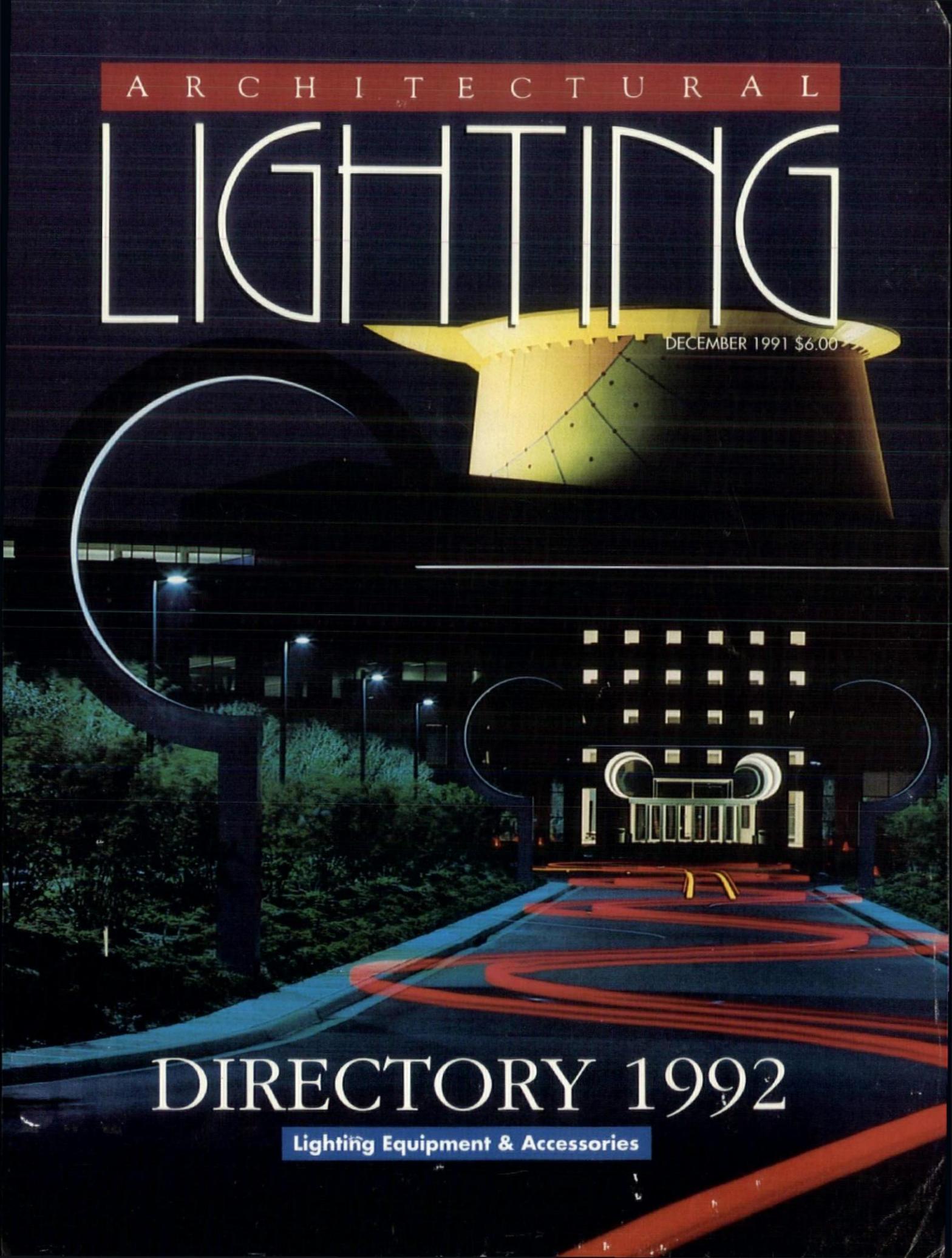


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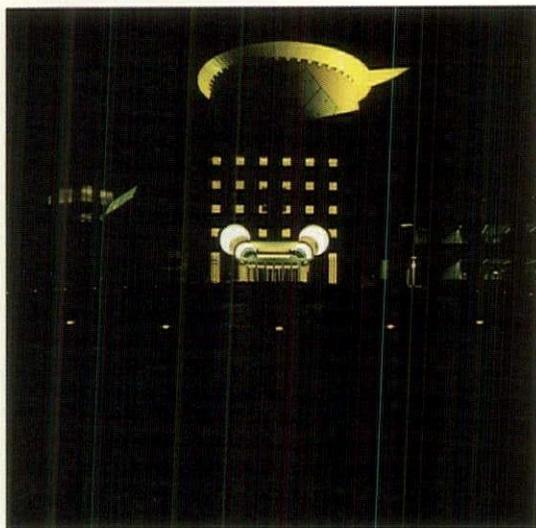
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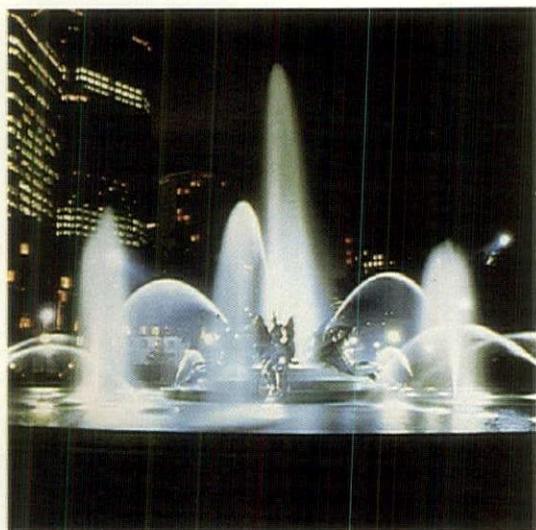
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LIGHTING

DECEMBER 1991

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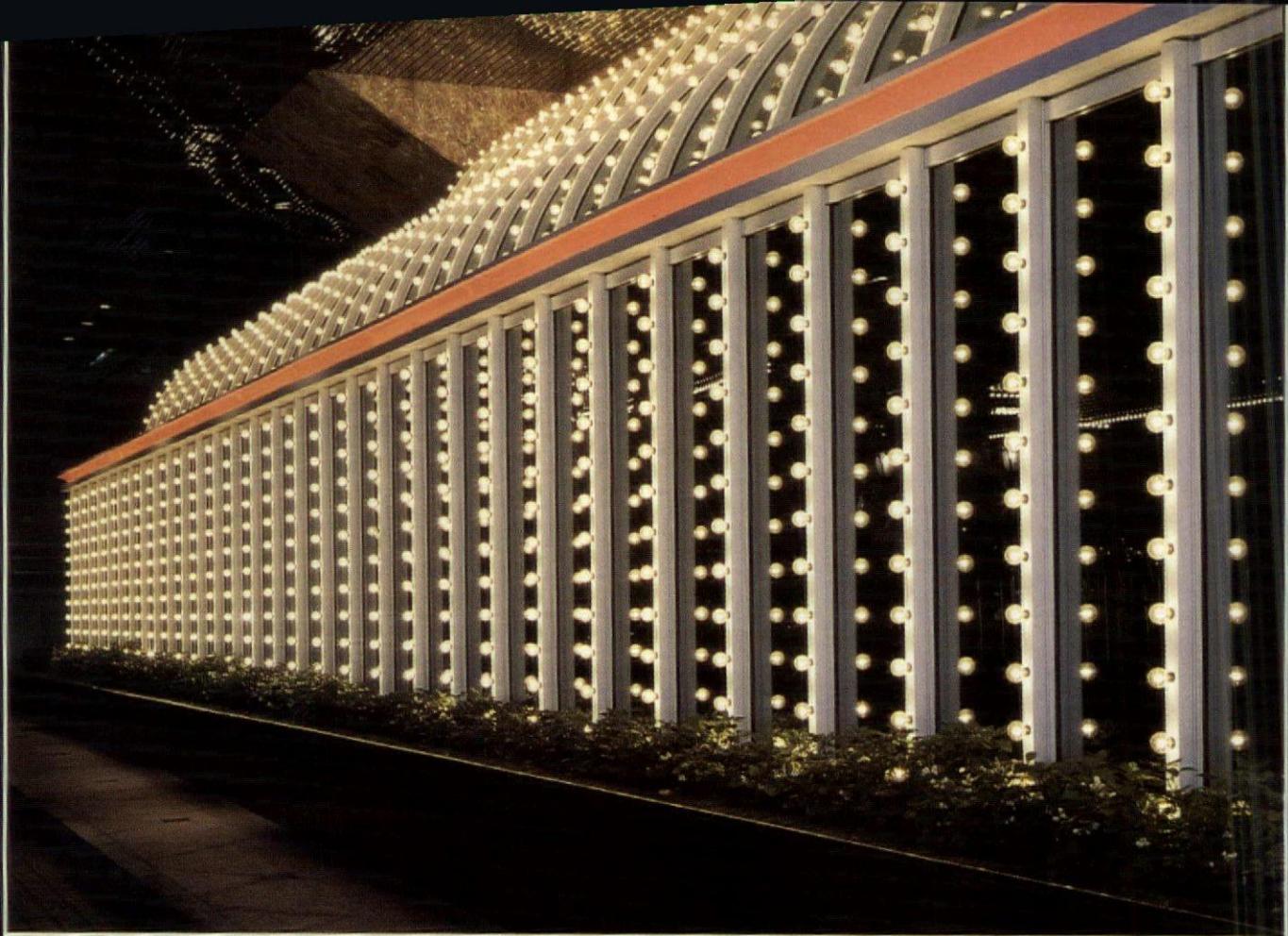
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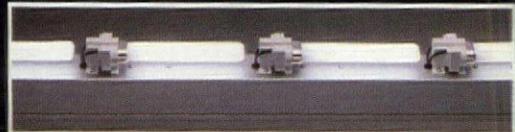
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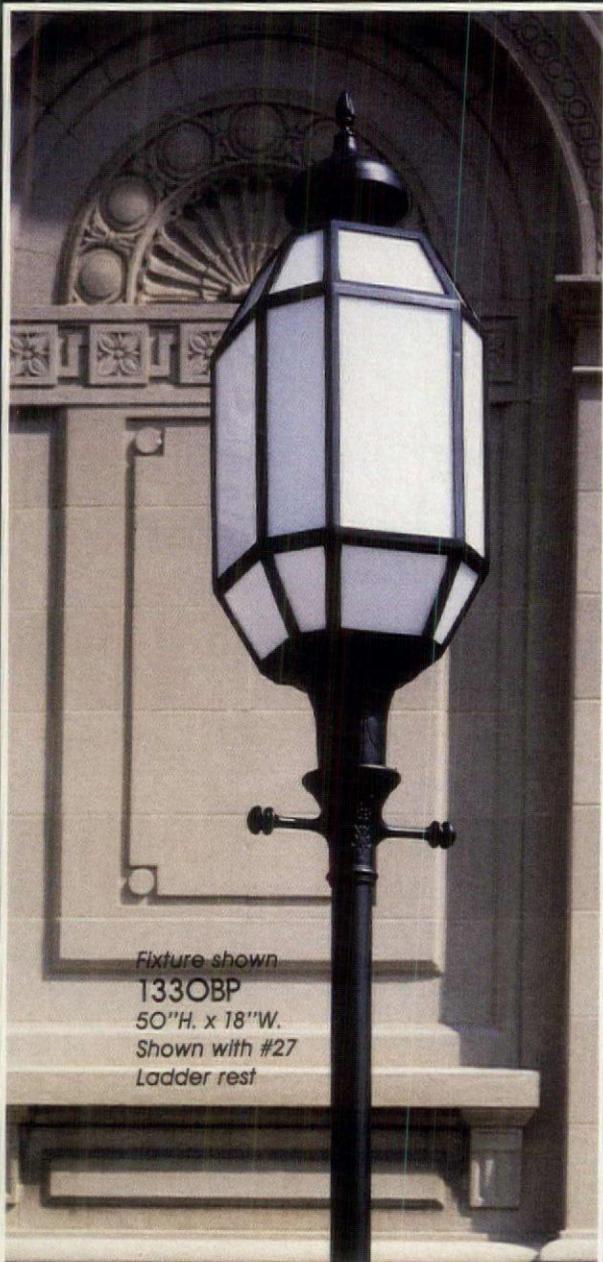
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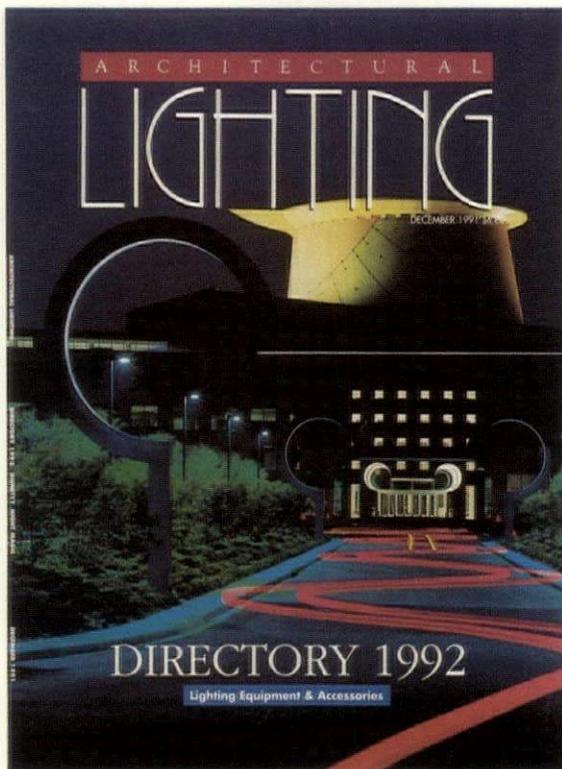
I was at a publishing-related cocktail party recently, and a colleague said to me, upon hearing what industry my magazine covered, "So, the lights are dimming, aren't they?" I am too ladylike to do what I really wanted to at that moment—haul off and punch him in the nose for rubbing in economic conditions that are affecting everyone in every industry, and not just lighting.

Probably the most hated word in the English language in America today is "recession." I had heard the "experts" say that the recession was supposed to begin turning around slowly at the end of the 1991 summer. I haven't seen that happen here in the Northeast yet.

What about 1992? It's an election year—maybe this will prove incentive enough to get our leaders cracking down even harder on this and other problems we face today.

But, though times are tough now, it is only temporary—things change in life, they go up and down, and this situation will sort itself out eventually as well.

I wish you all a happy holiday season, and hope you won't hold it against me for too long for including the following humorous (that's the intention, anyway) parody of "White Christmas." Feel free to sing along.



"Light Christmas"

*I'm dreaming of a Light Christmas
Just like the boom years long ago,
When the spotlights glistened,
And clients listened
To hear design plans that made us dough.*

*I'm dreaming of a Light Christmas
With every bouncing check I write.
May your bottom line not drop out of sight,
And may future Christmases be bright!*

WANDA JANKOWSKI
EDITOR-IN-CHIEF

FIFTEEN IESNA GUTH, WATERBURY AWARDS GRANTED

The 15 recipients of the 1991 International Illumination Design Awards (IIDA) were announced and honored at a special luncheon during the Illuminating Engineering Society of North America (IESNA) Annual Conference held in Montreal this past August. Edwin F. Guth Memorial Awards of Excellence went to: Bulgari: Howard Brandston, Robert Prouse, Randy Sabedra, H.M. Brandston & Partners; Mid-American Bank, Prudential Plaza: Mitchell Kohn; Custom Lighting Fixtures, Orlando International Airport: David Laffitte, KBJ Architects; Osaka Aquarium: Howard Brandston, Gene Stival (posthumously), Chou Lien, Thomas Thompson, David Bourgeois, H.M. Brandston & Partners; Paramount Hotel: Paul Marantz, Barry Citrin, Bill Sherman, Fisher/Marantz; Regional Municipality of Ottawa-Carleton Council Chambers: Wallace G. Eley, Crossey Engineering Ltd.; Temple Emanu-El Sanctuary: S. Leonard Auerbach, Larry French, S. Leonard Auerbach & Associates. Special Citation to: International Ice Festival: Stefan Graf, Chris Stuba, Fantasee Lighting. Paul Waterbury Awards of Excellence went to: Canadian War Memorial: Philip Gabriel, Martin Conboy, Gabriel/design & Joseph Johannes Design; Dame Point Bridge: Robert J. Laughlin, Robert J. Laughlin & Associates, and Gerald Lukach, Sverdrup Corp.; NEC Head Office Building: Motoko Ishii, Motoko Ishii Lighting Design, Inc.; The Palace of Fine

Arts: Ross DeAlessi, Luminae Souter Lighting; Swann Memorial Fountain: Donald F. Nardy, Stephen J. Nardy, Nardy Lighting Design; A Monument in Little "Edo": Hisakazu Fujitas, LD Yamagiwa Laboratory Ltd. Special Citation to: Lightscape 89: John David Mooney, Mooney Studio.

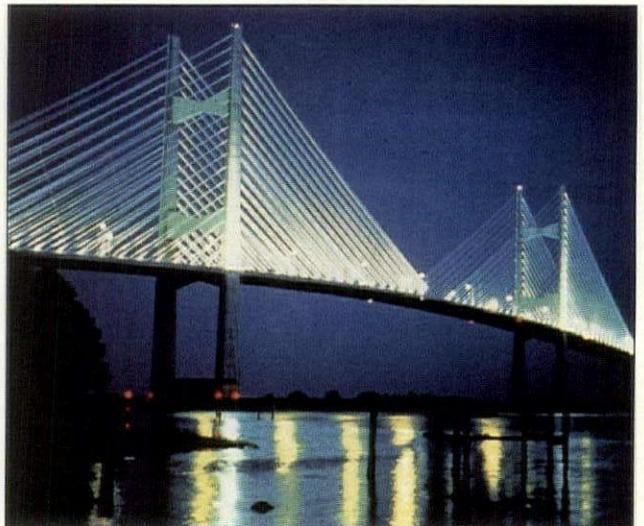
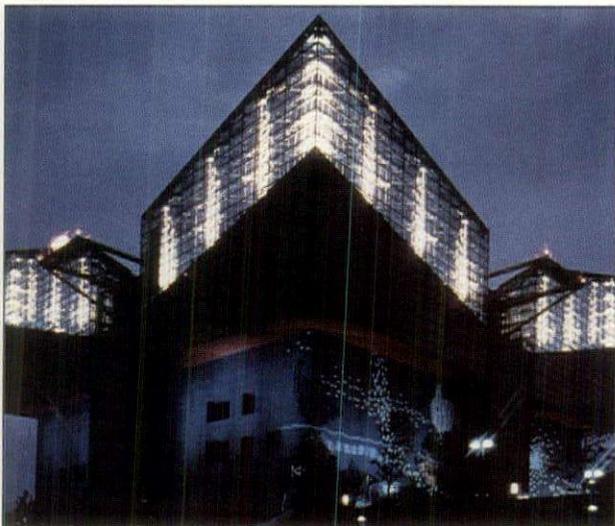
The 1991 IIDA committee included: John Harpest, Heapy Engineering, chairperson; John Bos, Lighting Associates; Robert F. Carlson, Lithonia Lighting; Sidney Feltman, Sidney Feltman Associates, Inc.; William T. Hirons, Guild Electric Ltd.; Michael Janicek, C.M. Kling & Associates; Gloria J. Koch, Zumtobel Lighting; Howard Kosowsky, Power & Lighting Systems; Frank LaGiusa, GE Lighting; Robert A. McCully, Sim-Kar Lighting; Sara L. Schragger, Sara Schragger Lighting Consultants; Mary Tatum, Genlyte; and Jerry W. White, ECI Group.

Judges for the 1991 IIDA awards were: Bernard R. Boylan; Barbara L. Cianci, Horton-Lees; Wanda Jankowski, Architectural Lighting; Jeffrey A. Milham, Design Decisions, Inc.; and Sandra Stashik, Grenald Associates.

For award applications contact: IESNA, 345 East 47th Street, New York, NY 10017-2377, or phone (212) 705-7923. Submissions are welcome from all professionals in the lighting community without limitation to professional affiliation.

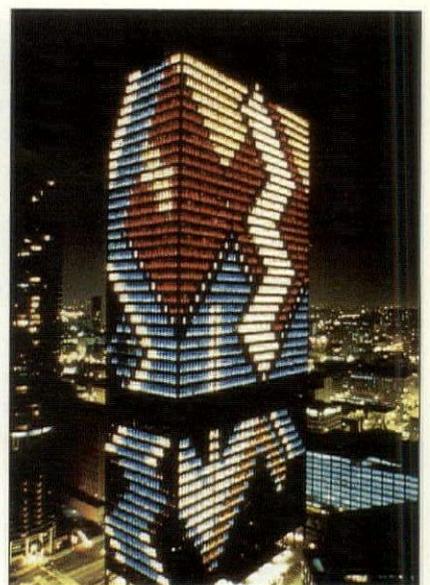
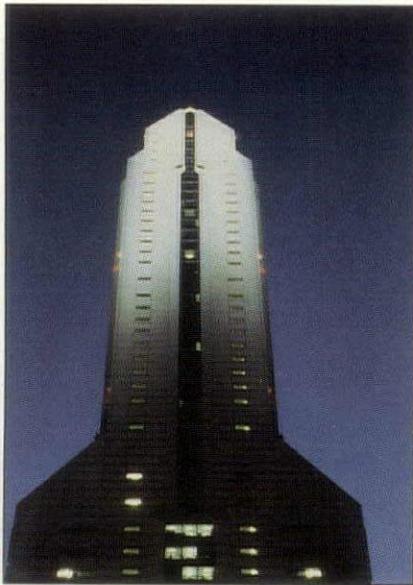
The Edwin F. Guth Memorial Award is named after Edwin Guth, founder of the St. Louis Brass Co., later renamed Guth Electric. They are funded by a charitable trust established in 1965 by the Edwin F. Guth Co.. The Guth Award was first

presented in 1972. The Osaka Aquarium (below, left) is one of several 1991 Edwin F. Guth Memorial Award of Excellence winners. (Below, right) Dame Point Bridge received a Paul Waterbury Award of Excellence.



The Paul Waterbury Award is named after the designer of the 1,500-watt metal halide lamp. The Waterbury Award was first presented at the 1989 IESNA Annual Conference and is sponsored by JJI. Waterbury

Award of Excellence recipients include (below, left) NEC Office Building, and (below, center) Little "Edo" Monument. A Paul Waterbury Special Citation went to (below, right) Lightscape 89.



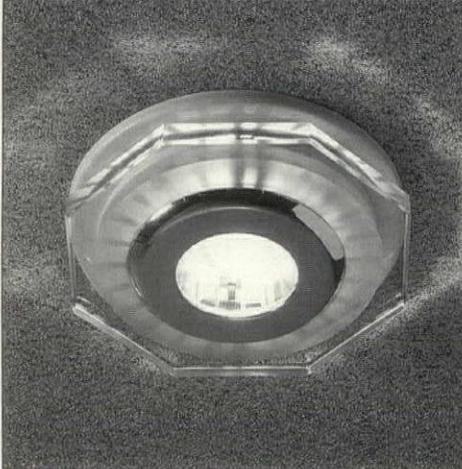
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NUCKOLLS FUND 1992 GRANTS AVAILABLE

The Nuckolls Fund for Lighting Education is accepting applications for its 1992 \$10,000 grant. Colleges and universities in the United States that currently offer courses in architectural lighting design are invited to submit grant proposals.

Submissions must be for program development, including the expansion of curriculum and/or the enrichment of existing course work. The fund does not give grants for technical research, equipment purchase or student financial aid.

The name of the Nuckolls Fund for Lighting Education was recently revised. It was previously known as the James L. Nuckolls Fund for the Education of the Lighting Professional. Fund president Jeffrey A. Milham explains that the Board of Directors made the name change to reflect the fact that the fund supports educational programs directed to those in allied professions such as architecture, interior design and engineering, as well as programs for lighting professionals.

"The fund wants to encourage superior lighting education, whether the student plans a career in lighting design, an allied design profession, manufacturing, or sales," Milham says.

The Nuckolls Fund was established in 1988 to facilitate the development of courses and curricula in architectural lighting design. To date, the fund has made grants to The Pennsylvania State University, the University of Virginia, the University of Massachusetts, and Michigan State University.

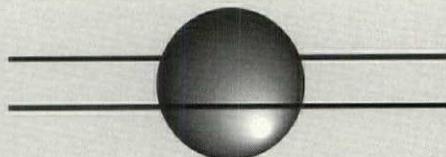
Grant applications are available by writing to the fund at 70A Greenwich Avenue/411, New York, NY 10011. Proposals are due on March 6, 1992.

Motorola Enters Electronic Ballast Market

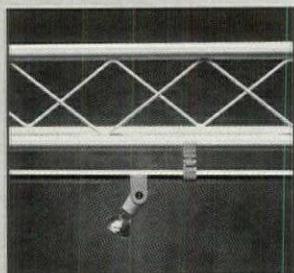
Motorola, Inc. has announced that it is shipping electronic ballasts for fluorescent lamps from its wholly-owned subsidiary Motorola Lighting, Inc. (MLI). MLI was founded in early 1989, and has its engineering and manufacturing operations in Buffalo Grove, IL.

Christopher B. Galvin, senior executive vice president and assistant chief operating officer for Motorola, Inc., explains, "After careful evaluation of the lighting industry, Motorola concluded, in late 1988, that a technological discontinuity is

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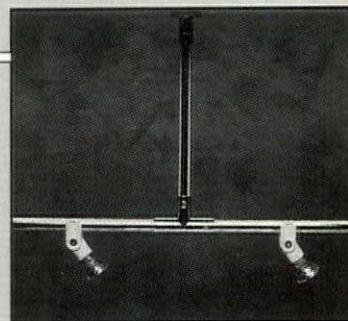


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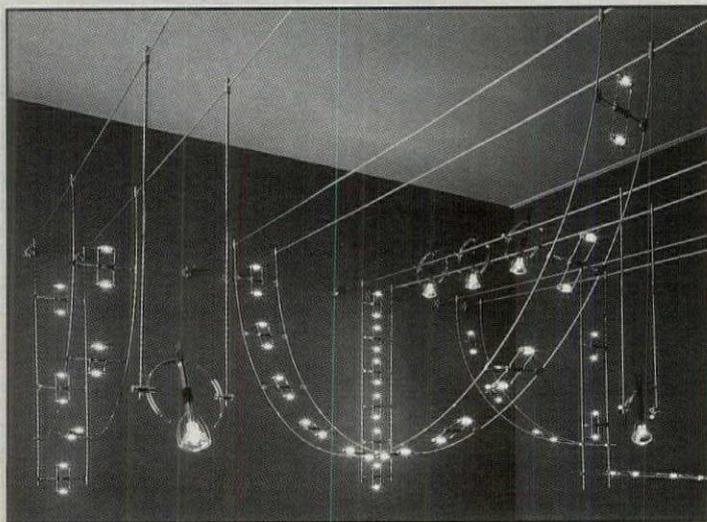


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evolving in the lighting industry. As was the case with semi-conductors replacing vacuum tubes in the 1950s, the electronic ballast is on the threshold of replacing electromagnetic ballasts throughout the 1990s.

"We are very excited about this high-growth business opportunity in a new industry for Motorola," says Galvin.

Mike Powell, vice president, marketing and total company quality for MLI, says, "To help us achieve total customer satisfaction, MLI is utilizing a national network of authorized service companies to provide best-in-class response and service to its customers. The company expects that fixture manufacturers, electrical distributors and end users will comprise the majority of its customer base."

MLI's electronic ballast has been tested in beta sites since January 1991. The company has been shipping product for several months.

Window/Skylight Study Offered By AAMA

The American Architectural Manufacturers Association (AAMA) has completed an in-depth study of the nonresidential window and skylight markets. The study, conducted by the Ducker Research Company Inc. of Birmingham, MI, was commissioned to update the association's market research statistical data base.

Specific areas covered in the report include in detail: volume and projected growth of the various market segments in the non-residential window and skylight markets; frequency of high-rise construction; window configurations and framing materials; structural glazing materials; vision glass area, insulating and coated glass usage; and materials used in wall cladding.

Based upon the 1990 data reported, the study projects that construction activity in total will rebound in 1991 and subsequently, window and skylight sales will rebound in 1993. Of the 11 geographic regions covered in the study, most will be positively affected. However, the rate of growth in this rebound will vary by region.

AAMA's "Study of the Nonresidential Window and Skylight Markets" may be purchased for \$1,250.00 from AAMA, 1540 E. Dundee Road, Palatine, IL 60067. For more information, you may also call the AAMA at 708-202-1350, or FAX to 708-202-1480.

NEOCON New Dates Are June 8-10

In a move geared to respond to the needs of the contract industry, The Merchandise Mart has announced a major change in the format of NEOCON 24. Beginning in 1992, NEOCON will move from its previous Tuesday through Friday format to Monday through Wednesday, June 8-10. In addition, the exposition will feature an expanded schedule of education opportunities for the industry's many areas of specialization and interests.

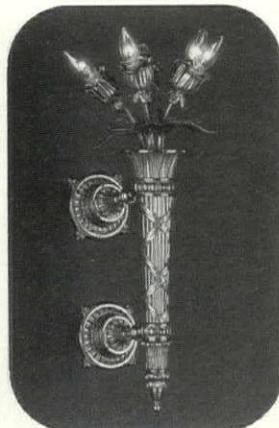
The Merchandise Mart recently surveyed the manufacturers who operate showrooms in the facility and NEOCON

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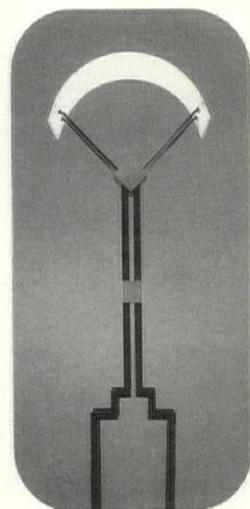


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23 attendees to learn their opinions of the event's format. At the same time, the Business and Institutional Furniture Manufacturer's Association (BIFMA), based in Grand Rapids, MI, surveyed their members with showrooms in The Mart concerning the dates of NEOCON.

A major advantage to the date change is cost savings travelers can realize with the option of staying over a weekend compared to mid-week travel. It also allows professionals to attend the event and have time to return to their offices at the end of the week.

The need for more comprehensive professional education was also revealed in the survey. The Mart has enlisted the assistance of Melvin R. Schlitt, former executive director of the International Facility Management Association, and now marketing consultant for The Mart's contract industry, to develop this year's NEOCON program. NEOCON 24 programming will feature a series of programs dedicated to specific practice issues for architects, interior designers, facility managers, commercial real estate executives and manufacturers' representatives and dealers. Thursday and Friday, June 11-12, will be reserved for day-long intensive conferences and tutorials.

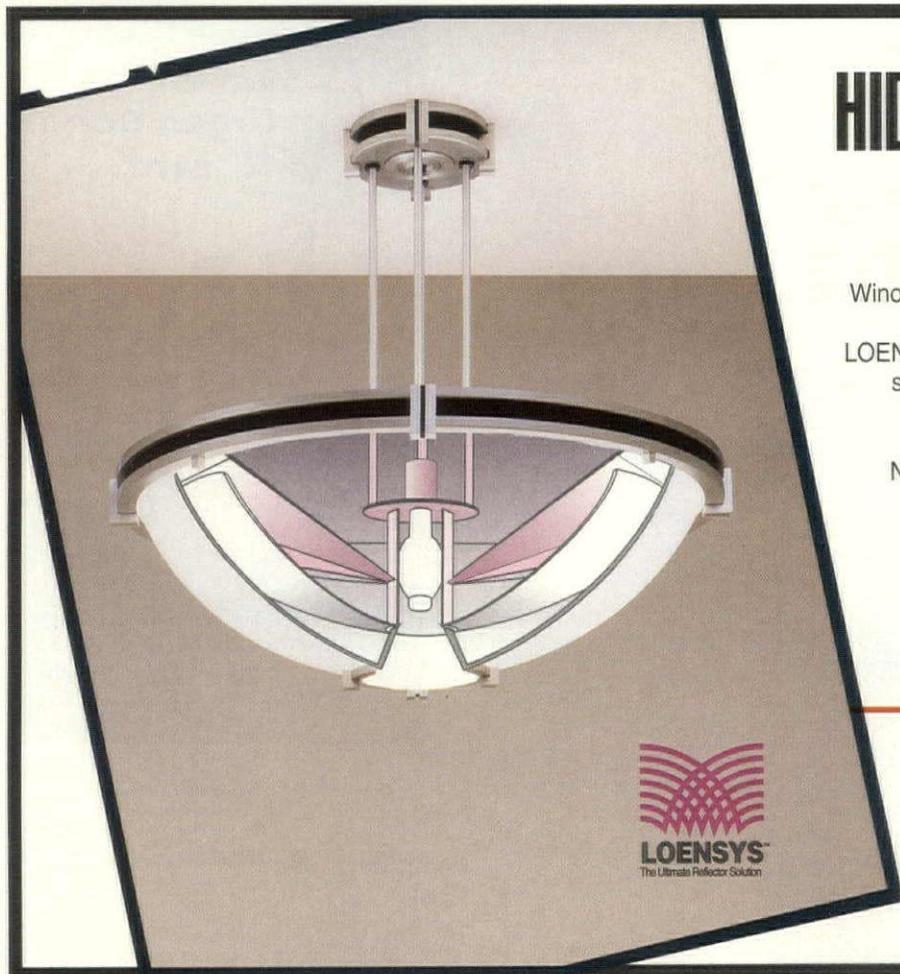
For more information on NEOCON 24, contact Angela Krzysko, communications liaison, 470 Merchandise Mart, Chicago, IL 60654, phone: 312-527-7552, FAX: 312-527-7782.

IALD Awards Call For Entries

Entries in the 9th annual Lighting Design Awards Program sponsored by the International Association of Lighting Designers (IALD) are due by March 2, 1992. Submission of an entry is not restricted to IALD members. Instructions and registration forms are available from IALD, 18 East 16 Street, New York, NY 10003, phone: (212) 206-1281, Fax: (212) 206-1327.

The winners of the association's 1992 awards will be announced on May 7, 1992 in New York at an awards dinner to be held in conjunction with LightFair, an exposition and conference co-sponsored by IALD.

Since the IALD began its program in 1983, 547 projects have been submitted for consideration and 46 have received awards. To be cited for design distinction, project solutions must complement the architectural concept and demonstrate aesthetic and technical excellence.



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Interior Design Unification Efforts Advance

The unification of the interior design profession advanced on November 17, 1991 as representatives from ASID, IBD, CFID, IDEC, IDC, ISID, and ISP developed the outlines of a new, international, unified organization

Objective member research and a detailed organizational analysis, conducted by Lawrence-Leiter and Company, demonstrated that unification is feasible, desired and necessary to advance the interior design profession. Lawrence-Leiter and Company is a Kansas City-based association management consulting firm engaged by the Unified Voice Task Force (UVTF) to assist in the unification effort.

The consultants will develop an implementation plan which the Unified Voice Task Force will review in January 1992. The board of each UVTF organization will be asked to review and comment on the implementation plan by June 30, 1992. At that time, members will be asked to study the proposal and vote on the creation of a new, international, unified organization.

Kelly Grant Deadline January 1992

The Richard Kelly Grant, established by the New York Section of the Illuminating Engineering Society of North America, consists of \$1,500, \$1,000 and \$500 cash awards that may be granted to young persons who preserve and carry forth lighting designer Kelly's ideals, enthusiasm and reverence for light. Applicants must be 35 years of age or younger working or studying in the United States, Canada, or Mexico.

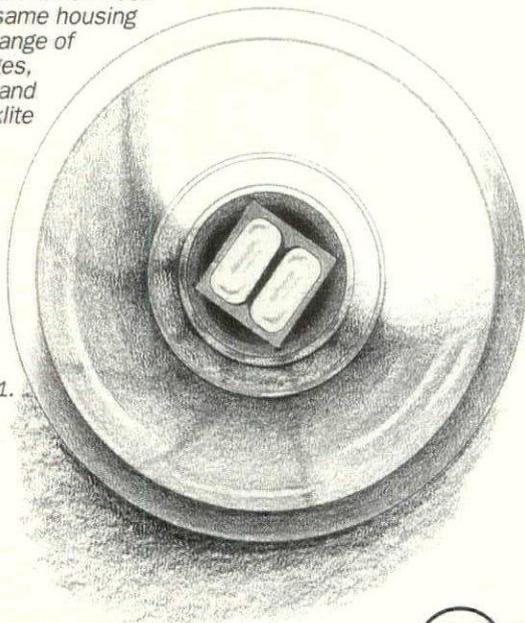
Submissions should consist of a one-page written outline proposal describing the project, 35mm slides, photographs and/or drawings. All artwork shall be keyed and numbered to the copy. New and innovative work in the conceptual or applied use of light may be submitted.

Only submissions including a self-addressed, stamped envelope will be returned.

Send submissions to: The Richard Kelly Grant, c/o IES, 345 East 47 Street, New York, NY 10017, phone: (212) 705-7913. Deadline for receipt of submissions is January 31, 1992.

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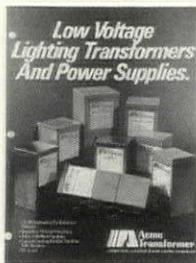


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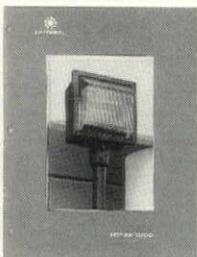
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LOW-VOLTAGE SUPPLIES

An eight-page, four-color brochure entitled "Low-Voltage Lighting Transformers and Power Supplies" is available detailing specifying information on low-voltage power supplies, pool and spa transformers, and buck boost alternatives. Extensive graphs, photographs, charts, and tables

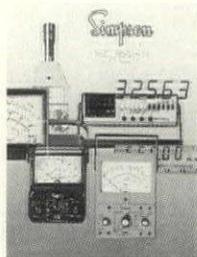
provide supporting data and draw useful comparisons. A complete selection procedure for choosing the proper size power supply for user applications is included, incorporating catalog numbers, unit dimensions and the correct wattage. A detailed selection example is given and connection diagrams are shown for all models. Acme Transformer, Lumberton, NC. **Circle 95**



CUTOFF LUMINAIRES

The Hypak line of high performance, cutoff luminaires is described in two, 10-page brochures. The Hypak 3000 provides eight different light distributions for lamps to 100 watts recessed, 150-watt surface mounted. It complements the adjustable cutoff Hypak 4000

that provides for lamps to 250 watts high-intensity discharge. Hydrel, Sylmar, CA. **Circle 96**

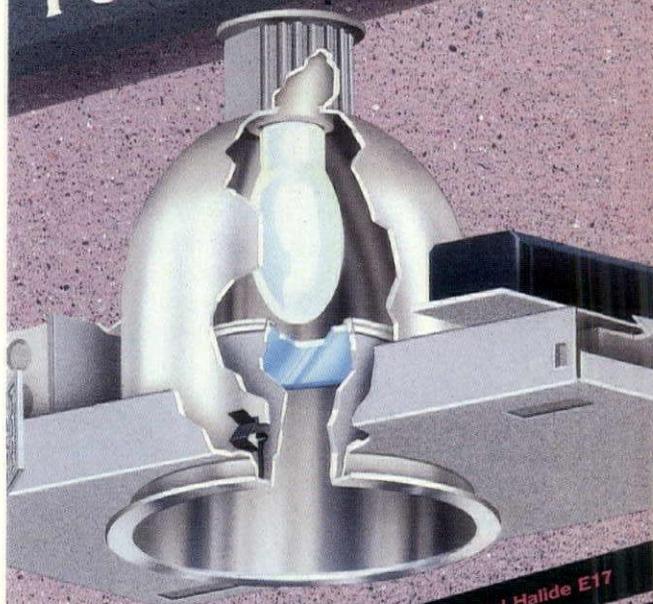


TEST INSTRUMENTS

A 44-page, four-color guide for the selection of analog and digital test instruments is now offered. The fully illustrated catalog details Simpson's line of hand-held and benchtop multimeters, special function meters, clamp-on testers and other specialized testers for electrical,

electronic and environmental applications. The catalog provides capsule descriptions of each model, along with lists of features and ordering information for more than 50 models. Complete specification and operating range data is also provided, plus a five-page summary of specifications and ranges, organized by instrument type. Simpson Electric Company, Elgin, IL. **Circle 93**

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HID Fixture
For E17 Lamps**



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 - M6197/50 Watt Metal Halide E17
 - M6197/70 Watt Metal Halide E17
 - M6197/100 Watt Metal Halide E17
 - M6197/150 Watt Metal Halide E17
 - M6208/50 Watt White Son[®]E17
 - M6208/100 Watt White Son[®]E17
- Full photometric data available.

The double reflector system is engineered to be extremely low in brightness and to show no lamp image in the bottom cone. The luminaire maintains maximum efficiency while providing an extremely low brightness aperture with no visible glare. The aperture opening of 71° allows consistency of visual appearance in all fixtures no matter what wattage. A clear tempered glass lens is supplied for those sources requiring an enclosed fixture design. Fixtures are damp location listed, thermally protected as required by UL and manufactured by I.B.E.W.



Saving Energy And The Environment

BY GARY MARKOWITZ

About 18 years ago, Americans were faced with a sudden shortage of energy supplies brought about by OPEC. The fallout of this initial stress to the energy market was a positive reaction by the end-users. Energy conservation. We made some tough choices by adjusting our lifestyles. We added insulation, weather-stripped, caulked, retrofitted windows, tuned-up the heating/cooling system, installed solar energy technology (passive and active), bought more efficient appliances, and drove more fuel-efficient automobiles. The government got into the act as a catalyst by offering low interest loans, a home energy improvement tax incentive program, and even a specialized solar energy tax credit program.

Despite the increasing cost of energy, the economy boomed during the 1980s. This spiralling growth in the demand for more electrical power, spurred by the economic growth, resulted in shortfalls in the availability of electricity within local power distribution grids. Wholesale buying of power from the larger power distribution networks became commonplace.

Yet, the construction of new generating capacity lagged behind due to licensing and environmental concerns. This scenario was particularly prevalent within regions with the highest growth. The interim solution was to selectively deny power or reduce distribution voltages to random regions to make up for insufficient generating capacity; the term "rolling brown-outs" became a familiar occurrence. In light of this, customers protested to their public utility commissioners, and demanded alternative measures.

The frequency of power generation deficits in the Northeast, the West Coast, and the Southeast heightened the interest of many state legislatures, leading to the inception of new energy conservation legislation, stringent building codes, and the establishment of lucrative utility-sponsored economic incentives for customer electrical energy conservation. The terminology of "Demand-Side-Management" (DSM) became popularized by the new lucrative utility-based electrical energy conservation programs from Massachusetts to California. The programs were established to satisfy a short-term requirement for additional generating capacity without the need for additional construction. The energy management programs of the commercial/industrial sectors were suddenly revitalized.

Seemingly, the primary motivation for the establishment of, and participation in, DSM programs has been driven by economic factors. While positive cash-flow is an excellent stimulus for participation in DSM programs, a more virtuous cause exists: the positive environmental impact resulting from the reduction in energy utilization.

NEW DRIVING FORCE

While the legislature continues to struggle with the passage of the proposed National Energy Strategy, another federal agency has literally taken the bull by the horns. The

Environmental Protection Agency's (EPA), new program for lighting energy conservation offers a non-regulatory (voluntary participation) partnership program between the EPA and major corporations to share in the economic, environmental, and image enhancements derived through lighting energy conservation.

The premise for the partnership is quite simple (known as the Memorandum of Understanding):

1. The corporation/institution must agree by signing the memorandum to survey all of its United States facilities for lighting energy conservation opportunities. The survey should be open-minded to all possible lighting options which reduce energy effectively. (Author comment: Many utility companies offer this service as a part of the DSM programs. The EPA keeps a current listing cataloging these programs and the incentives that are offered.)

2. The corporation/institution will then retrofit a minimum of 90 percent of the total square footage with high efficiency lighting energy conservation measures such that the return on the initial investment and the quality of the illumination system are maintained at acceptable levels. (Author comment: The quality of illumination and the quantity of light cannot compromise employee productivity. The facilities management team must take a buyer-beware stand on this issue and must stay clear of any products which seem too good to be true...stay away from snake oil!)

3. The corporation/institution agrees to perform to complete these retrofits within five years from their initiation into the program. Any new facilities brought on-line should conform to the current building energy codes. Once a partner has completed retrofitting, the partner should attempt to document improvements, and educate their employees on the benefits derived from participation in lighting energy conservation programs.

REWARDS OF PARTICIPATION

In exchange for the participation, the Green Lights Partner derives public acclaim and recognition. The EPA has developed a decision-support system which is designed to aid in the areas of finance, lighting product information, training, provide current electrical utility company DSM incentive program information for the partners' region(s), and the removal of any regulatory barriers which could interfere with the implementation of energy-efficient lighting retrofits.

The EPA estimates that the full participation from the commercial/industrial sector can result in a savings of 16 billion dollars on electrical bills, along with 250 billion kilowatt hours annually. The coincidental reductions in emissions is significant, but more importantly, these actions offset the addition of greenhouse gases to the atmosphere: sulfur dioxide (1.5 million tons), carbon dioxide (150 million tons), nitrogen oxide (650,000 tons), and carbon monoxide. The reduction in the man-made creation/release of these chemical compounds to

the atmosphere (through the generation of electricity) can be equated to an equivalent number of trees which would be required to the compound absorption. I call this ratio of trees to the amount of compound absorbed from the atmosphere the Tree Quotient: for 210 acres of trees are required to remove the stack emissions released from the production of 1.4 million kilowatt hours.

The reduction in energy usage from the implementation of energy efficient lighting technologies, coupled with the consequent decrease in the production of greenhouse gas emissions (through reduced requirements for electrical generating capacity) defines the EPA's phrase of "profiting from reduced pollution"...reduced energy bills for the customer while improving the environment.

COMMENTARY

The current economy leaves many companies without the initial capital to make the investments required for retrofitting their lighting systems. Without the start-up funds, any worthy projects are overlooked. Companies in this "survival mode" need a jump-start...seed capital is required to assure that good opportunities do not fall by the wayside. The undertaking of any program of this scale by the EPA is commendable to say the least. The positive publicity is certainly enough of a reason to enroll in this program. But due to the current state of the economy, the possibility of financial incentives would truly interest executives in give this program a second look. Enticing participation in a program which offers a "something for nothing" (or almost nothing) reward to its participants would be more successful. While the EPA has gathered an impressive list of partners and allies, there are many more large corporations that ought to participate. While the EPA offers technical guidance (information), a computerized database guide to utility company DSM programs, and third party/low interest loan financing resources, the program requires a financial push: perhaps tax incentives for participants, or perhaps "seed capital" to enable the goal of successful, widespread participation to come to fruition.

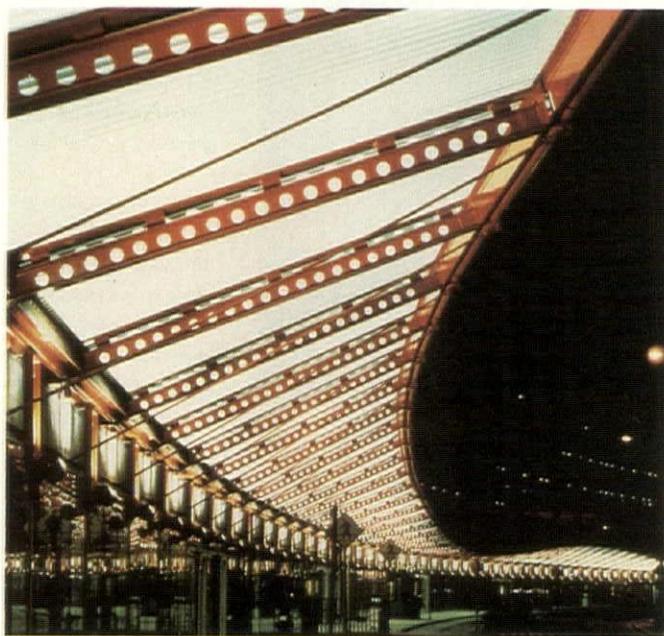
WHO'S SIGNED UP?

Companies such as American Express, Atlantic Richfield, Boeing, Citicorp, Digital, Gillette, 3M, Nike, Phillips Petroleum, Xerox, Polaroid, Browning Ferris, Chevron, and Whirlpool have climbed aboard the bandwagon signing the Memorandum of Understanding, and are currently reaping the benefits of participation. If you are interested in becoming

involved, or just want to find out more about the program, contact: Robert Kwartin, director, Green Lights Program, or Jerry Lawson, chief, Energy Productivity & Pollution Prevention Branch, both at Global Change Division (ANR-445), Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, (202) 479-6936, Fax (202) 479-6937.

The author is energy administrator/plant engineering for Raytheon Company, Missile Systems Laboratories, Bedford, MA.

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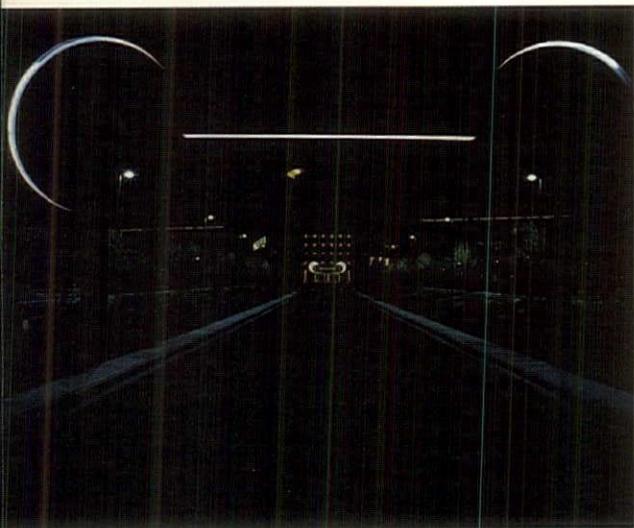
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Midnight Magic

ILLUMINATION EXTENDS THE WHIMSICAL, OFFBEAT DAYTIME IMAGE OF THE TEAM DISNEY BUILDING IN ORLANDO AT NIGHT

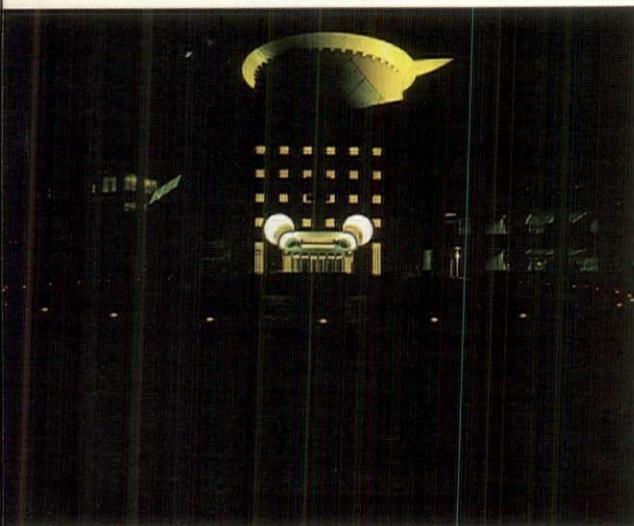
BY WANDA JANKOWSKI EDITOR-IN-CHIEF



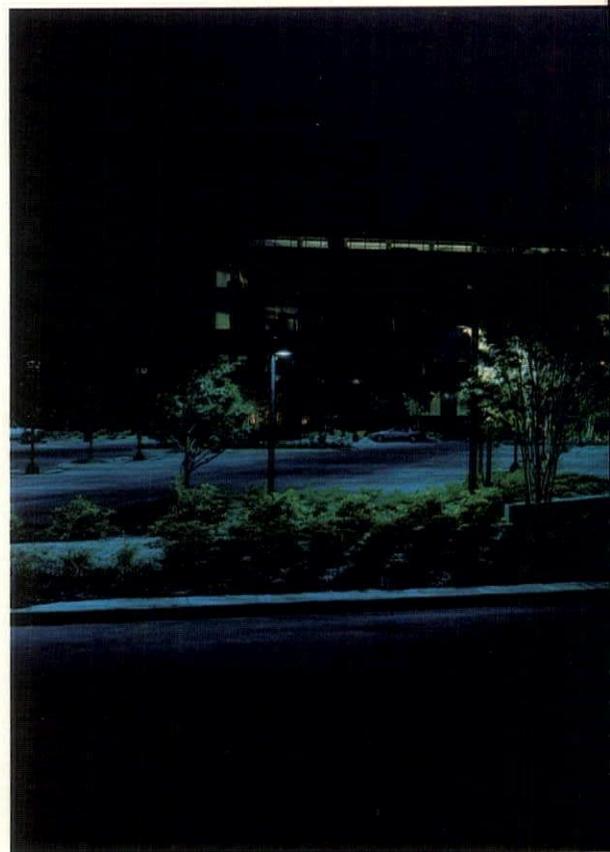
ALLEARS: (Top left)
Two sets of Mickey Gates adorn the drive that leads to the Team Disney Building. The gates glow from curved fluorescent tubes installed behind white-painted opaque panels.

DON'T GO NEAR THE WATER: (Below left)
The edge of the traffic circle is dotted with flush-mounted, high-pressure sodium units as a warning to drivers of the surrounding pond beyond.

MICKEY MIMICS: (Right)
The Mickey Gates are mimicked by the curved canopy over the front entrance. Fluorescent fixtures mounted on the base of the canopy uplight the "ears."



What better way to celebrate the spirit of Disney at night than to devise illumination that not only extends the whimsical feel of the Team Disney Building's architecture, but promotes the Mickey myth as well. The first indication one is in Disney territory comes upon entering the driveway. The visitor drives by "Mickey Gates" which are lit with concealed, curved fluorescent tubes—about a dozen in each gate—that are installed beneath a white, opaque flange. The three-inch wide glowing white strip reflects the fact that in some cartoons, Mickey Mouse's ears are created with white cen-



MICKEY LIGHTS: Disney Development's senior project manager, Tim Johnson, says if you didn't know where you were, you might not notice that the circular-shaped custom light fixtures resemble those famous ears, but once aware you're in Disney territory, mouse-association is inevitable.



ters, according to Tim Johnson, senior project manager for Disney Development Company.

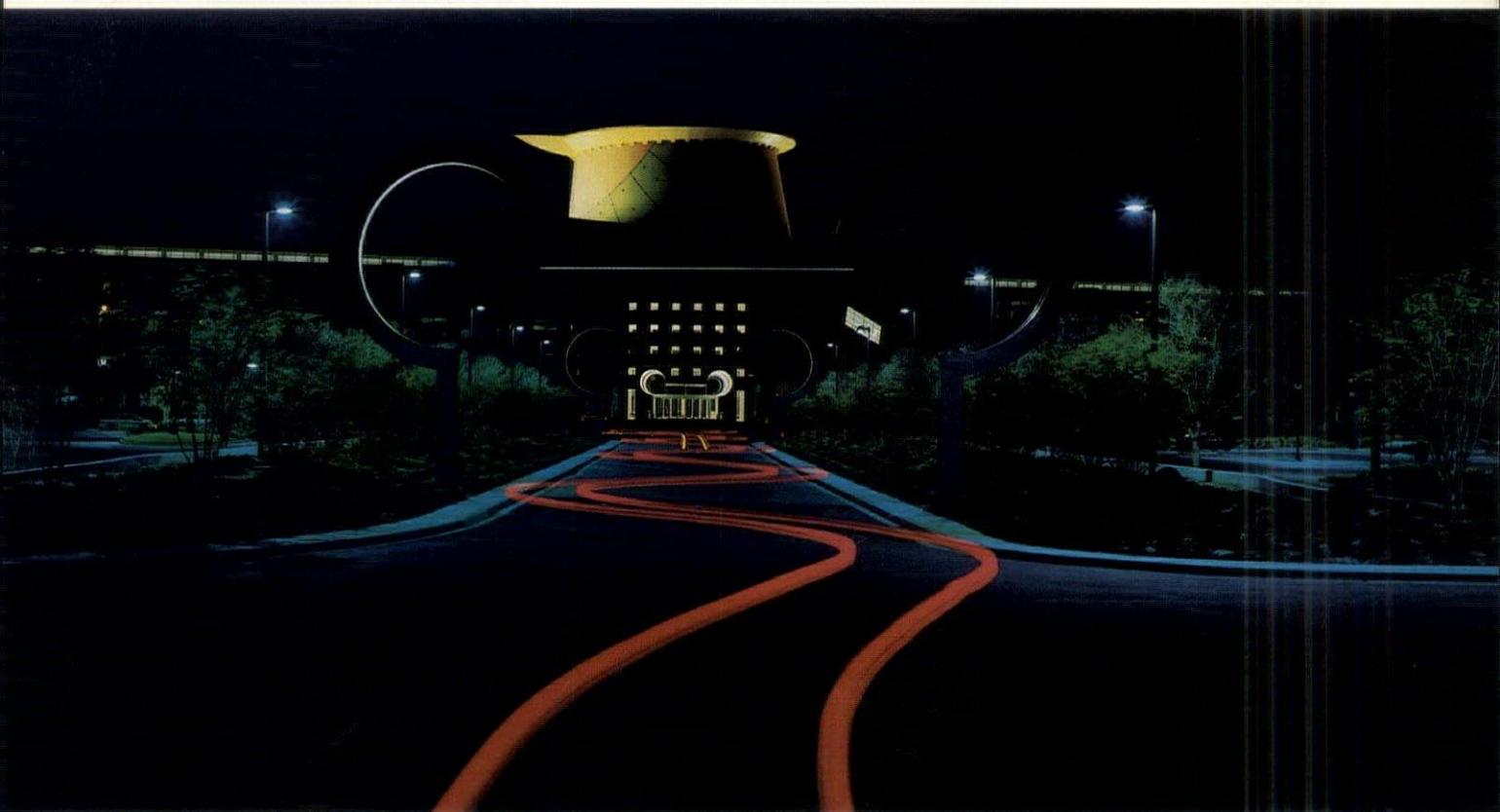
The "ear" theme of the gates is repeated in the canopy of the front entrance. The glass within the ear-shaped canopy is also opaque—painted a bright appliance white—and the fluorescent source is recessed at the bottom of the copy to cast light up.

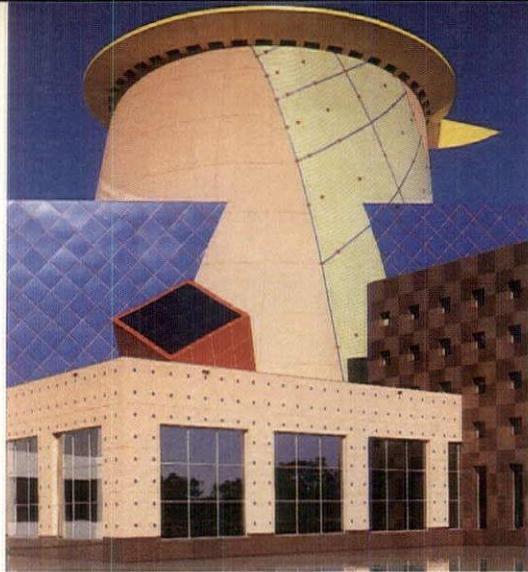
Above the "ears" canopy is a collection of square glass windows visible by night because of the lobby illumination from within. The square pattern of the windows is echoed in the square dry-wall ceiling coffers, that are uplit with fluorescent

lamps concealed by dropped plates. The entire lobby also plays on the square theme as it is a cube—50 feet by 50 feet by 50 feet.

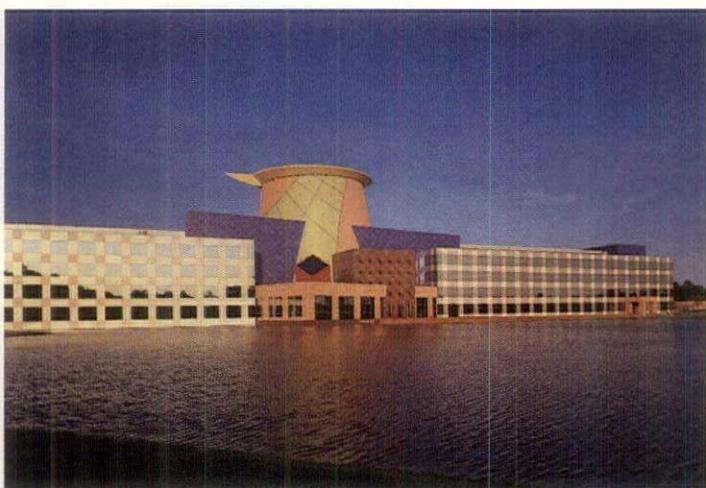
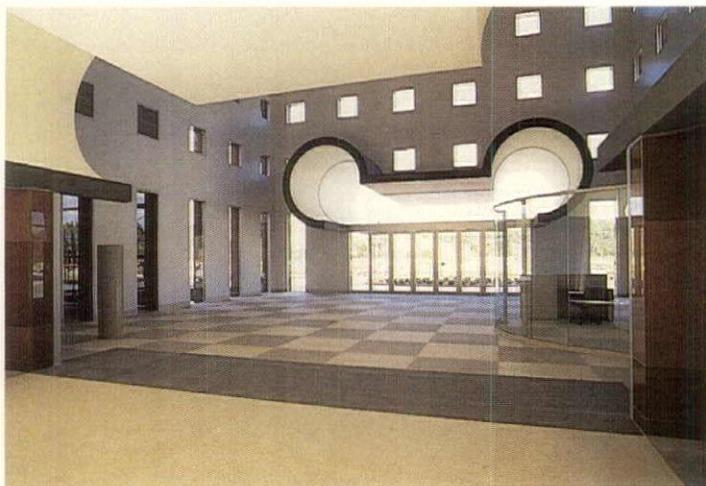
For safety reasons, the small traffic circle in front of the entrance is dotted with high-pressure sodium fixtures flush-mounted along its edge. The lights alert drivers to the fact that driving over the 4-inch high circle's perimeter will land the car in the half-sphere shaped pond beyond.

Pools of light in the parking lots on either side of the entrance are cast by pole-mounted, half-sphere shaped metal halide fixtures.





CREATIVE CRASHING: The building by day appears to be a pleasing crashing together of geometric shapes, and bold and pastel colors. The intent of the "imperfect," tilted cone is carried through at night with intentionally uneven illumination.



INFORMAL ASYMMETRY: (Just above, left) The rear of the building is less balanced and symmetrical than the front. The amorphous-shaped lake, for example, contrasts with the precise half-sphere shaped pond in front of the building.

SQUARING OFF: (Top left) The strict geometrics of the front entrance facade's glass windows are repeated in the square, uplit coffers of the lobby ceiling.

The building, described by Johnson as "a series of geometric shapes crashing into one another," is topped by a tilted cone. The night lighting is intentionally nonuniform to extend the asymmetry of the architecture. Metal halide fixtures are positioned on top of the purple portions of the building that wrap partially around the cone.

"Because the cone is tilted," says Johnson, "the crown seems lit up more on one side than the other."

The line of white light coming from just under the roofline is a series of windows that allow illumination to pour out from the office areas within. The interior is very free flowing. Johnson says, "It's all wide open offices. Though about 1,200 people work there, there are only about 50 offices in that whole building. And most of the offices aren't on the window wall, so just about everybody is able to look out of the building. We kept the workstation panels low, so that people could stand up and look out to see daylight."

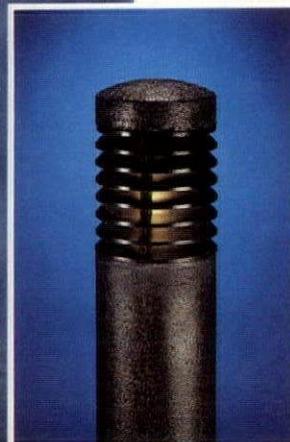
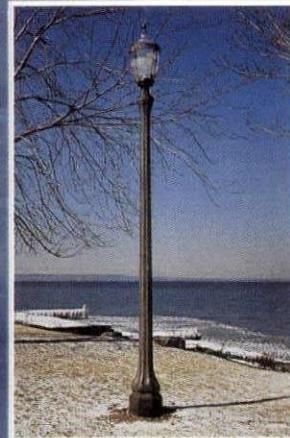
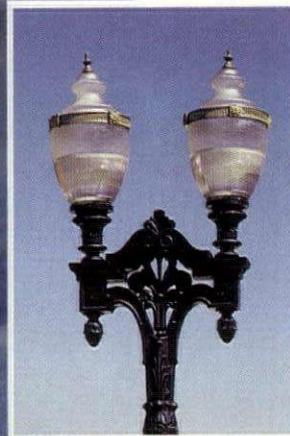
These areas and the offices are illuminated with 1 foot by 4 foot fluorescent troffers.

The design of the building took about a year and a half, followed by two years for complete construction. The building was completed in March 1991, with occupancy following in May of this year.

DETAILS

PROJECT: TEAM DISNEY BUILDING
LOCATION: LAKE BUENA VISTA, FLORIDA
OWNER: DISNEY DEVELOPMENT COMPANY; TIM JOHNSON, SENIOR PROJECT MANAGER
ARCHITECT: ARATA ISOZAKI & ASSOCIATES, TOKYO
ASSOCIATE ARCHITECT: HUNTON BRADY PRYOR MASO ARCHITECTS
LANDSCAPE ARCHITECT: FOSTER, CONANT & ASSOCIATES
LIGHTING DESIGNER: FISHER/MARANTZ
ELECTRICIAN: PAXOR ELECTRIC
INTERIOR DESIGNER: CRS SIRRINE and ASSOCIATED SPACE DESIGN
PHOTOGRAPHER: GRANGER & SCHWAMBERGER, INC.
LIGHTING MANUFACTURERS: Exterior and interior: HARRY GITLIN LIGHTING; PRESCOLITE; NL CORP.; EMCO; EDISON PRICE LIGHTING CO.; COLUMBIA LIGHTING; BEGA; KIM LIGHTING

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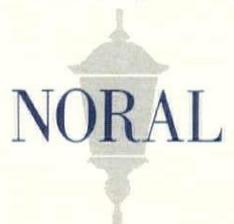
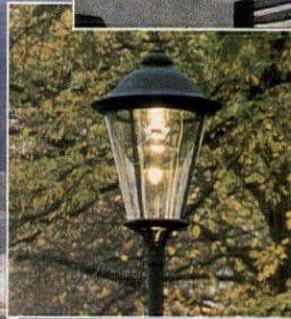
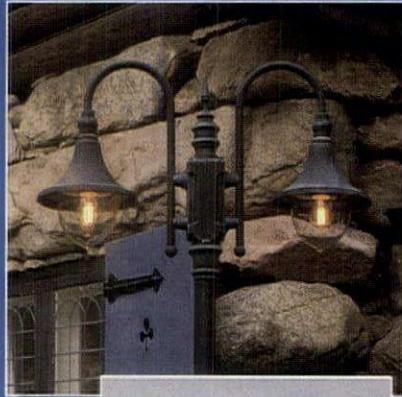
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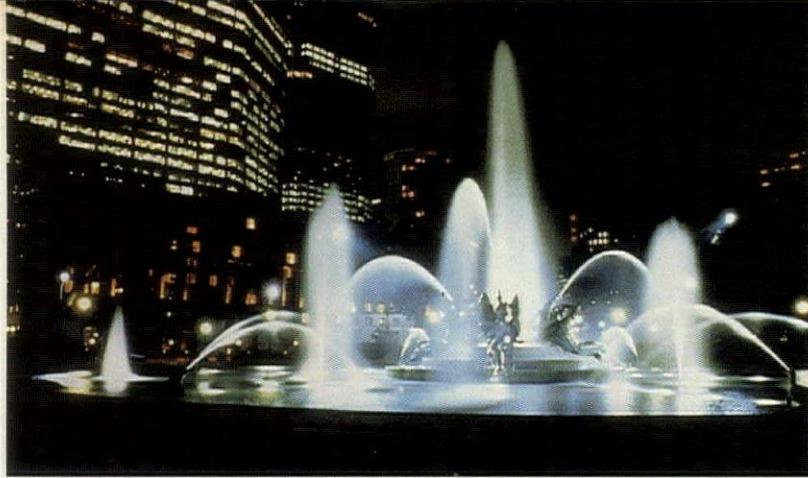
For more information contact Noral Lighting, Inc., P.O. Box 360532, Cleveland, Ohio 44136. Telephone: (216) 273-7155; Telefax: (216) 273-5007. In Canada, Noral Lighting, Inc., 84 Tycos Dr., Toronto, Ontario, M6B 1V9. Telephone: (416) 483-1321; Telefax: (416) 481-4069.



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Over 60 years of use and abuse had taken their toll on the Swann Memorial Fountain, which is the centerpiece of Logan Circle in downtown Philadelphia's Logan Square. Logan Circle, a focal point set midway on the Benjamin Franklin Parkway, represents the best of early 20th century collaborative design. Its superb composition of water, sculpture, and foliage rivals or surpasses its European antecedents.

The deteriorated condition of the fountain had become a major concern not only to interested Philadelphians, but to all who are committed to the

future of older American cities and their public, open spaces. Some of the fountain jets were entirely non-functional, while others were out of balance. The original fountain water display, as designed by Eyre, had become totally compromised and beyond repair. Also, it was evident that serious leaks had occurred in the underground piping, as the volume of water decreased considerably when the pumps were operated.

Designed to contain an enormous and elaborate water display scaled to the parkway, the Swann fountain basins recently also had served additional,

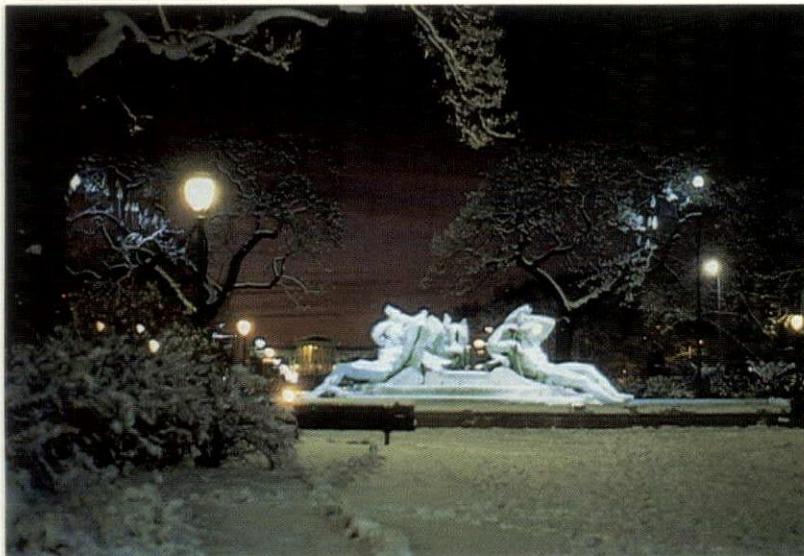
Swann Song

AN ACCESSIBLE TUNNEL SYSTEM BENEATH THE FOUNTAIN CONCEALS FIXTURES WHILE ALLOWING LIGHT FROM THEM TO BREATHE NEW NIGHT LIFE INTO THIS 19TH-CENTURY, PUBLIC ART MASTERPIECE

BY STEPHEN NARDY AND DONALD F. NARDY

FOCAL POINT: (Top) Illumination had to be intense enough to compete with surrounding lights from buildings and in Logan Square.

WATERLESS WONDER: (Right) When the water is turned off, the statuary can remain illuminated via pole-mounted spotlights.



unintended functions. The Swann fountain shallow basins and easy-access low coping were well suited to their use as a wading pool. The tiered inner basins allow easy access to Calder's giant figures. And the height and shape of the main pool coping make it a comfortable and favored perch for visitors.

The fountain has served as a festive backdrop for the numerous citywide celebrations which take place on the parkway annually. It has also become an integral part of day and night views of City Hall and the parkway.

REHABILITATION CRITERIA

In June 1985, the Friends of Logan Square Foundation, a coalition of public and private institutions, community and corporate interests surrounding Logan Square, initiated an examination of the potential for reconstruction and adaptive reuse of the fountain and its environs.

As a result of the feasibility study, the foundation commissioned the architect, engineers and special consultants to prepare documents for the reconstruction of the fountain incorporating these strategic design considerations:

As the proposed stone paving for the circle would have at least a 100-year service life, the mechanical and electrical systems should be designed so that they may be repaired or modified without disturbing the artistic paving.

The rehabilitation should not change the artistic concept of the fountain's original designers.

The scheme should anticipate and lend itself to adaptive reuse 100 years from now and assure that the fountain will be operating for the benefit of future generations with minimal problems.

The design should take energy conservation into consideration.

The total cost should not exceed \$2,000,000.

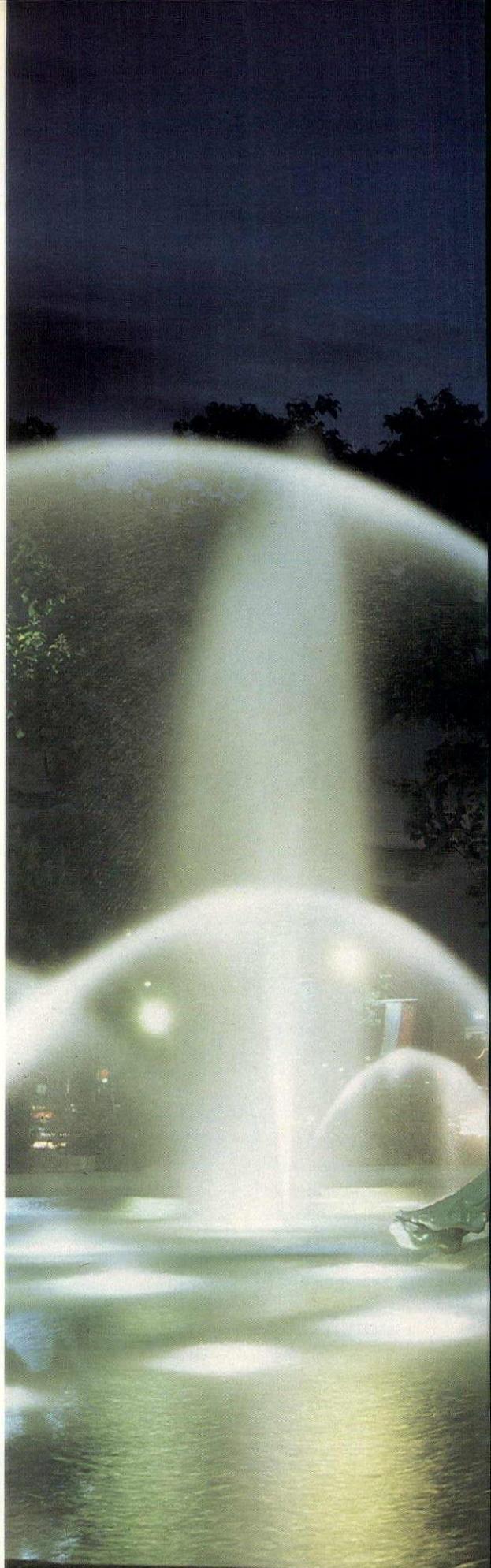
Both private donations (90 percent), and public monies provided by the City of Philadelphia funded the fountain restoration project. The project was under the direction of the Fairmount Park Commission for the City of Philadelphia.

ACCESSIBLE TUNNELS

Accessibility was the key to meeting the rehabilitation directives, and so the design team devised a plan that revolved around building an axial vault beneath the 32-foot diameter, tiered, central fountain element with 12 communicating radial tunnels—10 tunnels contained within the 124-foot diameter main fountain basin, and two extending beyond the main basin rim. The tunnels are used for ingress and egress, and to transport utilities from the existing remote underground vault into the new central vault for radial distribution to the water display jets and lights in the tunnel sections. All elements are totally accessible.

The central vault and main basin floor, as well as the tiered center element of the fountain, were constructed with poured-in-place, reinforced concrete. The tunnels were made in precast sections, delivered

**UNDERWATER
WONDER: (Right) A
vault/tunnel system
allows the water to
be illuminated from
beneath the
fountain.**





to the site with all required openings to accommodate the piping penetrations and porthole-like openings for the 100-watt, metal halide fixtures.

The radial tunnel system provides access to the fixtures and allows relamping and servicing from below the fountain. This under-fountain lighting design has an added safety benefit—light fixtures and electrical equipment are not in direct contact with the water, eliminating any danger of electrical shock.

PREVIOUS LIGHTING SYSTEMS

Since its conception, the fountain was intended to be illuminated at night. The original lighting concept was to hang light fixtures from surrounding trees. In 1957, the city installed a system of 120-volt, submersible-type light fixtures within the fountain. In 1972, a low-voltage, in-pool, submersible system replaced the 120-volt system for safety reasons.

Submersible equipment has a relatively short life span due to the inherent problems of leakage, condensation and corrosive effects of water immersion. The servicing of that system was difficult and time-consuming, as the fountain had to be drained prior to lamp replacement (low-voltage incandescent lamps have an average life of 1,000 hours). Maintenance personnel reported that it took up to two hours per lamp replacement, not including the time it took to drain and refill the fountain.

In addition, the systems provided adequate illumination of water features, but they didn't provide

visual impact. The designers wanted the illumination to be as brilliant as possible, because it would compete with ambient light trespass from several sources surrounding the square.

Because of the available access from below the fountain afforded by the new vault/tunnel system, a series of water-tight portholes were built into the main basin floor, at calculated intervals, corresponding to the location, designed arc and throw-distance of each water jet. The portholes are fitted with a lamination of two 3/8 inch clear fully-tempered glass lenses having a polyvinyl butyrol interlayer, sealed to prohibit leakage and strong enough to withstand abuse, even from a sharp instrument, and the pressure of the water above. The main basin fills to 24 inches and just the bottom lens of the lamination is capable of supporting a 30-inch depth of water.

A yoke-mounted, 100-watt metal halide fixture with precise beam control is precisely located beneath each porthole, and aimed according to design parameters. The under-fountain system utilizes five less luminaires than the 1972 system and consumes less than one half the energy. The life of the metal halide lamps is seven and one-half times greater than the submersible incandescents and the light output is dramatically increased. For example, the 50-foot high center jet had previously been illuminated by eight 240-watt submersible fixtures. The new design utilizes three 100-watt metal halide fixtures, produces one and one-half times more light and consumes 58 percent less energy. The three new fixtures produce more than one million maximum candelas (candlepower). Yoke assemblies were designed to allow full rotation for servicing from beneath the fountain.

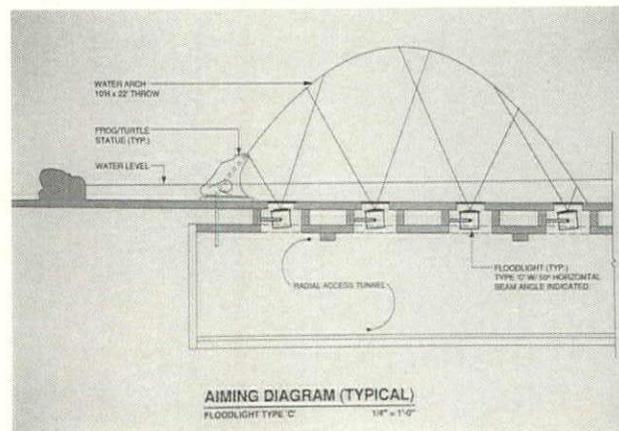
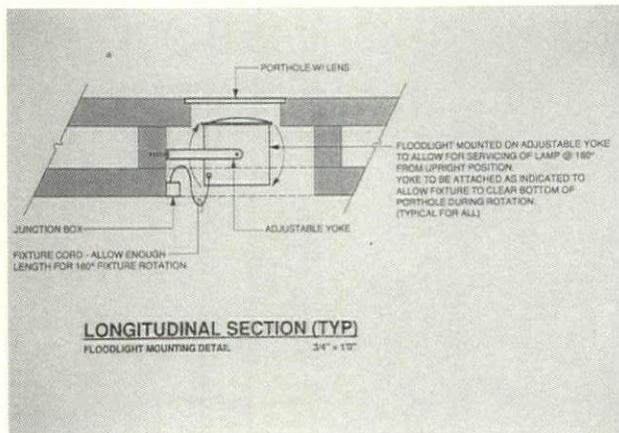
SPOTLIGHTING THE STATUARY

The central fountain statuary had not been illuminated in the past because the technology had not been available. It is virtually impossible to illuminate the main reclining central figures and tiers from within the fountain because of the distances involved, the inclination of the statues and the water depth. The oblique aiming angles would have caused unacceptable shadows.

The method chosen involves lighting the statuary with fixtures placed outside the fountain. Amidst the trees in the beds surrounding the fountain are six unobtrusive poles that each hold a small 100-watt metal halide spotlight. The reflectors allow the fixtures to have extremely tight, 5-degree beamspreads. Two-pole mounted fixtures illuminate each statue from opposing sides to enhance the three-dimensionality of the figures, and to avoid a flat appearance. A mock-up was used to assure civic groups that the fixtures would not be distracting elements. The bronze finish, slim appearance and proximity to surrounding trees make them unobtrusive.

As the fountain is drained for the winter, just after Thanksgiving, it had always been in total

DETAILS UP CLOSE:
(Below top) Longitudinal section diagram, and (below bottom) aiming diagram reveal how the fountain water was lit.



darkness until the Spring. Now the pole-mounted lights provide a winter lighting mode to extend the visual impact of the fountain year-round.

A safe after-dark environment in Logan Circle is provided by light standards that replicate the period pieces which originally encircled the fountain, and illuminated the walkways and gardens. The new standards were custom-designed using photographs obtained from the city's historical architects, as there were no off-the-shelf units available which could match the original 1920 vintage poles and luminaires.

The replica standards utilize a 175-watt, silver-bowl metal halide lamp positioned base up to eliminate direct lamp image. The metal halide source combines efficiency with long lamp life. The custom-designed reflector, and specially etched, vandal-resistant polycarbonate globe produces even illumination of the fountain surrounds with minimal glare which could be detrimental to motorists approaching Logan Circle.

Materials specified throughout the project responded to the mandate for long-life design. For example, ductile iron and copper pipe are used in the main vault; stainless steel runouts, through the tunnels to the jets; epoxy-coated reinforcing steel, in the concrete; dielectric fittings, for copper to iron connections; and pvc-coated rigid galvanized conduit boxes, fittings, and stainless steel enclosures for major electrical equipment.

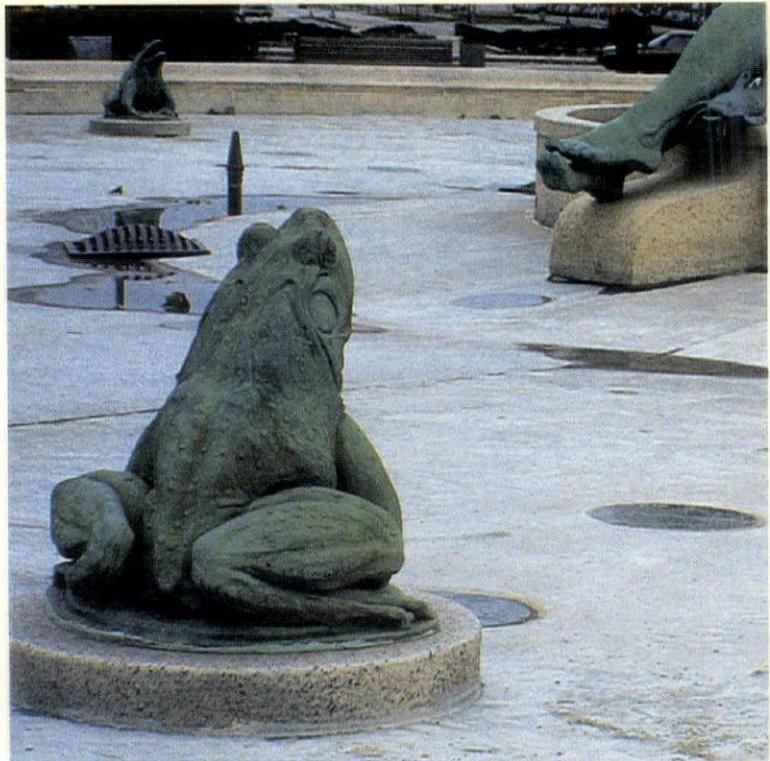
To further inhibit corrosive effects, a ventilation system was installed in the vault/tunnel system which produces air flow from the end of every tunnel through the central vault exiting through the main entrance tunnel to the remote vault. A minimum of heat is introduced through the ventilation system, in the winter, to prevent freezing and to maintain a dry atmosphere in the underground system.

Positive adjustment and fine tuning of the water display is provided via valves on each jet discharge. Each valve has a pressure gauge which can be utilized to adjust the height or throw of each jet. Once the jet is set to produce the desired effect only adjustment of the valve to achieve the proper pressure is required. After the initial setting, visual verification is not required.

Each of three pumps has been provided with a filtering system and an automatic chemical feed system is included to assure clean and safe water conditions for the inevitable waders who frequent the fountain in the dog days of summer.

The project, completed on time at a cost of under the \$2 million budgeted, was dedicated on June 1, 1990. It has received the 1991 Paul Waterbury Outdoor Lighting Award of Excellence from the Illuminating Engineering Society of North America.

The authors: Donald F. Nardy is a principal of Philadelphia-based Nardy Lighting Design, a subsidiary of Donald F. Nardy & Associates, of which he is president; Stephen Nardy is a principal of Nardy Lighting Design.



PORTHOLES: (Above)
The water-tight port-holes correspond to the location, designed arc and throw-dis-tance of water jets.



TUNNEL VISION:
(Top left) There are 12 underground tun-nels—ten contained within the fountain basin, and two extending beyond the main basin rim.



1920s TWIN: Light standards encir-cling the fountain are replicas of the original fixtures. Details for the cus-tom fixtures were taken from histori-cal photographs of the original 1920s model.

DETAILS**PROJECT:** THE SWANN MEMORIAL FOUNTAIN**LOCATION:** LOGAN SQUARE, PHILADELPHIA, PA**CLIENT:** CITY OF PHILADELPHIA,
FAIRMOUNT PARK COMMISSION**LANDSCAPE ARCHITECT:** GEORGE E. PATTON, INC.**LIGHTING DESIGNER:** DONALD F. NARDY and
STEPHEN NARDY, NARDY LIGHTING DESIGN**ELECTRICAL ENGINEER:** DONALD F. NARDY
& ASSOCIATES, INC.**ELECTRICIAN:** GORDON GROUP**STRUCTURAL ENGINEERS:** KEAST AND HOOD**MECHANICAL ENGINEER:** WALTER F. SPIEGEL, INC.**HISTORIAN:** TRINA VAUX**METAL CONSERVATOR:** STEVEN TATTI**GLASS CONSULTING ENGINEER:** DONALD J. VILD
ASSOCIATES**FEASIBILITY STUDY FUNDING:** NATIONAL ENDOW-MENT FOR THE ARTS, SWANN FOUNTAIN TRUST OF THE
FAIRMOUNT PARK COMMISSION**DESIGN FUNDING:** SWANN FOUNTAIN TRUST OF THE
FAIRMOUNT PARK COMMISSION**CONSTRUCTION SEED FUNDING:** CITY OF PHILADELPHIA
CONSTRUCTION FUNDING: PRIVATE AND CORPORATE
CONTRIBUTIONS**SPONSORS AND FUND RAISERS:** FRIENDS OF LOGAN
SQUARE FOUNDATION, CYNTHIA LISTER, project director**PHOTOGRAPHERS:** DONALD F. NARDY, DONALD F.
NARDY & ASSOCIATES, INC.; AND STEPHEN J. MULE, VEN-
TURE LIGHTING INTERNATIONAL**LIGHTING MANUFACTURERS:** ARC LIGHTING: under-
fountain and pole-mounted spotlight luminaires; J.H.
SPAULDING: spotlight poles; SUN VALLEY LIGHTING, INC.:
custom period light standards; HUBBELL: tunnel and vault
light fixtures; VENTURE LIGHTING INTERNATIONAL: metal
halide lamps**The History And Meaning Of The Fountain**

The Swann Memorial Fountain is the centerpiece of Logan Circle, which, in turn, is located within Logan Square, and set midway on the Benjamin Franklin Parkway. Logan Square is one of five squares designated by William Penn and his surveyor, Thomas Holme, in their original plan for Philadelphia. In 1825, the square was named for James Logan, William Penn's secretary and Philadelphia's leading public servant and scholar in the colonial period.

Although in 1900, an art federation, later known as the Parkway Association, commissioned architects to submit designs for the parkway, it was not until 1919 that Jacques Greber, French planner and theoretician, was selected to be the parkway's designer. Greber's concept for Logan Circle was derived from the Place de la Concorde in Paris—a large traffic circle with a central monument, partially surrounded by imposing structures.

Greber's plan for the portion within the Logan traffic circle shows a central column within a large pool, an encircling walk, six radiating walks aligned along the three main organizational axes, and an outer walk at the curb. The walks produced a division of the circle into six areas for gardens, each with a sitting alcove facing the center. The entire circle was to maintain a low profile, which would enhance the long range vista from City Hall to the art museum.

Ultimately, the column which was to stand in the center of the circle was not built. In its place the Swann Memorial Fountain, designed by architect Wilson Eyre and sculptor Alexander Stirling Calder was constructed.

The fountain was completed in 1924 and erected in memory of Wilson Cory Swann, founder and president of the Fountain Society, a physician, art lover and supporter of benevolent causes.

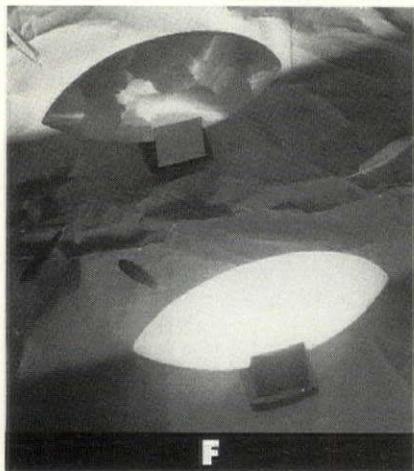
Regarding the meaning and symbolism of the

sculpture, Calder's three central figures, reclining against water-spouting animals set on the central tiered basins, express the essential character of Philadelphia's three principal waterways. The Wissahickon Creek (Hidden Creek), a picturesque woodland stream which empties into the Schuylkill River, is represented by a graceful young woman leaning against a water spouting swan. Philadelphia's largest river, the Delaware, into which the Schuylkill flows, is represented by the calm and powerful figure of a male indian, holding a bow and leaning against a leaping and spouting pike (the pike was an important fish of the Delaware). The mid-sized Schuylkill River is represented by a mature woman leaning against and holding the neck of an agitated swan.

All of the central figures are low-lying, in accordance with Eyre's stated philosophy, in order not to intrude on Greber's vista. Massive and stylized, they are impressive in their own right, and are excellent foils for the water jets emanating from the fish and swans, as well as for the 50-foot high central jet rising behind them, and those spouting from the basin floor.

On the basins' floor are set symmetrically and alternately three frogs and three turtles, all spouting water toward the central ensemble. Unlike the other animal or human figures which are either artistic puns (the swans), have regional significance (the fish), or are allegorical (the nudes), Calder explains that, "There is no psychology about a frog and, of course, little mystery concerning a turtle. They are simply part of the general decorative scheme."

The remaining six jets are positioned in pairs (one of each pair toward the center, and one toward the rim of the basin) between the frogs and turtles. These are simple vertical spouts and bubblers with no associated sculpture and are simply part of the overall water display.



F. Uplight Wall Sconces

Crest is available with either an opaque aluminum shade or a translucent white glass shade. The metal shade gives even uplight, while the frosted glass shade provides a combination of uplight and ambient light. The unit mounts to a standard J-box centered 2 1/2 inches below the top of the sconce. Models are available for use with fluorescent, incandescent or halogen sources. The arm is available in black or white. Ron Rezek, Culver City, CA. **Circle 56**

G. Euro-Style Table/Floor Lamp

The Litemaster table and floor lamp line uses a 50-watt halogen bulb. The Satellite model

shown incorporates a super-imposed light diffuser and reflector shade. The halogen lamp's bright beam shines



toward the reflector shade and is then redirected toward the area to be lit. The controlled reflector shade can be turned 360 degrees. Other Litemaster models include contemporary and traditional

torchiera floor lamps, and a selection of streamlined futuristic desk lamps. Art Specialty Company, Chicago, IL. **Circle 68**

H. Landscape/Garden Fixture

Lumiere's Lido Series of landscape and garden fixtures operate with an incandescent light source for normal operation at 11 volts. All units are chromate conversion coated and finished with a ther-

and Manufacturing, Inc., Westlake Village, CA. **Circle 52**



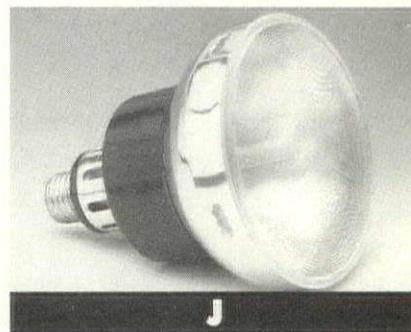
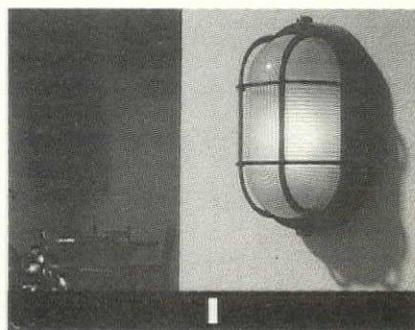
I. Decorative Indoor/Outdoor Luminaire

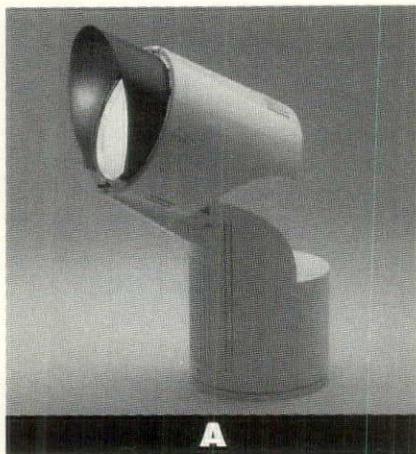
The Euroluxe housing is one-piece, die-cast aluminum finished with polyester powder paint, and available in seven colors. The lens provides heat resistance, light uniformity, and withstands weather and insect entry. The bulkhead design is offered in both round and oval shapes, and in models which can accommodate high-pressure sodium, fluorescent, and incandescent sources. Hubbell, Christiansburg, VA. **Circle 61**

J. Fluorescent Floodlights

The 13-watt NN-13/R30 and NN-

incandescent, and screw into existing medium bases. A twist-on fresnel lens facilitates bulb replacement when necessary. The NN Series floodlamp is 5 1/4 inches wide at the lens and has an installed height of 5 9/16 inches. The NN-13s and the NN-9, which produce the equivalent of 60 watts of illumination, are priced comparably to existing quad-style compact fluorescents. Eastrock Technology, Inc., Hackettstown, NJ. **Circle 60**



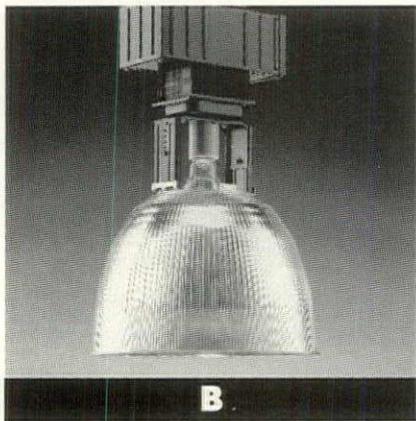


A. Cylindrical Ambient/Accent Sun Light

designed by Fabio Reggiani, has a concealed adjustment mechanism that makes the fixture suitable for use as an ambient or accent light. The unit is made of die-cast aluminum in two parts connected by a strong swivel. The swivel connecting the ballast and lamp compartments may be adjusted through a 130 degree arc. The entire unit may be rotated 350 degrees on its mounting plate so light may be aimed where required. Cooling fins are cast into the lamp compartment and slots around the ballast for maximum heat dissipation. Reggiani, New York, NY. **Circle 64**

B. High-Bay Luminaire

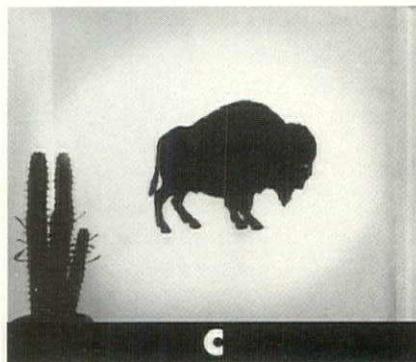
The Lumark Prismatic high-bay luminaire has an extruded aluminum slide-on mounting box for three-quarter inch conduit that makes the fixture easy to hang. The embossed, die-formed steel housing is finished in dark bronze polyester powder coat. Maximum fixture height with a 16-inch prismatic acrylic reflector is



26 inches. Maximum fixture height with a 22-inch reflector is 26 1/2 inches. Cooper Lighting, Elk Grove Village, IL. **Circle 54**

C. Animal-Shaped Fixtures

Wildlites wall sconces come in buffalo, fish, and running horses shapes. Each shape, lighted from behind, provides



indirect lighting. Each silhouette is finished in a flat black baked enamel, while the wall

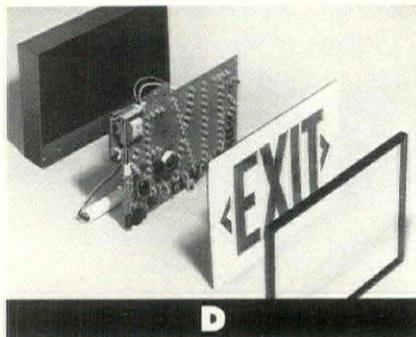


plate is finished in white enamel with a diffuser to maximize efficiency. Wildlites can be hung on any wall

power module snaps securely into the protective steel housing after the empty housing has been mounted to wall or ceiling. The over-270 options include legend and housing colors, and fire-alarm interface capabilities. Self-Powered Lighting, Inc., Elmsford, NY. **Circle 50**

E. Low-Voltage Lampholders

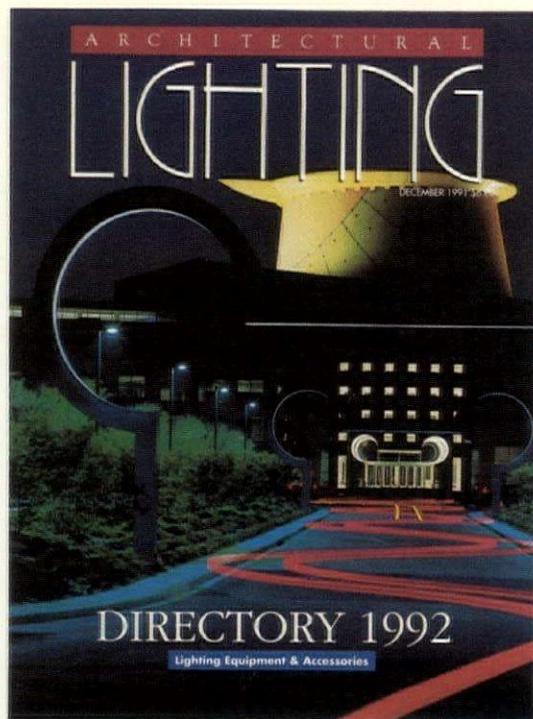
The Alto series of Power-Trac lam-

pholders rotate 358 degrees horizontally and 90 degrees vertically. The units accommodate a variety of low-voltage lamps from 12-volt, 50-watt or 5.5-volt, 25-watt PAR 36, to 300-watt or 500-watt PAR 64. Also, offered in white and matte black finishes, is available in six different wattages and sizes, and can be combined with accessories such as color filters, uv filters, lenses, louvers, and barn door shutters. The series ranges from a length of 5 1/4 to 8 inches, and a width of 7 to 9 1/2 inches, not including the extension. Halo Lighting, Elk Grove Village, IL. **Circle 58**

D. Modular Exit Sign

All the components of the HJ-5000 Century Series emergency exit sign, including L.E.D.s, solid-state electronics, and battery, are contained in its light and power module. The light and





DIRECTORY 1992

Lighting Equipment & Accessories

Thank you to all the manufacturers who responded by deadline to our call for Directory 1992 information.

The Directory includes both general information—an alphabetical listing of manufacturers' names, addresses, and phone and FAX numbers; and specific information—listings by product type.

We hope you will keep this valuable resource on hand throughout the year. Your suggestions are always welcome as to how we can make it even better in future editions.

Wanda Jankowski Editor-in-Chief

ALPHABETICAL LISTING

Manufacturers' names, addresses, and phone and FAX numbers. (Advertisers in this issue are shown in boldface)

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MANUFACTURERS

A

- ABEC Lighting, Inc.,
4084 Arnold Ave., #8, Naples,
FL 33942, (813)-643-4242,
FAX: (813)-643-3305
- A.L.P. Lighting &
Ceiling Prod., Inc.,
6333 Grosse Point Rd., Niles, IL
60648, (312)-774-9550, FAX:
(312)-774-9331
- ARC Sales Inc., 72 Loring Ave.,
Salem, MA 01970, (508)-745-2249
- AAMSCO Lighting,
P.O. Box 15119, Jersey City, NJ
07035, (800)-221-9092, (201)-
434-0722, FAX: (201)-434-8535
- Abolite Lighting, Inc., LSI Inds.,
P.O. Box 180, 305 N. Center,
West Lafayette, OH 43845,
(800)-837-5483, (614)-545-
6374, FAX: (614)-545-9206
- Abrisa Industrial Glass, Inc., P.O.
Box 3053, 1456 Fleet Ave.,
Ventura, CA 93003, (800)-648-
8189, (805)-642-1641, FAX:
(805)-642-0741
- Accent Lite, Linear Lighting
Corp., 31-30 Hunters Point
Ave., Long Island City, NY
11101, (718)-361-7552, FAX:
(718)-937-2747
- Adjusta-Post Mfg. Co., P.O. Box
71, Norton, OH 44203, (800)-
321-2132, (216)-745-1692,
FAX: (216)-745-9746
- Advance Transformer Co., North
American Philips Corp., 10275
W. Higgins Rd., Rosemont, IL
60018-3893, (708)-390-5000,
FAX: (708)-390-5109
- Advanced Control Technologies,
Inc., 1936-B S. Lynhurst Dr.,
Indianapolis, IN 46241, (800)-
886-2281, (317)-248-2640,
FAX: (317)-248-6898
- Peter Albrecht, 6250 Industrial
Court, Greendale, WI 53129,
(414)-421-6630
- Alcoa, P.O. Box 3567, Davenport,
IL 52808, (319)-359-2000
- ALKCO, Jac Jacobsen Inds., Inc.,
11500 Melrose Ave., Franklin
Park, IL 60139, (708)-451-0700,
FAX: (708)-451-7512
- Allite Inc., P.O. Box 430, 106
Pierces Rd., Newburgh, NY
12550, (800)-634-3381, (914)-
565-3635, FAX: (914)-565-8930
- Aluminum Coil Anodizing Corp.,
501 E. Lake St., Streamwood,
IL 60107, (800)-289-2645,
(708)-837-4000, FAX: (708)-
837-0814
- Amecon Inc., 1900 Chris Lane,
Anaheim, CA 92805, (714)-
634-2220, FAX: (714)-634-
0905 (see ad on page 48)
- American Electric, 1555
Lynnfield Rd., Memphis, TN
38119, (901)-682-7766, FAX:
(800)-888-1366
- American Fluorescent Corp., P.O.
Box 119, 3821 Hawthorn Ct.,
Waukegan, IL 60079, (708)-
249-5970, FAX: (312)-249-2618
- American Lantern Co., 4344
Hwy., 67 North, Newport, AR
72112, (800)-851-5071, (501)-
523-2705, FAX: (501)-523-
5744
- American Louver Co., 7700 N.
Austin Ave., Skokie, IL 60077,
(800)-323-4250, (708)-470-
3300, FAX: (708)-470-0420
- American Reflector Tech., 370
Grand Ave., Carlsbad, CA
92008, (714)-968-6036
- Amerlux, 23 Daniel Rd., Fairfield,
NJ 07004, (201)-882-5010,
FAX: (201)-882-8970
- Antique Street Lamps, Inc., P.O.
Box 43289, Austin, TX 78745-
0008, (512)-282-9780, FAX:
(512)-280-6100
- Appleton Lamplighter**, Aries
Fabrication Corp., P.O. Box
1434, 2664 American Dr.,
Appleton, WI 54913, (414)-739-
9001, FAX: (414)-739-1656
(see ad on page 9)
- Appliance Control Technology
(ACT), Electronic Ballast
Group, 1431 Jeffrey Dr.,
Addison, IL 60101, (708)-916-
0900, FAX: (708)-916-0934
- Appropriate Technology, 7
Technology Dr., Brattleboro,
VT 05301, (802)-257-4500
- Architectural Area Lighting,
Hanson Inds., 14249 Artesia
Blvd., La Mirada, CA 90638,
(714)-994-2700, FAX: (714)-
994-0522
- Architectural Cathode Lighting,
5301 Pacific Blvd., Huntington
Park, CA 90255, (213)-581-
8800, FAX: (213)-581-7971
- Architectural Lighting Systems,
NULCO Lighting, 30 Sherwood
Dr., Taunton, MA 02780, (508)-
823-8277, FAX: (508)-822-
6787
- Ardee Lighting/USA, Ardee
International, P.O. Box 370375,
Miami, FL 33137, (305)-531-
7978, FAX: (305)-532-6800
- Area Lighting Research, Inc., 60
Asbury Rd., Hackettstown, NJ
07840, (908)-852-2205, FAX:
(908)-852-2816
- Arroyo Craftsman Lighting, 4509
Littlejohn St., Baldwin Park,
CA 91706-2239, (818)-960-
9411
- Art Specialty Co., Inc., 3720 N.
Milwaukee Ave., Chicago, IL
60641, (800)-843-0417, (312)-
545-6607, FAX: (312)-545-
0391
- Artemide, Inc., 1980 New Hwy.,
Farmingdale, NY 11735-1102,
(516)-694-9292, FAX: (516)-
694-9275
- Artisan Controls Corp., P.O. Box
233, 5 Eastman's Rd., Ste. 100,
Parsippany, NJ 07054, (201)-
428-1770, FAX: (201)-428-
1426
- Associated Supply Co., 3309 S.
Center Rd., Flint, MI 48507,
(313)-744-2138
- Atelier Intl. Ltd., Steelcase Inc.,
30-20 Thomson Ave., Long
Island City, NY 11101, (800)-
645-7254, (718)-392-0300,
FAX: (718)-392-1593

B

- BEGA, P.O. Box 1285,
Carpinteria, CA 93014-1285,
(805)-684-0533, FAX: (805)-
684-6682
- Beghelli, Inc., G.P.B. Beghelli,
S.R.L., 11221-1 St. Johns
Indust. Pkwy. S., Jacksonville,
FL 32216, (904)-646-4416,
FAX: (904)-646-1949
- Norbert Belfer Lighting, P.O. Box
2079, 1703 Valley Rd., Ocean,
NJ 07712, (908)-493-2666,
FAX: (908)-493-2941
- Benjamin Electric Mfg., Co.,
Thomas Inds., P.O. Box 180,
Sparta, TN 38583, (615)-738-
2241, FAX: (615)-738-2240
- Beta Lighting**, 1200 92nd St.,
Sturtevant, WI 53177, (414)-
886-2800, FAX: (414)-886-
2779 (see ad on Cover 2)
- Beven Lighting Co., 5241
Thatcher Rd., Downers Grove,
IL 60515, (708)-964-7276,
FAX: (708)-969-1792
- Beverly Hills Fan Co., 6033
DeSoto Ave., Woodland Hills,
CA 91367, (800)-826-6192,
(818)-992-3267, FAX: (818)-
992-3255
- Bodine, P.O. Box 460,
Collierville, TN 38027-0460,
(901)-853-7211, FAX: (901)-
853-5009
- Bonar Kard-O-Lite, 421 Feheley
Dr., King of Prussia, PA 19046,
(215)-277-2910
- Boyd Lighting Co., 56 12th St.,
San Francisco, CA 94103,
(415)-431-4300, FAX: (415)-
431-8603
- Brass Light Gallery, Inc., 131 S.
First St., Milwaukee, WI 53204,
(800)-243-9595, (414)-271-
8300, FAX: (414)-271-7755
- Brass Reproductions, 9711
Canoga Ave., Chatsworth, CA
91311, (800)-828-5858, (818)-
709-7844, FAX: (818)-709-
5918
- Brilliant Prod., Inc., 23112
Magnolia Glen Dr., Valencia,
CA 91354-1344, (213)-380-
6283
- Bristolite Skylights, P.O. Box
2515, 401 E. Goetz Ave., Santa
Ana, CA 92707, (800)-854-
8618, (714)-540-8950, FAX:
(714)-540-5415
- Brodwax Lighting, 1325 S.W.
30th Ave., Deerfield Beach, FL
33442, (800)-841-4666, (305)-
360-7033, FAX: (305)-360-
7449

Bronzelite, Genlyte, 500 Wonder World Dr., San Marcos, TX 78667, (512)-392-5821, FAX: (512)-353-5822

Brownlee Lighting, BEMCO, 3071-K N. Orange Blossom Trail, Orlando, FL 32804, (407)-297-3677, FAX: (407)-297-3705

C

CEW Lighting, 14040 Welch Rd., Dallas, TX 75244, (800)-255-5267, (214)-960-1993, FAX: (214)-387-9711

CPI Concrete Products, P.O. Box 13324, Memphis, TN 38113, (800)-289-2741, (901)-775-9880, FAX: (901)-775-9883

CSL Lighting Mfg. Inc., P.O. Box 801930, 25070 Avenue Tibbetts, Valencia, CA 91355-3447, (800)-642-2286, (805)-257-4155, FAX: (805)-257-1554

Cable Lite Corp., 15510 Wright Brothers Dr., Dallas, TX 75244, (214)-239-5483, FAX: (214)-239-5489

Camer Glass Lighting Corp., 315 East 62 St., New York, NY 10021, (212)-838-8575, FAX: (212)-644-2666

Canlet, Canplas Industries, P.O. Box 1800, 31 Patterson Rd., Barrie Ont., Canada L4M 4V3, (705)-726-3361, FAX: (705)-726-8991

Capri Lighting, Thomas Industries, 6430 E. Slauson Ave., Los Angeles, CA 90040, (213)-726-0180, FAX: (213)-728-1319

Caribbean Worldwide, 2056 N.W. 23rd Ave., Miami, FL 33142, (800)-394-2546, (305)-633-7388, FAX: (305)-638-0169

Carlson, A Lamson & Sessions Co., 25701 Science Park Dr., Cleveland, OH 44122, (800)-523-2582, (216)-831-4000, FAX: (216)-831-5579

Casablanca Fan Co., Casablanca Inds., Inc., 450 N. Baldwin Park Blvd., City of Industry, CA 91746, (800)-759-3267, (818)-369-6441, FAX: (818)-330-4636

Casablanca Lighting, P.O. Box 690, Valley Forge, PA 19482, (215)-630-2272

Celestial Products, 425 Fernando Ct., Glendale, CA 91204, (800)-233-3563, (818)-247-3830, FAX: (818)-247-6815

Chiaro Intl., Chiaro, 475 10th Ave., New York, NY 10018, (212)-971-0330, FAX: (212)-967-8869

Chloride Systems, 126 Chloride Rd., Burgaw, NC 28425, (919)-259-1000, FAX: (919)-259-1149

Chronar Corp., P.O. Box 177, Princeton, NJ 08542, (609)-799-8800, FAX: (609)-799-8843

Classic Lamp Posts, Rotocast Plastic Prods., 3645 NW 67th St., Miami, FL 33147, (800)-654-5852, (305)-696-1901, FAX: (305)-836-1296

Clyde Russell & Assocs., 11120 Pedal St., Dallas, TX 75238, (214)-348-5000

Coast Light Systems, Jac Jacobsen Inds., Inc., 2200 S. Anne St., Santa Ana, CA 92704, (714)-549-9765, FAX: (714)-432-1901

Coe Studios, 1214 Fourth St., Berkeley, CA 94710, (415)-527-2950, FAX: (415)-527-0103

C.W. Cole & Co., Inc., 2560 N. Rosemead Blvd., South El Monte, CA 91733, (213)-283-6688, FAX: (818)-443-9253

Colonnade Lights International, Inc., P.O. Box 66218, Houston, TX 77266, (713)-535-3153, FAX: (713)-535-3101

Colortran Environmental Lighting, Colortran, 1015 Chesnut St., Burbank, CA 91506, (818)-843-1200, FAX: (818)-954-8520

Columbia Lighting, USI Lighting, Inc., P.O. Box 2787, Spokane, WA 99220, (509)-924-7000, FAX: (509)-924-0931

Con-Tech, Conservation Technology Ltd., 130 N. Waukegan Rd., Deerfield, IL 60015, (800)-728-0312, (708)-945-0303, FAX: (708)-945-0096 (see ad on page 7)

Consolidated Cathode Corp., 5716 Third Ave., Brooklyn, NY 11220, (718)-439-0294, FAX: (718)-439-0497

Cooper Lighting, Cooper Inds., 400 Busse Rd., Elk Grove Village, IL 60007, (708)-956-8400, FAX: (708)-806-3980

Creative Light & Sound Corp., 1710 Enterprise Pkwy., Twinsburg, OH 44087, (216)-425-3388

Crescent Lighting, Genlyte, 120 Gloucester Pike, Barrington, NJ 08007, (609)-546-5500

Crestron Electronics, Inc., 101 Broadway, Cresskill, NJ 07626, (800)-237-2041, (201)-894-0660, FAX: (201)-894-1192

Crouse-Hinds, Cooper Lighting, Hwy. 61 South, Vicksburg, MS 39180, (601)-638-1522, FAX: (601)-634-9692

Crystalite Fine Lighting, 16811 Maurice Ct., Cerritos, CA 90701, (213)-404-7000

Crystrorama Inc., 95 Cantiague Rock Rd., Westbury, NY 11590, (800)-888-4470, (516)-931-9090, FAX: (516)-931-1254

Custom Lighting Concepts, Inc., 3791 N.E. 11th Ave., Pompano Beach, FL 33064, (305)-783-5292, FAX: (305)-345-8239

D

Day-Brite Lighting, Thomas Inds., Inc., P.O. Drawer 1687, Tupelo, MS 38802, (601)-842-7212, FAX: (601)-841-5501

Dayton Lighting, Yosgad Lighting Inds., Inc., 90 Dayton Ave., Passaic, NJ 07055, (201)-471-2858, FAX: (201)-471-2454

Dazor Mfg. Corp., 4483 Duncan Ave., Saint Louis, MO 63110, (800)-345-9103, (314)-652-2400, FAX: (314)-652-2069

Williams de Baritault, P.O. Box 1821, Salt Lake City, UT 84110-1821, (801)-363-1339, FAX: (801)-363-1344

Delray Lighting, 11916 Valerio Street, North Hollywood, CA 91605, (818) 982-3701, FAX: (818) 982-3715

Design Lighting Prods. Co., 737 W. Second Ave., Mesa, AZ 85210, (800)-843-1602, (602)-464-8366, FAX: (602)-991-9874

Design Osaka, 1341 Ocean Ave., Ste. 349, Santa Monica, CA 90401, (213)-398-7649

DesignPlan Lighting, Inc., P.O. Box 271, Milford, NJ 08848, (908)-995-7111, FAX: (908)-995-7802

Devine Lighting, One Design Dr., North Kansas City, MO 64116, (816)-221-9440, FAX: (816)-221-3868

DiBianco Lighting, 8018 Third Ave., Brooklyn, NY 11209, (718)-238-7153

Dinico Products, Inc., 123 S. Newman St., Hackensack, NJ 07601, (201)-488-5700, FAX: (201)-488-9139

Dreamscape Lighting Mfg., Inc., 10610 Culver Blvd., Culver City, CA 90232, (213)-838-7043, FAX: (213)-202-8536

Dual-Lite, General Signal Corp., P.O. Box 468, Newtown, CT 06470, (203)-426-8011, FAX: (203)-426-7486

Duray Fluorescent Mfg. Co., 2050 W. Balmoral Ave., Chicago, IL 60026, (800)-348-6715, (312)-271-2800

Duro-Test Corp., 9 Law Dr., Fairfield, NJ 07004, (201)-808-1800, FAX: (800)-289-3876

Dynamic Energy Prods., Inc., 3M, 710 Bonnie Lane, Elk Grove Village, IL 60007, (708)-952-8694, FAX: (708)-952-8752

Dynasty Classics, 1035 E. Watson Center Rd., Carson, CA 90745, (213)-834-3637

E

E.G.L. Co., Inc., 730 S. 13th St., Newark, NJ 07103, (201)-824-2200, FAX: (201)-642-0479

ELA Company, 17891 Arenth Ave., City of Industry, CA 91748-1197, (800)-423-6561, (818)-965-0821, FAX: (818)-965-9494

ELBA U.S.A. Inc., 17870 Castleton, industry, CA 91748, (800)-626-3522, (818)-913-0341, FAX: (818)-913-0142

ETA Lighting Systems, 1716 Enterprise Pkwy., Twinsburg, OH 44087, (216)-425-3388, FAX: (216)-425-9700

Eagle Electric Mfg. Co., Inc., 45-31 Court Sq., Long Island City, NY 11101, (718)-937-8000, FAX: (718)-482-0160

Eastrock Mfg. & Tech., Inc., 13 Rte. 57, Hackettstown, NJ 07840, (201)-852-0826, FAX: (201)-852-2816

Edison Price Lighting, 409 E. 60th St., New York, NY 10022, (212)-838-5212, FAX: (212)-888-7981 (see ad on page 12)

Elba America, Inc., 4433 Gainsborough Ave., Los Angeles, CA 90027-1224, (213)-544-2180

Electric Art Co., 1131 N. Warson, Saint Louis, MO 63132, (314)-567-0009

Electrical Specialties, Inc., 428D Kelly Dr., Box 425, Berlin, NJ 08009, (609)-753-8284, FAX: (609)-753-8379

MANUFACTURERS

Electro Elf, HIM, Inc., 315 Sutton Pl., Santa Rosa, CA 95407, (818)-286-5002

Electronic Ballast Control, 2510 W. 237th St., Torrance, CA 90505, (213)-534-1717, FAX: (213)-534-8214

Electronics Diversified, Inc., 1675 N.W. 216th Ave., Hillsboro, OR 97124, (800)-547-2690, (503)-645-5533, FAX: (503)-629-9877

Elgee Lighting, Inc., Elgee West Lighting, Inc., P.O. Box 472, Newburgh, NY 12550, (800)-243-4413, FAX: (914)-565-6716

Elite Software, P.O. Drawer 1194, Bryan, TX 77806, (800)-648-9523, (409)-846-2340, FAX: (409)-846-4367

Elliptipar Inc., 145 Orange Ave., West Haven, CT 06516, (203)-932-2266, FAX: (203)-932-4899 (see ad on page 15)

Elsco Lighting Prods., Inc., 10880 Wilshire Blvd., #602, Los Angeles, CA 90024-4107, (209)-466-0511, FAX: (209)-466-0324

Eltech, 181 Gibraltar Rd., Horsham, PA 19044, (215)-441-0404, FAX: (215)-441-8299

Emco Lighting, Thomas Inds., Inc., 2661 Alvarado St., San Leandro, CA 94577, (800)-227-0758, (510)-357-6900, FAX: (510)-357-3088

Emergi-Lite, Emergi Lane, Westbrook, CT 06498, (203)-399-7991, FAX: (203)-399-1996

Encon Inds., Inc., 6901 Snowden Rd., Fort Worth, TX 76140, (800)-969-7400, (817)-293-7400, FAX: (817)-551-6035

Energy Saving Devices, Inc., 401 E. Fourth St., Saint Paul, MN 55101, (612)-222-0849, FAX: (612)-222-4626

Engineered Lighting Prod., 10768 Lower Azusa Rd., El Monte, CA 91731, (818)-579-0943, FAX: (818)-579-6803

Eran Lighting-Plastics Ind. Ltd., P.O. Box 878, Beacon, NY 12508, (914)-831-6500

ESCO Intl., Inc., 2050 W. Balmoral, Chicago, IL 60625, (312)-271-2800, FAX: (312)-271-1966

Etta Inds., Inc., 4755 Walnut St., Boulder, CO 80301, (303)-444-2244, FAX: (303)-444-1222

Exitronix, Barron Manufacturing Corp., 4160 Grove Ave., Gurnee, IL 60031, (708)-312-2494, FAX: (708)-249-5813

F

FLOS Inc., 200 McKay Rd., Huntington Station, NY 11746, (516)-549-2745, FAX: (516)-549-4220

Feiss Industries I Murray Feiss, 125 Rose Feiss Blvd., Bronx, NY 10454, (800)-969-3347, (212)-292-2024, FAX: (212)-402-6084

Fiber Optic Systems, Inc., 2 Railroad Ave., Whitehouse Station, NJ 08889, (908)-534-5500, FAX: (908)-534-2272

Fiberstars Inc., 47338 Fremont Blvd., Fremont, CA 94538, (800)-327-7877, (510)-490-0719, FAX: (510)-490-3247

Fibre-lite Corp., 3328 Towerwood Dr., Dallas, TX 75234, (214)-247-7770, FAX: (214)-241-4339

Finezze Inc., 241 Fourth Ave., Venice, CA 90291, (213)-396-5081

Fitzgerald Adv., 1055 St. Charles St., New Orleans, LA 70130, (504)-529-3161

Focus Lighting, Focus Inds., Inc., 12117 E. Slauson Ave., Santa Fe Springs, CA 90670, (213)-696-3993, FAX: (213)-945-8000

Forecast Lighting, 500 N. Oak St., Inglewood, CA 90302, (800)-989-3000, (213)-678-5151, FAX: (213)-671-4987

Foremost Mfg. Co. Inc., 941 Ball Ave., Union, NJ 07081, (201)-687-4646, FAX: (201)-687-4628

Forum Inc., 214 N. Lexington Ave., Pittsburgh, PA 15208, (412)-244-8780, FAX: (412)-244-9032

Future Classics/Marc Nugent, 155 E. 23rd St., New York, NY 10010, (212)-598-0486, FAX: (212)-505-9649

G

GE Lighting, General Electric Co., Nela Park, Cleveland, OH 44112, (800)-523-5520, (216)-266-3900, FAX: (216)-266-3486

GE Wiring Devices, General Electric Co., 225 Service Ave., Warwick, RI 02886, (401)-886-6200, FAX: (401)-886-6250

GTE Products Corp.- Emissive Prods., Chemical & Metallurgical Div., Portsmouth Ave., Exeter, NH 03833, (800)-258-8290, (603)-772-4331, FAX: (603)-772-1072

GTE Sylvania Lighting, GTE Electrical Prods., 100 Endicott St., Danvers, MA 01923, (508)-777-1900, FAX: (508)-750-2152

Gammalux Systems, 416 W. Maple Ave., Monrovia, CA 91016, (800)-356-3275, (818)-358-5996, FAX: (818)-357-1567

Garcy - Major Lighting, Liberty Lighting, P.O. Box 39510, Chicago, IL 60639, (312)-384-1000, FAX: (312)-252-4366

Gardco Lighting, Thomas Inds., Inc., 2661 Alvarado St., San Leandro, CA 94577, (800)-227-0758, (510)-357-6900, FAX: (510)-357-3088

Gemma Studios, Inc., 321 Riverside Dr., Northampton, MA 01060, (413)-586-8710

General Electric Lighting Business Group, Nela Park, Cleveland, OH 44112, (216)-266-2121

Georgian Art Lighting Design, Inc., P.O. Box 325, Lawrenceville, GA 30246, (404)-963-6221, FAX: (404)-963-6225

Gilbert LED Exit Co., Don Gilbert Inds., Inc., 5611 Krueger Dr., Jonesboro, AR 72401-9102, (800)-643-0400, (501)-932-6070, FAX: (501)-932-5609

Gilway Technical Lamp, 800 W. Cummings Park, Woburn, MA 01801, (617)-935-4442, FAX: (617)-938-5867

Girole Steel, Inc., 3670 Jean Viel, Montreal ON, Canada H1B 5N3, (514)-645-7466, FAX: (514)-645-0002

Globe Lite, Standard Electric Fixture Co., Inc., 2150 N.W. Miami Court, Miami, FL 33127, (305)-573-2020, FAX: (305)-576-3758

Great American Lamp, Inc., 8636 Graham Ave., Los Angeles, CA 90002, (213)-589-5571

The Great American Market, 826 N. Cole Ave., Hollywood, CA

90038, (213)-461-0200, FAX: (213)-461-4308

Greene's Lighting Fixtures, Inc., 1059 Third Ave., New York, NY 10021, (212)-753-2507, FAX: (212)-688-6389

Greenlee Lighting, Inc., LSI Industries, 1510 Capital Pkwy., Ste. 110, Carrollton, TX 75006, (214)-466-1133, FAX: (214)-446-2202

Gross Chandelier Co., 106 Gratiot St., Saint Louis, MO 63102, (800)-331-2425, (314)-231-1060, FAX: (314)-231-2265

Guth Lighting, Jac Jacobsen Ind., P.O. Box 7079, 2615 Washington, Saint Louis, MO 63177, (314)-533-3200, FAX: (314)-533-9127

H

Hacker Inds., 1501 Westcliff Dr., #310, Newport Beach, CA 92660, (714)-645-8891

Hadco, Genlyte, 100 Craft Way, Littlestown, PA 17340, (717)-359-7131, FAX: (717)-359-9289

Halo Lighting, Cooper Lighting, 400 Busse Rd., Elk Grove Village, IL 60007, (708)-956-8400, FAX: (708)-806-3980

Hanover Lantern, Hoffmann Prods., Inc., 470 High St., Hanover, PA 17331, (800)-233-7196, (717)-632-6464, FAX: (717)-632-5039 (see ad on page 4)

W.F. Harris Lighting, 4015 Airport Exit Rd., Box 5023, Monroe, NC 28111, (704)-283-7477, FAX: (704)-283-6880

Hatch Transformers, Inc., 5126 Le Tourneau Circle, Tampa, FL 33610, (813)-621-7604, FAX: (813)-623-2229

Hi-Lite Mfg. Co., Inc., 13450 Monte Vista Ave., Chino, CA 91710-5149, (213)-945-3608

High-Lites Emergency Lighting, Jac Jacobsen Inds., Inc., 2142 Thomaston Ave., Waterbury, CT 06704, (203)-575-2044, FAX: (203)-574-3259

Hinkley Lighting, 12600 Berea Rd., Cleveland, OH 44111, (216)-671-3300, FAX: (216)-671-4537

Holophane Co., Inc., 250 E. Broad St., Ste. 1400, Columbus, OH 43215, (614)-345-9631, FAX: (614)-349-4426

Honeywell Residential & Building Controls, Honeywell Inc., 1985 Douglas Dr., N., Golden Valley, MN 55422, (800)-334-6770, (612)-542-5700, FAX: (612)-542-6887

Hubbell Inc., Wiring Device Division, 1613 State St., Bridgeport, CT 06605, (203)-337-3100, FAX: (203)-579-2892

Hubbell Lighting, Hubbell Inc., 2000 Electric Way, Christiansburg, VA 24073, (703)-382-6111, FAX: (703)-382-1526

Humphrey Prods. Co., P.O. Box 2008, Kilgore /Sprinkle Rd., Kalamazoo, MI 49003-2008, (616)-381-5500, FAX: (616)-381-4113

Hunter Fan Company, 2500 Frisco Ave., Memphis, TN 38114, (901)-743-1360, FAX: (901)-745-9376

Hydrel, 12881 Bradley Ave., Sylmar, CA 91342, (818)-362-9465, FAX: (818)-362-6548 (see ad on Cover 4)

Hytron Electric Prod., Inc., P.O. Box 404, 114 Poplar, Meadville, PA 16335, (814)-336-4460

ILC Enercon Corp., 7464 W. 78th St., Minneapolis, MN 55439, (612)-829-1900, FAX: (612)-829-1901

Idaho Wood, P.O. Box 488, Sandpoint, ID 83864, (800)-635-1100, (208)-263-9521, FAX: (208)-263-9521

Illuminating Experiences, Inc., 233 Cleveland Ave., Highland Park, NJ 08904, (800)-526-6990, (908)-745-5858, FAX: (908)-745-5858

Illumination Concepts & Engineering, 500 Callahan Rd., North Kingston, RI 02852, (401)-295-2533, FAX: (401)-295-5984

Indy Lighting, Inc., Juno Lighting, Inc., P.O. Box 8431, Indianapolis, IN 46250, (317)-849-1233, FAX: (317)-576-1233

Infinity Lighting, Inc., H.E. Williams, Inc., 3411 W. Potomac, Chicago, IL 60651, (312)-252-7424, FAX: (312)-252-7456

Inlite Corp., 939 Grayson St., Berkeley, CA 94710, (800)-346-5932, (510)-849-1067, FAX: (510)-849-3230

Innovative Industries of Tampa, Inc., 5126 Le Tourneau Cir., Tampa, FL 33610, (813)-621-7855, FAX: (813)-623-2229

Interlock Structures, 8774 Monticello Ln., Maple Grove, MN 55369, (800)-468-1497, (612)-493-3133, FAX: (612)-493-3130

Ioline Corp., 12020 113th Ave. N.E., Kirkland, WA 98034, (206)-821-2140, FAX: (206)-823-8898

Iota Engineering Co., P.O. Box 11846, 1301 E. Wieding Rd., Tucson, AZ 85734, (602)-294-3292, FAX: (602)-741-2837

Isolite Corp., 31 Waterloo Ave., Berwyn, PA 19312-1730, (800)-080-0888, (215)-688-2800

JW Lighting Inc., P.O. Box 450909, 750 Alameda-Genoa Rd.(77047), Houston, TX 77245, (800)-876-4511, (713)-433-4511, FAX: (713)-434-1397

JWP Infracon, Inc., 150 Louis St., S. Hackensack, NJ 07606-1721, (201)-440-3200

Jac Jacobsen Ind., P.O. Box 4207, 67 Holly Hill Ln., Greenwich, CT 06839, (302)-869-9330

Janmar Lighting, 892 W. 10th St., Azusa, CA 91702-1935, (213)-254-7501, FAX: (213)-254-7640

John Watson Landscape Illumination, 1933 Regal Row, Dallas, TX 75235, (800)-344-4885, (214)-630-7751, FAX: (214)-638-1811

Joslyn Hi-Voltage Corp., Joslyn Corp., 4000 East 116th St., Cleveland, OH 44122, (800)-621-5875, (216)-271-6600, FAX: (216)-341-3615

Juno Lighting, Inc., 2001 S. Mount Prospect Rd., Des Plaines, IL 60018, (800)-323-5068, (708)-827-9880, FAX: (708)-827-2925

Justice Design Group, 3457 S. La Cienega Blvd., Los Angeles, CA 90016, (310)-836-9575, FAX: (310)-836-0204

K

K-S-H, Inc., ICI, 10091 Manchester Rd., Saint Louis, MO 63122, (800)-325-9577, (314)-966-3111, FAX: (314)-966-6134

K-Lite, ICI Acrylics, Inc., 10091 Manchester Rd., St. Louis, MO 63122, (800)-325-9577, (314)-966-3111, FAX: (314)-966-3117

Kalwall Corp., P.O. Box 237, Manchester, NH 03015, (800)-258-9777

Keene Lighting Prod., 45 Industrial Ave., Wilmington, MA 01887, (508)-657-7600, FAX: (508)-658-2388

Kelsey-Kane Lighting Mfg. Co., 4541 N.E. 11th Ave., Oakland Park, FL 33334-3912, (800)-444-3187, (305)-772-3187, FAX: (305)-772-8468

Kenro Light, Inc., 8687 Melrose Ave., Los Angeles, CA 90069, (213)-659-6510, FAX: (213)-659-1768

Kenroy Lighting, 11660 Central Pkwy., Jacksonville, FL 32216, (904)-642-4340, FAX: (904)-642-4150

Keystone Lighting, USI Lighting, P.O. Box 2787, Spokane, WA 99214, FAX: (509)-927-4125

Kichler Lighting, 1541 E. 38th St., Cleveland, OH 44114-4399, (216)-431-5400, FAX: (216)-431-4765 (see ad on page 1)

Kim Lighting, Hanson PLC, P.O. Box 1275, 16555 E. Gale Ave., City of Industry, CA 91749, (818)-968-5666, FAX: (818)-369-2695

King Luminaire Co., Inc., P.O. Box 266, 1153 State Rte., #46, Jefferson, OH 44047, (416)-632-9301, FAX: (416)-632-8116 (see ad on page 19)

King Luminaire Co., Inc., P.O. Box 7, 840 Walkers Line, Burlington ON, Canada L7R 3X9, (416)-632-9301, FAX: (416)-632-8116

The Kirlin Co., 3401 E. Jefferson Ave., Detroit, MI 48207, (313)-259-6400, FAX: (313)-259-3121

Koch & Lowy, Inc., 21-24 39th Ave., Long Island City, NY 11101, (718)-786-3520, FAX: (718)-937-7968

Kohsun Ind., Inc., 2145 E. Sacramento St., Los Angeles, CA 90021, (213)-627-9102
Komotech, 447 W. Garvey Ave., Monterey Park, CA 91754, (818)-571-1729

Kosempel Mfg., Co., 3760 M St., Philadelphia, PA 19124, (800)-733-7122, (215)-533-7110, FAX: (215)-744-5220

George Kovacs Ltg., Inc., 67-25 Otto Rd., Glendale, NY 11385, (718)-628-5201, FAX: (718)-628-5212

L

LEE Colortran, Inc., LEE Panavision Intl., Inc., 1015 Chestnut St., Burbank, CA 91506, (818)-843-1200, FAX: (818)-954-8520

LSI Lighting Systems, LSI Inds. Inc., 10,000 Alliance Rd., Cincinnati, OH 45242, (513)-793-3200, FAX: (513)-793-0147

LTM Corp. of America, 11646 Pendleton St., Sun Valley, CA 91352, (800)-762-4291, (818)-767-1313, FAX: (818)-767-1442

LUMAX Inds., Inc., Chestnut Ave. & Fourth St., Altoona, PA 16603, (814)-944-2537, FAX: (814)-944-6413

L. P. Associates, 6650 Lexington Ave., Hollywood, CA 90038, (213)-462-4714, FAX: (213)-462-7584

Lake Forest Lighting, Ltd, 13605 W. Driftwood Dr., Lake Forest, IL 60045, (708)-367-5483

LAM Lighting, Jac Jacobsen Inds., Inc., 2200 S. Anne St., Santa Ana, CA 92704, (714)-549-9765, FAX: (714)-432-1901

La Mar Lighting Co., 80 Albany Ave., Freeport, NY 11520, (800)-724-7743, (516)-379-4200, FAX: (516)-379-4205

Lamp Technology, Inc., 1645 Sycamore Ave., Bohemia, NY 11716, (800)-533-7548, (516)-567-1800, FAX: (516)-567-1806

Laser Media, Inc., 6383 Arizona Cir., Los Angeles, CA 90045, (310)-338-9200, FAX: (310)-338-9221

MANUFACTURERS

- Lavery Lighting, Minka Lighting, 15747 Strathern St., Van Nuys, CA 91406, (818)-786-7850, FAX: (818)-786-0954
- Lazin Lighting, Inc., 53 Greene St., New York, NY 10013, (212)-219-3888, FAX: (212)-219-3948
- Ledalite Architectural Products, Inc., #8-3511 Viking Wy., Richmond BC, CANADA V6V 1W1, (604)-270-4404, FAX: (604)-273-0219
- Leecraft Mfg. Co., Inc., 21-02 44th Rd., Long Island City, NY 11101, (718)-392-8800, FAX: (718)-937-4896
- Leiter Lites/Light Points, P.O. Box 188, 202 Bethpage-Sweet Hollow Rd., Old Bethpage, NY 11804, (800)-527-7796, (516)-752-1433, FAX: (516)-752-9127
- Letven Diccicco, 455 Business Ctr. Dr., Horsham, PA 19044, (215)-672-4800
- Leucos Lighting, Leucos USA, 70 Campus Plaza II, Edison, NJ 08837, (800)-832-3360, (908)-225-0010, FAX: (908)-225-0250
- Leviton Mfg. Co., Inc., 59-25 Little Neck Pkwy., Little Neck, NY 11362, (800)-323-8920, (718)-229-4040, FAX: (718)-832-9538
- Lexalite Intl., Co., 10163 Highway 31 N., Charlevoix, MI 49720, (616)-547-6584, FAX: (616)-547-5833
- Lightalarms Electronics, Kaufel Group, 1170 Atlantic Ave., Baldwin, NY 11510, (516)-379-1000, FAX: (516)-379-1698
- Light Fair, 240 Peachtree St. N.W., Ste. 2200, Atlanta, GA 30303, (404)-220-2215, FAX: (404)-220-3030
- Light Space Design, 2111 Vine St., Ste. B, Berkeley, CA 94709, (800)-779-8989, (510)-843-8430, FAX: (510)-540-6023
- Light Standard By Scholl, P.O. Box 704, Bergen St., Bethlehem, PA 18016, (800)-523-9622, FAX: (215)-867-7147
- Lighting & Lowering Systems, Inc., Duray Florescent Mfg. Co., 2050 W. Balmoral Ave., Chicago, IL 60625, (312)-271-2800, FAX: (312)-271-1722
- Lighting Analyst, Inc., 10394 W. Chatfield Ave., Ste. 100, Littleton, CO 80127, (303)-972-8852, FAX: (303)-972-8851
- Lighting Bug, Ltd., 320 W. 202nd St., Chicago Heights, IL 60411, (800)-323-3226, (708)-255-2100, FAX: (708)-755-3443
- Lighting Innovations, DeBaun Lighting Co., Inc., 240 S. Raymond Ave., Alhambra, CA 91801, (818)-289-5160, FAX: (213)-283-3500
- Lighting Ltd., 1524 S. Peoria St., Chicago, IL 60608, (312)-421-7733
- Lighting Sciences, Inc., 7830 E. Evans Rd., Scottsdale, AZ 85260, (602)-991-9260, FAX: (602)-991-0375
- Lighting Services, Inc., Industrial Park, Rte. 9W, Stony Point, NY 10980, (914)-942-2800, FAX: (914)-942-2177
- Lighting Technologies, Inc., 2540 Frontier Ave., Ste. 107, Boulder, CO 80301, (303)-449-5791, FAX: (303)-449-5864
- Lightolier, Genlyte, 100 Lighting Way, Secaucus, NJ 07096, (201)-392-3884, FAX: (201)-864-4512
- Lightolier Controls, Inc., Genlyte, 100 Lighting Way, Secaucus, NJ 07096, (201)-864-3000, FAX: (201)-864-9478
- Lightolier/KLP Fluorescent Div., Genlyte, 45 Industrial Way, Wilmington, MA 01887, (508)-657-7600, FAX: (508)-658-2388
- Lightway Industries, Inc., 25345 Ave. Stanford, Unit 213, Valencia, CA 91355, (800)-325-4448, (805)-257-0286, FAX: (805)-257-0201
- Lightworks, 3345 W. Hunting Park Ave., Philadelphia, PA 19132, (215)-223-9200, FAX: (215)-227-7332 (see ad on page 3)
- L'Image Inds., Inc., P.O. Box 72, Town Indust. Pk., Saint Albans, VT 05478, (800)-367-6801, FAX: (514)-353-2660
- Linear Lighting Corp., 31-30 Hunters Point Ave., Long Island City, NY 11101, (718)-361-7552, FAX: (708)-937-2747
- Lite-Nite, Inc., Unpertree Corp., 819 Picken's Industrial Dr., Ste. 1, Marietta, GA 30062, (404)-514-0951, FAX: (404)-514-0950
- Lite Source, Inc., 163 University Pkwy., Pomona, CA 91768, (714)-598-3383, FAX: (714)-598-7815
- Litecontrol Corp., P.O. Box 100, 100 Hawks Ave., Hanson, MA 02341, (800)-852-3455, (617)-294-0100, FAX: (617)-293-2849
- Litelab Corp., 251 Elm St., Buffalo, NY 14203, (800)-238-4120, (716)-856-4491, FAX: (716)-856-0156
- Liteline Ltd., 1524 S. Peoria St., Chicago, IL 60608, (800)-245-4448, (312)-421-7733, FAX: (312)-421-5444
- LiteTouch, Inc., 3550 S. 700 W., Salt Lake City, UT 84115-4120, (801)-268-8668, FAX: (801)-268-9200
- Lite Tronics, Intl., RCS Industries, Inc., 5317 W. 123rd Place, Alsip, IL 60658, (800)-323-3392, (708)-371-4955, FAX: (708)-371-0627
- Lithonia Lighting, P.O. Box A, 1335 Industrial Blvd., Conyers, GA 30207-0067, (404)-922-9000, FAX: (404)-922-1841
- Robert Long Lighting, P.O. Box 770, 427 Allen Ct., Healdsburg, CA 95448, (800)-588-3664, (707)-431-1050, FAX: (707)-431-0134
- Lorin Inds., P.O. Box 766, Muskegon, MI 49443-0766, (800)-654-1159, (616)-722-1631, FAX: (616)-726-6186
- Lucifer Lighting Co., 414 Live Oak, San Antonio, TX 78202, (800)-879-9797, (512)-227-7329, FAX: (512)-227-7329
- Lumark, Cooper Lighting, P.O. Box 824 h, Vicksburg, MS 39180, (601)-638-1522, FAX: (601)-634-9606
- Lumax Industries, Inc., Chestnut Ave. & 4th St., Altoona, PA 16601, (814)-944-2537, FAX: (814)-944-6413
- Lumec, Inc., C.P. 633, Boisbriant PQ, Canada J7E 4K3, (514)-430-7040, FAX: (514)-430-1453
- Lumenyte Intl. Corp., 350 Lear Ave., Costa Mesa, CA 92626, (714)-556-6655, FAX: (714)-556-9329
- Lumiere Design & Mfg., Inc., 31360 Via Colinas, #101, Westlake Village, CA 91362, (818)-991-2211, FAX: (818)-991-7005
- Lutron Electronics Co., Inc., 7200 Suter Rd., Coopersburg, PA 18036-1299, (800)-523-9466, (215)-282-3800, FAX: (215)-282-3090
- Luxo Lamp Corp., 36 Midland Ave., Port Chester, NY 10573, (800)-222-5896, (914)-937-4433, FAX: (800)-648-2978

M

- MEROFORM/MERO Structures, Inc., N112 W. 18810 Mequon Rd., Germantown, WI 53022, (800)-323-0072, (414)-255-6553, FAX: (414)-255-6932
- MICA Lighting, Inc., 1531 W. Orangewood Ave., Orange, CA 92668, (714)-744-4255, FAX: (714)-744-4377
- ML Systems, Aluminum Co. of America, 465-2 Columbus Ave., Valhalla, NY 10595, (800)-245-5483, (914)-741-0400, FAX: (914)-741-0513
- M2 Designer's Studio, Inc., 989A Mooresfield Rd., S. Kingston, RI 02879, (401)-789-8864, FAX: (401)-789-8865
- MWS, Cooper Lighting, Souther Field Rd., Americus, GA 31709, (912)-924-8000, FAX: (912)-924-5570
- Macro Electronics Corp., 1611 Headway Circle, Bldg. #1, Austin, TX 78754, (512)-837-5100, FAX: (512)-837-1040
- Magnetek Lighting Products, Sector-Triad Div., 1124 E. Franklin St., Huntington, IN 46750, (219)-356-7100, FAX: (219)-356-3148
- Marco Lighting, Hubbell Lighting, 6100 Wilmington Ave., Los Angeles, CA 90001, (800)-347-0006, (213)-583-6551, FAX: (213)-583-3155
- Marissa Contract Lighting, Standard Electric Fixture Co., Inc., 2150 N.W. Miami Court, Miami, FL 33127, (305)-573-2020, FAX: (305)-576-3758
- Mark Lighting, Inc., 25 Knickerbocker Rd., Moonachie, NJ 07074, (201)-939-0880, FAX: (201)-939-1094
- Derek Marshall Lamps & Accessories, 219 Upper Rd., Sandwich, NH 03227, (603)-284-7000, FAX: (603)-284-6237
- Matthew Lighting, Standard

- Electric Fixture Co., Inc., 2150 N. W. Miami Ct., Miami, FL 33127, (305)-573-2020, FAX: (305)-576-3758
- Maximum Tech., 80 Industrial Way, Brisbane, CA 94005, (415)-468-2560, FAX: (415)-468-2620
- McGraw-Edison, Cooper Lighting, P.O. Box 824, Vicksburg, MS 39180, (601)-638-1522, FAX: (601)-634-9606
- mcPhilben Outdoor Lighting, Thomas Ind., Inc., 2661 Alvarado St., San Leandro, CA 94577, (800)-227-0758, (510)-357-6900, FAX: (510)-357-3088
- Mero Systems Group, Mero Structures, Inc., N112 W18810 Mequon Rd., Germantown, WI 53022, (800)-323-0072, (414)-255-6553, FAX: (414)-255-2939
- Metalloxyd Inc., 207 Greenwich Ave., Stamford, CT 06902, (800)-325-7115, (203)-324-7115, FAX: (203)-348-1647
- Metalux Lighting, Cooper Lighting, Souther Field Rd., Americus, GA 31709, (912)-924-8000, FAX: (912)-924-5507
- Metropolitan Lighting, Fixture Co., Inc., 315 E. 62nd St., New York, NY 10021, (212)-838-2425, FAX: (212)-644-2666
- Michaels' Lighting, P.O. Box 192, 2 Kansas St., Winona, MN 55987, (507)-454-5560, FAX: (507)-452-1212
- Microlamp Inc., Thorn Lighting Ltd., 1200 Clint Moore Rd., Boca Raton, FL 33487, (800)-431-4956, (407)-994-6004, FAX: (407)-994-6034
- Mid-West Chandelier Co., 100 Funston Rd., Kansas City, KS 66115, (913)-281-1100, FAX: (913)-281-1967
- Millerbernd Mfg. Co., P.O. Box 98, Winsted, MN 55395, (612)-485-2111, FAX: (612)-485-4420
- Miniature Lighting Technology Inc., 4541 N.E. 11th Ave., Fort Lauderdale, FL 33334, (800)-666-8490, (305)-772-8490, FAX: (305)-772-8468
- Minolta Corp., 101 Williams Dr., Ramsey, NJ 07446, (201)-818-3517, FAX: (201)-825-4374
- Miroflector Co., Inc., 40 Bayview Ave., Inwood, NY 11696, (516)-371-1111, FAX: (516)-239-8462
- Miyakawa American Corp., 408 E. Devon, Ste. 208, Elk Grove Village, IL 60007, (312)-460-0515
- Modulightor Inc., 246 E. 58th St., New York, NY 10019, (212)-371-0336, FAX: (212)-371-0335
- Molded Fiber Glass Co., P.O. Box 675, 1601 W. 29th St., Ashtabula, OH 44004, (216)-997-5851, FAX: (216)-992-0542
- Monarch Lighting Co., 9245 Dowdy Dr. K. #103, San Diego, CA 92126-6384, (714)-832-7855
- Moore Lambert Lighting, P.O. Box 418, Edgefield, SC 29824, (800)-334-3324, (803)-637-0826, FAX: (803)-637-6220
- Morrison Lighting, 5498 Nave Dr., Novato, CA 94949-6498, (415)-883-2362, FAX: (415)-883-2315
- Motorola Lighting, Inc., Div. of Motorola Inc., 887 Deerfield Pkwy., Buffalo Grove, IL 60089-4511, (800)-654-0039, (708)-215-6300, FAX: (708)-215-6444
- Mule Emergency Lighting, Inc., 325 Valley St., Providence, RI 02908, (800)-556-7690, (401)-521-6853, FAX: (401)-521-6856
- Multiport Control Sys., Inc., 11001 31 St. Pl. W #1-2, Everett, WA 98204-1323, (206)-487-6506, FAX: (206)-486-0294
- Multiworld Lighting, 14304-I Sullyfield Circle, Chantilly, VA 22021, (703)-817-0300, FAX: (703)-817-0323
- Musco Sports-Lighting, Inc., Musco Corp., P.O. Box 808, Oskaloosa, IA 52577, (800)-367-6030, (515)-673-0411
- Mytech Corp., 10125 Metropolitan Dr., Austin, TX 78758, (512)-836-9400
- N**
- NL Corp., 14901 Broadway, Cleveland, OH 44137, (216)-662-2080, FAX: (216)-662-9069 (see ad on page 13)
- National Cathode Corp., 252 West 29 St., New York, NY 10001, (212)-594-1960, FAX: (212)-563-1249
- Natl. Lighting Co., 522 Cortlandt St., Belleville, NJ 07109, (201)-751-1600
- Natl. Specialty Lighting Co., Inc., 333 Exchange Dr., Arlington, TX 76011, (800)-527-2923, (817)-860-2581, FAX: (817)-860-9055
- Neo-Ray Prods., Inc., 537 Johnson Ave., Brooklyn, NY 11237, (800)-221-0946, (718)-456-7400, FAX: (718)-456-5492
- Neonamericana, 510 Leonard N.W., Grand Rapids, MI 48504, (616)-774-2869, FAX: (616)-774-0382
- Neonetics Inc., 9631 Liberty Rd., Baltimore, MD 21133, (800)-348-6366, (301)-521-1962, FAX: (301)-521-1543
- Nessen Lighting, Jac Jacobsen Inds. Inc., 36 Midland Ave., Port Chester, NY 10573, (914)-934-1300, FAX: (914)-934-8052
- New Horizons Lighting, 3397 S.W. 42nd Ave., Stuart, FL 33497, (407)-283-7772
- Nightscaping by Loran**, 1705 E. Colton Ave., Redlands, CA 92374, (800)-544-4840, (714)-794-2121, FAX: (714)-794-7292 (see ad on page 10)
- Noral Lighting, Inc.**, P.O. Box 360532, Cleveland, OH 44136, (216)-273-7155, FAX: (216)-273-5007 (see ad on page 20)
- North Star Lighting, Inc., 2150 W. 16th St., Broadview, IL 60153, (708)-681-4330, FAX: (708)-681-4006
- Northern Lighting, A.M.I., P.O. Box 917, Deep River, CT 06417, (203)-526-9755, FAX: (203)-526-5131
- Norton Inds., 2239 E. 14th St., Cleveland, OH 44115, (216)-696-1047, FAX: (216)-696-4684
- Novitas, Inc., 1657 Euclid St., Santa Monica, CA 90404, (213)-452-7890, FAX: (213)-452-6168
- Nowell's Inc., P.O. Box 295, 490 Gate Five Rd., Sausalito, CA 94966, (415)-332-4933
- Nu-Tech, 368 Thompson Mill Rd., New Hope, PA 18938, (800)-724-9757, (215)-598-7649, FAX: (215)-598-0525
- Marc Nugent, 155 E. 23rd St., New York, NY 10010, (212)-598-0486
- Nulco Lighting, 30 Beecher St., Pawtucket, RI 02862, (401)-728-5200, FAX: (401)-728-8210
- Omega Energy**, 30997 Huntwood Ave., Ste. 103, Hayward, CA 94544, (415)-487-5980
- Omega Lighting, MCPHILBEN, 270 Long Island Expwy., Melville, NY 11747, (516)-293-8500
- Omega Lighting, Thomas Industries, 6430 E. Slauson Ave., Los Angeles, CA 90040, (213)-726-1800, FAX: (213)-728-1319
- The Original Cast Lighting, Art Directions, Inc., 6120 Delmar Blvd., St. Louis, MO 63112, (314)-863-1895, FAX: (314)-863-3278
- O'Ryan Industries, 12711 N.E. 95th St., Vancouver, WA 98682, (800)-426-4311, (206)-892-0447, FAX: (206)-892-6742
- Osram Corp., Siemens Corp., 110 Bracken Rd., Montgomery, NY 12549, (800)-846-7726, (914)-457-4040, FAX: (914)-457-4142
- Otteson Co., P.O. Box 8939, Fountain Valley, CA 92728, (714)-962-4800
- P**
- P & K Poles, Cooper Lighting, P.O. Box 824, Vicksburg, MS 39180, (601)-638-1522, FAX: (601)-634-9606
- PEP Lighting, P.O. Box 1037, Brattleboro, VT 05302-1037, (802)-254-6242, FAX: (802)-254-7616
- P.R.E. Lighting Co., 1705 W. 130th St. #D, Gardena, CA 90249, (213)-327-6887
- Paclight, Inc., P.O. Box 4335, San Dimas, CA 91773, (714)-592-1941
- Panasonic Inds., Co., Special Prods., Two Panasonic Way 7A-5, Secaucus, NJ 07094, (201)-348-5380, FAX: (201)-392-6608

MANUFACTURERS

Pappi Lighting Ltd., 940
Meyside Dr., Mississauga ON,
Canada L5T 1R9, (416)-670-
0068

Paragon Electric, Ranco, 606
Parkway Blvd., Two Rivers, WI
54241, (414)-793-1161, FAX:
(414)-793-3736

Paramount Inds. Corp., 304 N.
Howard St., Crosswell, MI
48422, (313)-679-2551, FAX:
(313)-767-4034

Parke Inds., 2246 Lindsay Way,
Glendora, CA 91740, (714)-599-
1204, FAX: (714)-599-1208

Pass & Seymour/Legrand, P.O. Box
4822, Syracuse, NY 13221-4822,
(800)-776-4035, (315)-468-6211,
FAX: (315)-468-6296

Peerless Lighting Corp., P.O. Box
2556, Berkeley, CA 94702,
(415)-845-2760, FAX: (415)-
845-2776

Pent Lighting, P.O. Box 2000,
U.S. Hwy. 6 West, Kendallville,
IN 46755, (219)-347-4577,
FAX: (219)-347-4587

Perfectlite Co., 1305 W. 80th St.,
Cleveland, OH 44102, (216)-
631-3100

Philips Lighting Co., P.O. Box
6800, 200 Franklin Sq. Dr.,
Somerset, NJ 08875-6800,
(201)-563-3000, FAX: (201)-
563-3642 (see ad on Cover 3)

Phoenix Prods. Co., Inc., 6161 N.
64th St., Milwaukee, WI 53218,
(414)-438-1200, FAX: (414)-
438-0213

Pioneer Electronics Technology,
Inc., 1800 W. Holt Ave.,
Pomona, CA 91768, (800)-745-
3271, (714)-623-3271, FAX:
(714)-623-9923

Polarized Intl., Inc., P.O. Box A,
Tarzana, CA 91357, (800)-537-
7674, (818)-881-5525, FAX:
(818)-881-4496

Sherman Pole Products Group,
Sherman Intl., Corp., 2117
Magnolia Ave., S., Birmingham,
AL 35205, (800)-533-5103,
(205)-252-6995, FAX: (205)-
322-4356

Poulsen Lighting, Inc., Louis
Poulsen & Co. A/S, 5407 N.W.
163rd St., Miami, FL 33014-
6130, (800)-342-2310, (305)-625-
1009, FAX: (305)-625-1213

Power Controls Corp., 1067
Bandera Rd., San Antonio, TX
78228, (800)-531-1012, (512)-
436-9511, FAX: (512)-436-1464

Powerline Comm., Inc., 7 Green
Tree Dr., South Burlington, VT
05403, (800)-767-3674, (802)-
658-6445, FAX: (802)-658-6934

Pre Finish Metals, Material
Sciences Corp., 2300 E. Pratt
Blvd., Elk Grove Village, IL
60007, (800)-346-7587, (708)-
439-2210, FAX: (708)-640-8544

Precisiion Architectural Lighting,
9087 Knight Rd., Houston, TX
77054, (713)-796-8395, FAX:
(713)-799-8395

Premiere Chandelier, Inc., 5441
W. 104th St., Los Angeles, CA
90045, (213)-216-1333, FAX:
(213)-216-4438

Prescolite Controls, USI Lighting,
1208 Tappan Cir., Carrollton,
TX 75006, (800)-346-6377,
(214)-242-6581, FAX: (214)-
245-5377

Progress Lighting, Hanson
Industries, "G" St. & Erie Ave.,
Philadelphia, PA 19134, (215)-
289-1200, FAX: (215)-537-0887

Progressive Tech. in Lighting, 581
Ottawa Ave., Holland, MI
49423, (616)-396-6722, FAX:
(616)-396-0686

ProLight, 581 Ottawa Ave.,
Holland, MI 49423, (616)-396-
2556, FAX: (616)-396-0686

Prudential Lighting, P.O. Box
58736, 1774 E. 21st. St., Los
Angeles, CA 90058, (800)-421-
5483, (213)-746-0360, FAX:
(213)-746-8838

Public Service Lamp Corp., 410 W.
16th St., New York, NY 10011,
(800)-221-4392, (212)-989-5557,
FAX: (212)-924-2708

Q

Quality Lighting, Jac Jacobsen
Inds., Ind., 11530 Melross Ave.,
Franklin Park, IL 60131, (708)-
451-0040, FAX: (708)-451-6768

Quorum International, P.O. Box
7634, Ft. Worth, TX 76111,
(800)-443-4326, (817)-834-
8176, FAX: (800)-934-8176

R

RAB Electric Manufacturing Co.,
170 Ludlow Ave., Northvale,
NJ 07647, (800)-221-8756,
(201)-784-8600

RBT, 12 Executive Campus,
Cherry Hill, CT 08002, (609)-
488-5500, FAX: (609)-488-1424

RLS Lighting, Inc., 2160 S.W.
58th Way, Hollywood, FL
33023, (305)-983-4340, FAX:
(305)-921-0154

RWL Corp-Welsbach Light, 240
Sargent Dr., New Haven, CT
06511, (203)-789-1710, FAX:
(203)-776-9644

Radionic Ind., Inc., 6625 W.
Diversey Ave., Chicago, IL
60635-2218, (312)-804-0100,
FAX: (312)-804-0180

Rambusch Decorating Co., 40 W.
13th St., New York, NY 10011-
7989, (212)-675-0400, FAX:
(212)-620-4687

Fredrick Ramond, Inc., 16121 S.
Carmenita Rd., Cerritos, CA
90701, (800)-743-7266, (213)-
926-1361, FAX: (213)-926-1015

Raztech Lighting, 1192 Reichert
Dr., Crete, IL 60417, (708)-672-
4323

Reggiani U.S.A., Inc.,
Illumination, 65 River Rd., New
Windsor, NY 12553, (212)-421-
0400, FAX: (212)-838-8517

Rejuvenation Lamp & Fixture,
901 N. Skidmore, Portland, OR
97217, (503)-249-0774, FAX:
(503)-281-7948

Remcraft Lighting, 12870 N.W.
45th Ave., Miami, FL 33054,
(800)-327-6585, (305)-687-
9031, FAX: (305)-687-5069

Ron Rezek Lighting, 4200
Sepulveda Blvd., Culver City,
CA 90230, (213)-836-1572,
FAX: (213)-836-1578

Ron Rezek Lighting/Furniture,
Artemide USA, 1980 New
Highway, Farmingdale, NY
11735, (516)-649-9292, FAX:
(516)-694-9275

Roberts Step-Lite Systems, Inc.,
P.O. Box 18796, Oklahoma
City, OK 73154, (800)-654-
8268, (405)-528-7738, FAX:
(405)-528-7753

Rohm & Haas, Adv. Dept., 4th
Fl., Independence Mall West,
Philadelphia, PA 19105

Rosser Fabrap Intl., 524 W.
Peachtree St., N.W., Atlanta,
GA 30308, (404)-876-3800,
FAX: (404)-872-9279

Roxter Mfg. Corp., 10-11 40th
Ave., Long Island City, NY
11101, (718)-392-5060, FAX:
(718)-392-9811

Royalte, P.O. Box 4272, Highland
Park, NJ 08904, (201)-846-1212,
FAX: (201)-846-541

Russell & Assoc., Inc., 1120 Petal
St., Ste. 100, Dallas, TX 75238,
(214)-348-5000, FAX: (214)-
348-4040

Ryther-Purdy Lumber Co., Inc.,
P.O. Box 622, 174 Elm St., Old
Saybrook, CT 06475, (203)-388-
4405, FAX: (203)-388-9401

S

SF 12V, Inc., 1053 Howard St.,
San Francisco, CA 94103,
(415)-864-6484, FAX: (415)-
255-4703

SPI Lighting, Inc., 10400 N.
Enterprise Dr., Mequon, WI
53092, (414)-242-1420, FAX:
(414)-242-6414

SRB Technologies, Inc., 2580
Landmark Dr., Winston Salem,
NC 27103, (800)-552-0098,
(919)-659-2610, FAX: (919)-
768-7720

SATCO Prods. Inc., 110
Heartland Blvd., Brentwood,
NY 11717, (800)-437-2826,
(516)-243-2022, FAX: (516)-
243-2027

Saxe-Patterson, P.O. Box 15,
Taos, NM 87571, (505)-758-
9513, FAX: (505)-758-4336

Schlage Lighting Control, 5452
Betsy Ross Dr., Santa Clara, CA
95054

Scholl Lighting Standards, P.O.
Box 704, Bergen St./Standley
Ave, Bethlehem, PA 18016,
(215)-867-4131, FAX: (215)-
867-7147

Schonbek Worldwide Lighting, 4-
8 Ind. Blvd., W., Plattsburgh,
NY 12901, (518)-563-7500,
FAX: (518)-563-4228

Self Powered Lighting, Inc., 8
Westchester Plz., Elmsford, NY
10523, (800)-777-9399, (914)-
592-8230, FAX: (914)-592-8435

Sensor Switch, Inc., P.O. Box
1088, 10 Capitol Dr., Brandford,
CT 06405, (203)-265-2842,
FAX: (203)-269-9621

Sentinel Lighting, Airey-
Thompson Co., Inc., P.O. Box
23127, Los Angeles, CA 90023,
(800)-421-6196, (213)-264-
1533, FAX: (213)-265-1929

Sentry Electric Corp., 185 Buffalo
Ave., Freeport, NY 11520,
(516)-379-4660, FAX: (516)-
378-0624

- Shakespeare Co., Anthony Inds., P.O. Box 733, Newberry, SC 29108, (800)-800-9008, (803)-276-5504, FAX: (803)-276-8940
- Shat-R-Shield, Inc., 116 Ryan Patrick Dr., Salisbury, NC 28144, (800)-223-0853, (704)-633-2100, FAX: (704)-633-3420
- Sherman International Corp., Pole Products Grp., 2117 Magnolia Ave. S, Birmingham, AL 35205, (800)-533-5103, (205)-252-6995, FAX: (205)-322-4356
- Shield Source Inc., 5620 N. Kolb, Ste. 171, Tucson, AZ 85715, (800)-872-0879, (602)-529-1001, FAX: (602)-529-1325
- Siemens Lighting Systems, 100 Wood Ave., S., Iselin, NJ 08830, (201)-632-2837
- Siltron Illumination, CPI, 7915 Center Ave., Cucamonga, CA 91730, (800)-874-3392, (714)-941-3500, FAX: (714)-980-4477
- SIMKAR Lighting, 601 E. Cayuga St., Philadelphia, PA 19120-4691, (800)-523-3602, (215)-831-7700, FAX: (215)-831-7703
- Simpson Electric Co., 853 Dundee Ave., Elgin, IL 60120, (708)-697-2260, FAX: (708)-697-2272
- Skytrackers, 28007 Front St., Temecula, CA 92390, (714)-676-2161
- Southwall Technologies, 1029 Corporation Way, Palo Alto, CA 94303, (800)-365-8794, (415)-962-9111, FAX: (415)-967-0182
- Southwest Art Lighting, 1130 Green Valley Rd., N.W., Albuquerque, NM 87107-6324, (505)-344-7374
- Sparkle Plenty, Inc., 101 E. Ontario St., Chicago, IL 60611, (800)-621-6460, (312)-266-1700, FAX: (312)-266-9446
- Specialty Lighting, Inc., Jac Jacobsen Inds., P.O. Box 1680, Shelby, NC 28151, (704)-482-3416, FAX: (704)-484-0818
- Specialty Lighting, Inc., Jac Jacobsen Inds., Inc., P.O. Box 1680, Shelby, NC 28151, (704)-482-3416, FAX: (704)-484-0818
- Specialty Lighting Systems, P.O. Box 238, New Hudson, MI 48165, (800)-365-1505, (313)-437-7064, FAX: (313)-437-7069
- Spero Electric Corp., 1705 Noble Rd., Cleveland, OH 44112, (216)-851-3300, FAX: (216)-851-0300
- Spring City Electric Mfg. Co., P.O. Box 19, Hall & Main Sts., Spring City, PA 19475, (215)-948-4000, FAX: (215)-948-5577
- Spring Lighting Co., 6164 S. Eastern Ave., Commerce, CA 90040, (213)-728-2391, FAX: (213)-728-4367
- Staff Lighting Corp., P.O. Box 1020, Rte. W. N., Highland, NY 12528, (914)-691-6262, FAX: (914)-691-6289
- Standard Electric Fixture Co., Div. of SEFCO, 2150 N.W. Miami Ct., Miami, FL 33127, (305)-573-2020, FAX: (305)-576-3758
- Starbrite Lighting, 145 Sawmill River Rd., Yonkers, NY 10701, (800)-221-3116, (914)-965-7465, FAX: (914)-965-7483
- Sterling Products, 90 Dayton Ave., Passaic, NJ 07055, (201)-471-2858, FAX: (201)-471-2454
- Sternberg Lanterns, Inc., 5801 N. Tripp, Chicago, IL 60646, (312)-478-4777, FAX: (312)-267-2055
- Sterner Lighting Systems, 351 Lewis Ave., W., Winsted, MN 55395, (800)-328-7480, (612)-473-1251, FAX: (800)-328-3635
- Stonco Lighting, Genlyte, 2345 Vauxhall Rd., Union, NJ 07083, (908)-964-7000, FAX: (908)-964-1404
- Stonelights Ltd., 404 West Lake St., Barrington, IL 60010, (708)-381-7551, FAX: (708)-381-0323
- Strand Electro Controls, Sub. Rank America, 2975 S. 300, W., Salt Lake City, UT 84115, (800)-453-7435, (801)-487-6111, FAX: (801)-466-1003
- Street Lighting Equipment Corp., 2099 S. Park Rd., Hallandale, FL 33009, (305)-961-9140, FAX: (305)-963-5794
- Sun Valley Lighting, 7900 Clybourn Ave., Sun Valley, CA 91352, (800)-877-7653, (818)-767-3031, FAX: (818)-767-4631
- Sur-Fin Chemical Corp., 1530 Spence St., Los Angeles, CA 90023, (800)-282-3533, (213)-262-8108, FAX: (213)-264-7734
- Sure-Lites, Cooper Lighting, 400 Busse Rd., Elk Grove Village, IL 60007, (708)-956-8400, FAX: (708)-806-3980
- Swing, Bramhall & Hazell Inc., Endicott St. Bldg. #32, Norwood, MA 02062, (617)-769-7913, FAX: (617)-769-6786
- Swivelier Co., 33 Rte. 304, Nanuet, NY 10954, (914)-623-3471, FAX: (914)-623-1861
- Sylvan Designs, Inc., 8921 Quartz Ave., Northridge, CA 91324, (818)-996-6868, FAX: (818)-998-7241
- Sylvania Lighting Division-U.S., GTE, 100 Endicott St., Danvers, MA 01923, (508)-777-1900, FAX: (508)-750-2972
- T**
- T I R Systems, 3935 Second Ave., Burnaby BC, Canada V5C 3W9, (800)-663-2036, (604)-294-8477, FAX: (604)-294-3733
- TLA Lighting Cnslts., Inc., 72 Loring Ave., Salem, MA 01970, (508)-745-6870
- Tamarack Corp., P.O. Box 152, Bradford Woods, PA 15015, (800)-837-9464, (412)-367-8444, FAX: (412)-264-1099
- Targetti, Illuminating Experiences, 233 Cleveland Ave., Highland Park, NJ 08904, (800)-526-6990, (908)-745-5858, FAX: (908)-745-9710
- Tech Lighting Inc., 2542 N. Elston, Chicago, IL 60647-2096, (312)-252-0008, FAX: (312)-252-4264
- Techna Prods., 16430 Manning Way, Cerritos, CA 90701, (213)-926-3636
- Technical Glass Prods., 2425 Carillon Pt., Kirkland, WA 98033, (800)-426-0279, (206)-822-4514, FAX: (206)-822-4684
- TecnoLux, Inc., 5716 3rd Ave., Brooklyn, NY 11220, (718)-439-0497
- Tek-Tron Enterprises, Inc., 3122 West Alpine Ave., Santa Ana, CA 92704, (714)-641-1988, FAX: (714)-641-2005
- Teron Lighting Corp., 124 W. 66th St., Cincinnati, OH 45216, (800)-776-7780, (513)-242-7004, FAX: (513)-242-4928
- The Original Cast Lighting, Art Directions Inc., 6120 Delmar Blvd., Saint Louis, MO 63112-1204, (314)-863-1895, FAX: (314)-863-3278
- Thomas Inds. Inc.(Corporate), 4360 Brownsboro Rd., Ste. 300, Louisville, KY 40207, (800)-626-2847, (502)-893-4600
- Thomas Inds. Residential Division, Thomas Industries, Inc., 950 Breckinridge Lane, Louisville, KY 40207, (800)-365-4448, (502)-894-2400, FAX: (502)-894-2450
- Thorn Lighting Ltd., Thorn EMI, Lincoln Rd., Enfield Middax, England EN1 1SB, (001)-366-1166
- 3M, 3M General Offices, Saint Paul, MN 55144-1000, (800)-362-3456, (612)-733-1110, FAX: (612)-733-9973
- 3M, Construction Markets.** 3M Center, 225-45-08, Saint Paul, MN 55144-1000, (612)-736-3238, FAX: (612)-733-3713 (see ad insert on pages 33-34)
- Times Square Lighting, Industrial Park, Rte. 9W, Stony Point, NY 10980, (914)-947-3034, FAX: (914)-947-3047
- Tivoli Lighting, Inc., Integrated Lighting Inds., 1513 E. St. Gertrude Pl., Santa Ana, CA 92705-0624, (800)-854-3288, (714)-957-6101, FAX: (714)-957-1501
- Toki American Technologies, Inc., 1278 E. Katella Ave., Anaheim, CA 92805, (714)-937-8995, FAX: (714)-937-5410
- Tokistar Lighting, Inc., 1278 East Katella Ave., Anaheim, CA 92805, (800)-448-2512, (714)-937-8995, FAX: (714)-937-5410
- Topcon Instrument Corp. of America, 65 W. Century Rd., Paramus, NJ 07652, (201)-261-9450, FAX: (201)-387-2710
- Tortran, 24 Crescent Ave., Bridgeport, CT 06608, (203)-335-6805
- Translite Systems,** 1735 E. Bayshore Rd., Ste. 33, Redwood City, CA 94063, (800)-473-3242, (415)-366-3242, FAX: (415)-368-8983 (see ad on page)
- Triad Technology, Inc., 6080-F McDonough Dr., Norcross, GA 30093, (404)-242-1922, FAX: (404)-242-1944
- Triarch Industries, Alan Tracy, Inc., 2051 N. E. 160th St., North Miami Beach, FL 33162, (800)-874-2724, (305)-945-7643, FAX: (305)-947-3812
- Trimblehouse Corp., 4658 S. Old Peachtree Rd., Norcross, GA 30071, (800)-241-4317, (404)-448-1972, FAX: (404)-447-9250

MANUFACTURERS

Tritek Lighting, Inc., 20121 Ventura Blvd., #353, Woodland Hills, CA 91364, (818)-346-1691, FAX: (818)-346-2548
Trojan Corp., 198 Trojan St., Mt. Sterling, KY 40353, (800)-264-0526, (606)-498-0526, FAX: (606)-498-0528
Troy Lighting, Jac Jacobsen Inds., Inc., 14625 E. Clark Ave., Industry, CA 91746, (818)-336-4511, FAX: (818)-330-4266

U

UNENCO, Inc., 2555 Nicholson St., San Leandro, CA 94577, (800)-227-0452, (510)-352-1802, FAX: (510)-895-5753
U.S. Pole Co., Inc., 7900 Clybourn Ave., Sun Valley, CA 91352, (800)-877-6537, (818)-767-3031, FAX: (818)-767-4631
Union Metal Corp., P.O. Box 9920, 9th St., S. W., Canton, OH 44711, (216)-456-7653, FAX: (216)-456-0196
Urban Archaeology, 285 Lafayette St., New York, NY 10012, (212)-431-6969, FAX: (212)-941-1918

V

VISCO, 29579 Awbrey Lane, Eugene, OR 97402, (800)-341-1444, (503)-688-7741, FAX: (503)-461-0951
Valmont Electric, Valmont Inds., 1430 E. Fairchild, Danville, IL 61832, (800)-922-3412, (217)-446-4600, FAX: (217)-431-5772
Valmont Inds., West Hwy. 275, Valley, NE 68064, (000)-000-0800, (402)-359-2201, FAX: (402)-359-4025
Vantage Controls, Inc., 4415 South 500 West, Salt Lake City, UT 84123, (800)-766-2165, (801)-266-2165
Velux-America, Inc., P.O. Box 5001, Greenwood, SC 29649, (800)-888-3589, (803)-223-3149, FAX: (803)-388-1198
Venture Lighting Intl., Inc., 32000 Aurora Rd., Solon, OH 44139, (800)-437-0111, (216)-248-3510, FAX: (800)-451-2605
Verax Corp., 1425 N. Crescent Heights Blvd., West Hollywood, CA 90046-3803, (213)-656-9330, FAX: (213)-656-3384

Vertex Design Systems, 282 Second St., 4th Fl., San Francisco, CA 94105, (800)-688-2799, (415)-957-2799, FAX: (415)-957-2699
Visa Lighting Corp., The Oldenburg Group, 8600 W. Bradley Rd., Milwaukee, WI 53224, (800)-788-8472, (414)-354-6600, FAX: (414)-354-7436
Vista Mfg. Co., Inc., F.M. 2449 E. Box 428, Ponder, TX 76259, (817)-479-2787, FAX: (817)-479-8139
Visual Comfort Lighting, Aluminum Louvre Corp., 161 Sweet Hollow Rd., Old Bethpage, NY 11793, (516)-756-1850, FAX: (516)-756-1856
Voltarc Technologies Inc., P.O. Box 688, 186 Linwood Ave., Fairfield, CT 06430, (203)-255-2633, FAX: (203)-259-1194

W

Waldmann Lighting Co., 9 W. Century Dr., Wheeling, IL 60090, (800)-634-0007, (708)-520-1060, FAX: (708)-520-1060
The Watt Stopper, Inc., 296 Brokaw Rd., Santa Clara, CA 95050, (800)-879-8585, (408)-988-5331, FAX: (408)-988-5373
Weirton Steel Corp., 400 Three Springs Dr., Weirton, WV 26062, (800)-624-5480, (304)-797-2941, FAX: (304)-797-2267
Wellmade Metal Products Co., 421 Pendleton Way, Oakland, CA 94621, (510)-562-1878, FAX: (510)-632-7865
Wendelighting, Jacksen International, 2445 N. Naomi St., Burbank, CA 91504, (800)-528-0101, (818)-955-8066, FAX: (818)-848-0674
Western Lighting Inds., Inc., 3540 Valhalla Dr., Burbank, CA 91505, (818)-841-7896, FAX: (818)-841-8910
Westron Corp., 75 Ninth Ave., New York, NY 10011
W. J. Whatley, Inc., Sub. of Tubular Structures, Inc., 6980 E. 54th Pl., Commerce City, CO 80022, (303)-287-8053, FAX: (303)-286-7216

Wide-Lite, Genlyte, 500 Wonder World Dr., San Marcos, TX 78667, (512)-392-5821, FAX: (512)-353-5822
Wildwood Lamps and Accents, Inc., P.O. Box 672, 516 Paul St., Rocky Mount, NC 27802, (919)-446-3266, FAX: (919)-977-6669
John Wiley & Sons, Inc., 605 Third Ave., New York, NY 10158, (212)-850-6748
H.E. Williams, Inc., P.O. Box 837, Carthage, MO 64836, (417)-358-4065, FAX: (417)-358-6015
Winona Lighting, 3760 W. 4th St., Winona, MN 55987, (800)-328-5291, (507)-454-5113, FAX: (507)-452-8528 (see ad on page 11)
WOLIC Inc., 11425 Anaheim Dr., Dallas, TX 75229, (214)-243-1213, FAX: (214)-243-1575
Wood Technologies, 961 Marcon Blvd., Ste. 111, Allentown, PA 18103-9521, (800)-360-9663, (215)-266-7172, FAX: (215)-266-7282
WoodForm Inc., 9705 N.E. Colfax St., Portland, OR 97220, (800)-624-5091, (503)-253-9626, FAX: (503)-253-1210

X

Xenotech Inc., 11229 Vinedale St., Sun Valley, CA 91352, (800)-266-9366, (818)-767-0365, FAX: (818)-767-0395

Y

Yorklite Electronics, Inc., 3161 State Rd., Bensalem, PA 19020, (215)-244-4201, FAX: (215)-244-4208

Z

Zelco, 630 S. Columbus Ave., Mount Vernon, NY 10551-4445, (800)-431-2486, FAX: (914)-699-6230
Zinkohn Higgins, #2 Henry Adams St., #M95, San Francisco, CA 94103, (415)-621-7345
Zumtobel Lighting, Inc., 141 Lanza Ave., 16D, Garfield, NJ 07026, (201)-340-8900, FAX: (201)-340-9898

PRODUCT TYPE

BALLASTS

fc—fluorescent, compact
fd—fluorescent, dimming
fem—fluorescent, electromagnetic
fet—fluorescent, electronic
hem—HID, electromagnetic
hen—HID, electronic
no code—other

ARC Sales, Inc.
A.L.P. Lighting & Ceiling Prod.
Advance Transformer Co.
(fc, fd, fem, fet, hem, hen)
Appliance Control Technology
(ACT)(fd, fet)
BKL Inc.
CEW Lighting
(fc, fd, fem, fet, hem, hen)
Day-Brite Lighting (fet)
Duro-Test Corp. (hen)
Dynamic Energy Prods., Inc.
(fc, fd, fem, fet)
ELBA U.S.A. Inc. (fc, fd, fet)
Elsco Lighting Prods., Inc. (fc)
Etta Inds., Inc. (fc, fd, fet, hen)
Globe Lite (fc)
Hatch Transformers, Inc. (fc, fet)
Holophane Co., Inc. (hem)
Hubbell Lighting
(fc, fd, fem, fet, hem, hen)
Innovative Industries of Tampa
Iota Engineering Co. (fet)
Janmar Lighting (fc, fem, hem)
L. P. Associates (hem, hen)
Lake Forest Lighting, Ltd (fd)
Litelab Corp. (fet)
Lutron Electronics Co., Inc.
(fd, fet)
Macro Electronics Corp. (fd)
Magnetek Lighting Products (fet)
Maximum T (fem, fet)
Microlamp Inc. (hem)
Nu-Tech (fd)
Osram Corp. (fc, fd, fet, hen)
PEP Lighting
(fd, fet)
Phoenix Prods. Co., Inc.
Progressive Tech. in Lighting (fc)
ProLight (fc)
Radionic Ind., Inc.
(fc, fd, fem, fet)
SATCO Prods. Inc. (fem)
Specialty Lighting Systems (fc)
Spring Lighting Co. (fc)
Standard Electric Fixture Co.
(fc, fd, fem, fet)
Strand Electro Controls (fd, fet)
Tek-Tron Enterprises, Inc.
(fc, fd, fet)
Thomas Inds. Inc.(Corporate)(fet)
Thomas Inds. Residential Division
(fet)

Thorn Lighting Ltd.
(fc, fd, fem, hem, hen)
Valmont Electric (fem, fet, hem)
Wide-Lite (hem)
WOLIC Inc.
Xenotech Inc.
Zumtobel Lighting, Inc.
(fc, fd, fem, fet, hem, hen)

COMPUTER SOFTWARE LIGHTING PROGRAMS

d—design
no code—other

American Electric (d)
Bristolite Skylights
Day-Brite Lighting (d)
Design Osaka (d)
Elite Software (d)
GTE Sylvania Lighting
Holophane Co., Inc. (d)
Ioline Corp.
Ledalite Architectural Products (d)
Lighting Analyst, Inc. (d)
Lighting Sciences, Inc. (d)
Lighting Technologies, Inc. (d)
Lightolier Controls, Inc. (d)
Lithonia Lighting (d)
Marissa Contract Lighting (d)
Mark Lighting, Inc. (d)
Powerline Comm., Inc.
Raztech Lighting (d)
Rosser Fabrap Intl.
Standard Electric Fixture Co. (d)
Sterner Lighting Systems (d)
Stonco Lighting (d)
Strand Electro Controls (d)
Sylvania Lighting Division-U.S.
Thorn Lighting Ltd. (d)
Vertex Design Systems (d)

CONTROLS SYSTEMS

b—building energy management systems
dcm—dimming controls, manual
dcp—dimming controls, preset
dcw—dimming controls, wallbox
os—occupancy sensors
pc—photoelectric controls
s—switches
no code—other

Advanced Control Technologies
(b, dcm, dcw, os, s)
American Electric (pc)
Area Lighting Research, Inc. (pc)
Artisan Controls Corp. (dcp)
Beghelli, Inc. (b)
CEW Lighting (dcw, os, pc)
Carlon (dcm, dcw, pc, s)
Colortran Environmental Lighting
(dcp)

Crestron Electronics, Inc.
(b, dcm, dcp)
Dynamic Energy Prods., Inc.
(pc, s)
ETA Lighting Systems
(dcm, dcp, dcw)
Eagle Electric Mfg. Co., Inc.
(dcm, dcp, dcw, s)
Electrical Specialties, Inc.
(dcp, dcw, os)
Electronics Diversified, Inc.
(b, dcm, dcp, dcw)
Energy Saving Devices, Inc.
Etta Inds., Inc. (dcm, dcp, pc)
GE Wiring Devices (b, os, pc, s)
Globe Lite
The Great American Market
(dcm, dcp)
Holophane Co., Inc. (b)
Honeywell Controls
(b, dcm, dcp, dcw, os, pc, s)
Hubbell Inc. (dcm, dcp, dcw, os, s)
Hubbell Lighting (b, os, pc)
ILC Enercon Corp. (b, os, pc)
Kenro Light, Inc. (dcm, dcp, dcw)
LEE Colortran, Inc. (dcm, dcp)
Laser Media, Inc.
Lazin Lighting, Inc.
Leecraft Mfg. Co., Inc. (s)
Leviton Mfg. Co., Inc.
(dcm, dcp, dcw, os, s)
Lighting Sciences, Inc.
Lightolier Controls, Inc.
(dcm, dcp, dcw, os)
Litelab Corp. (dcm, dcp, pc)
LiteTouch, Inc. (dcp, dcw)
Lithonia Lighting
(b, dcm, dcp, dcw, os, pc, s)
Lutron Electronics Co., Inc.
(dcm, dcp, dcw, s)
Macro Electronics Corp.
(dcm, dcp, dcw, pc)
Maximum Tech. (os)
Monarch Lighting Co.
Multipoint Control Sys., Inc.
(b, dcm, dcp, dcw, pc)
Mytech Corp. (os, pc)
Novitas, Inc. (os)
Nu-Tech (dcm)
Paragon Electric (b, pc)
Pass & Seymour/Legrand
(dcm, dcp, dcw, os, s)
Power Controls Corp.
(dcm, dcp, dcw, s)
Powerline Comm., Inc. (b, pc, s)
Prescolite Controls
(dcm, dcp, dcw)
RAB Electric Manufacturing (os)
Raztech Lighting (dcp)
Russell & Assoc., Inc. (dcm, dcp)
SATCO Prods. Inc. (dcm)
Sensor Switch, Inc. (os)
Simpson Electric Co. (b)
Specialty Lighting, Inc. (dcm)

Specialty Lighting Systems (dcm)
Sterner Lighting Systems
(dcm, dcp, dcw, os, pc)
Strand Electro Controls
(b, dcm, dcp, os, pc, s)
Tek-Tron Enterprises, Inc.
(dcm, dcp, dcw, pc)
3M
Translite Systems (dcm, s)
Triad Technology, Inc. (b)
UNENCO, Inc. (os, pc, s)
Valmont Electric (dcw)
Vantage Controls, Inc. (dcp)
Velux-America, Inc.
(dcm, dcp, dcw)
The Watt Stopper, Inc. (os, pc, s)
Wide-Lite (b, dcm, dcp, dcw, os)
WOLIC Inc.

DECORATIVE LIGHTING

a—antique reproductions
f—floor lamps
p—pendant
s—sconces
tl—table lamps
t—task
no code—other

AAMSCO Lighting (s, t, tl)
Abolite Lighting, Inc. (p)
ALKCO (t)
Allite Inc. (p, s)
American Electric (a)
American Fluorescent Corp. (s, t)
American Lantern Co. (p, s, t)
Antique Street Lamps, Inc. (a)
Appleton Lamplighter (a, f, p, s)
Architectural Area Lighting (p, s)
Architectural Cathode Lighting
Architectural Lighting Systems
(p, s)
Arroyo Craftsman Lighting (a, p, s)
Art Specialty Co., Inc. (f, t, tl)
Artemide, Inc. (f, p, s, t, tl)
Atelier Intl. Ltd. (f, p, s, t, tl)
Louis Baldinger & Sons, Inc.
(a, p, s)
BEGA (p, s)
Beghelli, Inc. (s)
Norbert Belfer Lighting (s)
Beven Lighting Co. (f, p, tl)
Boyd Lighting Co. (f, p, s, tl)
Brass Light Gallery, Inc. (a, p, s, tl)
Brass Reproductions (a, f, p, s, tl)
Brownlee Lighting (s)
CSL Lighting Mfg. Inc. (p, s, t)
Camer Glass Lighting Corp. (p, s)
Caribbean Worldwide (f, tl)
Casablanca Fan Co. (f, tl)
Celestial Products
Chiaro Intl. (f, p, s, t, tl)
Classic Lamp Posts (a)
C.W. Cole & Co., Inc. (p, s)

PRODUCT TYPE

- Con-Tech (t)
 Cooper Lighting (s)
 Crystorama Inc. (f, p, s)
 Custom Lighting Concepts, Inc. (a, f, p, s, t, tl)
 Dayton Lighting (p, s)
 Dazor Mfg. Corp. (t)
 Design Lighting Prods. (f, p, s, tl)
 DiBianco Lighting (f, p, s, t, tl)
 Dreamscape Lighting Mfg. (s, tl)
 Duray Fluorescent Mfg. Co. (s)
 Dynasty Classics (f, p, s, tl)
 ELA Company (a, f, p, s, tl)
 Elgee Lighting, Inc. (a, p, s)
 Elliptipar Inc. (f, p, s)
 ElSCO Lighting Prods., Inc. (a)
 Encon Inds., Inc. (f, p, t, tl)
 ESCO Intl., Inc. (s)
 FLOS Inc. (f, p, s, t, tl)
 Feiss Industries (a, f, p, s, t, tl)
 Forecast Lighting (p, s)
 Forum Inc. (s, t)
 Future Classics/Marc Nugent (s)
 GE Lighting
 Garcy - Major Lighting (t)
 Gemma Studios, Inc. (f, p, s, tl)
 Greene's Lighting Fixtures, Inc. (a, f, p, s, tl)
 Gross Chandelier Co. (p, s)
 Hadco (a)
 Halo Lighting (s)
 Hinkley Lighting (p, s)
 Holophane Co., Inc. (s)
 Hunter Fan Company (s)
 Idaho Wood (p, s, t)
 Illuminating Experiences(a, f, p, s)
 Justice Design Group (s)
 Kenro Light, Inc. (f, p, s, t, tl)
 Kenroy Lighting (f, p, s, t, tl)
 Kichler Lighting (a, p, s, t)
 King Luminaire Co., Inc. (a)
 Koch & Lowy, Inc. (f, p, s, t, tl)
 Kosempel Mfg., Co. (p)
 George Kovacs Ltg. (f, p, s, tl)
 La Mar Lighting Co. (s)
 Lavery Lighting (a, f, p, s, tl)
 Lazin Lighting, Inc. (p, s, tl)
 Leiter Lites/Light Points (f, p, s, t, tl)
 Leucos Lighting (f, p, s, t, tl)
 Light Space Design v)
 Lighting Bug, Ltd. (f, p, s, t, tl)
 Lighting Innovations (a, p, s)
 Lightolier (p, s)
 Lightolier Controls, Inc. (p, s, t)
 Lightway Industries, Inc. (s)
 Lightworks (s)
 L'Image Inds., Inc. (f, p, s, t, tl)
 Lite Source, Inc. (f, s, t, tl)
 Liteline Ltd. (f, tl)
 Robert Long Lighting (a, f, p, s, tl)
 Lumax Industries, Inc. (t)
 Lumenyte Intl. Corp. (t)
- Luxo Lamp Corp. (t)
 M2 Designer's Studio, Inc. (s, t)
 Marissa Contract Lighting (a, f, p, s, t)
 Mark Lighting, Inc. (s, t)
 Derek Marshall Lamps (s, tl)
 Matthew Lighting (a, f, p, s)
 Metropolitan Lighting (a, p, s)
 Michaels' Lighting (a, f, p, s, tl)
 Miniature Lighting Technology (t)
 Miroflector Co., Inc. (s, t)
 Modulightor Inc. (p, s, t)
 Moore Lambert Lighting (s)
 Morrison Lighting (f, p, s, t, tl)
 Multiworld Lighting (f, p, s, t, tl)
 Neomericana (s)
 Nessen Lighting (f, p, s, t, tl)
 Noral Lighting, Inc. (a)
 North Star Lighting, Inc. (p, s)
 Norton Inds. (a, p, s)
 Nulco Lighting (a, p, s)
 Otteson Co. (p)
 Peerless Lighting Corp. (p, s)
 Poulsen Lighting, Inc. (f, p, s, tl)
 Premiere Chandelier, Inc. (a, p, s)
 Progress Lighting (a, p, s, t)
 Prudential Lighting (p, s, t)
 Quality Lighting (a, p, s)
 Quorum International (p, s)
 RWL Corp-Welsbach Light (a, p, s)
 Rambusch Decorating Co. (p, s)
 Fredrick Ramond, Inc.(a, f, p, s, tl)
 Rejuvenation Lamp & Fixture (a, f, p, s, tl)
 Ron Rezek Lighting (f, p, s, t, tl)
 Ron Rezek Lighting/Furniture (f, p, s, t, tl)
 Roxter Mfg. Corp. (f, s, t, tl)
 SF 12V, Inc. (p, t)
 SPI Lighting, Inc. (p, s)
 SATCO Prods. Inc. (f, p, s)
 Saxe-Patterson (s)
 Schonbek Worldwide Lght. (p, s)
 Sentinel Lighting (t)
 Sentry Electric Corp. (a)
 Siltron Illumination (s)
 Specialty Lighting, Inc. (t, tl)
 Spring Lighting Co. (a, p, s)
 Staff Lighting Corp. (s, t)
 Standard Electric Fixture Co. (a, f, p, s, t)
 Starbrite Lighting (t)
 Sterner Lighting Systems (p, s)
 Stonelights Ltd. (s)
 Sun Valley Lighting (a)
 Sur-Fin Chemical Corp. (t)
 Swivelier Co. (t)
 T I R Systems (t)
 Tech Lighting Inc. (f, p, s, t)
 Tek-Tron Enterprises, Inc. (t)
 Teron Lighting Corp. (s)
 The Original Cast Lighting(a, p, s)
- Thomas Inds.(Corporate)(a, p, s, t)
 Thomas Inds. Residential Division (p, s, t)
 Thorn Lighting Ltd. (f, p, t, tl)
 Translite Systems (p)
 Triarch Industries (f, p, s, tl)
 Trimblehouse Corp. (a, p, s)
 Union Metal Corp. (a)
 Urban Archaeology (a, s, tl)
 VISCO (a)
 Visa Lighting Corp. (f, p, s)
 Visual Comfort Lighting (p, s)
 Waldmann Lighting Co. (t, tl)
 W. J. Whatley, Inc. (a)
 Wildwood Lamps and Accents (a, f, t, tl)
 Winona Lighting (p, s)
 Zelco (f, p, s, t, tl)
 Zumtobel Lighting, Inc. (f, tl)
- EXTERIOR ARCHITECTURAL**
- b—bollards
 bf—building floodlighting
 ed—exterior downlighting
 hf—HID & fluorescent parking
 lot/area lighting
 hr—HID roadway
 i—incandescent strip lighting
 l—landscape lighting
 s—submersible
 no code—other
- ARC Sales, Inc. (bf)
 ABEC Lighting, Inc. (b, ed, l)
 ARC Sales Inc. (bf, hf, l)
 Abolite Lighting, Inc. (ed)
 Accent Lite (i)
 Adjusta-Post Mfg. Co. (b, hf, l)
 Allite Inc. (hf)
 American Electric (bf, ed, hf, hr, l)
 American Fluorescent Corp. (hf, i)
 American Lantern Co. (l)
 Antique Street Lamps (b, hf, hr, l)
 Appleton Lamplighter (b)
 Architectural Area Lighting (b, hf, hr, l)
 Architectural Cathode Lighting
 Arroyo Craftsman Lighting (ed, l)
 B-K Lighting, Inc. (l)
 Louis Baldinger & Sons, Inc. BEGA (b, bf, ed, hf, hr, l, s)
 Beta Lighting (b, bf, ed, hf, hr, l)
 Brass Light Gallery, Inc. (l)
 Bronzelite (b, l, s)
 Brownlee Lighting (bf, l)
 CEW Lighting (bf, hf)
 CPI Concrete Products (b)
 Cable Lite Corp. (l)
 Canlet (bf, l)
 Caribbean Worldwide (b)
 Celestial Products (i, l)
- Classic Lamp Posts(b, l)
 C.W. Cole & Co., Inc. (ed, hf, i, l)
 Colonnade Lights International (i)
 Cooper Lighting (bf, hf, hr, l)
 Crouse-Hinds (bf, hf, hr)
 Dayton Lighting (b, l)
 DesignPlan Lighting, Inc. (b)
 Devine Lighting(b, bf, ed, hf, hr, l)
 Dinico Products, Inc. (hf)
 Dreamscape Lighting (b, bf, l)
 Dry-Brite Lighting, Inc. (bf)
 Dynasty Classics (ed)
 E.G.L. Co., Inc. (b, ed, l)
 Electrical Specialties, Inc. (bf)
 Elliptipar Inc. (bf, ed, hf, l)
 ElSCO Lighting Prds.(bf, ed, hf, hr)
 Emco Lighting (b, bf, ed, hf, hr)
 Engineered Lighting Prod.
 ESCO Intl., Inc. (b, bf, ed, hf, i, l)
 Feiss Industries (l)
 Fibrelite Corp. (bf, l)
 Focus Lighting (l)
 Forum Inc. (b)
 GE Lighting
 GTE Sylvania Lighting (bf, ed, hf, hr, l)
 Garcy - Major Lghtg. (b, ed, hf, i)
 Gardco Lighting (b, ed, hf, hr, l)
 Greene's Lighting Fixtures (i, l)
 Greenlee Lighting, Inc. (b, bf, l)
 Hadco (b, bf, hf, hr, l, s)
 Hanover Lantern (b, hf, l)
 W.F. Harris Lighting (bf, ed, hf, l)
 Hinkley Lighting (l)
 Holophane Co. (b, bf, hf, hr, l)
 Hubbell Lighting (b, bf, ed, hf, hr, l, s)
 Hydrel (bf, hf, l, s)
 Idaho Wood (b, ed, hf, hr, i, l)
 Illuminating Experiences (ed)
 Infinity Lighting, Inc. (hf)
 Interlock Structures
 JW Lighting Inc. (bf, hf)
 Janmar Lighting (ed, l)
 John Watson Landscape Illum. (l)
 Kelsey-Kane Lighting(bf, ed, hf, l)
 Kenro Light, Inc. (b, l)
 Kenroy Lighting (l)
 Kichler Lighting (b, bf, hf, hr, l, s)
 Kim Lighting (b, bf, hf, hr, l, s)
 King Luminaire Co., Inc. (hr, l)
 King Luminaire Co., Inc. (b)
 The Kirlin Co. (ed)
 Kosempel Mfg., Co. (ed, hr)
 LSI Lighting Systems (b, bf, ed, hf, hr, l)
 LUMAX Inds., Inc.
 L. P. Associates (l)
 Lake Forest Lighting, Ltd. (ed, l)
 Laser Media, Inc.
 Lighting & Lowering Systems (hf, hr)

Lighting Bug, Ltd. (l)
 Lighting Innovations (l)
 Lightolier (l)
 Lightolier Controls, Inc. (b, ed, l)
 Lightway Industries, Inc. (bf, l)
 Lightworks (i, s)
 L'Image Inds., Inc. (b, ed, hf, l)
 Lite-Nite, Inc. (l)
 Liteline Ltd. (i)
 Lithonia Lighting (b, bf, ed, hf)
 Lumark (bf, hf, hr)
 Lumax Industries, Inc.
 Lumenyte Intl. Corp. (l, s)
 Lumiere Design & Mfg. (b, bf, ed, l)
 MICA Lighting, Inc. (i, l)
 M2 Designer's Studio, Inc. (i)
 Marissa Contract Lighting (b, ed, hf)
 Matthew Lighting (b, l)
 McGraw-Edison (b, bf, hf, hr, l)
 mcPhilben Outdoor Lighting
 Mid-West Chandelier Co.
 Millerbernd Mfg. Co.
 Miniature Lighting Technology
 Miroflector Co., Inc. (bf, ed, hf)
 Moore Lambert Lighting (hf)
 Morrison Lighting
 Musco Sports-Lighting, Inc.
 Natl. Specialty Lighting Co. (i, l)
 Nightscaping by Loran (l, s)
 Noral Lighting, Inc. (b, hf, l)
 North Star Lighting, Inc. (b, bf, ed, hf, hr)
 Northern Lighting (b, l)
 Norton Inds. (l)
 O'Ryan Industries (s)
 Paramount Inds. Corp. (hf)
 Phoenix Prods. Co., Inc. (bf)
 Pioneer Electronics Technology
 Poulsen Lighting, Inc. (b, ed, hf, l)
 Progress Lighting (bf, ed, l)
 Prudential Lighting (ed)
 Quality Lighting (b, bf, ed, hf, hr, l)
 RAB Electric Manufacturing Co. (bf, hf, l)
 RLS Lighting, Inc. (b, bf, ed, hf, l)
 RWL Corp-Welsbach Light (b, bf, hf, hr)
 Fredrick Ramond, Inc. (l)
 Raztech Lighting (l)
 Reggiani U.S.A., Inc. (l)
 Remcraft Lighting (bf, ed)
 Roberts Step-Lite Systems (i, l)
 Ryther-Purdy Lumber Co. (b, l)
 SATCO Prods. Inc. (i)
 Scholl Lighting Standards (l)
 Sentinel Lighting (i)
 Sentry Electric Corp. (b, bf, ed, hf, hr, l)
 Southwall Technologies
 Sparkle Plenty, Inc. (l)

Specialty Lighting Systems (ed, hf, i)
 Spero Electric Corp. (b, ed, hf, hr, l)
 Spring City Electric Mfg. (b)
 Staff Lighting Corp. (b, hf, l)
 Starbrite Lighting (i)
 Sternberg Lanterns, Inc. (b, hf, hr)
 Sterner Lighting Systems (b, bf, ed, hf, hr, l, s)
 Stonco Lighting (bf, hf, hr, l)
 Street Lighting Equipment Corp. (b, hf, l)
 Sun Valley Lighting (b, ed, hf, hr, l)
 Swivelier Co. (bf, i)
 Sylvan Designs, Inc. (b, ed, i, l)
 T I R Systems (ed, hf, l, s)
 Teron Lighting Corp. (bf)
 Thomas Inds. (Corporate) (b, bf, ed, hf, hr, i, l)
 Thomas Inds. Residential Division (b, bf, ed, l)
 Thorn Lighting Ltd. (b, bf, ed, hf, hr, i, l)
 Times Square Lighting (i)
 Tivoli Lighting, Inc. (i, l)
 Tokistar Lighting, Inc. (i, l)
 Triarch Industries
 Trimblehouse Corp. (b, hf, hr)
 Troy Lighting (ed)
 U.S. Pole Co. (b, bf, ed, hf, hr, l)
 Union Metal (bf, ed, hf, hr, i, l)
 VISCO (b, ed, hr)
 Velux-America, Inc. (b, l)
 Visa Lighting Corp. (i, l, s)
 Vista Mfg. Co., Inc. (ed, i, l)
 Wendelighting (b, bf, hf, l)
 Western Lighting Inds. (b, bf, hf, l)
 W. J. Whatley, Inc.
 Wide-Lite (b, bf, ed, hf)
 H.E. Williams, Inc. (bf)
 WOLIC Inc. (l)
 Wood Technologies (b)
 WoodForm Inc. (b, l)
 Xenotech Inc.

**FIXTURE COMPONENTS
ACCESSORIES**

lb—louvers/baffles
 pd—plastic lenses/diffusers
 rm—reflectors & reflector materials
 r—replacement glass lenses/diffusers
 no code—other

A.L.P. Lighting & Ceiling Prod. (lb, pd, rm)
 ARC Sales Inc.
 Aluminum Coil Anodizing Corp. (rm)

American Electric (r)
 American Louver Co. (lb, pd)
 Area Lighting Research, Inc.
 Bausch & Lomb
 Brass Reproductions (r)
 Con-Tech (lb, pd)
 Dayton Lighting (pd)
 Dynamic Energy Prods. (lb, rm)
 Encon Inds., Inc.
 ESCO Intl., Inc. (lb, r, rm)
 Foremost Mfg. Co. Inc. (lb, rm)
 GTE Products - Emissive Prods. (rm)
 Garcy - Major Lighting (lb, pd, r, rm)
 The Great American Market
 Holophane Co., Inc. (pd, r, rm)
 Infinity Lighting, Inc. (lb, rm)
 Joslyn Hi-Voltage Corp.
 K-S-H, Inc. (pd)
 K-Lite (lb, pd)
 Kichler Lighting (r)
 Kosempel Mfg., Co. (rm)
 Lake Forest Lighting (lb, pd, rm)
 La Mar Lighting Co. (rm)
 Lavery Lighting (r)
 Lexalite Intl., Co. (pd, rm)
 Lighting Services, Inc. (lb, pd, r)
 Linear Lighting Corp. (lb)
 Lorin Inds. (rm)
 MEROFORM/MERO Structures (rm)
 ML Systems (pd, rm)
 Maximum Tech. (lb)
 Mero Systems Group (rm)
 Metalloxyd Inc. (lb, pd, r)
 Norton Inds. (r, rm)
 Parke Inds. (pd)
 Polarized Intl., Inc. (lb, rm)
 Pre Finish Metals (lb, rm)
 Prudential Lighting (lb, r)
 Reggiani U.S.A., Inc. (pd, r)
 SATCO Prods. Inc. (lb, pd, rm)
 SIMKAR Lighting
 Specialty Lighting Systems (lb, pd, rm)
 Spring Lighting Co. (lb, pd)
 Standard Electric Fixture (pd)
 Sterling Products (lb, pd, r)
 Sterner Lighting Systems (lb, pd, r)
 Swivelier Co. (lb)
 T I R Systems
 TLA Lighting Cnslts., Inc. (rm)
 Tamarack Corp. (rm)
 Technical Glass Prods.
 Tek-Tron Enterprises, Inc. (rm)
 3M (pd, r, rm)
 Times Square Lighting (lb, pd, r)
 Visual Comfort Lighting (lb)
 Voltarc Technologies Inc.
 Weirton Steel Corp. (lb)
 H.E. Williams, Inc. (lb)

**INTERIOR
ARCHITECTURAL
LUMINAIRES**

fc—fluorescent, compact downlights
 fi—fluorescent, indirect
 fs—fluorescent, surface mount
 ft—fluorescent, troffers
 fm—fluorescent, miscellaneous
 hh—HID high-bay
 hi—HID indirect
 hr—HID recessed & wall washers
 ht—HID track
 hm—HID miscellaneous
 it—incandescent, track
 ii—incandescent, indirect
 ir—incandescent, recessed & wall washers
 il—incandescent, linear/strip
 ih—incandescent, high-bay
 im—incandescent, miscellaneous

ARC Sales, Inc. m(hm, hr)
 AAMSCO Lighting (fi, fm, fs, ii, il, im)
 Abolite Lighting, Inc. (fc, hh, hi, hm, hr, ih, im)
 Accent Lite (il)
 ALKCO (fc, fm, fs, ft, il, im, it)
 Allite Inc. (fc, fi, hr, ii, il, im)
 American Electric (hh)
 American Fluorescent Corp. (fi, fm, fs)
 Amerlux (fc, fi, fm, fs, hi, hm, hr, ht, im, it)
 Appleton Lamplighter (fi, fm, hi, ii)
 Architectural Cathode Lighting (fi, fs)
 Architectural Lighting Systems(fi)
 Ardee Lighting/USA (il, im, ir, it)
 Arroyo Craftsman Lighting (im)
 Art Specialty Co. (fi, fm, fs, im)
 BEGA (fc, fi, fm, fs, hi, hm, hr, ii, im, ir)
 Beghelli, Inc. (fm, fs)
 Norbert Belfer Lighting (fi, ii, il)
 Beta Lighting (hh, hi)
 Brass Reproductions (ft, ii, im)
 Brodwax Lighting (fs)
 Brownlee Lighting (fc, fm, fs)
 CEW Lighting (hh)
 CSL Lighting Mfg. Co. (fc, ih, ii, il, im, ir, it)
 Canlet (fm)
 Capri Lighting (fc, fi, fs, hr, ht, im, ir, it)
 Caribbean Worldwide (im)
 Celestial Products (il, ir)
 Chiaro Intl. (fi, fm, fs, ii, im, it)
 Coast Light Systems (fi, fs)

PRODUCT TYPE

C.W. Cole & Co., Inc. (fc, fm, hm, hr, il, im, ir)	Indy Lighting, Inc. (fc, fi, fs, hr, ii, im, ir, it)	Maximum Tech. (fc, fi, fs, ft)	(fi, fm, fs, ft)
Colonnade Lights International (il)	Infinity Lighting (fc, hm, hr, im, ir)	McGraw-Edison (hh, hm)	Starbrite Lighting (il)
Columbia Lighting (fi, fm, fs, ft, im, ir)	Inlite Corp. (im, it)	Mero Systems Group (fm, it)	Sterner Lighting Systems (fi, fm, hh, hi, ii)
Con-Tech (ir, it)	Janmar Lighting (fc, fs, hr, ht)	Metalux Lighting (fc, fi, fm, fs, ft)	Stonco Lighting (hh)
Cooper Lighting (fc, fi, fm, fs, ft, hh, hm, ii, im, ir, it)	Juno Lighting, Inc. (fc, hr, ir, it)	Michaels' Lighting (fi, fm, fs, ft, hi, hm, ii, il, im, ir)	Strand Electro Controls (ii, ir, it)
Crescent Lighting (fm, fs, ft)	Kenro Light, Inc. (ir, it)	Microlamp Inc. (il, im, it)	Sure-Lites (fm, im)
Crouse-Hinds (hh, hr)	Kenroy Lighting (il, im, it)	Mid-West Chandelier Co. (fm, fs, ft, hm)	Swing (ii, im)
Custom Lighting Concepts, Inc. (fm, ii, il, im)	Keystone Lighting (fm, fs, ft)	Miniature Lighting Technology (ir)	Swivelier Co. (fc, fi, fm, fs, hr, ht, il, im, ir, it)
Day-Brite Lighting (fc, fi, fm, fs, ft, hh, hi, hm, hr)	Kichler Lighting (fs)	Miroflector Co., Inc. (fc, fi, fm, fs, hi, hm, hr, ht, ii, i im, ir, it)	Sylvan Designs, Inc. (il, im, ir)
Delray Lighting (fc, fs)	The Kirlin Co. (fc, fm, fs, ft, hh, hm, hr, im, ir)	Modulightor (fi, fs, ii, il, im, it)	T I R Systems (hi, hm, hr)
DesignPlan Lighting, Inc. (fc, fs)	Koch & Lowy, Inc. (fi, fm, ii, it)	Moore Lambert Lighting (fm)	Targetti (it)
Dreamscape Lighting Mfg. (ir)	Kosempel Mfg., Co. (hh)	Multiworld Lighting (im, ir, it)	Tech Lighting Inc. (im)
Duray Fluorescent (fc, fm, fs, ft)	LTM Corp. of America (it)	Natl. Specialty Lighting (ii, il, im)	Tek-Tron Enterprises (fc, fs, il, it)
Dynamic Energy Prods., Inc. (fc, fi, fm, fs, ft)	LUMAX Inds., Inc. (fm, fs, ft)	Neo-Ray Prods., Inc. (fi, fm, fs, ft)	Teron Lighting Corp. (fc, fm, fs, hh, hm)
Dynasty Classics (hr, it)	Lake Forest Lighting, Ltd (fc)	North Star Lighting, Inc. (fc, fs, hh, hr, ir)	The Original Cast Lighting (fs, ih)
Eastrock Mfg. & Tech. (fm, fs)	LAM Lighting (fi, fs, hi)	Norton Inds. (fi, fm, fs, im)	Thomas Inds. Inc. (Corporate) (fc, fi, fm, fs, ft, hh, hi, hm, hr, ht, ih, ii, il, im, ir, it)
Edison Price Lighting (fc, fm, fs, hh, hr, ih, il, im, ir, it)	La Mar Lighting Co. (fi, fm, fs, ft)	Nu-Tech (fs, ir)	Thorn Lighting Ltd. (fc, fi, fm, fs, ft, hh, hi, hm, hr, ht, ih, ii, il, im, ir, it)
Elliptipar Inc. (fi, fm, fs, hi, hm, hr, ht, ii, il, im ir, it)	Lazin Lighting (hr, ii)	Nulco Lighting (fi, fs)	Times Square Lighting (fi, ii, it)
Elsco Lighting Prods., Inc. (hh, hi, hm, hr, ht)	Ledalite Architectural Products (fi, fm, fs)	Omega Lighting (fc, hr, ir, it)	Tivoli Lighting, Inc. (ii, il)
Encon Inds., Inc. (hr, ht, im, ir, it)	Leiter Lites/Light Points (ii, im, it)	Paramount Inds. (fm, fs, ft, hh, hi, hm, hr)	Tokistar Lighting, Inc. (ii, il, im)
Energy Saving Devices (fc, fm, fs)	Leucos Lighting (ir)	Parke Inds. (fc, fi, fm, fs, ft)	Triarch Industries (il, im)
Engineered Lighting Prod. (fi, fm, fs, ii, ir)	Light Space Design (fi)	Peerless Lighting Corp. (fi, fm, fs)	Trimblehouse Corp. (fm, hm, im)
ESCO Intl., Inc. (fc, fm, fs, hi, hm, hr, ih, ii, il, im, ir)	Lighting Bug, Ltd. (fc, fi, fm, fs, ft, hm, il, im, ir, it)	Phoenix Prods. Co., Inc. (fi)	Troy Lighting (fc, fi, fs, hr, ih, ii, il, im, ir, it)
FLOS Inc. (fs, ii, it)	Lighting Innovations (ir)	Poulsen Lighting, Inc. (fc)	Visa Lighting Corp. (fi, fm, fs, hi, hm, ii, im)
Feiss Industries (fi, it)	Lighting Services, Inc. (ii, il, im, ir, it)	Precision Architectural Ltg. (fi)	Visual Comfort Lighting (fc, fi, fm, fs, ft, im)
Fibrelite Corp. (hm)	Lightolier (fc, fi, fm, fs, ft, hi, hm, hr, ht, ih ii, il, im, ir, it)	Progress Lighting (fc, fm, fs, hr, ht, im, ir, it)	Wellmade Metal Products Co. (fi, fm, fs, ft)
Forecast Lighting (fm, fs, im)	Lightolier Controls, Inc. (fc, fi, fm, fs, ft, hr, ht, ii, il, im, ir, it)	Progressive Tech. in Lighting (fc, fm, fs)	Wendelighting (il, ir, it)
Forum Inc. (fi, fm, fs, hi, hm, hr, ii, im, ir)	Lightolier/KLP Fluorescent Div. (fm, fs, ft)	Prudential Lighting (fi, fm, fs, ft, hm)	Western Lighting Inds. (fm, ft)
Gammalux Systems (fi, fm, fs, it)	Lightway Industries, Inc. (fi, fs)	Quality Lighting (hr, it)	Wide-Lite (hh, hm, hr)
Garcy - Major Lighting (fc, fi, fm, fs, ft, hi, hm, hr, ii, i im, ir)	Lightworks (fi, fm, il)	RWL Corp-Welsbach Light (fi, hi, ii)	H.E. Williams, Inc. (fc, fi, fm, fs, ft, hh, hr)
Georgian Art Lighting Design Inc. (fi, fm, fs, ii, im, ir)	L'Image Inds., Inc. (fc, fi, fm, fs, hi, hm, ht, im)	Rambusch Decorating Co. (hh, hi, hm, hr, ih, ii, im, ir, it)	WOLIC Inc. (il, im)
Globe Lite (fc)	Linear Lighting Corp. (fi, fm, fs)	Raztech Lighting (im, ir, it)	Yorklite Electronics, Inc. (fm, fs)
Greene's Lighting Fixtures (it)	Litecontrol Corp. (fi, fs)	Reggiani U.S.A., Inc. (fc, hr, ir, it)	Zumtobel Lighting (fc, fi, fs, hi, hr)
Guth Lighting (fi, fm, fs, ft, hh, hi, hr)	Litelab Corp. (fi, il, im, it)	Remcraft Lighting (fi, fs)	
Halo Lighting (ii, im, ir, it)	Lithonia Lighting (fc, fi, fm, fs, ft, hh, hm, hr, il, im, ir, it)	Roberts Step-Lite Systems, Inc. (ii)	
W.F. Harris Lighting (fc, fs, im)	Lucifer Lighting (ii, il, im, ir, it)	Roxter Mfg. Corp. (ii, im, ir, it)	
Hinkley Lighting (im)	Lumark (hh, hm)	SF 12V, Inc. (it)	
Holophane Co., Inc. (fs, ft, hh, hm)	Lumax Industries, Inc. (fm, fs, ft)	SPI Lighting, Inc. (fi, hi, ii)	
Hubbell Lighting (fc, fi, fm, fs, ft, hh, hi, hm, hr, ht, ih, ii, im, ir, it)	MEROFORM/MERO Structures (fm, im, it)	Saxe-Patterson (fi, ii)	
Idaho Wood (fc, fi, fs, il)	MICA Lighting, Inc. (ii, il)	Sentinel Lighting (fc, fi, fm, fs, ii, il, im, ir, it)	
Illumination Concepts & Eng. (fc, fi, fm, fs, ft, ii, im)	ML Systems (fs, ft)	Siltron Illumination (fc, ir, it)	
	M2 Designer's Studio, Inc. (fi, fs, ii, il, ir)	SIMKAR Lighting (fc, fi, fm, fs, ft, hh)	
	Marco Lighting (fc, fs, hr, ir, it)	Specialty Lighting, Inc. (fm, fs, il, im, ir)	
	Marissa Contract Lighting (fi)	Specialty Lighting Systems (ft, hh, hr, it)	
	Mark Lighting (fc, fi, fm, fs, ft)	Spero Electric (hh, hi, hm, hr)	
		Spring Lighting Co. (fm, im)	
		Staff Lighting (fc, fi, fs, ii, ir, it)	
		Standard Electric Fixture Co. (fi, fm, fs, ft)	

LAMPS

c—cold cathode
fr—fluorescent, regular
fc—fluorescent, compact
i—incandescent
lv—low-voltage
mv—mercury vapor
mh—metal halide
m—miniature
mn—modular neon
sh—sodium, high-pressure
sl—sodium, low-pressure
t—tungsten halogen
no code—other

Architectural Cathode Lighting (c, mn)
 Ardee Lighting/USA (i, lv)
 Art Specialty Co., Inc. (fc, fr, i)
 Artemide, Inc. (fc, fr, i, lv)
 Atelier Intl. Ltd. (fc, fr, i, lv, t)
 BKL Inc.
 CEW Lighting (fr, lv, mh, mv, sh, sl, t)
 Caribbean Worldwide (i, m, mh, mv, sh)
 Celestial Products (lv, m)
 Con-Tech (lv, t)
 Consolidated Cathode Corp. (c)
 Duro-Test Corp. (fc, fr, i, lv, mh, mv, sh, sl, t)
 Dynasty Classics (i)
 E.G.L. Co., Inc. (c)
 Eastrock Mfg. & Tech., Inc. (fc)
 Electrical Specialties, Inc.
 Elasco Lighting Prods., Inc. (fr)
 Eltech
 Feiss Industries I Murray Feiss (lv)
 Fibrelite Corp. (mh, t)
 GE Lighting (fc, fr, i, lv, m, mh, mv, sh, t)
 GTE Sylvania Lighting (fc, fr, i, lv, m, mh, mv, sh, t)
 Gilway Technical Lamp (m)
 Globe Lite (fc)
 Gross Chandelier Co. (fc, i, mh)
 Hatch Transformers, Inc. (fc)
 Humphrey Prods. Co.
 Janmar Lighting (fc, sh)
 Kenro Light, Inc. (lv)
 Kenroy Lighting (lv, t)
 The Kirlin Co. (mh)
 George Kovacs Ltg., Inc. (i, lv, t)
 L. P. Associates (mh)
 Lake Forest Lighting, Ltd (fc)
 Lamp Technology, Inc. (fc, i, lv, m, mh, mv, sh, sl, t)
 Laser Media, Inc.
 Lavery Lighting (t)
 Leecraft Mfg. Co., Inc. (t)
 Lightworks (i, lv, m)
 Lite Source, Inc. (i, lv, m, t)
 Lite Tronics, Intl. (i, lv, t)
 Luxo Lamp Corp. (i, t)
 MEROFORM/MERO Structures (mn)
 M2 Designer's Studio (lv, m, t)
 Maximum Tech. (fr)
 Mero Systems Group (mn)
 Microlamp Inc. (c, fc, fr, i, lv, m, mh, mn, mv, sh, sl, t)
 Modulightor Inc. (lv, t)
 Moore Lambert Lighting
 Multiworld Lighting (t)
 National Cathode Corp. (c)
 Neonetics Inc. (mn)
 Nu-Tech (i, t)

Osram (fc, fr, m, mh, sh, sl, t)
 Panasonic Inds., Co. (fc, fr, t)
 Philips Lighting Co. (fc, fr, i, lv, m, mh, mv, sh, sl, t)
 Pioneer Electronics Tech. (lv)
 ProLight (fc)
 Public Service Lamp Corp. (c, fc, fr, i, lv, m, mh, mv, sh, sl, t)
 Raztech Lighting (lv, t)
 Rejuvenation Lamp & Fixture
 Roxter Mfg. Corp. (i, lv, m, t)
 Russell & Assoc., Inc. (c)
 SRB Technologies, Inc.
 SATCO Prods. Inc. (fc, fr, i, lv, m, mh, mv, sh, t)
 Shat-R-Shield, Inc. (fr, i)
 Sparkle Plenty, Inc. (lv)
 Specialty Lighting, Inc. (fc, fr, i, lv, m, t)
 Specialty Lighting Systems (fr, i, mh, mv, sh, t)
 Spero Electric (mh, mv, sh, sl)
 Standard Electric Fixture (fc, fr)
 Swing (i)
 Sylvania Lighting Division-U.S. (fc, fr, i, lv, m, mh, mv, sh, t)
 TecnoLux, Inc.
 Teron Lighting Corp. (fc, sh)
 Thorn Lighting Ltd. (fc, fr, i, lv, m, mh, mv, sh, sl, t)
 Tivoli Lighting, Inc. (lv, m)
 Tokistar Lighting, Inc. (i, lv, m)
 Translite Systems (lv)
 Trojan Corp. (fc, fr, i, mh, mv, sh)
 Venture Lighting (mh, mv, sh)
 Verax Corp. (lv)
 Vista Mfg. Co., Inc. (i, lv)
 Voltare Technologies Inc. (c, fr)
 Wendelighting (lv)
 Wide-Lite (mh, sh)
 WOLIC Inc. (m)

MAINTENANCE

m—maintenance equipment
 American Electric (m)
 Electrical Specialties, Inc (m)
 Hubbell Lighting (m)
 Joslyn Hi-Voltage Corp. (m)
 MWS (m)
 3M (m)

METERS

i—illuminance
 l—luminance
 CEW Lighting (i)
 Lighting Sciences, Inc. (i, l)
 Minolta Corp. (i, l)
 Sylvania Lighting Division (l)
 Topcon Instrument Corp. (i, l)

MISCELLANEOUS LUMINAIRES

f—fiber optics
 lm—lighting, emergency
 le—lighting, exit
 lh—lighting, handrail
 ls—lighting, security
 no code—other
 ARC Sales, Inc.
 Accent Lite
 ALKCO (le, ls)
 American Electric (lm, ls)
 American Fluorescent Corp. (ls)
 Appleton Lamplighter (lh)
 Beghelli, Inc. (le, lm)
 Norbert Belfer Lighting
 Bodine (lm)
 Bristolite Skylights
 Bronzelite (ls)
 CSL Lighting Mfg. Inc.
 Cable Lite Corp. (f)
 Caribbean Worldwide (lm)
 Celestial Products (f, lh)
 Chloride Systems (le, lm)
 C.W. Cole & Co., Inc. (le, lh)
 Cooper Lighting (le, lm, ls)
 Crouse-Hinds (ls)
 DesignPlan Lighting, Inc. (lm, ls)
 Devine Lighting (le)
 Dual-Lite (le, lm)
 Duro-Test Corp. (le)
 ELA Company
 Eastrock Mfg. & Tech., Inc. (le)
 Electrical Specialties, Inc. (le)
 Elliptipar Inc.
 Elasco Lighting Prods., Inc. (le, ls)
 Emergi-Lite (le, lm)
 Encon Inds., Inc. (ls)
 Energy Saving Devices, Inc.
 Exitronix (le)
 Fiber Optic Systems, Inc. (f)
 Fiberstars Inc. (f)
 Fibrelite Corp. (f, lh)
 Gilbert LED Exit Co. (le, lm)
 Globe Lite (le, lm)
 Guth Lighting (lm, ls)
 W.F. Harris Lighting (le, lm, ls)
 High-Lites Emergency Lighting (le, lm, ls)
 Holophane Co., Inc. (le, lm, ls)
 Hubbell Lighting (le, lm, ls)
 Idaho Wood (lh)
 Illumination Concepts & Engineering
 Infinity Lighting, Inc. (le)
 Isolite Corp. (le, lm)
 Kim Lighting
 The Kirlin Co. (le, ls)
 LUMAX Inds., Inc. (le, ls)
 L. P. Associates
 La Mar Lighting Co. (lm, ls)
 Laser Media, Inc. (f)

Lightalarms Electronics (le, lm)
 Light Space Design
 Lighting Bug, Ltd. (ls)
 Lighting Innovations
 Lightway Industries, Inc.
 Lightworks (lh)
 Lithonia Lighting (le, lm, ls)
 Lumark (ls)
 Lumax Industries, Inc. (le)
 Lumenyte Intl. Corp. (f, lm)
 Lumiere Design & Mfg., Inc.
 MICA Lighting, Inc. (le, lh, lm)
 McGraw-Edison (ls)
 Mero Systems Group
 Metalux Lighting (le, lm, ls)
 Miniature Lighting Technology
 Mule Emergency Lighting (le, lm)
 National Cathode Corp. (lh)
 Natl. Specialty Lighting Co. (f)
 Neonetics Inc.
 Noral Lighting, Inc. (ls)
 Northern Lighting
 O'Ryan Industries (f)
 Otteson Co.
 PEP Lighting (le)
 Paragon Electric (ls)
 Paramount Inds. Corp. (ls)
 Pent Lighting
 Phoenix Prods. Co., Inc. (ls)
 Progress Lighting (le, lm)
 Prudential Lighting (lm, ls)
 Quorum International
 RAB Electric Manufacturing (ls)
 RLS Lighting, Inc. (ls)
 Raztech Lighting
 Remcraft Lighting
 Roberts Step-Lite Systems, Inc. (le, lh, lm)
 SRB Technologies, Inc. (le, lm)
 Self Powered Lighting (le, lm, ls)
 Shield Source Inc. (le)
 Siltron Illumination (le, lm)
 Sparkle Plenty, Inc. (lm)
 Specialty Lighting, Inc.
 Specialty Lighting Systems (le, lm, ls)
 Starbrite Lighting
 Sterner Lighting Systems (le, lh, ls)
 Sure-Lites (le, lm)
 Teron Lighting Corp. (le)
 Thomas Inds. Corporate (le, lm, ls)
 Thorn Lighting Ltd. (ls)
 3M (f)
 Times Square Lighting
 Tokistar Lighting, Inc. (lh)
 Translite Systems
 Verax Corp. (f, lh)
 Visa Lighting Corp. (lm)
 Vista Mfg. Co., Inc. (le)
 Wide-Lite (ls)
 H.E. Williams, Inc. (lm)
 WOLIC Inc. (lh, ls)
 Yorklite Electronics, Inc. (le, lm)

PRODUCT TYPE

MOUNTING DEVICES

c—custom poles
h—high-mast poles
ld—lowering devices
s—standard poles

Abolite Lighting, Inc. (s)
Adjusta-Post Mfg. Co. (s)
Antique Street Lamps, Inc. (c)
J.H. Baxter Lighting (c)
BEGA (c, s)
CPI Concrete Product (c, s)
Caribbean Worldwide (c)
Cooper Lighting (c, h, s)
Day-Brite Lighting (c)
Dayton Lighting (c)
Devine Lighting (s)
Dual-Lite (c, s)
ELA Company (c, s)
ESCO Intl., Inc. (ld)
Gardco Lighting (s)
Girole Steel, Inc. (c, h, ld, s)
Hadco (c, s)
Hanover Lantern (c, s)
Hinkley Lighting (s)
Holophane Co., Inc. (c, h, ld, s)
Hubbell Lighting (c, h, ld, s)
Idaho Wood (c)
Joslyn Hi-Voltage Corp. (ld)
Kim Lighting (c, s)
King Luminaire Co., Inc. (c)
King Luminaire Co., Inc. (c)
Kosempel Mfg., Co. (h, ld)
LSI Lighting Systems (s)
Lavery Lighting (s)
Lighting & Lowering Sys. (c, ld)
Lithonia Lighting (h, s)
Mero Systems Group (c)
Millerbernd Mfg. Co. (c, h, ld, s)
Morrison Lighting (c)
Noral Lighting, Inc. (c, s)
P & K Poles (c, h, s)
Sherman Pole Prods. Group (c, s)
Poulsen Lighting, Inc. (c)
Quality Lighting (c, h, ld, s)
RLS Lighting, Inc. (c, s)
RWL Corp-Welsbach Light (c, s)
Ryther-Purdy Lumber Co. (c, s)
Sentry Electric Corp. (c, s)
Shakespeare Co. (c, s)
Sherman International Corp. (c, s)
Specialty Lighting Systems (s)
Spero Electric Corp. (c, s)
Spring City Electric Mfg. Co. (c, s)
Spring Lighting Co. (c)
Sternberg Lanterns, Inc. (c, s)
Sterner Lighting Systems (c, s)
Sun Valley Lighting (c, s)
Thomas Inds. Inc.(Corporate) (c)
Trimblehouse Corp. (c, s)
U.S. Pole Co., Inc. (c, s)
Union Metal Corp. (c, h, ld, s)
Valmont Inds. (c, h, s)

ADDITIONAL MISCELLANEOUS PRODUCTS

(Product types not included in other categories)

Asymmetrical fixtures—Elliptipar, Inc.
Ballasts—L.P. Associates (HMI/DMI)
Color/diffusion materials, projections and patterns—The Great American Market, Swivelier (color filters), Times Square Lighting (patterns, projectors), TIR Systems (color wheels)
Compact fluorescent, surface mount—W.F. Harris Lighting
Computer-aided software/hardware, pen plotters—Ioline Corp.
Computer programs—Lighting Technologies (3D luminaire modeling), Lighting Sciences (analysis, layout reflector design)
Controls—Advanced Control Technology (fluorescent dimming), Artisan Control Corp. (timing controls), ILC Enercon Corp. (low-voltage), Leviton Manufacturing Co. (powerline carrier & home automation controls), Lake Forest Lighting (electric dimming), Lighting Services (individual fixture dimming), Litetouch Inc. (microprocessor based), Sylvan Designs, Inc. (four-channel controller), W.O.L.I.C. (chase)
Current limiters—Energy Saving Devices, Inc.
Custom fixtures—Architectural Area Lighting, Louis Baldinger & Sons, ELA Co., Lightways Inds., Lumiere Design, Morrison Lighting, Simkar (sheet metal housing & reflector fabrication), Western Lighting Industries
Daylight design program—Bristolite Skylights
Electroluminescent—SRB Technologies

Emergency—A.L.P. Lighting (fluorescent), PEP Lighting (high-frequency), Yorklite Electronic, Inc. (UPS systems)

Exit sign lamps—Electrical Specialties, Inc. (low-wattage bulbs), Moore Lambert Lighting

Fiber optics—Lumenyte International Corp., Exterior Architectural Lighting

Fluorescent pre-fixtures—ABEC

Guardsets, ballast—Caribbean Worldwide Wholesale

Gas—Humphrey Products Control

Glass reflectors—Holophane Co., Inc., Sterling Products (globes)

Halogen—CSL Lighting Mfg. (strip picture lights), Celestial Products, Elba U.S.A., Inc., GTE Products Corp., Litronics International (halogen PAR)

HID high-low systems—Holophane Co., Inc.

HID wall packs—Lumax, Mid-West Chandelier Co.

Ignitors/lampholders—ARC Sales, Inc.

Inverter systems—Highlights Emergency Lighting, Holophane Co., Inc. (ac inverters)

Laser & colorray—Laser Media, O'Ryan Industries

Lighting shock absorbers—Joslyn Hi-Voltage Corp.

Low-level floodlighting—Engineered Lighting Products

Low-voltage graphics—Sparkle Plenty, Inc.

LU relays—Macro Electronics

Motorized/automated fixtures—Raztech Lighting

Neon—Consolidated Cathode, E.G.L. Co., Inc., Neonetics, Inc., Tecnolux, Inc. (neon & glass colortubes)

Outdoor lanterns, wall brackets, post mounts—Murray Feiss Industries, Illuminating Experiences Inc.

Photometers—Lighting Sciences

Poles/pole-top luminaires—Bega

RLM's—Abolite Lighting

Receptacles—Eagle Electric Manufacturing Co. (GFCI)

Recessed lighting trims—Encon Industries, Inc.

Roof & parapet outline luminaires—Colonnade Lights International

Specialty HID—C & W Lighting Inc.

Sportlighting—Musco Sports Lighting, Inc.

Transformers—Appliance Control Technology (low-voltage electronic), Microlamp, Inc. (LU), Neonetics (neon), Nu-Tech (120 volt, 12 volt), W.O.L.I.C. (low-voltage)

Truss systems—Interlock Structures

Uv filters—Bausch & Lomb, Technical Glass Products, Inc.

Vandal-resistant fixtures—Designplan Lighting Inc.

Wallplates—Pass & Seymour/Legrand

Watt/volt meters—Innovative Industries of Tampa

Wooden standards—J.H. Baxter Co., Scholl Lighting Standards, Wood Technologies

Xenon—Celestial Products

Xenon searchlights—L.P. Associates, Xeno-tech, Inc.

THE ENVIRONMENTAL IMPACT OF LIGHTING

BY C. CHARLES OCCHINO

When employees report to the office, they require light to work. When the light switch is clicked on, the lighting system converts electricity to produce this light. This electricity is in turn produced by the local utility, which typically burns a pollution-causing fossil fuel—coal, oil and/or natural gas. According to the U.S. Department of Energy, coal—the greatest producer of pollution—accounts for 55.8 percent of all plant fuel use in the U.S. Oil accounts for 5.7 percent, and natural gas 9.5 percent.

Lighting consumes approximately one-fourth of all the electricity generated in the U.S. each year. According to the U.S. Environmental Protection Agency (EPA), each kWh translates to the production of approximately 1.6 pounds of carbon dioxide, 5.3 grams of sulphur dioxide, and 2.8 grams of nitrous oxides. That means lighting America currently accounts for the annual production of 405 million tons of carbon dioxide—the equivalent output of the emissions from the exhaust pipes of 75.6 million cars—three million tons of sulphur dioxide, and 1.6 million tons of nitrogen oxides. These gases contribute to global warming, the Greenhouse effect, acid rain, and smog.

HOW THE DAMAGE IS DONE

Carbon is an element commonly termed one of the building blocks of life, and is found in all products considered carbohydrates—wood, coal, oil, natural gas, most plants, and most food. When a carbon-containing substance is burned, the carbon mixes with oxygen and carbon dioxide is produced.

Carbon dioxide damages the ozone layer and thereby contributes to global warming, a phenomenon which damages the natural environment, promotes disease, and disrupts agricultural systems with flooding and drought. This phenomenon also causes a slow rise in the sea level, and a decrease in the production of rice and other staple crops.

Sulphur dioxide is found in fossil fuels. These fuels contain small amounts of sulphur, but during combustion oxygen mixes with the elements and deadly sulphur dioxide is produced. This gas is a prime ingredient of acid rain, which damages lakes and rivers, pollutes drinking water, damages forests, and erodes monuments and architecture.

Nitrogen oxides are produced when nitrogen in the fuel is mixed with oxygen to become a gas. Combined with particulate matter and other gases, nitrogen oxides comprise the smog hanging over cities. Smog enhances respiratory problems and decreases quality of life.

Environmental protection can pay for itself, simply by taking advantage of new technologies and time-tested management and maintenance techniques. Lighting management and maintenance programs typically pay for

themselves within three years, and can help mark a fundamental change in the way facility managers perceive environmental protection:

STEPS TOWARD ENERGY EFFICIENCY

Numerous energy-efficient alternatives to the standard cool white fluorescent lamps are now available. The T8 lamp, for example, produces the same amount of light as the commonly used 40-watt cool white lamp. But the T8 consumes only 32 watts, saving a total of 32 watts per four-lamp fixture. Many of these newer fluorescent lamps are trichromatic, and produce a light which enhances colors and increases the perceived light level.

The compact fluorescent lasts 10 times longer than the traditional incandescent lamp, while consuming 80 percent less energy. Halogen lamps can save 60 watts per lamp in retail situations, while providing improved light quality. In streetlighting and some industrial applications, high-pressure sodium lamps can replace traditional mercury vapor lamps for higher light lumens and high energy savings.

In the ballast field, three varieties of ballasts can replace the standard magnetic ballast for higher energy savings. The electronic ballast operates at a higher frequency, which allows it to convert energy to light more efficiently—commonly generating immediate savings of 44 watts per four-lamp fixture. The hybrid ballast combines standard magnetic technology with electronics to produce energy savings at a lower first cost. Dimming ballasts can be used to increase or decrease a lighting system's output to desired levels.

Mirrored reflectors can be installed in the fixture's housing above the lamps. The reflector redirects light which is normally trapped above the lens back down into the task area.

Occupancy sensors can typically achieve 35 percent energy savings over the use of standard manual light switches only. Daylight dimmers, working in conjunction with dimming ballasts, devices read the amount of daylight coming through the windows, and lower or raise the lighting systems' light output accordingly.

MANAGEMENT & MAINTENANCE

Group relamping is the time-tested technique at the heart of most lighting maintenance prescriptions. Group relamping entails replacing all lamps in a system or large area at periodic intervals, typically at between 70 and 80 percent of lamp life, when light output drops significantly due to age. If the facility manager allows the lamps to remain in the fixtures past their useful life, the cost to the facility actually goes up.

Group relamping is cost-effective because it can reduce lamp replacement labor costs by 90 percent. During each group relamping, the lighting system also can be cleaned, and the lamps and fixtures washed. These simple procedures ensure the facility's lamps will be lit at all times, and that the

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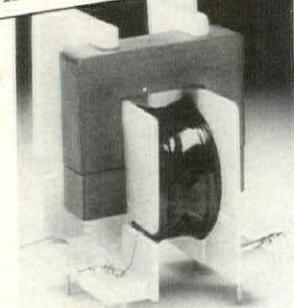
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maximum recommended light level is available for employees to perform their jobs most productively. And often, during the group relamping, new energy-efficient lighting products can be installed, providing a more cost-effect installation through this piggyback method.

STARTLING STATISTICS

A typical fixture in most offices contains four 40-watt standard cool white lamps powered by two standard magnetic ballasts. If this fixture is upgraded—the lamps replaced by 32-watt trichromatic T8 lamps and the ballasts replaced by a single electronic ballast, energy savings would total 68 watts. By cleaning the fixtures at the same time, and implementing an ongoing maintenance program, the system's lumen output can be increased by 25 to 50 percent.

If the lamps are lit five days per week, 122 hours per day, 212.16 kWh are saved per year. At seven cent per kWh, this is \$14.85. In terms of pollution, these energy savings prevent the production of 339.5 pounds of carbon dioxide, 2.5 pounds of sulphur dioxide, and 1.3 pounds of nitrogen oxides.

Suppose the upgraded fixture were in a 200,000 square foot office building containing 2,500 fixtures. Energy savings would total 530,400 kWh, or \$37,128. Pollution savings would total 424 tons of carbon dioxide, 3.1 tons of sulphur dioxide, and 1.6 tons of nitrogen oxides.

The InterNational Association of Lighting Management Companies (NALMCO) has assisted the EPA in developing a Lighting Management Company Ally category in the Green Lights Program (see "Energy Watch" on p. 14 for information on Green Lights). Although the EPA does not endorse the program's Allies (which include lighting manufacturers and utilities), it has assembled lists of lighting vendors which have agreed to assist the program's corporations (Partners) reach their energy-saving goals.

According to the EPA, if America's entire business community optimized its lighting energy efficiency, four percent of total carbon dioxide emissions would be eliminated each year. This figure represents 232 million tons of carbon dioxide, the equivalent output of 421 million cars. Seven percent of total sulphur dioxide emissions will be eliminated. And four percent of all nitrogen oxide emissions, or 890,000 tons, will be prevented. These large cuts in pollution can be achieved not with sacrifice, but while the business community saves \$18.6 billion per year on its electric bill if awareness of the impact of lighting energy efficiency is encouraged and measures enacted by the design community and users working together.

The author is president of the InterNational Association of Lighting Management Companies (NALMCO), headquartered in Princeton Junction, NJ. He is also vice president of Atena Corp. the Cambridge, MA-based lighting management company.

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SYLVANIA LIGHTING DIVISION, US, Sylvania Lighting Center, Danvers, MA 1-800-544-4828.

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FIELD ENGINEER

We are also seeking senior, applied engineers who are able to determine primary data needs, establish data collection plans, as well as develop and implement technologies and methods for taking field measurements. Particular areas of interest include lighting retrofits, industrial modernization, and power transmission and distribution systems.

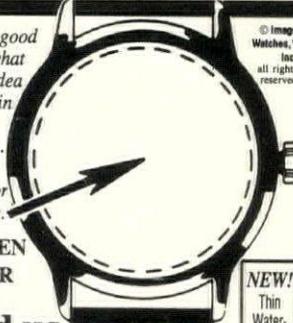
If you'd like to explore these and other challenging opportunities further, send your resume to: **Battelle, Pacific Northwest Laboratories, Staffing Center, P.O. Box 1406, Dept. 6047, Richland, WA 99352. FAX (509) 376-9099. On-line info (modem) (603) 432-2742 Password: "NW LABS".** We are an Equal Opportunity Employer. U.S. citizenship required.



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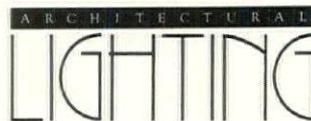
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Edison Price	212-888-7981	Emma Price	Noral Lighting	216-273-5007	Dennis Ziegler
Elliptipar, Inc.	203-932-4889	Marvin Kaplan	Philips Lighting Co.	201-563-3229	C. Domalewski
Hanover Lantern	717-632-5039	Bob Little	3M Construction Mkt Dept	612-736-0611	Kay Syverson
Hydrel	818-362-6548	Hal Madsen	Translite	415-368-8983	Jim Prior
Kichler Lighting	216-431-4765	Bob Vandivier	Winona Studio of Lighting	507-452-8528	Ted Biesanz