANDA JANKOWSKI
EDITOR-IN-CHIEF



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THIS TWIN PEAKS RESIDENCE GAINS SUBTLE SOPHISTICATION FROM A LIGHTING SYSTEM THAT COMBINES LOW AND LINE VOLTAGE FIXTURES

BY RANDALL WHITEHEAD, IALD, ASID



STRIKING SKY-LIGHT: (Left) Xenon concealed in the ceiling stepped detail provides ambient illumination for the living room. Tables and fireplace are highlighted with MR 16s.

STREAK OF COLOR: (Right)
The handrail is illuminated with fiberoptics housed in acrylic tubing. The color wheel in the illuminator, concealed in a nearby closet, can rotate to continuously change color or remain stationary.



One of the joys of being a member of a design team is seeing the intangible meeting of minds in collaboration transform a project into a concrete reality that is different from and better than the original concept. A simple plywood box is what Dr. Shelton Powers' residence in the Twin Peaks area of San Francisco residence started out to be. But architect Sid DelMar Leach, and interior designer Lawrence Masnada, in collaboration with the lighting design team from Light Source headed by Catherine Ng, have been favored with the opportunity to mold it into a subtle, sophisticated living space.

In spite of budget constraints, every effort was made to use materials that offered the best end-effect at the most reasonable cost. The key to the lighting design was the careful integration of the lighting into the architectural detailing with a combination of low- and line-voltage elements.

Low-voltage enables a very compact light source to be used, and a great variety of beam-spreads not available in line voltage. Fill light or ambient illumination is best provided from a line-voltage source, either incandescent, fluorescent, or

high-intensity discharge (HID). By combining the two, a greater sense of depth and dimension can be achieved in interior or exterior environments.

ENTRY STAIRCASE

The entry stands out as the most sensual part of the house. A subtly illuminated acrylic handrail snakes its way up to the second floor level. The challenge had been to create even illumination along the rail. After much experimentation with prototype samples, the acrylic rail form was sand-blasted and a 5/8 inch diameter channel routed on the underside.

A recently introduced compact bundle of fiber-optics wrapped in a frosted sleeve has been installed in the channel. The 30-foot length of fiber-optic is fed back to a high lumen output metal halide source, from both ends.

The illuminator is concealed in a closet to the left of the bottom of the staircase. There is a color wheel included in the illuminator that can continuously rotate blue, pink red, green, and yellow, or remain stationary at a particular color. The pale blue color shown acts as a visual sorbet against



HUMLESS DINING:
(Above) The thicker glass envelopes of the A19 rough service lamps in the sconces reduce filament hum when the fixtures are dimmed.

the luscious French vanilla interiors. The switching for the handrail illumination is part of the overall master control system.

LIVING ROOM

In the living room, a unique reverse step detail has been created around the skylight in the 16 foot high ceiling and fitted with linear xenon to provide a soft fill light for the space, without causing lamp imaging in the skylight. The xenon source has been chosen because of its long lamp life—a rated 15,000 hours—which will keep maintenance to a minimum, since this is not an easy space to access.

Also, the lamps go up to 10 watts each, which allows for more than just a glow of illumination, and by dimming the system slightly, the lamp life is further increased.

A minimum of energy-efficient, recessed, adjustable low-voltage fixtures have been installed in the living room so that the clean ceiling lines remain as undisturbed as possible. In addition to the recessed adjustable fixture by the fireplace, three additional fixtures have been installed—one over the glass top table, and one for each of the kidney-shaped coffee tables.

The fixtures have been located to match the layout of the furniture and art, but in a modified grid pattern so that they bear a visual relationship to each other on the ceiling. These fixtures, which have a 358 degree rotation and a 45 degree tilt, give the homeowner the ability to move art and furniture, and still illuminate them in their new positions. The fixtures designated for spotting are fitted with 20-watt MR 16 lamps to further cut energy consumption. Custom honeycomb louvers have been added to

help eliminate glare.

Each of the four rounded corners of the room holds a specially selected opaque dish torchiere, tied into the master dimming/switching system. They have been incorporated into the design to add indirect illumination to soften facial shadows on occupants, that can be caused by the overhead illumination, without overpowering the blend of architecture and interior design.

System integrated plant lights cast leafy shadow patterns on the ceiling and add texture to this warm inviting environment. These fixtures are fitted with color-corrected filters to enhance the green tones of the foliage.

DINING ROOM

In the dining room area, a floating soffit has been designed to mirror the shape of the table. Low-voltage linear lighting shows off the curve of the soffit, while recessed adjustable fixtures cross-illuminate the table-top, and add punch to the art and the bromeliads.

The recessed adjustable fixtures use 20-watt MR 16 lamps. The rectangular wall washers use a 20-watt tungsten halogen lamp.

The alabaster wall sconces have been chosen because of their textural and translucent qualities, as well as for their reasonable price. They provide sparkle in the room without overpowering the space and are fitted with 40-watt A19 rough service lamps. These are longer life lamps, as compared to standard household incandescents, and the thicker glass envelope reduces filament hum when dimming, which is common with standard household lamps.

A laminated relamping chart has been posted in the storage area for the convenience of the client.

Mr. Whitehead is principal of Light Source in San Francisco, CA, and a member of ARCHITECTURAL LIGHTING's Editorial Advisory Board.

DETAILS

PROJECT: TWIN PEAKS, SAN FRANCISCO, RESIDENCE

OWNER: DR. SHELTON POWERS

ARCHITECT: SID DELMAR LEACH

INTERIOR DESIGNER: LAWRENCE MASNADA

LIGHTING DESIGNER: CATHERINE NG and RANDALL WHITEHEAD, IALD, LIGHT SOURCE

CONTRACTOR: CALIFORNIA DESIGN AND CONSTRUCTION

PHOTOGRAPHER: KENNETH RICE

LIGHTING MANUFACTURERS: HALO and CSL: recessed downlights, STARFIRE: xenon, FIBERSTARS: handrail fiberoptic system; BOYD and NOVA: decorative fixtures, LUTRON: dimming system

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GUIDELINES FOR SPECIFYING LOW-VOLTAGE LIGHTING

BY CORINNE STRUMPF

Although traditional uses of incandescent sources are being supplemented by the ever-increasing variety of more efficient lamps, the visual brilliance and warmth generated by this endangered species is still very attractive. As the variety of accent lighting choices have proliferated in the line voltage and low-voltage lamp lines, one of the most confusing issues has become when to use which. (Though this article is included in a residential/decorative section, low-voltage usage has proliferated not only in high-end residential, but commercial and retail applications as well, and observations made here are relevant for those areas as well.)

BIG POOLS & LOLLIPOPS

Throughout the evolution of lighting design tools, products and approaches, the predominant trends exhibited by interior projects have been closely mirrored by usages for exterior and landscape lighting projects. From the time of Edison to the mid-point of the 20th century, interiors were lit by the 'Big Pool' theory of overlapping splashes and globs of light from line-voltage luminaires.

Globes, chandeliers and early recessed fixtures were designed around the diffuse patterns of the A-lamp and R-lamp sources. "Lollipops" were the most prevalent exterior site lighting instruments. Large globes glaring against the night sky dotted pedestrian walks and parking lots. Landscape applications were limited to high-budget and high-profile commercial projects because of the expense and complexity of running 120-volt lines and fixtures in accordance with prevailing electrical codes.

Low-voltage lighting, "the Battery's Child," began to be developed during World War II in response to the military's demand for miniaturized sources for transportation which could be supplied by portable reduced voltage power, for example, batteries. It was discovered that the lower the voltage, the higher the amperage, the thicker the filament wire that could be used, the smaller the filament package, and the more precisely it could be controlled, concurrently producing more light on the target per watt consumed.

In more recent years, the technology of low-voltage

lighting instruments became more universally applicable, pioneered by manufacturers such as Harry Gitlin, Lighting Services, Norbert Belfer, Edison Price, et. al. Interior lighting techniques became more sophisticated as designers borrowed and adapted 6- and 12-volt sources capable of producing "Little Pools" of high-intensity controllable accent light from the entertainment and display disciplines, and began to use them in merchandise, commercial, hospitality and residential applications. The compact filament and base configurations led to miniaturization and to the development of low-voltage lamps presented in a linear format for use in confined spaces, such as under shelves, under steps and in coves.

The reduced sizes of lamps, such as PAR 36, MR 16, MR 11, AR 70 and AR 111 for interior and exterior applications led to streamlined housings, and furnished designers with the ability to produce multiple highlighted points from luminaires clustered and concealed in small, unobtrusive areas. The illuminated object became the focal point, and was not overwhelmed by the source of illumination. The ability to remotely locate a large transformer capable of supplying multiple heads or long runs of linear sources further reduces the intrusion of lighting hardware.

The ability to manipulate the secondary voltage supplied by the transformers to the lamps created a lighting component with an extendable life expectancy and greatly enhanced maintenance characteristics. Transformers supplying voltage slightly below the design voltage of the lamps could be incorporated into systems producing rated average lamp life of 40,000+ hours, a major advantage in installations designed for inaccessible locations.

Numerous 12-volt systems have been developed for garden and landscape lighting spurred by the greatly reduced first cost, cost of installation, and enhanced safety inherent in the low-voltage systems—with surface runs of cable up to 100 feet long. Compact, inexpensive and safe sources are available for luminaires designed to gently outline walkways with softly glowing pools or points of light, or to highlight specimen plantings. Nightscaping, Hadco, Lumiere, Kim and B.K. Lighting, et. al, produce extensive lines exploring the potential of these sources.

With the advent of line-voltage PAR lamps that incorporate halogen technology in a wide range of beamspreads, the choices between low-volt-

LAMP COMPARISONS OF WATTAGE, VOLTAGE, DISTRIBUTION, INTENSITY AND LIFE

Lamp Wattage & Type	Beam Angle	CBCP	Volt	Hours
20AR70	10	7000	12	2000
35MR16/Q/NSP/P	10	8000	12	4000
35MR16/Q/NSP/PRO	12	7600	12	3000
50AR70	10	15000	12	2000
50AR111	10	20000	12	2000
75PAR16/CAP/SP	12	7500	120	3000
65MR16/Q/NSP	14	11500	12	4000
90PAR28/CAP/SP	15	11300	120	2500
20AR70/FL	30	1000	12	2000
36PAR36/CAP/WFL	30	1250	12	4000
50PAR20/CAP/NFL	32	1250	120	2000
55PAR16/CAP/NFL	30	1300	120	2000
50AR70/FL	30	2000	12	2000
50AR111/FL	30	3000	12	2000
75PAR16/CAP/NFL	30	2000	120	2000
72PAR38/CAP/FL	30	4000	120	2500
90PAR38/CAP/FL	30	4000	120	2500
50MR16/QFL	45	1150	12	4000
50PAR30/CAP/FL	42	1100	120	2000



age and line-voltage systems for accent lighting have become more confusing.

STRENGTHS & WEAKNESSES

Low-voltage lamps' greatest strength in interior applications shows in lamps with spot beam patterns. Low-voltage PAR and AR lamps with capped filaments produce a clean, sharp-edged beam of light more efficiently, with less glare and lower energy consumption, in a greater variety of beam patterns, than any line-voltage sources. The thicker filament design also renders these lamps less vulnerable to failure due to mechanical shock.

The higher color temperature of halogen low-voltage and line-voltage lamps may be an advantage in merchandise and display applications, but may prove to be less desirable in a hospitality environment. The selections available in the lighting designer's palette facilitate composing with light. The enormous variety means lamps and system specifications can be precisely tailored to meet client needs in the areas of energy efficiency, first cost, maintenance cost and aesthetics.

Although the first cost of equipment for a low-voltage system is almost always higher than a line-voltage system, because of the transformer requirements—either individually integrated in each fixture or remotely located—further research is required. According to Osram Sylvania, list prices for 12-volt PAR 36 and MR 16 lamps average \$9.00 to \$13.00, while list prices for medium base PAR lamps run from \$7.50 to \$15.00 for the 55-75PAR16/CAP/NSP. This means that in evaluating whether a system using 36PAR36/CAP/WFL 4,000 hour, or 55PAR16/CAP/NFL 2,000 hour is more appropriate for a particular client or application, the cost of lamp replacement and labor must be accounted for along with the 50 percent energy savings.

In the spot distributions, the efficacies are even greater. Compare the 35MR16/Q/NSP/P to the 75PAR16/CAP/NSP—greater center beam candlepower for less than half the energy. Of course, this precision places a tremendous burden on the maintenance crew. Slight misadjustments in aiming can have critical consequences, leaving focal points in the dark. Line voltage fixtures tend to be more appropriate for floodlighting and wide beam applications.

As lamp manufacturers become more adept at concentrating the energy used by the lamp into the center of the beam pattern—rounding up stray light to produce ever higher CBCP numbers, the softening halo is lost which contributes to the ambient light.

In linear applications, intensity, cost, variety, maintenance factors and size are usually the decisive points. Low-voltage systems can be designed with loads of less than 4 watts per linear foot to more than 40 watts per linear foot. Although the rule of thumb for low-voltage systems seems to be half the size for twice the price, the maintenance cycles required by the systems must be compared.

Factor in added life available with line-voltage lamps through reducing the maximum intensity with a dimming system, versus

the 3,000-40,000 hour life of a low-voltage system. With the lower energy requirements of the low-voltage systems, there is less generated heat in the space, reducing energy demands for cooling on the HVAC system. The associated impact on cost savings must also be considered.

Care must be taken when specifying dimming/control gear due to inductive loads imposed by transformers. When working with large low-voltage systems, specifiers must recognize transformer losses and voltage drop when sizing circuits.

There are no hard and fast rules—guidelines only. Each situation requires an analysis of the prevailing priorities and conditions to determine the most appropriate choice for that time, place and client.

For invaluable support, cooperation and information, the author thanks: Mr. Marvin Gelman, Lighting Services, Inc.; Mr. Robert Nigrello, Osram Sylvania, Inc.; Mr. Bruce Belfer, Norbert Belfer Lighting, Inc.; and General Electric Library, Nela Park, OH.

Corinne Strumpf, IALD, MIES is principal of Corinne Strumpf Lighting Design, Monmouth Beach, NJ.

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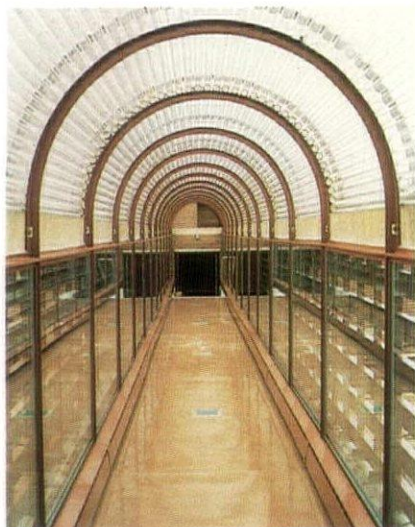
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ARCHITECTURE AS DECORATIVE LUMINAIRE

BY MARK D. KRUGER, IALD, IES



1. Johnson Wax Building, Racine, WI. Photo courtesy of Johnson Wax Corp., Racine, WI.



2. Casa Batllo, Barcelona, Spain. Photo by Professor Henry S. Plummer, Urbana, IL.



3. Paramount Theatre, Oakland, CA. Photo courtesy of Theatre Historical Society, Chicago, IL.



4. Louisiana State House, Baton Rouge, LA. Photo courtesy of National Archive Trust Fund Board, Atlanta, GA.

This article is an edited segment of a highly detailed seminar on decorative luminaires which has been presented by the author at 1992 LightFair, as well as to professional societies and regional audiences over the last two years.

The decorative luminaire has found expression in many divergent vocabularies. These expressions are as varied as our cultural references and as broad as our geographical roots. Yet they are bound together in our common quest to kindle and tame the magical powers of light.

There is a vast amount of information and imagery to explore in this field of decorative luminaires. Our facet of exploration here is one of the more tangential and intriguing ones: Architecture As Decorative Luminaire.

The influences which shape our perspective on decorative lighting are part and parcel of an indifferent and discontinuous time. As a result, we may suffer from what might be called a "Post-Modern myopia"—an exclusion of other expressions of the decorative luminaire beyond its slick, geometric packaging in glass, alabaster and metal. This perspective draws less upon the rich traditions of ornamentation than it does upon the "vanilla pudding in a can" aesthetic of the day.

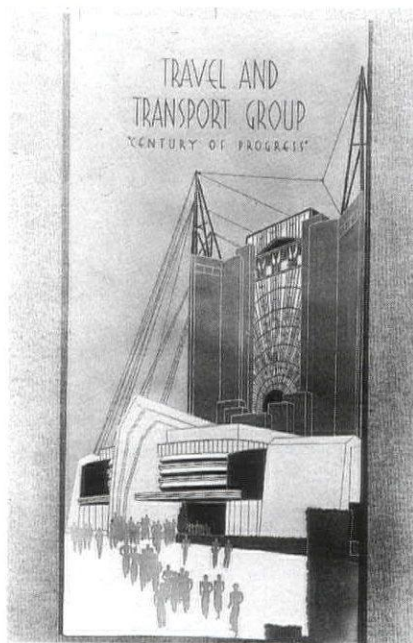
The homogenization of decorative lighting has been championed before, and by such talents as Frank Lloyd Wright, who was, arguably, far more successful at integrating daylighting than decoratives into his architectural creations. His comment that, "Lighting, at last, will become an integral part of the structure itself. No longer will appliances and appurtenances be needed" clarifies a perspective which, when successfully executed, yields one of the more historically important expressions of this theme of architecture as decorative luminaire.

CORBUSIER, WRIGHT & GAUDI

We find it in some of Wright's greatest works, as well as in those of Antonio Gaudi, Le Corbusier, and other giants in architectural history. What they have accomplished so well in these designs is the creative interweaving of transparent, translucent and even specular surfaces with natural light in a way that completely reconfigures and illuminates our experience of the three-dimensional envelope.

The historical precedent for this lies in the introduction of stained glass into religious architecture during medieval times in Europe. It was nothing less than revolutionary, in concept and effect. By replacing stone with colored glass, the dark, slumberous nature and inky terrain of the medieval church was transported by the play of light and shadow, color and contrast.

Originally didactic rather than intentionally "decorative," this heavenly marriage of colored glass and daylight created a tradition that continues to be explored in modern vocabularies. At the Cathedral of Notre Dame Du Haut, in Ronchamp, Le Corbusier composed a uniquely personal statement on the decorative nature of light in religious architecture. Defined by tex-



5. Rendering, Travel and Transportation Group. Photo courtesy of National Archive Trust Fund Board, Atlanta, GA.

tured concrete coffers, colored and clear panes of glass, he crafted a "...facade that fulfills its true destiny as a provider of light."

We see a different aesthetic applied by Frank Lloyd Wright in the design of the Johnson Wax Building in Racine, WI [1]. His composition of various diameters of clear Pyrex tubing becomes the primary decoration of the facade. Of course, these walls take on a different meaning entirely as interior lighting from incandescent and other sources is viewed from without.

From the meticulous and orderly rhythm of Wright's work, to the eclectic chaos of Antonio Gaudi, there remains a consistent fascination with the play of natural light on, and within, architectural form and surfaces. Gaudi's quest of "spiritualizing (space) through a living ornamentation" was never better expressed than in his design of the Casa Batllo, in Barcelona [2].

This image testifies to the possibility of building materials other than glass in calling forth that magical spirit of light. Here, Gaudi carefully patterned the ceramic tile to amplify and propel the light downward into the core of the building. Cerulean colors are graduated from a saturated blue near the roof to gradually lightened blues and grays towards the basement, which increases the walls' photosensitivity in the lower region. The result is an ethereal ambience. In the courtyard below, the light is further softened by the use of frosted glass in freestanding dividers.

Elsewhere in the space we see an evocative use of glazing in skylights, which produce a seductive composition in geometric and organic forms, blended by frosted glass and light.

DECO ECHOES

The Deco Period is particularly ripe with examples of the creative interweaving of light and architecture. One such integration of luminaire and decor is seen in the much-publicized doorway designed by Ernest-Marius Sabino for the 1929 Salon d'Automne in Paris. His firm pioneered the process of bas-relief, pressed glass in varying thicknesses and translucency, which "amplified, embellished and sublimated" the naked light source. Scale and scope were of little concern for Sabino, who produced illuminated bibelot, menus, clocks, panels, doors, ceiling tiles, columns and pilasters.

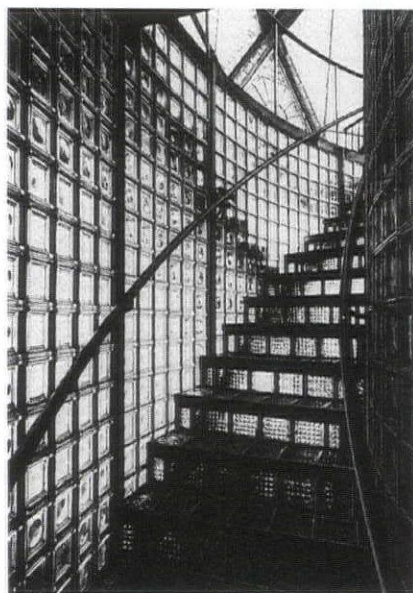
Another wonderful example from that era was Oliver Bernard's design of the Strand Palace Hotel in London. This lobby featured incandescent sources behind ribbed and frosted glass in columns, knee walls, and soffits. Built in 1929, the complete environment was carefully dismantled in 1968, and is now in storage at the Victoria and Albert Museum.

Here in America, those same stylistic echoes are seen in the theatre architecture of the era. This lovely lobby in the Paramount Theatre, Oakland, CA, [3] is bathed in light from the rear illuminated, curved glass panels and ceiling fixture.

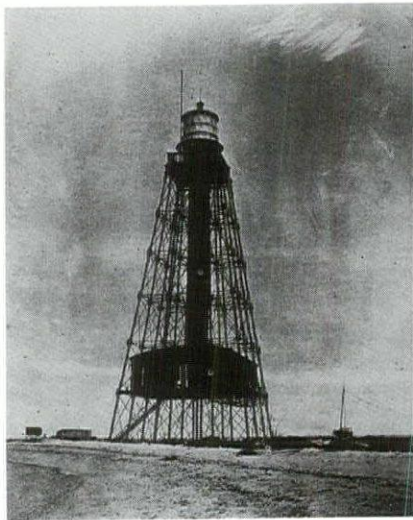
The crenelated dome of the Louisiana State House [4], designed in 1850 by the architect James Dakin, presaged a heightened use of glass and light in public architecture some 83 years later, as seen in this rendering of the Travel and Trans-



6. Travel and Transportation Pavilion. Photo courtesy of National Archive Trust Fund Board, Atlanta, GA.



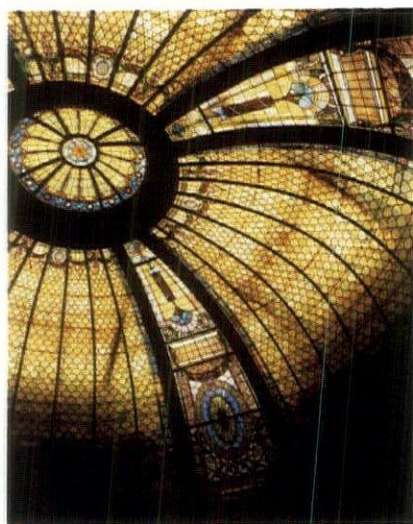
7. Glas Haus, Cologne, Germany. Photo by Dr. Franz Stoedner, courtesy of Bildarchiv der Osterreichische Nationalbibliothek, Vienna, Austria.



8. Sand Key Station Lighthouse, FL. Photo courtesy of U.S. Coast Guard, National Archives, Washington, DC.



9. Fort Tompkins Lighthouse, NY. Photo courtesy of U.S. Coast Guard, National Archives, Washington, DC.



10. Pulaski Dome, Little Rock, AK. Photo courtesy of Rambusch Corp. Archives, New York, NY.

portation Pavilion [5], at the Century of Progress Exposition in Chicago, IL, in 1933-34.

At night, the building was a pure composition in light and form (Photo 6). It was a collaborative work by eight architects, headed by H.W. Corbet, and directed by Nathaniel Owings and Louis Skidmore, who would later partner in the firm of Skidmore, Owings and Merrill.

Oscar Wilde's observation that, "All machinery may be beautiful. Do not seek to decorate it," provided codification for another important era, and the industrial aesthetic of the Deutscher Werkbund founded in 1907. The movement, comprised of architects, manufacturers, product designers and craftsmen, wrested the cutting edge of design from the practitioners of art nouveau, who struggled to maintain their fervent individuality against the canon of standardization.

The Werkbund, or international style of architecture, and our theme of architecture as decorative luminaire, are both epitomized by Bruno Taut's Glass House [7]. This structure, done entirely out of glass bricks and iron, was designed for the 1949 Cologne Werkbund Exhibition. The round building was capped with a prismatic glass roof, whose pyramidal structure was a harbinger of Buckminster Fuller's Geodesic Domes.

In that same year architectural critic Paul Sheerbart observed that "It remains to be seen what the effect would be if a hall were illuminated solely by a translucent floor. It would then be possible to walk on the light." This notion would be realized many decades later in Paul Marantz's lighting treatment of the grand staircase at The Palladium nightclub in New York City.

THE LIGHTHOUSE

Now, if you accept the premise of architecture as decorative luminaire, then you might agree that its ultimate expression is the lighthouse. For centuries, man has erected structures to protect and project light in the aid of navigation. In fact, it's speculated that one of the seven wonders of the world, the Colossus of Rhodes, was also a lighthouse, with flames burning in its eyes and from its extended hand.

With this historical perspective, with thousands of variations of decoration, one could say that the lighthouse at Sand Key Station, FL [8], really is an expression of the Werkbund ethic: a composition of light in an industrial vernacular. At the other extreme, we find the institutional gingerbread of the Fort Tompkins lighthouse [9], in the Verrazano Narrows of New York harbor, to be as busy and decorated a luminaire as any smaller scaled fixture crafted during that period of wonderful ornamentation.

Although programmatically different, and far more modern in vocabulary, the wind-driven color changes on the dynamic tensile structures atop a building in Tsukuba, Japan, provide much the same effect.

Each of these are wonderful expressions of our theme of architecture as decorative luminaire: this image of the Pulaski Dome [10] in Little Rock, AK, introduces the issue of relative scale to our discussion. The exquisite stained glass structure, fabricated by the Rambusch Company is, in its own way, a



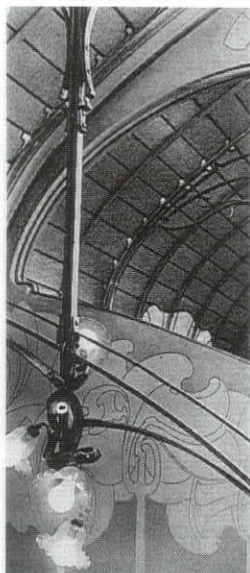
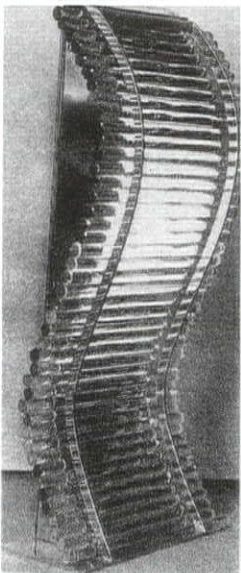
11. (Left) Tiffany Lamp with Lead-glass Shade, circa 1900. Photo courtesy of Corning Museum of Glass, Corning, NY.

12. (Left center) Johnson Wax Building, Racine, WI. Photo courtesy of Johnson Wax Corp., Racine, WI.



13. (Below left) Sognot Table Lamp, nickered metal and glass rod, circa 1929. Photo courtesy of Eric Philippe, Arcueil, France.

14. (Below right) Horta Pendant, Hotel Solvay, Brussels, Belgium, circa 1903. Photo courtesy of A.C.L., Brussels, Belgium.



much-enlarged and luminous inversion of Tiffany's more delicately scaled luminaires [11] created during that same period. Wright's use of Pyrex walls in the Johnson Wax Building [12] is but a massive upscaling of Sognot's table lamp [13] of glass rod and incandescent light, done for the 1928 Salon d'Automne.

In these examples, large and small, we tend to focus our attention on the extraordinary variety and intricate compositions of colored and clear glass. We should also consider, as Wright did, the "harmony of metal tracery that is to hold it all together...with delicate beauty." Highly decorative pendants, such as those designed by Horta for the Hotel Solvay [14] in Brussels in 1903, speak of the importance of the refinement and attention to detail in metal work that characterized the Art Nouveau period.

Wherever you look, from east to west, from culture to culture, the decorative lighting fixture has been woven into our collective experience in many enduring ways. From the personal inspiration and creativity of countless architects, designers, metal and glass craftsmen, potters, sculptors, painters, and visionaries of all disciplines, we have accumulated a vast repository of luminous images which make this topic endlessly fascinating. We owe much to this rich heritage, and are obliged to make our contributions to it as meaningful and resonant as we can.

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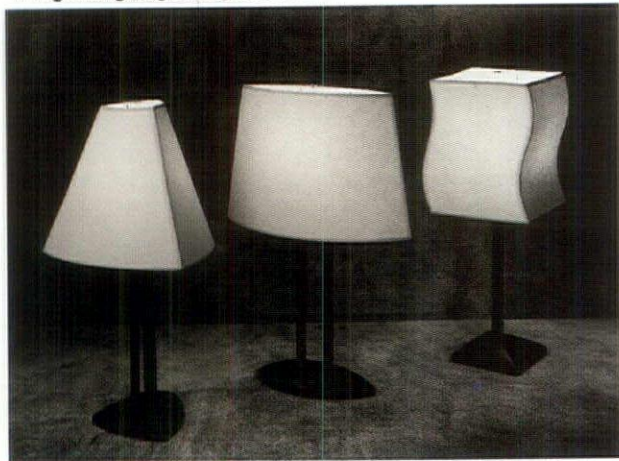
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Mark D. Kruger, IALD, IES, is principal of the firms Kruger Associates and Mark D. Kruger Designs Light. He is on the faculties of the M.F.A. Architectural Lighting Program at Parsons School of Design, and the New York School of Interior Design, both in New York City. He is founder and chairperson of the Children With AIDS Committee, a volunteer organization which supports pediatric AIDS causes.



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The imported crystal and cast brass with French gold finish of this French reproduction chandelier would add sparkle to any room. The chandelier is 50 inches high and 24 inches wide, and uses 24

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lights. Its creator, New Metal Crafts, is a 60-year old lighting company that specializes in antique, reproduction and custom fixtures for homes and public buildings. Perhaps you've caught a glimpse of their work at the Euro Disneyland in France, the Waldorf Astoria and St. Regis hotels in New York, or the Meridian Hotel in San Francisco. New Metal Crafts, Chicago, IL.

Circle 81

Murray Feiss' Vanderbilt Crystal ▼



Dining With The Vanderbilts

Murray Feiss introduced the Vanderbilt crystal grouping at the Dallas Winter Market. The chandelier shown combines solid brass and 24 percent cut lead crystal. It is 34 inches high, 30 inches wide and uses 12 candelabra based, 60-watt (maximum) lamps. The grouping includes three fixtures with coordinating wall brackets, all distinguished by the tulip-shaped breaks, full cut crystal bobeches, and intricate cast brass detailing. Murray Feiss, Bronx, NY.

Circle 82

Glass Fusion

Janene Hilliard custom makes each tile in the Ming China table lamp by fusing a thread of black glass to a small rectangle of base glass. The tiles are then leaded together to form a pattern. The shade is 18 inches wide, and the overall height is 20 inches. Bases and support arms are solid cast bronze. Lamps By Hilliard, Arcata, CA.

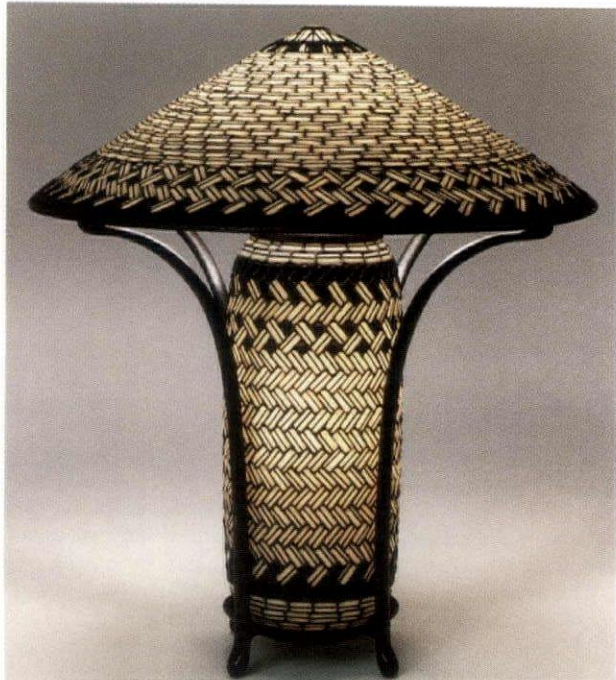
Circle 83

Repousse Chandeliers

Repousse is a method of hand hammering and buffing metal. The Norman Grag line of repousse chandeliers, ceiling fixtures and



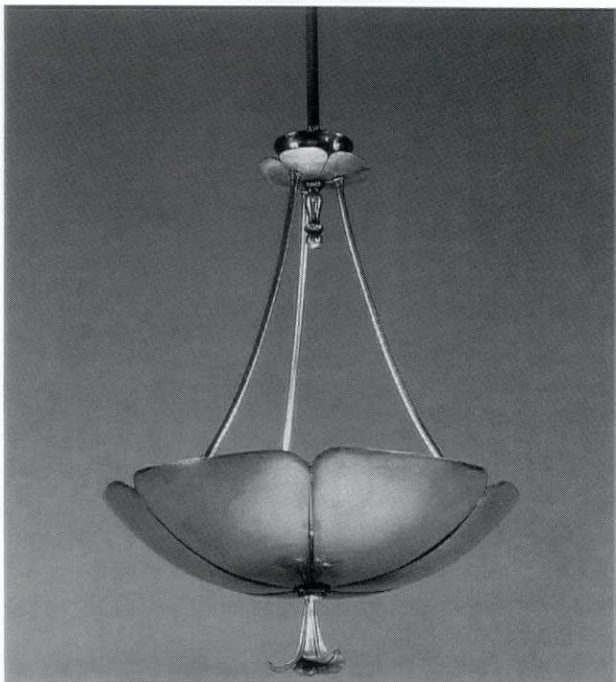
▼ Hilliard's Ming China Lamp



sconces are custom made works of art signed, sequentially numbered and dated by Norman Grag. The Lotus Chandelier shown is repoussed of solid brass with a patina brass finish and also available in solid nickel silver. It uses a 200-watt quartz lamp. The chandelier is 17 inches in diameter, and can be made with an overall height of up to 44 inches, or as a ceiling fixture. Casella Lighting, San Francisco, CA.

Circle 84

Cassella's Repousse Chandelier ▼



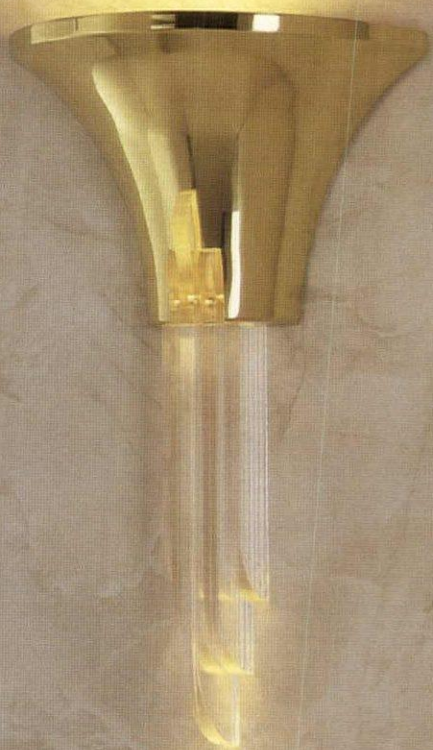
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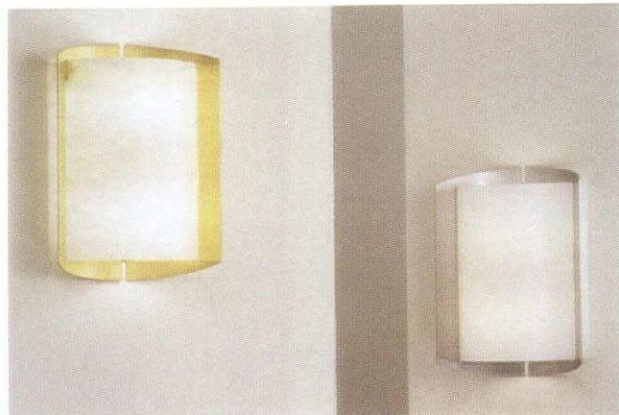
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Boyd's Eclipse ▼

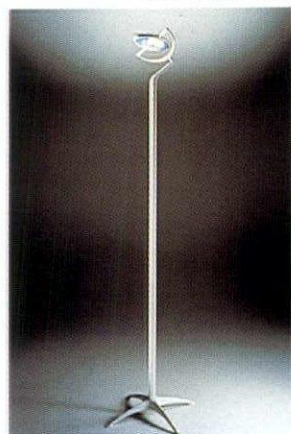


Light Eclipse

The Eclipse wall bracket features pleasing aesthetics while complying with the ADA requirements for public accessibility. The units have a 4-inch projection and curved diffusers of hand-quarried white alabaster or white flash glass that intersect with the symmetrical aluminum or brass frames. Each unit is 12 inches high and 9 1/8-inch wide. The unit uses two incandescent A-17, or C-11 lamps, or two fluorescent PL 13 lamps. Available finishes include satin aluminum or satin brass with white flash glass or alabaster. Boyd Lighting Company, San Francisco, CA.

Circle 85

Leucos' Istria ▼



Baldinger's Villa ▼



Mystery Of Istria

The Istria floor lamp, designed by Paolo Nava, provides diffused light through its 350 degree rotating elliptical glass diffuser which swivels 170 degrees at the stem. A metal and polycarbonate base and stem support the handblown Murano glass diffuser. An in-line slide dimmer regulates the output of the 300-watt quartz halogen light source. Base and stem come in matte white and black; glass diffuser, in satin white or blue. Companion wall, and single and double pendant versions are available. Leucos USA, Inc., Edison, NJ.

Circle 86

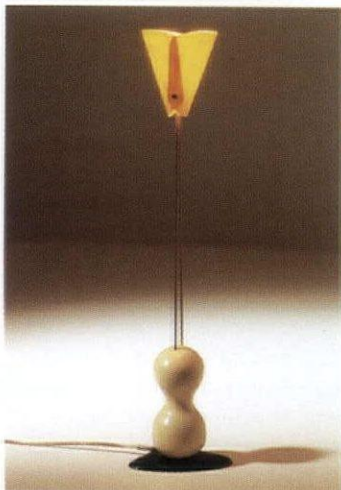
Graves' Kerylos-Inspired Villa

Michael Graves was inspired to design the Villa collection to evoke the timelessness apparent in the great houses of Europe after visit-



ing the Villa Kerylos in Beaulieu-Sur-Mer, France. The fixtures use a 60-watt candelabra base flame tip, inside-frosted lamp. Diffusers are offered in white or beige hand-carved alabaster. Standard finishes include Etruscan Bronze Patinae; antique, polished or satin brass; gloss or matte black or white; polished or satin chrome; polished, satin or polished black nickel; and verde green. The series includes models with curved, profile and square diffusers. Baldinger Architectural Lighting Inc., Astoria, NY. **Circle 87**

▼ **David D'Imperio's Patella**



ished, satin or polished black nickel; and verde green. The series includes models with curved, profile and square diffusers. Baldinger Architectural Lighting Inc., Astoria, NY. **Circle 87**

▼ **Like A Flower**

The delicate, flower-like Patella Lamp has a dyed wood shade, brass stems, ivory lacquered wood and black base. The shade is available in yellow or green. The fixture stands 15 inches high and is 2 1/2 inches wide. It uses a halogen

lamp and comes equipped with a transformer and dimmer. David D'Imperio, Miami, FL.

Circle 89

▼ **Out Of Mind's Trilogy**



▼ **Triangular Trilogy**

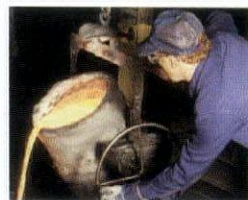
Available with medium and black oak finishes, the Trilogy fixtures are constructed of solid oak with iridescent white stained glass. Vertical and horizontal models are offered. The longest triangle edge is 31 1/2 inches. Trilogy is the concept of Scott J. Carlson, Out of Mind Design. Manufactured and sold through Progressive Design Products, Bensenville IL.

Circle 88

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SPECIFYING TASK LIGHTS— RECLAIMING THE STEPCHILD

**BY WANDA JANKOWSKI
EDITOR-IN-CHIEF**

More often than not, the task light, and how it is positioned in the workstation, is treated as an afterthought. This piece of equipment deserves better—and with the proliferation of computers in today's work environment, not paying attention can have significantly adverse effects. Discomfort glare and energy inefficiency from improper task lighting can result in decreases in employee comfort and productivity, and in the employer's profits.

In spite of the popularity of task/ambient lighting systems, the responsibility for exactly who specifies the task lights is not always clear. The lighting designer may be called in to design only the fixed illumination system for the space, leaving the task lighting to be specified by the interior designer, or to be chosen by the facility manager, sometimes as part of an office manufacturer's furniture system. After a task/ambient system is designed, changes in company structure or procedure—all too common in these recessive economic times—can lead to improper repositioning of task lighting and even the workstations beneath the fixed illumination system.

There has also been a change in attitude towards the workstation itself, since open office plan systems were first designed. The beauty of the open plan system had been its democracy—everyone is happy, because everyone is getting the same workspace. The dawning of the "me" era, however, has turned attention towards meeting the needs and preferences of the individual, and so the scramble is on to develop products which maintain an overall cohesive, aesthetically pleasing appearance, while customizing the look-alike cubicles to suit each worker's specific tasks, style and personality.

The fact to keep in mind is that a task light was named as such for a reason—it is intended to be more than a decorative fixture, it is meant to provide the worker with proper illumination for completing all tasks and should be specified to live up to its name. It also should be acknowledged that not all task lighting fixtures are alike.

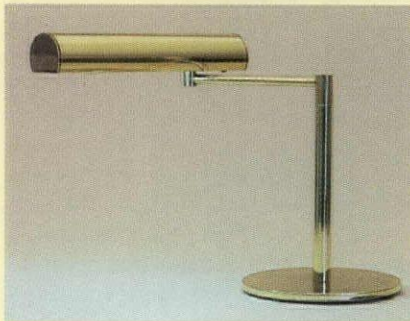
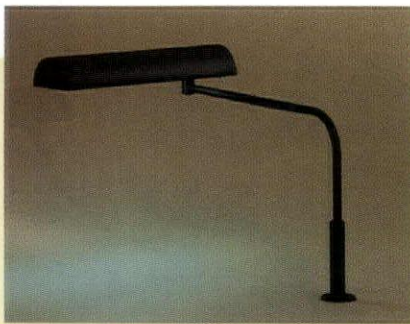
Since IBM manufactures computer terminals, it was of particular importance to the company that its own workplace be comfortable and productive. "When glare is created on a computer terminal, it hampers work and decreases productivity gains," says Dan Rome, senior engineer at IBM Real Estate Services in Stamford, CT, who has developed criteria for specifying task lighting for new construction and renovations in all IBM offices worldwide. Any manufacturer's task lights can be used, as long as they meet the criteria, which incorporate cost, performance, and aesthetic parameters.

The overall lighting system recommended by Rome's guidelines is task/ambient. "The guidelines we publish for the corporation specify that 50 footcandles of well-distributed ambient light be provided, plus or minus ten footcandles, sup-



LUXO MOUNTING OPTIONS

Luxo Corporation has adapted all of its task lighting products for mounting above work-surfaces on rail and paper-management systems. There are three interchangeable options. First, the Space Saver Load Bar is an anodized aluminum bar offered in standard and custom lengths that can be hung or attached to panel systems, demountable or permanent walls. It has an integral wire management trough, a tack surface and can accommodate other accessories from a range of manufacturers. Second, the Space Saver Panel Mount Bracketry is individual brackets that allow Luxo lamps and the articulated-arm document holder to mount directly to most office panel systems. Third, the Space Saver Paper Management Adaptor allows task lamps and document holders to hang from most other manufacturers' panel-mounted paper management systems. Shown is the Sonnet fixture. Luxo Corporation, Port Chester, NY. Circle 70



TSAO+CLS TASKMASTERS

The Taskmaster Group model TM-715-BT bolt through (Top) shown in black textured finish through has a curved arm, 3-inch height adjustment in the housing, and 360 degree rotation at the base. The TM-524-T table lamp (Center) has a 9-inch diameter base, pivoting reflector and 320 degree arm rotation at the vertical stem. The TM 535-BT (Bottom), includes a bolt-through angled arm, a pivoting reflector, and 360 degree rotation. All use a PL 13-watt lamp. Taskmasters feature rotation in the lateral plane only to limit light interference, an opaque reflector housing, and bolt throughs that keep the work surface clear. This family of fixtures offers mounting and style options that enable the varied needs of secretarial through executive level employees to be met. TSAO+CLS, New Canaan, CT. Circle 71

plemented by a task light that brings the lighting level on the work surface up to at least 70 footcandles," says Rome. Footcandle levels can vary, depending on the difficulty of the tasks to be performed. The guidelines are in conformance with the recommendations of the IESNA.

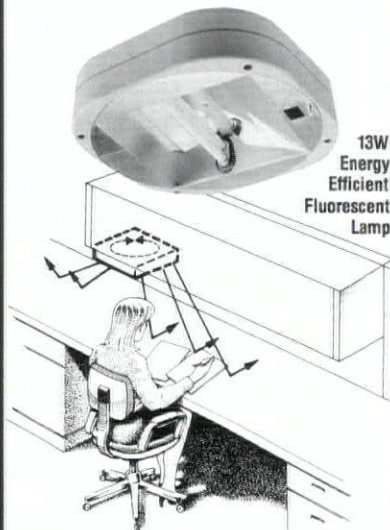
Following are the task lighting criteria Rome has developed:

1. The fixture should rotate in the lateral plane only to minimize light interference to other employees in open plan space. (Rome explains that users may tilt the fixture head for his or her own tasks and cause glare on the terminal of an adjacent employee.)
2. Opaque reflector housings should be used to shield the light source and reduce high contrasts that cause eye fatigue. (Rome also recommends polarized lenses to direct light downward. If this precaution is taken, light will not bounce off the work surface, reflect back into the user's eyes, and cause the person to adjust the angle of paperwork.)
3. The 13-watt PL compact fluorescent

lamp is preferred for its energy saving qualities and sufficient lumen output (the output of the 9-watt PL lamp is insufficient). (Rome recommends against the use of halogen because it is a bright point source that is more difficult to control.)

4. The fixture should possess ergonomic, user-friendly features.
5. Bolt-through or panel-mounted models, as well as portable versions, are recommended to keep work surfaces clear of obstructions. Fixed indirect installations are not recommended.
6. Fixtures should be compatible with office furniture standards. Products should be well-suited to and aesthetically appropriate for use with other office furniture. (Rome encourages the capability to specify the same style of fixture with a variety of mounting options—freestanding, desk-mounted, panel-mounted—to suit an array of office furniture systems.)
7. Fixtures should be quality constructed for durability and easy to maintain.
8. Fixtures' permanent finishes should include the capability to color-match

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the office furniture standards already existing.

9. Rome suggests only high-quality ballasts be used as part of the line chord, placed near the plug, so as not to cause interference with computer wavelengths.

Whether Rome's guidelines are adopted or other criteria prevail more suited to the particular installation, the task light should be a thoroughly integrated element in the office environment. Any task lighting, whether it is portable, bolt-through, under-cabinet mounted or furniture integrated, should be specified only in conjunction with evaluation of factors which affect it, such as type of ambient illumination, types of tasks, placement of computer screens, type and size of work area, and floor, wall, ceiling and furnishings colors.



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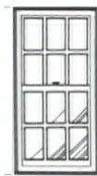
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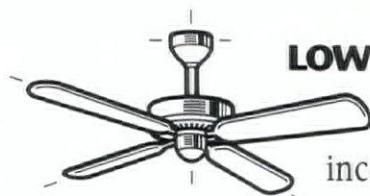
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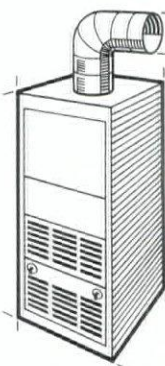
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Bacchus

MODIFIED STANDARD FIXTURES CREATE LAYERS OF LIGHT THAT LEND WARMTH, INTIMACY AND EXCITEMENT TO THIS BRICK AND CONCRETE CLAD NEW YORK CITY RESTAURANT/CLUB

BY WANDA JANKOWSKI
EDITOR-IN-CHIEF

If the ancient Greek's god of wine, Bacchus, stopped by the New York City restaurant/dance club named for him, he would probably be pleased and join in the revelry. The architect and lighting designer for Bacchus—the restaurant—have used concrete, steel, brick and mortar to create an atmosphere of sophisticated, tactile decadence, and a multi-layered lighting system that adds a sense of intimacy and excitement to the space.

The first floor and basement levels that house the restaurant and club had served previously as a manufacturing facility, with structural columns scattered throughout and an unfinished ceiling.

"The owners wanted a whole group of different spaces created within the loft, and each area in the club to have its own look. We tried to achieve that while maintaining the feeling of the loft," says architect Richard Kahn, Berzak Partners Architects, New York, NY. The ability to draw on and maintain the rawness of the space helped the designers to meet the challenge of creating different looks for each area within a very limited interior and lighting design budget.

BIG BAR: (Above) Cross-aimed recessed MR 16s illuminate the angular bar at the front of the restaurant. Several MR 16 cubelights highlight the Bacchanalean murals.

FAUX ALABASTER:
(Below) Pendants
serve a decorative
function and
make the high
ceilinged room
that contains the
main bar and din-
ing area more inti-
mate in scale.

When it came to lighting the spaces, lighting designer Robert Singer, Robert Singer & Associates, New York, NY, designed the system using layers of light to create interest and flexibility. "Modify what's available in the market to suit your needs when you don't have the budget," says Singer. "Bacchus looks like a custom job, but it isn't."

The steps of the small, darkened entry foyer lead to a doorway that, when passed through, reveals the front bar area of the restaurant. Above the foyer doorway are two standard fixtures that depict stone-like hands clutching torches. These set the rustic tone for the entire space. The sconces, positioned there primarily for decorative effect, are down-lamped from the usual 60-watt candelabra-based incandescent lamp each to a 15-watt lamp each.

The restaurant/club proper contains three distinct areas—two on the first floor and one in the basement. Existing and added surfaces and structural elements perpetuate a "raw" look that is warmed and enlivened by the multi-functional lighting system.

The front of the restaurant houses a large, angular, freestanding bar with a mahogany top and sides made of veneered plywood. The wooden bar

and bar chairs add warmth to the large space. The lowered, finished ceiling also makes the large space seem more intimate.

The area is illuminated with adjustable MR 16, 50-watt very narrow spotlights that project defined beams of light down into the vast space. "So late in the evening when people are smoking in the bar, you've got that crisscross of light beams enhanced by the smoke that create an excitement visible through the windows to passersby on the street outside," says Singer.

"The existing floor had been all pitted and chopped up," says Kahn. "One way to save money and also come up with a unique look was to use colored concrete for the flooring. For example, the front bar area has shades of black and yellow in the concrete. Red with copper strips is mixed into the concrete in the main dining area." Some areas also combine slate and carpet flooring with the concrete.

The main dining area contains distinct lounge, eating and bar areas.

The colorful Bacchanalean murals along with wall of the lounge area are floodlit with MR 16 cubelights.

The 15-foot high unfinished ceiling in the main





FOREVER AMBER: (Above) Restored columns have been sponged painted with yellow and orange pigments, and highlighted with amber-filtered fixtures.

BLUE SKIES: (Right) The new skylights allow daylight in which combines with light from adjustable MR 16 fixtures to enhance the textures of the brick wall.

dining area has been left exposed and painted black. Large 60-inch diameter pendants suspended throughout the eating area serve two purposes: they are decorative elements, and are also used to visually lower the ceiling and create a sense of intimacy. Singer worked with the pendant manufacturer to produce a faux finish on the originally white synthetic bowls that creates the illusion that they are made of peach-toned alabaster.

"The pendants were originally available for use with six 60-100 watt A-lamps, but I downed the spec, because we needed them to provide a visual effect rather than light output, so I installed 25-watt A-lamps instead," Singer explains.

The existing columns scattered throughout the first floor have been repaired, with ornate capitals added, and sponge-painted with shades of yellow, red and orange. A second light layer comes from the MR 16 cubelights that downlight the columns. The fixtures are mounted with C-clamps on 1 1/2-inch pipes and fitted with custom amber glass filters that enhance the warm orange and yellows on the columns. "The color adds to the fun and flavor of the space," says Singer.

Twenty-four microscrollers, a miniaturized MR 16 color changer created for smaller venue use, have been placed around the dining room and dance floor (after the photos were taken) and are focused down onto the columns. The units offer up to 12 colors to produce a wide variety of looks.

The existing skylights, beyond

repair, have been replaced with angled ones that run adjacent to the brick wall at the back of the restaurant.

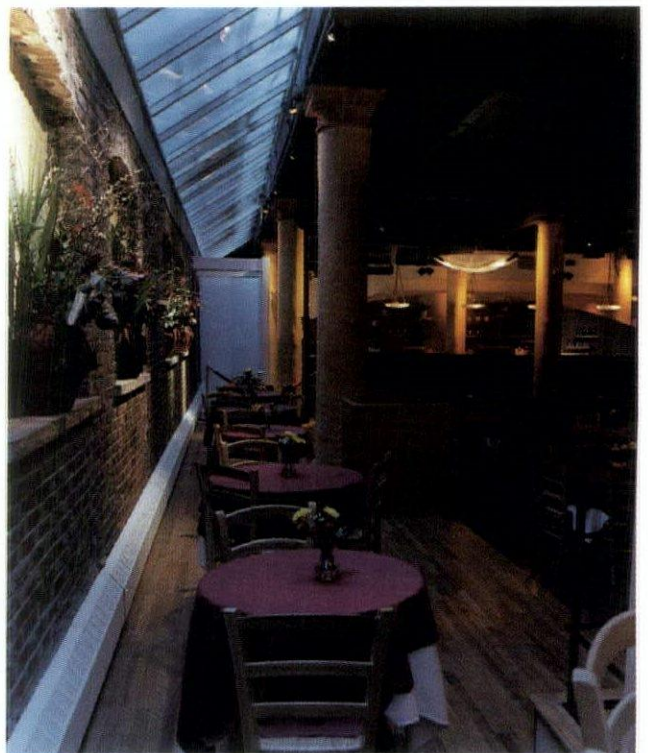
Perhaps the most striking feature of the main dining area is the long bar sided with ground steel plates and trimmed with copper. The curved partition behind the bar has been finished with a textured paint that gives it the appearance of concrete. The concrete wall sconces positioned on a partition between the front bar area and the main dining area continue this look.

The chain-suspended pendants over the bar are modified standard fixtures that are a variation on the pendants suspended over the eating area.

Emergency lighting was also required. "We were confronted with the problem of having to locate the emergency lighting.

The architect specified two-headed emergency fixtures throughout the space on every column as per code. The units have to be positioned every 25 feet in a public space," says Singer. "I modified the design of the fixtures, mounted only the heads on the columns, ran the low-voltage wiring up the columns, and remoted the guts of the emergency light onto the ceiling joists, so you don't see them. The heads have been painted out to complement the columns and make them as unobtrusive as possible."

The basement level contains a private club that features a multi-colored bar with a dance area



SATURATION POINT:
(Below) The bare and basic concrete floor and grey columns of the private basement club are in contrast to the rich red and blue concealed neon of the freestanding bar.



enveloped by concrete flooring, walls and structural columns.

Concealed neon produces vivid, saturated colors on all sides of the freestanding bar. "The clients had suggested fluorescent, but to have a fully dimmable fluorescent system wasn't cost effective. So I approached them with the idea of making each side of the bar a different color, including a rich, ruby red and a cobalt blue. We did a mock-up and they liked it." Behind the wire mesh screens held in with steel frames are corrugated sheets of plastic, which in turn conceal the lines of colored neon. "Essentially, they are big light boxes," say Singer.

The same sconces which appear in the entrance foyer—stone-like hands holding torches—have been repeated on the walls around the dance floor. Pinspots provide lighting on the dance floor.

"The cost of the lighting is about \$2.00 per square foot and that includes the control system," says Singer. There is a 16-channel preset board,

with a four-channel preset control that not only controls all the architectural lighting, but allows for a theatrical setup for performing artists.

DETAILS

LOCATION: NEW YORK, NY

OWNERS: MITCH LOW

ARCHITECT: MICHAEL BERZAK, RICHARD KAHN, BERZAK PARTNERS ARCHITECTS

LIGHTING DESIGNER: ROBERT SINGER, ROBERT SINGER & ASSOCIATES

ELECTRICAL CONTRACTOR: FGE

ELECTRICAL SUPPLY: SUNSET OF QUEENS

STEEL BAR: MOLTEN METAL

PHOTOGRAPHER: LARS LONNINGE, LARS LONNINGE STUDIO INC.

LIGHTING MANUFACTURERS: SIRMOS, GROSS CHANDELIER, ATLITE, SLD TIMES SQUARE, NEON ILLUMINATED TONY HAYES, SIMKAR, RAMBUSCH, GE LIGHTING, NSI, ELITE SYSTEMS

SILVER SIGNAGE:
(Opposite page)
The diner's exterior bears its signature signage—a Deco style neon clock tower.

BAKED GOODS:
(This page) Colorful neon is combined with other rich elements like the quilted stainless steel, geometric patterned tiles and aluminum pendants.

BAKERY CARRY-OUT

HOMEBAKE CAKES	PIES	SPECIALTY DRINKS	BEERS
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CARROT CAKE 15.95	CHOCOLATE CHERRY 13.95	WINE SPRITZER 11.95	AMTTEL LIGHT 4.95
COCONUT CREAM PIE 13.95	POUND CAKE 10.95	WINE 11.95	ROLLING ROCK 4.95
POUND CAKE 10.95	ASK YOUR SERVER FOR SPECIAL DESSERT SELECTIONS	BUTTER HOME 11.95	COORS LIGHT 4.95
		OLEN ELLEN 11.95	ON DRAFT 4.95
		CHARDONNAY 11.95	BUD LIGHT 4.95
		ROSE CHABLIS 11.95	
		BURGUNDY 11.95	



Silver Diner

CHARLES MORRIS MOUNT HAS SET A NEON AND STAINLESS STEEL JEWEL IN THE MIDST OF THE TOWSON TOWN CENTER'S HIGH CONCRETE WALLS

BY WANDA JANKOWSKI
EDITOR-IN-CHIEF



There's no mistaking Silver Diners—each is topped with the trademark Art Deco-like stylized neon-ringed clock tower that features the slogan "It's time to dine." What distinguishes this Towson, MD, diner from the three other free-standing Silver Diners is that this neon jewel is set into the 53-foot high concrete wall of the Towson Town Center.

Interior designer Charles Morris Mount, principal of Silver & Ziskind/Mount, Architects, Planners, Interior Designers, New York, NY, had to cope with the challenge of integrating the diner into the shopping center without it being overwhelmed by the surrounding exterior structure.

"Tremendous site work had to be done," says Mount. A hole literally had to be made in the concrete wall of the shopping center for the dining car to be built at its base.

"The diner functions as a beacon to passersby by embodying the 'building as a sign' concept," says Mount. "The colorful neon, combined with polished and patterned stainless steel panels, glowing glassblock wall corners, the black and white marble

checkerboard exterior pattern and the sleek dining car shape, has been designed to add to the graphic impact of the building."

Mount notes that the design team at RTKL, the architect for the shopping center complex, were very open minded in considering the effect the restaurant would have on the exterior of the shopping center. "RTKL had originally designed an arcade with a series of trellises and large columns that were to be built right where the diner is now located. I presented color drawings for their approval on how this could be changed to include the diner. It was an involved process, but they were very helpful."

Elements used on the exterior of the diner are repeated with variations at the second entrance on the inside of the mall. Here the clock is mounted on a column and juts out into the aisle to attract the attention of shoppers.

Mount's primary interior design goal was to maintain elements established in diners previously built in the chain, while imbuing this restaurant with a freshened personality of its own. "The interiors have slight variations from one location to the



**INTERIOR
ENTRANCE: (Above)**
The neon encircled
clock also graces
the second entrance
to the diner inside
the Towson Center.

next, but we want everyone to know it's the same place everywhere they go," says Mount. "The clock tower, for example, is the same from diner to diner." But the layout of the original diner had to be adapted to the longer, narrower space available at the shopping center to maximize seating area.

The design intent of the diner series is "to create a contemporary design for a democratic, American eating place—not to recreate a particular period in the history of diners, but to celebrate the heyday of diners in the 1940s and 1950s in the present by paying homage to their past glories," says Mount.

This Silver Diner is also larger than any of the previous incarnations—it seats about 200. The budget for the project, however, was 30 percent

of pace from the bustling aisleways and freestanding tables and chairs.

"The neon," says Mount, "contributes a little jazz, a little color." The neon runs along the perimeter of the 30-foot long skylight, and along the curved joints of the glass panels as well. The very deep soffit that is capped by the skylight has been surfaced with pink laminate to play up the glow of the neon.

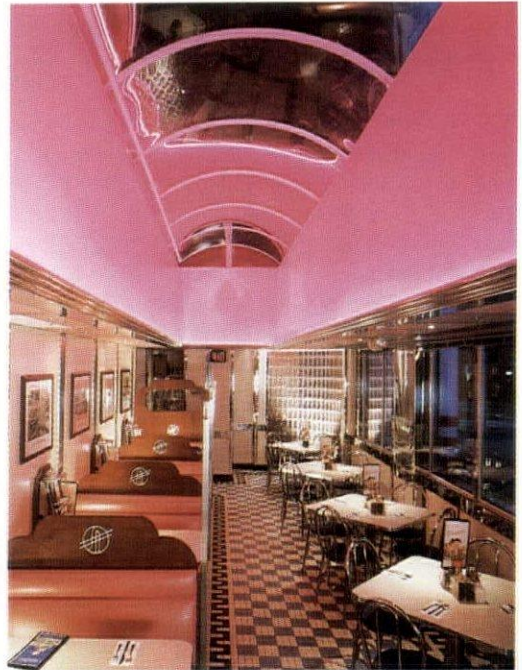
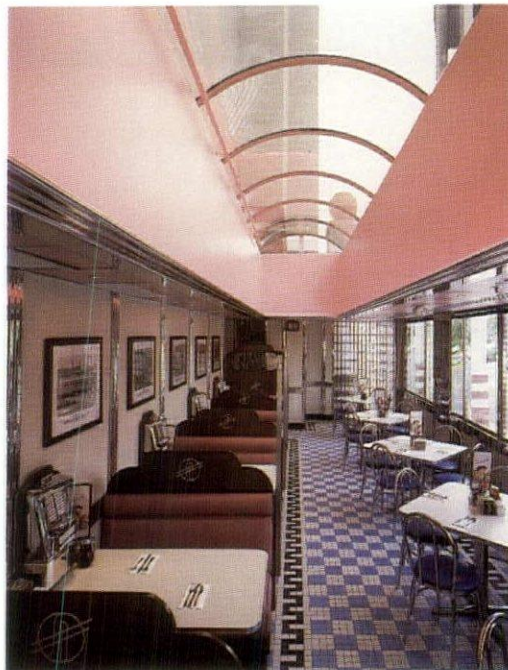
"There was a very specific mix of color we were trying to achieve," says Mount. "There is a great deal of food displayed, particularly in the bakery case, so we needed something to bring out those colors and, at the same, to counteract whatever negative color influences the neon and the

less than for the other units.

This hasn't hampered the use of rich, yet durable and easily maintained materials throughout the space. Rounded glassblock corner walls at either end of the diner appear to glow on the exterior from the pink neon and wall washers installed inside. Some countertops are made of blue pearl granite. Linen pattern laminate adorns the tabletops, and the Boomerang laminate pattern is used in the ceiling cove. The exterior and interiors are splashed with panels and trims of ribbed and quilted stainless steel highly polished to a mirror finish. The flooring is set with geometric patterned black, white and blue tiles.

The booths and chairs are covered with naugahyde. The smooth, curved banquettes provide a degree of intimacy to the dining area, and present a change

**DAY (left) & NIGHT
(right):** A pink
painted coffer emits
an even warmer
glow by night when
the neon is turned
on. Except for neon
signage, the lights
are left off during
the day because the
interior enjoys
abundant daylight
from the wall of
windows and
the skylight.





display case fluorescents combined to produce.”

Low-voltage MR 16 downlights are positioned near food display areas. Incandescent downlights equipped with 75-watt PAR lamps or 100-watt R-base lamps highlight the freestanding tables and the banquettes. Circular aluminum pendants with screw-based 75-watt incandescent lamps provide upright to soften ceiling shadows.

“Energy is always a consideration,” says Mount, “but in an application such as this, you can’t have fluorescents everywhere, so there is some giving and taking.”

Though the exterior and interior neon signs are kept on during the diner’s operating hours, much of the interior lighting isn’t used during the day because of the ample daylight available from the windows that look out onto the shopping center’s parking lot, and the curved skylight that runs over the central aisle.

The controls include separate switching and a bank of dimmers located in a small closet off the dining area. The controls are marked clearly, with eight preset settings that can be changed by the staff to suit varied times of the day.

This Silver Diner, completed in August 1992, serves over 16,000 diners a week, well exceeding

projections. The customers attracted to the facility include a mix of upwardly mobile “yuppies,” retirees and suburban families. “The average meal check is \$8.00,” says Mount, “though you can eat there for less. It has a simple diner menu with lots of specials, as well as wine and beer. Great food at great prices!”

The fifth Silver Diner is already being planned and will also be incorporated into a shopping center. In addition, 25 units are scheduled to open by the year 2000.

DETAILS

PROJECT: SILVER DINER

LOCATION: TOWSON, MD

INTERIOR & LIGHTING DESIGNER: CHARLES MORRIS MOUNT, principal, SILVER & ZISKIND/MOUNT

KITCHEN DESIGN: CINI LITTLE

FLOORING: AMERICAN OLEAN TILE

LAMINATES: FORMICA CORPORATION

CONTRACTOR: UNIWEST CONSTRUCTION, INC.

NEON & SIGN MANUFACTURER: ARUNDEL SIGN, INC.

PHOTOGRAPHER: DOUG BROWN

LIGHTING MANUFACTURERS: LIGHTOLIER: downlights, REGGIANI: downlights, VISA LIGHTING: sconces, pendants, LUTRON: controls

MOOD SWINGS:
(Above) Controls allow staff to change settings for lunchtime, mid-afternoon, dinner, evening, maintenance and clean-up.

Riverfront Revitalized

Riverwalk's necklace of light enables pedestrians to enjoy this one-mile linear park along the water's edge of New River in Fort Lauderdale, FL



VARYING STANDARDS: (Left) Some standards bear light fixtures, some support decorative banners, and other have a combination of both.

COMBINING PAST & PRESENT: (Opposite page) The flaring shades, curved arch, and clean base ornamentation give the luminaires a traditional, yet undated look.

In times gone by, strings of bare light bulbs dotted the bustling riverbanks of Fort Lauderdale, FL, inviting one and all to its glimmering water's edge. Today, that theme is recreated in a one-mile linear park that stretches along the city's New River.

Riverwalk, planned by Florida-based planners and landscape architects Edward D. Stone, Jr. & Associates and developed by the City of Fort Lauderdale, is a multi-phase project designed to attract pedestrian activity and economic development along the riverfront.

Edward D. Stone, Jr. & Associates developed a concept to achieve continuity without compromising the riverfront's innate diversity. At the same time, variations in its theme could be conveyed through certain furnishings and other materials appropriate to a specific area, yet true to the overall plan.

Bob Dugan, project manager at the firm, explained that lighting was the one consistent element used in this area of

varying character and land use. "We chose the lights as the unifying element to give the linear park a sense of place. The lights themselves become beacons. If you follow the path of the lights, you will find Riverwalk. They are very distinct and they become the

identifying feature of the entire area," says Dugan.

Creating this link with past tradition was an essential part of the overlying Riverwalk concept. "Downtown Ft. Lauderdale had an underutilized riverfront," Dugan says. "The idea was to bring a green oasis into the downtown area and create public open space with pedestrian access along the water's edge, as a catalyst for downtown redevelopment. We placed heavy emphasis on shade canopies from existing and relocated trees, and we wanted substantial lighting at night to foster evening activity."

Although the area varies in presence from a new performing arts center and new office buildings to a two-block historic district, the lighting fixtures remain a constant, blending harmo-



TEXTURES: (Right)
The fiberglass poles have a textured spatter finish that makes them resemble cast iron, and also limits reflection.

NON-GLARE GLOBES: (Below)
Frosted metal halide lamps are enclosed in milk white glass globes to prevent glare in the eyes of passersby.

niously with each generation of architecture.

To maintain the timeless quality, Edward D. Stone, Jr. & Associates adapted an existing lighting fixture, and chose classic, turn-of-the-century fiberglass lamp post designs. "The shape and texture of the lamp posts were instrumental in creating a traditional vernacular," Dugan says. "At the same time, we wanted a traditional look, but not one that was out-of-date." The spatter finish, which creates a textured look that resembles cast iron, was also essential in limiting reflection. Additionally, the low maintenance and weatherproof benefits of fiberglass posts were important factors in this high-humidity region.

The fixtures are fitted with 100-watt, frosted metal halide lamps enclosed in milk white glass globes that protect the light sources and prevent glare.

"The small-scale and non-vehicular applications gave us the opportunity to use a lighter, less massive post, which was also appropriate for low mounting heights. The direct burial approach saved us money on footings so we were able to put



more back into our budget for the fixtures themselves," Dugan explains.

A deep blue-green, dubbed "Riverwalk blue," was selected for the fixtures and posts, which are spaced between 40 and 70 feet apart at an 11-foot height. Other pedestrian amenities, such as benches and sunshades, carry variations of this color, as do graphics and maintenance uniforms.

The deliberate low mounting height voids blockage by extensive tree foliage, the mainstay of the tropical ambience. Low mounting height and repetitive fixtures also contribute to the desired continuous necklace of lights effect.

Designed to a pedestrian scale, Riverwalk provides an intimate environment of nautical, whimsical and cultural appeal. In recognition of its overall concept and design, Edward D. Stone, Jr. & Associates has been granted the 1992 Frederic B. Stresau Award for Excellence by the Florida Chapter of the American Society of Landscape Architects (ASLA) for this project.

According to Dugan, the 28-acre planned park is a five-phase project. The first two phases have been completed, phases three and four are 80 percent complete and phase five is still in the design stage. In total, approximately 150 to 200 lamp posts will be utilized for the project. The light standards vary in application, some with light fixtures only, some with luminaires and decorative banners, and still other with graphic banners only. All posts include electric receptacles for festival and holiday use.

And as night falls, the Riverwalk path is illuminated by a necklace of lights that connect an era gone by with those still to come.

DETAILS

PROJECT: RIVERWALK

LOCATION: FORT LAUDERDALE, FL

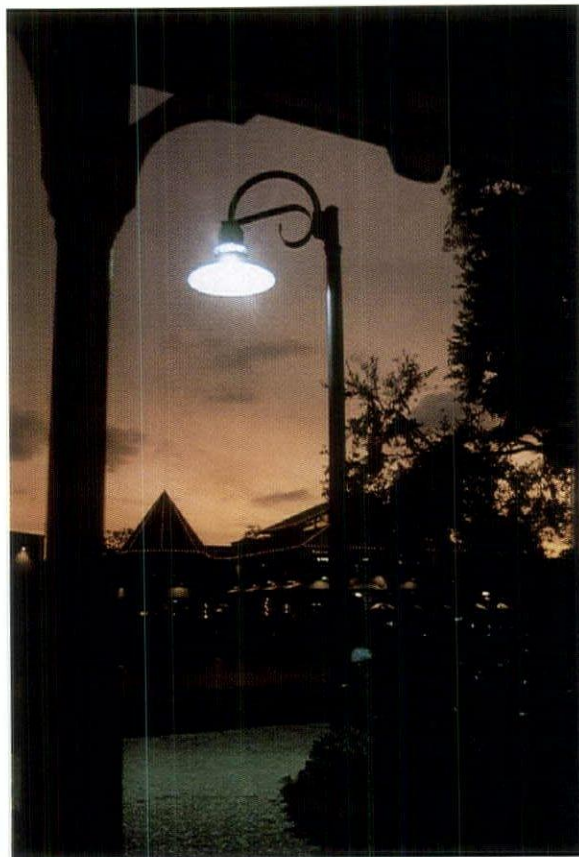
LANDSCAPE ARCHITECT/LIGHTING DESIGNER:

EDWARD D. STONE, JR. & ASSOCIATES, ROBERT DUGAN, project manager

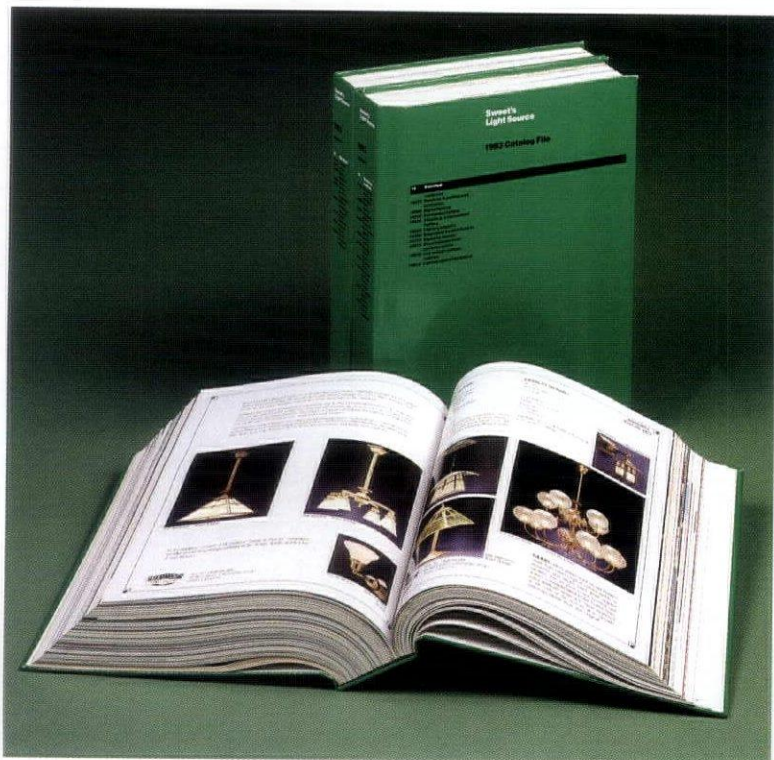
PHOTOGRAPHER: COURTESY OF EDWARD D. STONE, JR. & ASSOCIATES

LIGHTING MANUFACTURERS: STREET LIGHTING EQUIPMENT CORPORATION: lighting fixtures, W.J.

WHATLEY, INC.: fiberglass lamp posts



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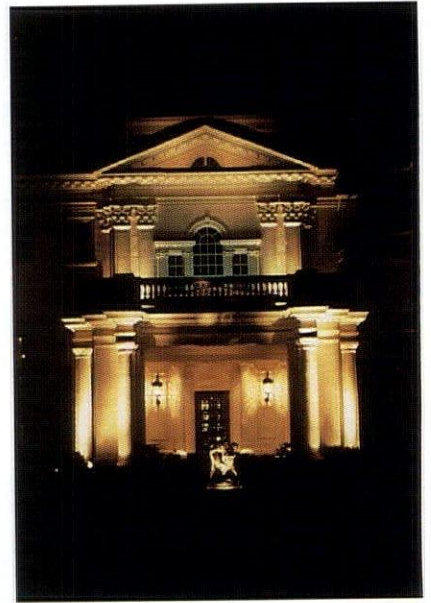
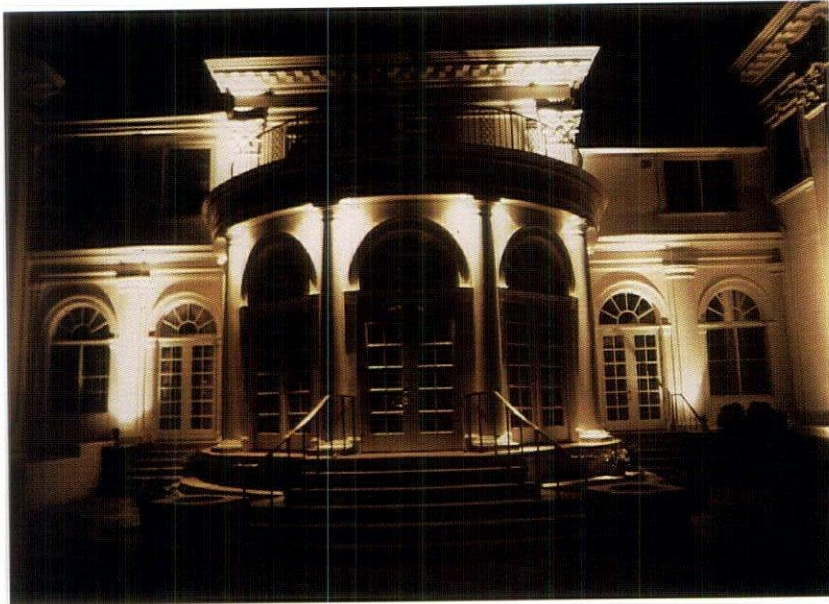
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NEW LOOK FOR OLD OAKS

BACK BEAUTY: (Below left) The rotunda at the rear of the structure is lit with a combination of PAR 30 and adjustable MR 16 fixtures.

CLASSICALLY CONCEALED: (Below right) Ground-mounted PAR fixtures uplight columns and add depth and dimension to the restored building facade.



CHALLENGE The Old Oaks Country Club in Purchase, NY, is housed in a former private mansion in a wealthy area of the city. The architect was hired to renovate the building facade, which had begun to deteriorate from age and weather conditions. Lighting designer Robert Singer was commissioned to provide lighting not only for the facade, but the entire site, which includes roadways, parking lots and landscaping. Though there were budgetary constraints, the owners wanted to enhance the architecture of the building and create a dramatic, elegant environment. "The members are paying a lot of money to belong to a place like this," says Singer, "so they wanted it to exude elegance and glamor."

METHOD Durable, virtually maintenance-free fiberglass has been used on the facade to replace the deteriorating plaster. The approach taken by the Singer was to highlight the ornate, graceful architecture with an interplay of light and dark areas. "With a facade like this one, it's not necessary to floodlight the whole building," says Singer. "Instead, you emphasize the elements that are important to the architecture. Creating light and dark spaces makes for a much more dramatic presentation."

Generally, the lighting is accomplished with ground-mounted fixtures that cast light all the way up to the top of the columns. "There's about a 60-80 foot throw with some of these fixtures," says Singer. "We were originally going to use HID units, but they weren't cost effect, so 90-watt quartz PAR 38 fixtures have been specified. They come in spot and flood types—in most cases we used spots."

Positioning some of the fixtures behind the columns creates a sense of depth and dimension. At the front of the building, the

smaller columns on top and in front of porte cochere are high-lighted with PAR 30 fixtures; the larger columns are uplighted with 90-watt PAR 38s.

The lanterns at the front entrance, which had existed previously, have been cleaned, refinished and restored. Patterned rays emanate from the light of 100-watt A-19 lamps cast through pebble glass panels. A large chandelier which had been suspended at the front entrance has been relocated to the side of the building.

Submerged incandescent fixtures fitted with rich blue glass filters illuminate the water in the fountain at the front entrance. The fountain sculptures are accented with uplight from 250-watt very narrow spot PAR 38 fixtures.

In the rotunda at the rear of the building, a combination of PAR 30 and adjustable MR 16 fixtures are used.

To preserve the integrity of the design and for ease of maintenance, individual circuits have been connected to timers which turn the lights on when needed.

CONCLUSION Previously the building had been floodlit and rendered in a flat and uninteresting way. Using illumination to delicately highlight the elegance of the structure has given Old Oaks the dramatic presentation by night that it deserves.

DETAILS

PROJECT/OWNER: OLD OAKS COUNTRY CLUB

LOCATION: PURCHASE, NY

ARCHITECT: BRUCE LEVY, HASTINGS DESIGN GROUP

LIGHTING DESIGNER: ROBERT SINGER, ROBERT SINGER ASSOCIATES

PHOTOGRAPHER: ROBERT SINGER, ROBERT SINGER ASSOCIATES

LIGHTING MANUFACTURERS: YORK, BRONZELITE, GE, KIM

THE COMMERCIAL DESIGN NETWORK LIGHTING PRODUCT GUIDE

THIS SPECIAL PRESENTATION OF STATE OF THE ART LIGHTING EQUIPMENT, WHICH APPEARS IN THE PUBLICATIONS OF THE COMMERCIAL DESIGN NETWORK (*ARCHITECTURAL LIGHTING, CONTRACT DESIGN, AND FACILITIES DESIGN & MANAGEMENT*) INCLUDES INFORMATION ON A RANGE OF PRODUCTS FROM DECORATIVE AND OUTDOOR LUMINAIRES, TO LAMPS AND BALLASTS. FOR READERS' CONVENIENCE, THE NAMES, ADDRESSES, AND TELEPHONE AND FAX NUMBERS OF MANUFACTURERS HAVE BEEN LISTED, IN ADDITION TO READER SERVICE CARD NUMBERS. THIS GUIDE IS ONLY ONE WAY IN WHICH THE NETWORK PUBLICATIONS ARE WORKING TOGETHER TO BENEFIT BOTH THE MANUFACTURING AND SPECIFIER SEGMENTS OF THE ARCHITECTURAL AND DESIGN COMMUNITIES.

BALDINGER ARCHITECTURAL LIGHTING

19-02 Steinway Street
Astoria, NY 11105
Tel. 718-204-5700/Fax 718-721-4986

Contact: Linda Senter

Product Shown: Lante is part of the Villa Collection designed by Michael Graves. His visit to Villa Kerylos in France inspired the design. It is shown with onyx diffusers and an Etruscan bronze finish. The pendant provides the warm and welcoming effect of candlelight.

Company Profile: Baldinger produces the lighting collections of world-renowned architects and designers, as well as wonderfully handcrafted custom lighting in all styles.

Circle 200

BOYD LIGHTING COMPANY

Fifty-six Twelfth Street
San Francisco, CA 94103-1293
Tel. 415-431-4300/Fax 415-431-8603

Contact: Josie Kelley

Product Shown: The Eclipse combines aesthetics with ADA requirements for public accessibility. A diffuser of white alabaster or white flash glass softly diffuses illumination from incandescent or fluorescent sources. Model 9788 uses two, A-17 60-watt maximum or two C-11 60-watt maximum lamps. Model 9789 uses two A-17 40-watt maximum or two C-11 40-watt maximum lamps. Both models can also house two PL13 13-watt fluorescent lamps. Finishes include aluminum or brass. The unit is 12 inches high, 9 1/8 inches wide, with a projection of 4 inches, and is UL listed.

Circle 202

NORBERT BELFER LIGHTING CO., INC.

1703 Valley Road
Ocean, NJ 07712
Tel. 908-493-2666/Fax 908-493-2941

Contact:
George Kottakis

Product Shown: The compact fluorescent Edge™ by Norbert Belfer Lighting, Inc. is an individual wall cove unit or a linked series of modules. It utilizes 40- and 50-watt bi-x lamps in 1-lamp 2-foot, 2-lamp 4-foot, or 3-lamp 6-foot lengths with electronic

high-efficiency ballasts. The Edge offers the ultimate in shadowless indirect illumination from a very slim extruded aluminum profile.

Company Profile: Other compact fluorescent products manufactured by Norbert Belfer include the WorkStation Series, Linear Task Force, and The Ramp.

Circle 201

CSL LIGHTING MFG.

25070 Avenue Tibbetts
Valencia, CA 91355
Tel. 805-257-4155/Fax 805-257-1554

Contact: Richard Stellar

Product Shown: Working with General Electric Lighting, CSL Lighting Mfg. is developing the most varied line of luminaires using the energy saving 2D compact fluorescent fixture. The 2D fixture produces the same light as a 50-watt incandescent lamp, with only 10-watts of power. Also, a 100-watt light output is possible with 21-watts of 2D power. Fixtures for residential applications, architectural and retrofit are becoming available in pendant, surface drum and recessed styles.

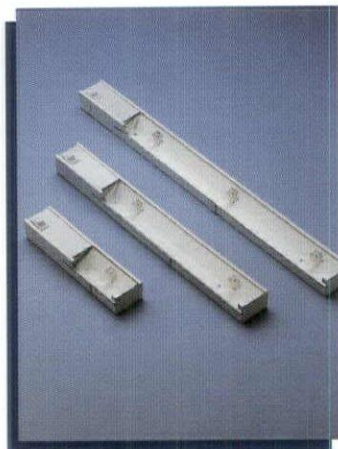
Company Profile: Low-voltage, track, decorative, and 2D fluorescent lines are also available.

Circle 203

THE COMMERCIAL DESIGN NETWORK LIGHTING PRODUCT GUIDE

CSL LIGHTING MFG.

25070 Avenue Tibbetts
Valencia, CA 91355
Tel. 805-257-4155/Fax 805-257-1554



Contact: Richard Stellar

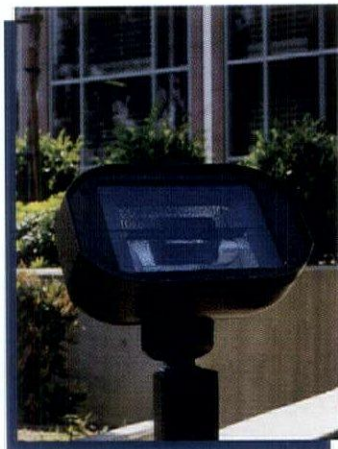
Product Shown: Mitelite™ halogen under-cabinet lighting is available in three sizes, and is the slimmest, most unobtrusive undercabinet light on the market. A mere 1 1/4 inches deep, and fully dimmable, Mitelite delivers higher lumens, brighter light than any other. Easy to mount, instant-on (no flickering), and available with a cord, switch and plug. Contractor friendly models are also available that hard-wire directly to house current.

Company Profile: Low-voltage, track, decorative, and 2D fluorescent lines are also available.

Circle 204

HYDREL

12882 Bradley Avenue
Sylmar, CA 91342
Tel. 818-362-9465/Fax 818-362-6548



Contact: Hal Madsen

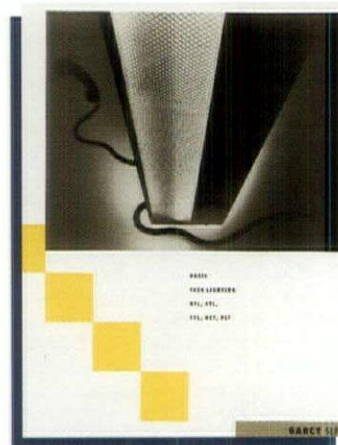
Product Shown: 7000 Series Architectural Lighting System has four-way mounting orientation, from the ground, wall, ceiling or pole. Five basic light distributions are offered on ground mount version. Optional internal glare control. Units lamped to 175-watt HID. Tough, smart looking, cast aluminum package with accessories. LightFair booth 432.

Company Profile: Hydrel features innovative outdoor lighting, with advanced technology for sealing in-grade surface mount, wall mount, and underwater fixtures to meet rigors of outdoor environment.

Circle 207

GARCY/SLP

209 Kirby Road
Portland, TN 37148
Tel. 1-800-221-7913/Fax 615-325-7727

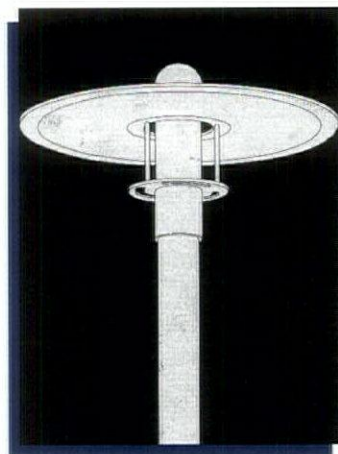


Product Shown: Garcy/SPL offers a wide range of furniture-integrated task and ambient lighting fixtures, compatible with most major open plan furniture systems. They offer fixtures with many lamp, lens and convenience options to meet individual performance and energy saving requirements.

Circle 205

LAMPAS USA

6327 Cambridge Street
Minneapolis, MN 55416
Tel. 1-800-659-1135/Fax 612-475-0090



Contact:
Jennifer Vervoort-Smith

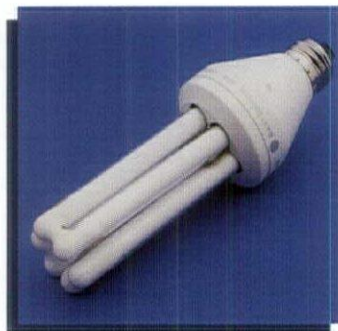
Product Shown: The elegant strength of Danish design...Lampas L25 Exterior Pole Mounted Fixture. Constructed of 3mm galvanized steel plate. Finishes include warm galvanized or baked-on enamel in a variety of colors.

Company Profile: The award-winning Lampas product program consists of high-quality, hand-crafted lighting, signage, and other design elements, both for internal and external use. For commercial, industrial and institutional use, as well as for domestic buildings.

Circle 208

GE LIGHTING

Nela Park
Cleveland, OH 44112
Tel. 216-736-4466



Contact: Cynthia Kotora

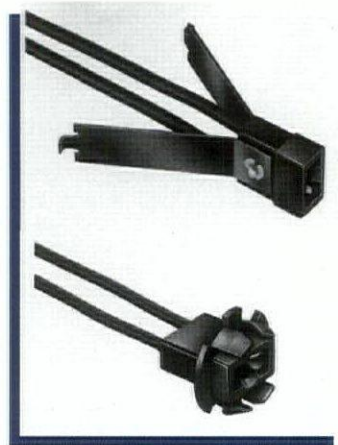
Product Shown: The Triple Biax™ is currently the only high-power factor (HPF) electronic screw-in compact fluorescent in the industry. Major benefits include compact size, long life (8,000 hours), energy cost savings, excellent color (82 CRI), and flexibility in application. It consists of three legs each forming the sides of a triangle. It is 6.6 inches long and 20 watts, providing the same initial light as a standard 75-watt incandescent lamp. The HPF is 0.9 with a low harmonic distortion

of <33 percent. It should be used on 120-volt circuits and not on any dimming circuits. Applications include table lamps, downlighting, corridor lighting, wall sconces and post lighting.

Circle 206

LEVITON MANUFACTURING CO., INC.

59-25 Little Neck Parkway
Little Neck, NY 11362
Tel. 718-229-4040/Fax 718-631-6439



Contact: Charlotte Nash

Product Shown: Wedge Base lampholders are designed for T-5 and T-3 1/4 miniature incandescent lamps used in landscape, emergency, and indoor accent lighting.

Company Profile: Leviton offers a full line of lampholders for new light sources, including fluorescent, quartz, halogen, metal halide, and high-pressure sodium.

Circle 209

THE COMMERCIAL DESIGN NETWORK LIGHTING PRODUCT GUIDE

LIGHTOLIER

100 Lighting Way
Secaucus, NJ 07096
Tel. 201-392-3832/Fax 201-864-2158

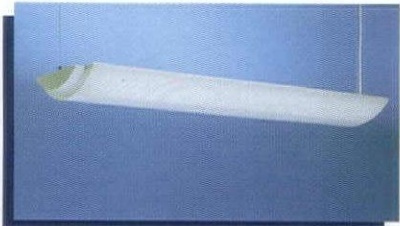


Lightolier also introduced compact fluorescent kitchen and bath lighting. Downlights use advanced metal halide and White Son lamps.

Circle 210

LITECONTROL CORPORATION

100 Hawks Avenue
Hanson, MA 02341
Tel. 617-294-0100/Fax 617-293-2849



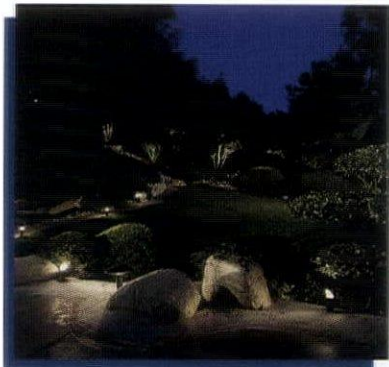
indirect distribution, perfect for today's office ecology. The 13-inch by 3 1/2-inch fixture, which houses two, three, or four T8, or two or four 40-watt compact fluorescent lamps, is perceptually diminished in size by its lighted perforated sides. The unit is well-suited for large and small office environments.

Company Profile: Litecontrol's luminaires are created for offices, lobbies, health care facilities, health clubs, conference and reception areas, and universities.

Circle 211

LUMIERE DESIGN & MANUFACTURING, INC.

31360 Via Colinas, #101
Westlake Village, CA 91362
Tel. 818-991-2211/Fax 818-991-7005

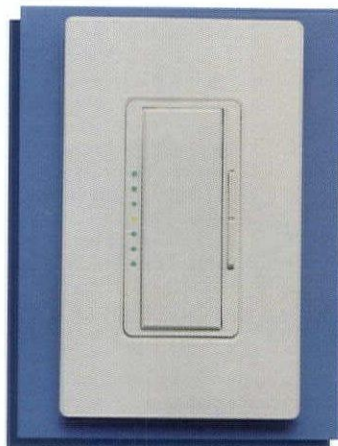


Product Shown: Lumiere welcomes you to the next generation of landscape lighting fixtures. We present our products with great pride and are genuinely interested in your review and appraisal. "Of course, it's Lumiere," has become the standard phrase at the presentation of each new Lumiere lighting fixture. For further information please contact your local Lumiere sales representative, or call 1-800-326-3908.

Circle 212

LUTRON ELECTRONICS CO., INC.

7200 Suter Road
Coopersburg, PA 18036-1299
Tel. 1-800-523-9466/Fax 215-282-3044



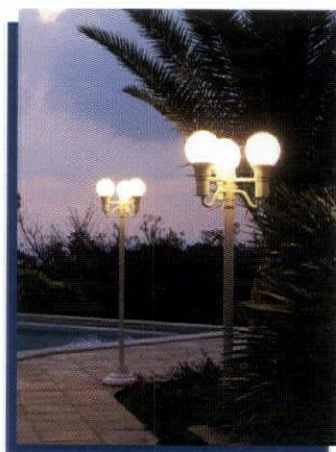
Product Shown: Maestro™ dimmers offer full-range dimming of incandescent or low-voltage lighting and are part of Lutron's Symphony Series lighting controls. The micro-processor-based Maestro dimmers feature a designer switch with a discreet, rocker-style dimmer. A series of LEDs to the left of the switch indicate light level.

Company Profile: Lutron manufactures lighting controls and architectural lighting control systems for residential, commercial, industrial and institutional applications.

Circle 213

NORAL LIGHTING, INC.

P.O. Box 360532
Cleveland, OH 44136
Tel. 216-273-7155/Fax 216-273-5007



Contact: Jeff Bush

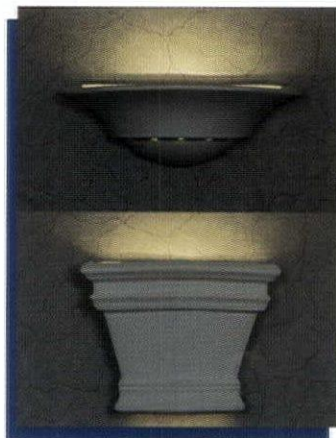
Product Shown: Noral Lighting offers a complete line of high-quality, cast-aluminum outdoor fixtures, including exterior wall mounts, surface mounts (interior or exterior), commercial-size HID parking lot fixtures and posts, and a complete bollard package. Traditional family of fixtures available in matte black, white and patina green finishes. The new compact line shown is available in 10 additional glossy colors and are ETL approved.

Company Profile: Traditional-styled outdoor residential and commercial lighting, surface mounts and bollards.

Circle 214

OR LIGHTING CO.

7412 Fulton Avenue, Suite A
N. Hollywood, CA 91605
Tel. 818-982-1902/Fax 818-781-4526



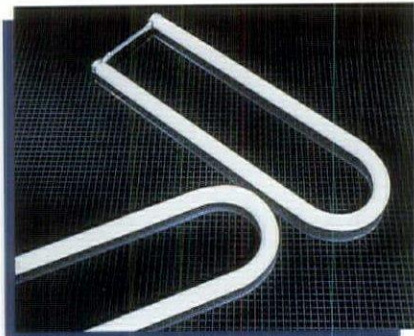
Product Shown: The fine line of ceramic lighting fixtures is available in any of three colors: bisque white, glazed verde green, and glazed black with gold strings. Fixture prices range from \$18.36 to \$24.50. These fixtures are proudly made in the U.S.A. Shown are two wall sconce models with bisque white finishes.

Circle 215

THE COMMERCIAL DESIGN NETWORK LIGHTING PRODUCT GUIDE

PHILIPS LIGHTING

200 Franklin Square Drive
P.O. Box 6800, Somerset, NJ 08875-6800
Tel. 908-563-3000/Fax 908-563-3747



Product Shown: The TL 80/6 U-bent fluorescent, the only 6-inch U-bent T8 lamp on the market, has been added to the T8 line. Designed to retrofit standard 2- by 2-foot fixture systems where T12 6-inch U-bent lamps are typically used, the TL 80/6 lowers energy consumption by up to 43%. With 85 CRI and 2,800 lumens output, they are ideal for offices, retail, and hotels.

Company Profile: Philips Lighting markets over 4,000 lamp types to the retail, industrial/commercial, consumer and original equipment manufacturer markets.

Circle 216

SPI LIGHTING INC.

10400 North Enterprise Drive
Mequon, WI 53092
Tel. 414-242-1420/Fax 414-242-6414



Contact: Cindy Frederick

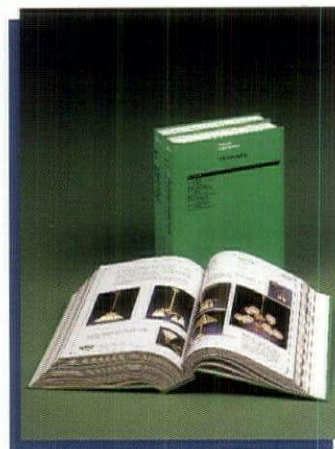
Product Shown: The Options Series pendant is 2 inches high, 29 inches in diameter and incorporates a new reflector system. Acrylic bottom shields are available in various shapes and colors to accessorize the standard fixture. A downlight accessory provides an accent pattern on the bottom shield.

Company Profile: SPI indirect fixtures are specified for public spaces, merchandising areas, recreational interiors, education facilities, manufacturing and storage areas, and office environments.

Circle 217

SWEET'S GROUP

1221 Avenue of Americas, 20th Floor
New York, NY 10020
Tel. 1-800-442-2258/Fax 212-512-2348



Product Shown: Sweet's Light Source is the industry's most comprehensive source of lighting product information for residential and commercial construction. It offers: Buy-Line, the 800-number service that links construction professionals to manufacturer's reps nearest them; ProductLine, a full-color product tabloid; 1,000+ pages of specifications and four-color photos, indexing by manufacturer, product and trade name, a glossary and editorial from major lighting associations; and endorsements by the IALD and IES, with support from the EPA. To place information in Sweet's, call 1-800-421-9330.

Circle 218

TOSHIBA AMERICA CONSUMER PRODUCTS, INC.

Lighting Products & Components Div.
1010 Johnson Dr., Buffalo Grove, IL 60089-6900
Tel. 1-800-453-4242, ext. 273/Fax 708-541-1927



Contact: Boyd Corbett

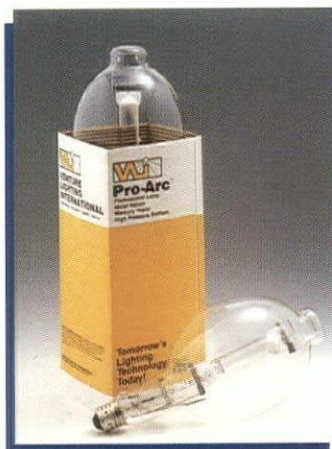
Product Shown: High-frequency T8 Electronic Ballasts' patented technology combines benefits of rapid-start and parallel circuitry. Cathodes heat before start-up for maximum lamp life with continued operation if lamps fail. The T8 uses 50% fewer components for superior reliability with power factor >99%, harmonic distortion >10%, 5-yr. warranty.

Company Profile: Toshiba Lighting manufactures many high-quality lighting products including T12 electronic ballasts and halogen, fluorescent and HID lamps.

Circle 219

VENTURE LIGHTING INTERNATIONAL, INC.

32000 Aurora Road
Solon, OH 44139
Tel. 216-248-3510/Fax 216-349-7777, 800-451-2605



Contact: Richard A. Crossen

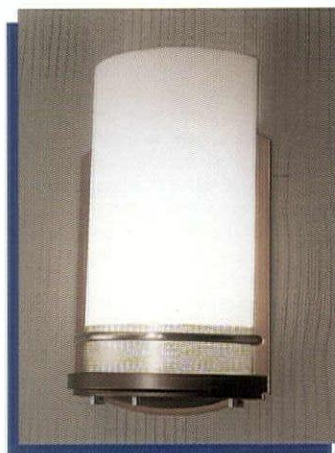
Product Shown: The MH 1500/U/XL is a long life 1500-watt metal halide lamp to be used in professional sports lighting and large area flood applications. The longer life is accomplished through the use of a revolutionary arc tube design. For more information, call toll free: 1-800-437-0111.

Company Profile: Venture Lighting International, Inc. offers a comprehensive line of metal halide lamps which also include these fine product lines: Low Wattage, Open Fixture, Energy Master, White-Lux and PAR metal halide lamp families.

Circle 220

WINONA LIGHTING

3760 West Fourth Street
Winona, MN 55987
Tel. 507-454-5113/Fax 507-452-8528



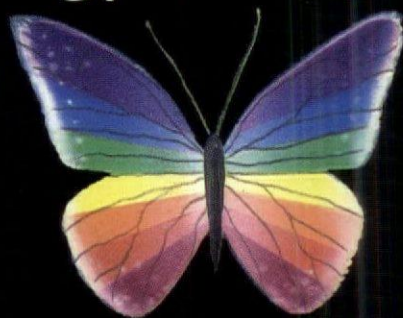
Contact: Ted Biesanz

Product Shown: Sector (#4302) is part of The Serrif Series, which is a collection of one pendant and two wall bracket styles. Sector is a half cylinder wall bracket with stainless steel perforated metal detailing. The acrylic lens is sand-etched to a matte finish. Iridescent gold and medium bronze painted finishes are offered. Lamping is quartz halogen and compact fluorescent.

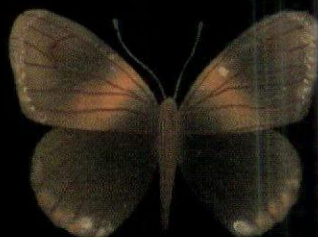
Company Profile: In addition to its standard fixture line, Winona Lighting is also a nationally recognized custom lighting manufacturer.

Circle 221

One Company Has Emerged As The Leader In Metal Halide Technology



For almost ten years, there has been only one lighting company that has focused its research and development efforts exclusively on Metal Halide technology—Venture Lighting International.



Our vision from the earliest days of our corporation has been very clear—Become the best metal halide company in the world. Clearly, technical innovation was the cornerstone in building toward our vision. We have pushed the envelope consistently throughout our life.



Our products provide the opportunity to replace incandescent lamps in many applications and save a great deal of electrical energy. Our Energy Master™ lamps allow users to replace standard high wattage metal halide lamps with energy saving products.



Venture Lighting's range of metal halide lamps continues to dwarf our competition. For more information check our listings in Sweets Light Source or Architects First Source. Or, better yet, call us today and we will rush you our latest product catalog. You'll see why Venture Lighting has emerged as the leader in metal halide technology.



VENTURE LIGHTING INTERNATIONAL, INC.®

32000 Aurora Road • Solon, Ohio 44139, USA
(216) 248-3510 • 1-800-437-0111



Circle No. 31 on product service card

GE LIGHTING INSTITUTE COURSES

Upcoming GE courses include: May 19-21, 1993: Distributor Sales Representatives. Registrations for this must be approved and signed by the GE Lamp Sales Representative.

The course is for outside and inside sales personnel and lighting specialists of electrical supply firms, particularly those reps who may be relatively new to lamp and lighting sales activities (at least six months selling experience with lighting products is requested.) Course fee for the two and a half day seminar is \$300.

May 24-26, 1993: Architects and Contract Interior Designers. The course is intended for architects and interior designers specializing in store, commercial and institutional projects who wish to enhance their lighting knowledge. The approach is basic and non-technical with workshops and hands-on sessions. Course fee for the two and a half day seminar is \$400.

June 7-11, 1993: Fundamentals of Commercial & Industrial Lighting. Basic commercial and industrial lighting product and application training for newcomers to the lighting industry. Course fee for the four and a half day seminar is \$500.

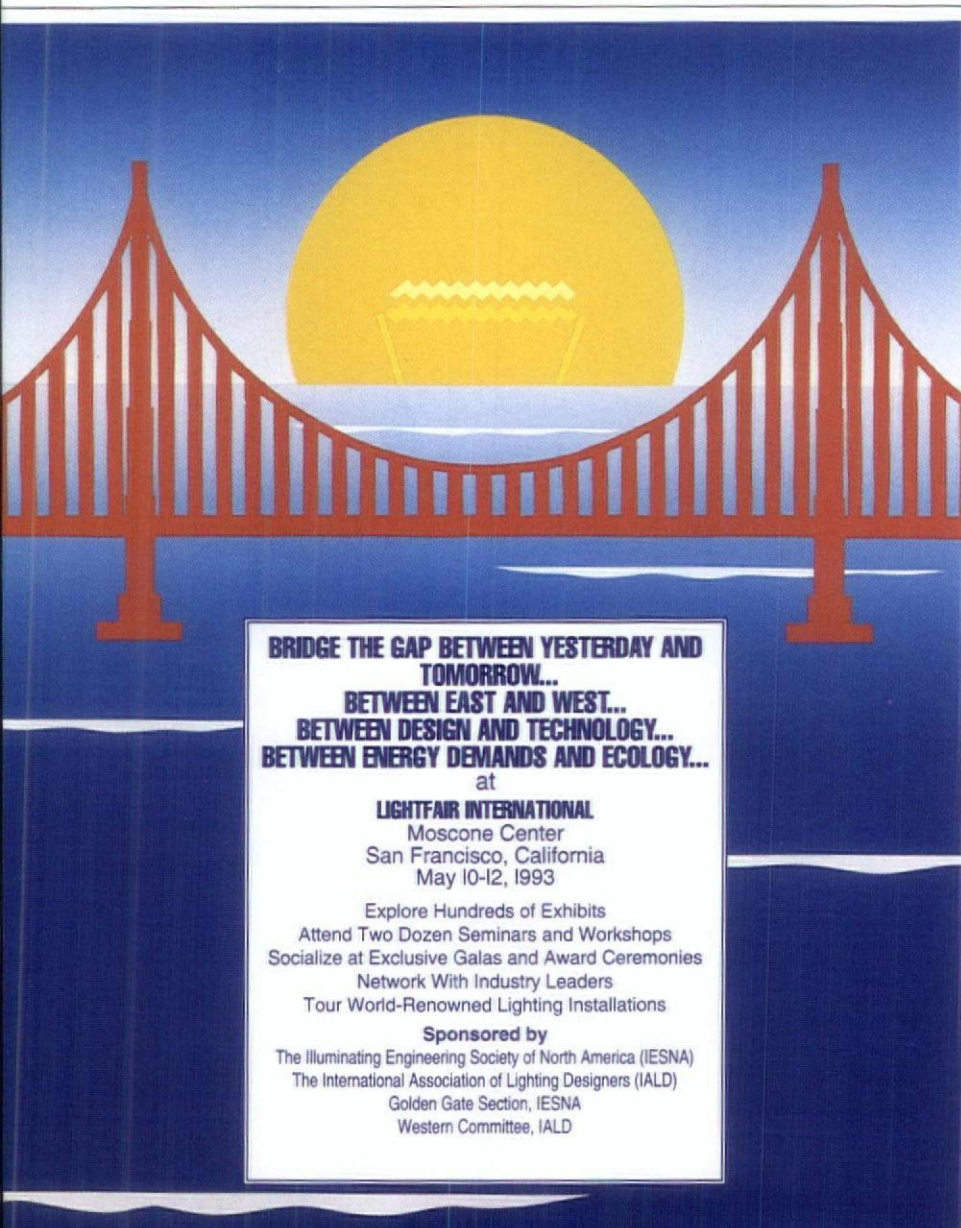
Contact: GE Lighting Institute, GE Lighting, Nela Park, Building 326, 1975 Noble Road, Cleveland, OH 44112-6300, tel. 1-800-255-1200 or 216-266-9000.

**COURSES OFFERED AT
COOPER'S SOURCE**

Cooper's training center, the Source, offers three individual in-depth product seminars. Each seminar focuses on technological advancements in lamps and components, as well as the application and performance features of Cooper's product offering. There is an excellent opportunity for distributor sales personnel, specifiers or building owners to broaden their understanding of the design, installation and application of these varied lighting products. Incandescent Product Seminar will be held May 19, 1993; Fluorescent Product Seminar, June 16, 1993; and High-Intensity Product Seminar, July 28, 1993. No course fee.

August 18-20, 1993, a Lighting Fundamentals course will be offered. The seminar is structured to provide a foundation of knowledge in light and sight, terminology, lamps, color, light control and calculations. No prior experience in lighting is required. The course fee is \$325.

Contact: Cooper Lighting, 400 Busse Road Elk Grove Village, IL 60007, tel. 708-956-8400.



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BETWEEN EAST AND WEST...
BETWEEN DESIGN AND TECHNOLOGY...
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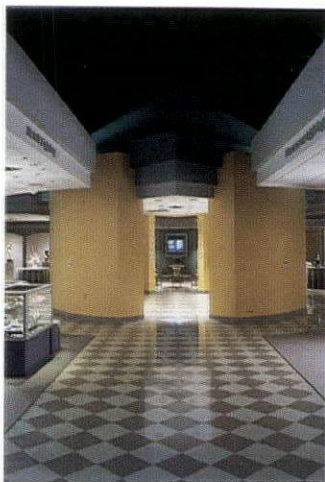
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Return to: LIGHTFAIR INTERNATIONAL, P.O. Box 675409, Marietta, Georgia 30067 A



Lithonia's 20,000 square foot Lighting Center in Conyers, GA.



OSRAM ACQUIRES GTE NORTH AMERICA

Osram GmbH has completed the purchase of GTE's North American lighting business. (In August 1992, Osram and GTE had signed a definitive agreement concerning the sale.) The combined company in North America will adopt the name Osram Sylvania Inc.

Dr. Wolf-Dieter Bopst, president and chief executive officer of Osram GmbH, which is headquartered in Munich, Germany, says, "By combining the strengths of Osram and Sylvania, our global lighting and precision materials businesses will be even more competitive in terms of technical innovation, quality, cost and new products."

Dean T. Langford, formerly president of the GTE Electrical Products Group, has been named president of Osram Sylvania Inc., headquartered in Danvers, MA. "The Sylvania brand name is being retained and will be used to identify most of the company's lighting products sold in North America," Langford says.

The Executive Committee, which will operate the business day-to-day, in addition to Langford, includes Dr. Wilfreid Backes, executive vice president and chief financial officer; Henny A. Peters, executive vice president, marketing and sales; and Vincent A. St. Onge, executive vice president, precision materials and components.

Osram Sylvania consists of GTE's former lighting and related precision materials and components businesses in the U.S., Canada and Puerto Rico, and of Osram's former businesses in the U.S. and Canada. In a separate transaction, GTE sold its International Lighting business to a group of investors advised by Citicorp Venture Capital, London.

Osram Sylvania, with sales of approximately \$1.3 billion, operates 30 manufacturing plants and employs about 13,000 people. The acquisition increases Osram's total worldwide sales by 70 percent to approximately \$3.3 billion and boosts Osram's employees worldwide to 29,000.

Osram is part of the Siemens family of companies. Siemens is an international electrical and electronics company, also headquartered in Munich.

LITHONIA OPENS LIGHTING CENTER

Lithonia Lighting has opened the Lithonia Lighting Center, which company officials describe as an educational resource for the lighting industry. Con-

sisting of 20,000 square feet of display and meeting space, the center is housed in one of the main Lithonia buildings in Conyers, GA.

The center is equipped with the most recent audio-visual and computer equip-

ment. Presentation space is designed for both large and small groups, and dining facilities are available for groups of up to 50 people. A knowledgeable, professional staff supports the center's activities.

The 11-section product demonstration area presents applications of varied fixture types, including fluorescent, recessed, track, emergency, industrial, architectural outdoor and sports lighting. Presentations of retail and residential lighting, controls, and Reloc wiring systems also are on display.

A lighting research room is equipped for photometric demonstrations, and a display area entry dom, demonstrates the connection between architectural elements and lighting.



**MR35 12V MR11
Pattern and Framing Projector**

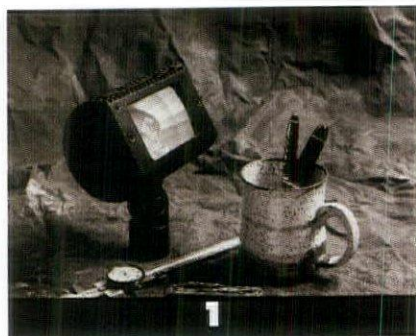


FF18 Compact Fluorescent flood

**The Art Of Projection
With
Energy Efficient Lighting**

Times Square Lighting
Rt 9W, Stony Point Industrial Park
Stony Point, New York 10980
(914) 947-3034





Six-Inch Tall Floodlight

The Micro-Flood measures only 5 1/2 inches wide by 6 inches tall, but offers the same aesthetic detailing and rugged construction of the company's larger AFL series of

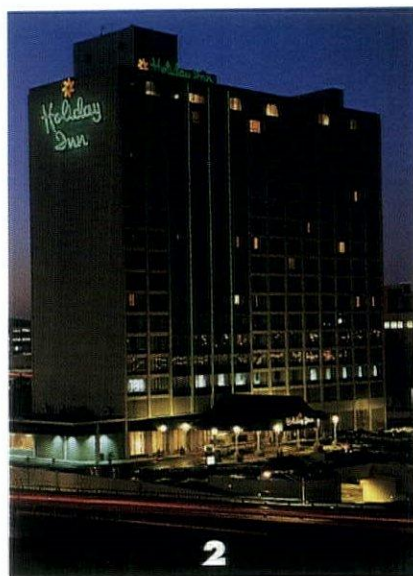
floodlights. Using quartz lamps up to 75 watts (120 volt or 12 volt) in conjunction with a sophisticated hydroformed reflector, the Micro-Flood is able to perform floodlighting functions usually reserved for much

bulkier fixtures. For narrower beam applications, 12-volt MR-16 lamps can also be specified. Barn doors or fixed hoods are available optional accessories. Kim Lighting Inc., City of Industry, CA. **Circle 90**

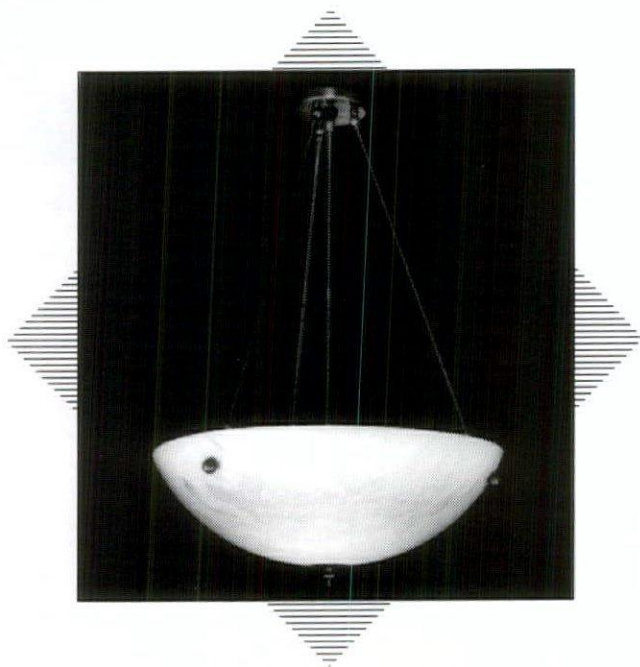
Fiberoptics For Outdoors

Fiberstars new 501 illuminator provides the state-of-the-art in fiber optic lighting. It features a Fiberstars-exclusive

400-watt high-intensity discharge (HID) lamp with a custom designed, solid-state power supply for extraordinary brightness. Shown is an application of Fiberstars fiberoptics in signage for Holiday Inn. Also available is SuperStars fiber optic tubing that emulates the look of a strip of tiny light bulbs—but with no small bulbs to burn out. Fiberstars, Fremont, CA. **Circle 91**



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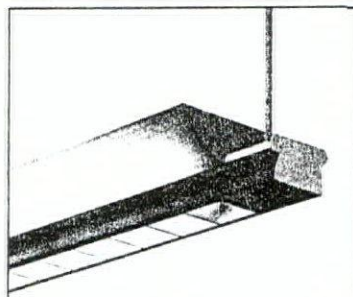
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lighting vocabulary
since 1945

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NEO-RAY
(718)-456-7400
fax: (718)-456-5492



SERIES 13

537 JOHNSON AVENUE, BROOKLYN, NY 11237

Circle No. 39 on product service card

ZUMTOBEL ACQUIRES STAFF LIGHTING

Zumtobel AG of Dornbirn, Austria, has acquired controlling interest in Staff, headquartered in Lemgo, Germany. Zumtobel AG, which designs and manufactures interior architectural lighting, was founded in 1950, and has 2,900 employees worldwide.

Mr. Jurg Zumtobel, chairman of Zumtobel AG, called the alliance "an ideal collaboration that will strengthen Zumtobel's global market position." The North American subsidiaries are Zumtobel Lighting, Inc., of Garfield, NJ, and Staff Lighting Corp. of Highland, NY.

EDISON PRICE'S NO MONEY DOWN FINANCING

Edison Price Lighting, manufacturers of energy efficient compact fluorescent fixtures, has announced an innovative financing program which enables customers to purchase its products with no money down. Corporate customers can then pay for their lighting fixtures over a five-year period.

According to Emma Price, president of Edison Price, "This program is important because it enables companies to finance energy efficient fixtures out of cash flow. If such lighting were used through the U.S., the savings on electricity would be \$186 billion per year. When you combine the cost savings with the impact on the environment, the benefits are extraordinary."

All Edison Price fixtures are available through this leasing program. The program was developed jointly with Bell Atlantic TriCon Leasing.

NORBERT BELFER APPOINTS PRESIDENT; WINS ENTREPRENEUR AWARD

Bruce D. Belfer has been appointed president of Norbert Belfer Lighting Manufacturing Company, Inc., Ocean, NJ, and its Canadian Division, headquartered in Toronto. Bruce Belfer has served the company in various capacities for the past 13 years. In 1985, he was appointed vice president of engineering, and in 1988, executive vice president.

During that time, he was responsible for the development of the linear compact fluorescent product line, as well as establishing the Canadian Division, and sales offices in London and Tokyo. He succeeds his father, Norbert Belfer, who will remain CEO and Chairman of the Board. Started in 1968, the company manufactures linear lighting systems and

specialty lighting products for domestic and foreign markets.

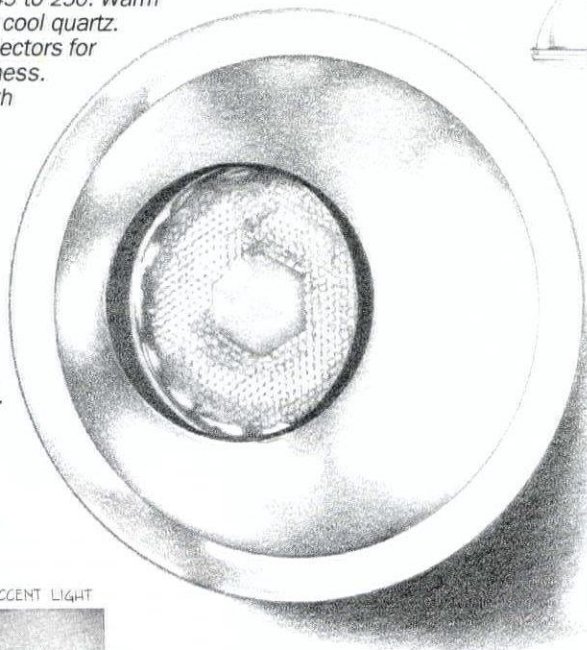
Kudos as well for Mr. Norbert S. Belfer, who is one of 11 recipients of the New Jersey 1992 Entrepreneur of the Year award. Mr. Belfer was inducted into the Entrepreneur of the Year Institute at the Institute's national conference held in Palm Springs, CA.

Mr. Belfer was nominated as the business person who has demonstrated the highest degree of social responsibility. Norbert Belfer Lighting is one of New Jersey's largest private employers of the mentally handicapped, and has developed many vocational training guides and programs that are used throughout the state. Mr. Norbert Belfer is chairman of the Business Advisory Board for the CPC Supported Employment Program for the Mentally Handicapped. He speaks throughout the state to encourage other businesses to hire the mentally handicapped.

The Entrepreneur of the Year program is sponsored nationally by Ernest & Young, Inc. magazine, and Merrill Lynch, and locally by the *Business Journal of New Jersey*, First Fidelity Bank, and Smith, Stratton, Wise, Heher and Brennan. Mr. Belfer was one of 333 award recipients nationwide from about 2,600 nominations in 38 regional competitions honored.

POWER TOOLS

Darklite® 38 downlights and accent lights: powerful PAR-38 tools for high contrast, long throws and spotlighting punch. 5", 6" and 7" apertures. Wattages from 45 to 250. Warm incandescent or cool quartz. Spun Alzak® reflectors for extra low brightness. Accent lights with both rotation and tilt locking. Darklite 38's, six enduring Standards. For information and the name of your representative, please call 212-838-5212; fax 212-888-7981.



DOWNLIGHT

ACCENT LIGHT



EDISON PRICE LIGHTING

ARCHITECTURAL LIGHTING AT ITS BEST

Circle No. 40 on product service card

IESNA CONFERENCE SET FOR HOUSTON

The Illuminating Engineering Society of North America (IESNA) has scheduled its Annual Conference for August 8-

12, 1993 in Houston, TX, at the Westin Galleria Hotel. Educational seminars will address topics including liability and legislation for lighting design, recycled light and its impact on the environment; the 1992 Energy Policy Act and its impact on efficiency and design; and lighting for the aging eye. Technical paper sessions will focus on design theory, measurement and controls, light sources, and psychology and vision. Also scheduled are workshops on lighting design for museum galleries and roadway lighting topics. Products and services will be showcased in a presentation format followed by tabletop exhibits of products from leading manufacturers.



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Because CBM Certified means:

Ballasts that provide specified lamp performance, including full light output and rated lamp life...from the "certified for use" types listed on the ballast label...performance that meets or exceeds the requirements of ANSI C82.1 and the applicable C78 standard.

Ballasts that meet the standards of ANSI/UL 935 and are listed by a nationally recognized testing laboratory.

Ballasts that provide efficient use of energy...operate at high power factor to minimize line current.

That's what the CBM Certification program is all about...providing assurance for you. Assurance that's supported by the CBM check-up. Periodically, independent ETL Testing Laboratories visits each participant's manufacturing facilities, selects random samples of "CBM Certified" ballasts from production or stock, and tests them to make sure they continue to measure up.

So insist on ballasts marked "CBM Certified"...when new fixtures are installed or for replacement in compatible fixtures...and get the assurance you've come to rely on all these years.



Free Booklet Contains facts about ballasts and fluorescent lighting it will pay you to know.

Certified Ballast Manufacturers
An association devoted to quality

1422 Euclid Avenue, Cleveland, Ohio 44115-2094

Participation in CBM is open to anyone who wishes to qualify.

Designer's Wednesday will be an entire day devoted to issues facing lighting designers including designing for kitchens and baths; applications of light and color; total lighting systems: lamps, ballasts, luminaires and controls; and restoration lighting. Also featured is the annual IIDA awards luncheon recognizing outstanding design projects for ingenuity and originality in lighting design.

Contact Valerie Landers, meetings manager, IESNA, 345 East 47 Street, NY, NY 10071, Tel. 212-705-7269, fax 212-705-7641.

NEMA CONTROLS GUIDE OFFERED

"The NEMA Guide to Lighting Controls" has been published by the Lighting Controls Council of the National Electrical Manufacturers Association. The guide is written in non-technical terms and extensively illustrated. The publication is 44 pages, and has seven sections preceded by an executive summary.

Chapters deal with: explaining functions of lighting controls, benefits derived from application of controls, including case histories where lighting improvements have generated financial benefits many times greater than utility cost savings alone. Controls options and applications, and techniques for identifying, selecting and evaluating control options are covered.

The guide is \$5.00 per copy. To order: National Electrical Manufacturers Association, 2101 L Street, N.W., Suite 300, Washington, DC 20037, 202-457-8400, Fax 202-457-8468. Remittance must accompany each order.

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SEEKING POSITION

Lighting and fixture designer, showroom owner, seeks position as lighting applications specialist or marketing representative for a U.S. lighting firm operating in Poland. Willing to relocate. Fluent in Polish and German. Lighting experience since 1978 in Poland.

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Appleton, WI 54913

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ARCHITECTURAL
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Garcy	615-325-7727	Marvin Kaplan	Rejuvenation Lamp & Fixture	503-281-7948	Jim Kelly
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Lightlier	201-864-2158	Cust. Service	Venture Lighting Int'l	216-349-7777	Rich Crossen
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