# 2011 GE Edison Awards

## The Judges



Tanas S. T. AlKhoury
Light Concept LLC
Abu Dhabi, united Arab Emirates



Wendi Bertelsen LC, LEED® GA GE Lighting Glen Allen, Virginia, USA



Ross A. De Alessi IALD, MIES Ross De Alessi Lighting Design Seattle Washington, USA



David Ghatan
IALD, MIES, LC
C. M. Kling
& Associates, Inc.
Alexandria, Virgia, USA



Ion luh, IALD Assoc.

Consultants
Toronto, Ontario, Canada

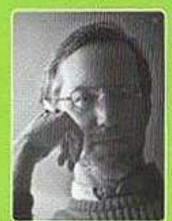


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# 2011 GE Edison Awards

# Heinmiller, Zaferiou, and Weissman of Lam Partners Win 29th Annual GE Edison Award

#### United States Institute of Peace Washington DC, USA



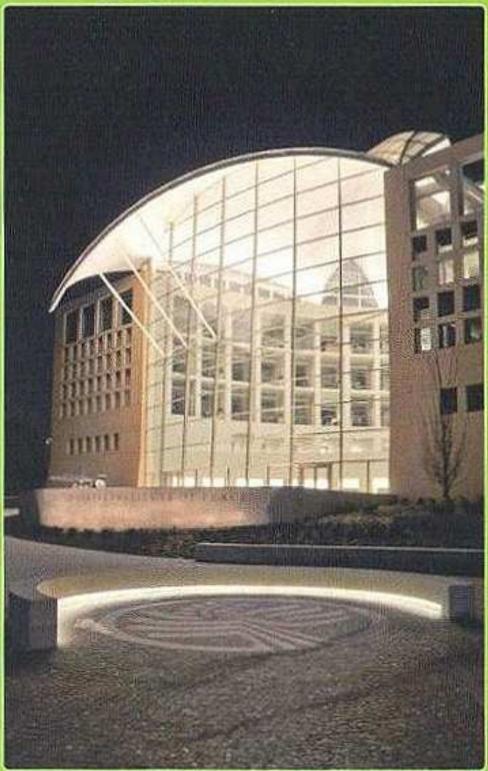




Glenn Heinmiller, IALD, LEED® AP, LC (left)
Paul Zaferiou IALD, RA (middle)
Dan Weissman (right)
Lam Partners
Cambridge, Massachusetts, USA

The 2011 GE Edison Award is presented to Glenn Heinmiller, Paul Zaferiou and Dan Weissman of Lam Partners for lighting the United States Institute of Peace in Washington, DC, USA. A personalized Steuben crystal award for the winner of this 29th annual lighting design competition was presented by GE Lighting on May 8, 2012 in Las Vegas, Nevada.

The first permanent home of the United States Institute of Peace is prominently located near the Lincoln Memorial in Washington, D.C. The translucent wing-like roofs that connect the building's three curving sections presented the most challenging lighting problem: to light the roofs with no visible sources so they glow softly both inside and outside. A pervasive lighting theme, featuring GE T5 fluorescent lamps, is present throughout the building. Light sources are fully concealed or designed to disappear, revealing and



Photography by © Glenn Heinmiller/Lam Portners

animating, but never competing with the architecture.

The roofs are comprised of an outer diffusing glass and an inner white membrane, with structure sandwiched between these two layers. Forward-throw cove fixtures, with GE 54-watt T5 3000 K fluorescent lamps, are mounted in the tops of walls to light the roofs. This single lighting layer simultaneously provides the interior ambient lighting and the exterior surface glow. Above the uppermost windows, necklaces of matching

adjustable monopoints with
GE 37-watt Precise™ IR MR16 halogen
lamps and 39-watt ConstantColor®
CMH® PAR20 lamps provide supplemental
downlighting. In-grade ceramic metal
halide adjustable fixtures illuminate the
roof's overhang, seamlessly extending the
glow outside to the roof's lowest point.

Perimeter offices are fully daylighted, and the clerestories bring daylight into the corridors. Inexpensive T5 fluorescent strips with GE 21-watt T5 3000 K lamps are integrated continuously into the curving base of the clerestories to indirectly light both the offices and corridors. In addition, each office has a custom T5 pendant with shielding designed to block views into the fixtures from outside or from within the atria.



Photography by: © Bill Fitz-Patrick/United States Institute of Peace

A central lighting control system employs occupancy sensing, daylight sensing, scheduling, and local preset scene control. The project is LEED® Gold certified.

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## Award of Excellence

#### Cornell University, Milstein Hall

Ithaca, New York, USA





Suzan Tillotson (left)
Christopher Cheap (right)
Tillotson Design Associates
New York, New York, USA



Photography by: Iwan Baan

The modern architecture of Milstein Hall, Cornell University's new Architecture, Art and Planning building, includes flexible studio space on the upper plate, a pedestrian plaza and auditorium on the ground level, and a critique space and gallery below grade. The lighting design responds to both the aesthetic of the ceiling and the function of each floor with bright fluorescent lighting at the basement level and upper plate studio, and calming warm light at the pedestrian plaza and outdoor gathering spaces. Some unique lighting design features provide elements of surprise.

In the pedestrian plaza, fluorescent striplights with GE 54-watt T5 3500 K lamps are cast into the concrete ceiling and provide bright, shadow-free ambient lighting. A custom frosted acrylic lamp sleeve was designed to control glare. A lighting control system allows light levels to be adjusted for special events, and automatically dims lights when the space is not in use.

The upper plate studio space has an abundance of natural light from the three exposures of full-height glazing and 41 skylights. Custom six-lamp indirect/direct pendants with GE 32-watt T8 3500 K fluorescent lamps were designed to match the chilled beams. The fixtures are controlled by an array of photosensors that adjust light output in response to available daylight across the expansive floor plate. The top of the pendant is perforated to provide soft uplight on the ceiling yet mitigate light trespass through the skylights.

The glow created by the lighting in the secondfloor studio space contrasts with the lower light levels under the cantilever, reinforcing the hovering appearance of the building. Protected from the elements, the pedestrian plaza below becomes an outdoor gathering area and exhibition space.



Photography by: twon than

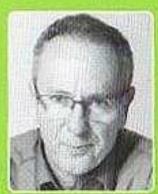
#### Award of Excellence

## Museum of the Bavarian Kings

Hohenschwangau, Germany



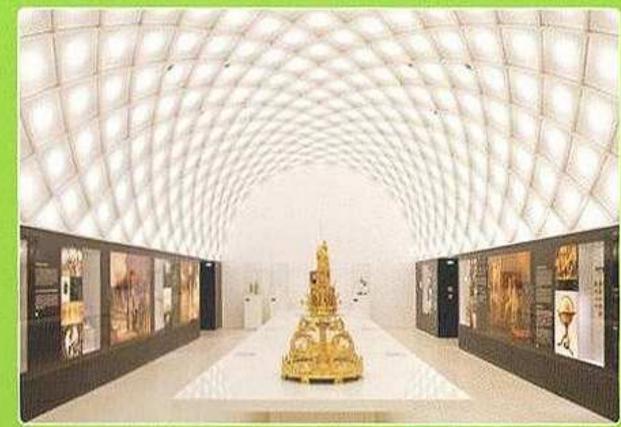




Andreas Schulz (left) Licht Kunst Licht AG Bonn, Germany

Malte Simon (middle)
Licht Kunst Licht AG
Berlin, Germany

Thomas Möritz (right) Licht Kunst Licht AG Bonn, Germany



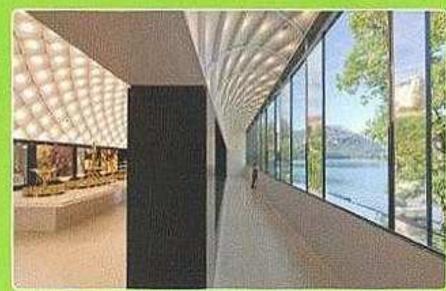
Photography by Marcus Ebener

Located in Germany's most picturesque Alpine region, the Museum of the Bavarian Kings underwent an extensive renovation. Planned by Staab Architekten from Berlin, the museum houses a permanent unique exhibition displaying the history of the Wittelsbach dynasty and their Bavarian Kings. GE halogen lamps and state-of-the-art lighting technologies, including GE Tetra® PowerGrid, were employed to reveal the remarkable architecture and highlight the precious exhibits.

A dramatic luminous vaulted ceiling in the large exhibition space of the Royal Hall creates a shadow-free lighting ambience while ensuring high visual comfort. The sculptural barrel roof with its rhombic steel structure is clad with 866 translucent ceiling panels, each backlit with a custom recessed LED module. The soft, warm

white hue conveys an impression of lightness, grandeur and festivity for the space. Information panels are uniformly backlit with GE Tetra® PowerGrid LED lighting systems. The luminance level allows images and texts to be comfortably viewed. Neatly integrated within the ceiling structure, recessed adjustable spotlights with GE 60-watt halogen T4 lamps accentuate the exhibits in the center of the space and add brilliancy to the diffused ambient lighting.

The luminous vaulted ceiling design is continued into the adjacent Panorama Hall. The majestic surrounding nature backdrop is brought into the interior space through mirrored stainless steel elements.



Photography by: Marcus Ebener

#### Award of Merit

## **Confidential Trading Company**

Chicago, Illinois, USA









James Baney,
IALD, IESNA, LC, LEED® AP (top left)
Maureen Mahr,
IALD, IESNA, LC, LEED® AP (top right)
Jennifer Curtis (bottom left)
Kanis Glaewketgarn (bottom right)
Schuler Shook
Chicago, Illinois, USA

A backdrop of serene and organic architecture sweeps through this trading company's 75,000 sq. ft. office complex. The design team's goal was to re-think the standards and aesthetics of corporate architecture and to allow nature-inspired elements to establish a visual flow. A careful interweaving of lighting throughout these elements supports the client's goal of creating an



Photography by Michelle Litvin

environment that invests in their employees' happiness and well-being.

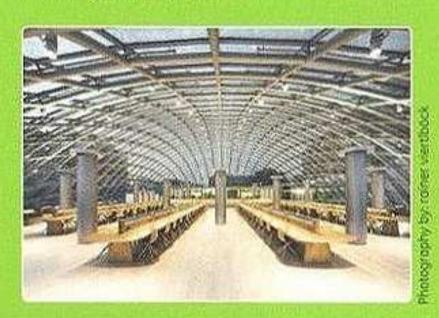
Entering the trading floor, a striking architectural feature is the tapered cladding that disguises the structural columns throughout the space. The columns rise into glowing ceiling cutouts. Maple-veneered ceiling panels undulate throughout the

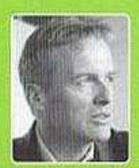
space. The upper ceiling is highlighted from the lower ceiling by fluorescent coves lamped with GE 14-watt and 28-watt T5 3500 K lamps. To bring a sense of connectedness to the outside world and to provide functional light to the space below, the stretched fabric cutouts uniformly glow with T5 backlighting. Indirect/direct linear fluorescent pendants with perforated diffusers and T5 3500 K lamps are installed in continuous runs between the cutouts to provide general lighting. All lighting on the trading floor is on a digitally addressable control system so that illuminance levels and control zones can be easily reconfigured as needs and preferences change.

#### Award of Merit

## Joe and Rika Mansueto Library

Chicago, Illinois, USA







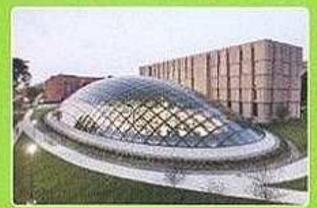




Michael F. Rohde (top left)
Dorit Anderle (top middle)
Stephanie Rock (top right)
Alan Al-Salihi (bottom left)
Magdalena Gomez (bottom middle)
L-PLAN Lighting Design
Berlin, Germany

Helmut Jahn (bottom right)
Murphy/Jahn
Chicago, Illinois, USA

Maximizing the use of daylight, conservation of valuable print material and minimal energy consumption were the rallying cries in the design of the new Mansueto Library at the University of Chicago. The architects housed the reading rooms in the only above-grade level: a glass-encased steel grid shell structure. The lighting concept aims to be as simple and minimalistic as the



Photography by: rainer viertiböck

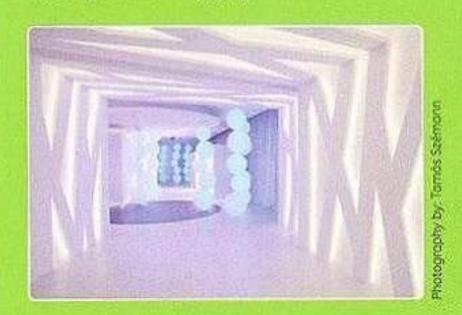
architecture itself. Imagine reading your favorite book under the shade of a tree with blue skies, surrounded by natural light. Daylighting control is maintained through a 57% frit to avoid glare and heat gain, and reflect the electric lighting at the same time. At night, a well-balanced combination of direct/indirect lighting reminds the reader of

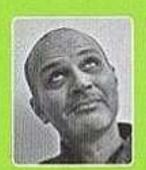
the qualities of daylight. The reading room has only three types of luminaires: downlights, with GE 150-watt and 70-watt ConstantColor® CMH® lamps; uplights with GE 26-watt Double Biax® 3500 K lamps hidden atop ventilation kiosks; and task lights with GE 35-watt T5 3000 K fluorescent lamps that are integrated into the work stations.

Underneath the glass-domed reading room, 3.5 million books are buried in cavernous vaults to protect them against damage from light. The book storage and retrieval is fully automated, an ideal situation for the conservation of books.

#### Award of Merit

#### **Lighting Experience Center** Budapest, Hungary















GE Lighting wanted to build a lighting exposition center on the ground floor of a headquarters building in Budapest, Hungary. In addition to showing guests and customers the latest solutions offered for different applications, the space was to be inspirational and evoke an emotional response to lighting.

Upon entering the center, visitors are invited on a leisurely stroll through an



Photography by: Tambs Szemann

enchanted forest of light featuring GE Tetra® Contour and GE Infusion™ LED systems. The stroll ends in a symbolic clearing - a frozen lake that connects this space to a more structured area representing the heart of the city and specific lighting application solutions. Trees made of polyethylene bubbles that appear to float

on the frozen lake are backlit with blue and white GE Tetra® Contour LED systems. In the background, educational color boxes demonstrate light source color comparisons.

Each application area is a slice of urban living, an interactive space that comes to life when approached. Additional spaces include a lounge area, an "aquarium wall" representing key events in lighting history, a "barcode wall" representing different color temperatures, a retail fashion display, and an office lighting demonstration area.

#### Award of Merit

#### University of Illinois at Chicago - Daley Library Chicago, Illinois, USA











Schuler Shook Chicago, Illinois, USA

In 2011, the Daley Library at the University of Chicago underwent a complete transformation. The once drab, dated space was revived into a dynamic center for research, presentations, group study, tutoring and socializing. The new lighting celebrates the raw, brutalist-style architecture, and was integral to transforming the library into an exciting and inviting space.



Photography by: Christopher Barrett

Lighting is integrated within the architecture and balances the ceiling and fixture contrast ratios. To reveal the exposed concrete structure, unobtrusive direct/indirect linear pendants, suspended between the beams, incorporate a single row of GE 21-watt and 28-watt T5 3000 K fluorescent lamps. Lamps are staggered so the bottom lenses glow uniformly. Flush, clear top lenses maximize efficiency while minimizing dust that enters the fixture. Between columns, coffers are uplit by concealed 28-watt T5

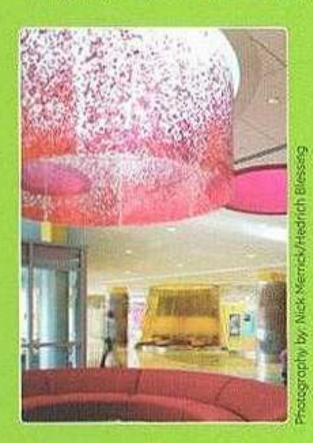
3000 K striplights above a suspended floating metal ceiling. Recessed downlights with GE 39-watt ConstantColor® CMH® G12 lamps supplement light levels below. The information desk is illuminated by GE 20-watt CMH G12 downlights recessed in a floating metal ceiling. The graphics wall behind is grazed by trackheads, concealed between beams and fitted with 39-watt CMH G12 lamps. Compact fluorescent drum-style pendants are clustered above collaborative zones.

To simplify maintenance, only 6 lamp types were used to light the library, and compared to pre-renovation levels, lighting energy consumption is reduced by 50%.

#### Award of Merit

### University of Minnesota Amplatz Children's Hospital

Minneapolis, Minnesota, USA



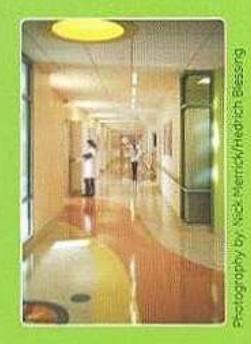


Tao Ham

HGA Architects and Engineers

Minneapolis, Minnesota, USA

The new 320,000 sq. ft. bed tower at the University of Minnesota Amplatz Children's Hospital includes 92 patient beds and public spaces. The design theme "Passport to Discovery" focuses on providing fun and inspiring environments for young patients and their families. This is visualized by intriguing compositions of colors and patterns, translucent materials and textures.



In the lobby, bold colors intensified by daylight, generate stunning visual impact. Lighting is provided by circular skylights and recessed downlights with GE 100-watt ConstantColor® CMH® ED17 lamps. Additional illumination for the patterned glass cylinder is provided by recessed accent luminaires with 39-watt CMH PAR20 lamps. A yellow glass cone anchors the resource center where fun exploration occurs. The cone glows with a luminous ceiling provided by GE 25-watt T8 3500 K fluorescent lamps. Concealed LEDs on the

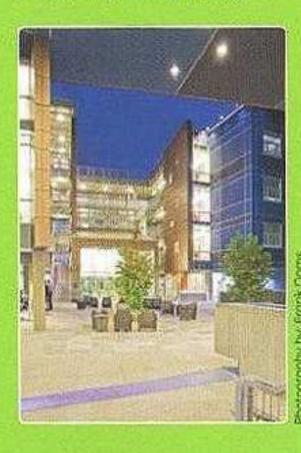
tops of columns gently glow onto the ceiling.

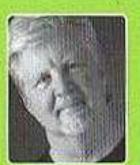
Colorful panels backlit with 32-watt T8 lamps differentiate elevator lobbies and corridors. The patient corridor features multi-layered lighting for visual comfort and flexibility to accommodate day and night shifts. Uplighting with GE 54-watt T5 3500 K fluorescent lamps, concealed on the tops of bump-out walls, creates a soft glow on the ceiling. Linear luminaires with 28-watt T5 lamps provide general illumination while lighting artwork on the walls. Circular ceiling light elements add a "fun touch" to the space.

## Award for Environmental Design

#### University of Arizona Likins and Árbol de la Vida Residence Halls

Tucson, Arizona, USA







James R. Benya, PE, FIES, FIALD (above left) Benya Lighting Design West Linn, Oregon, USA

Christian K. Monrad, PE, LEED® AP (above right) Monrad Engineering Tucson, Arizona, USA

This University of Arizona housing project consists of two new dormitory complexes, comprising a total of eight interlocking buildings. As an overarching theme, daylighting is the principal daytime source for almost all spaces, with electric lighting systems designed to create a warm, residential-like atmosphere for evening study and social activities. While the original goal was to achieve LEED® Silver, the design team pushed the University to pursue LEED Platinum (pending). For lighting, a combination of an average lighting power density of 0.63 watts/sq, ft. and intelligent switching was chosen to support the project mission. In the common spaces, automatic controls include motion sensing and whole building daylight sensing. To further improve efficiency, all



Photography by: Frank Ooms

600 bedrooms employ hotel-style motion sensing systems to reduce lighting, plug load and HVAC energy use when bedrooms are not occupied. Linear lighting systems in lounges, study areas, lobbies and other public spaces utilize GE 28-watt T5 fluorescent lamps, along with other wattages, depending on the specific application. Recessed down-

lights with GE 32-watt Triple Biax® lamps provide additional general lighting. LED accent lighting for the reception desk and art niches features GE Tetra® MAX systems.

A very restrictive outdoor lighting code was met using fully shielded lighting and 22% fewer lumens than allowed by the code. Other than the glow from windows and bounce light, there is no façade lighting. Light levels are reduced throughout the site after normal night curfew time.

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### Award for Residential Design

#### Toro Canyon Residence

Santa Barbara, California, USA



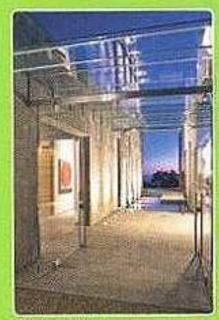




Ann L. Kale (left)
Krista A. Rhodes (right)
Ann Kale Associates
Santa Barbara, California, USA

This Toro Canyon residence is nestled in a 10-acre canyon overlooking the Santa Barbara coastline. The lighting plan reflects the overall simplicity of design using a repetition of fixture types throughout to strengthen the cohesive intent of the project.

A rich combination of materials is used throughout the 7500 sq. ft. home. Like the structure, lighting is minimalistic but strong. Adjustable accent lights with GE 20- and 37-watt Precise ™ IR M16 lamps highlight work surfaces, art, furnishings and the dining table. Concealed in upper cabinets, uplights with GE TS High Output 3500 K fluorescent lamps illuminate the wood ceiling.

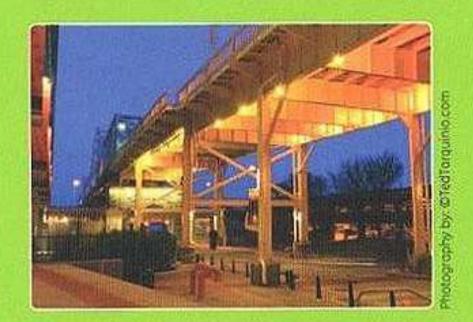


Photography by. Circ Coelho Photography

The foyer lighting is simple but dramatic. To de-materialize the glass, the lighting is continuous inside and out. Three well-shielded in-ground uplights, with 20-watt IR MR16 lamps, graze the concrete wall indoors. The effect is carried outdoors with four recessed 50-watt IR MR16 underwater pool uplights, which allow the eye to continue out towards southerly views of the Pacific Ocean. The same in-ground uplights are used in the living room to light the concrete walls and wood ceiling, providing an illuminated frame to bolster this strong architectural elevation.

## Special Citation

#### Louisville Second Street Transportation Project Louisville, Kentucky, USA









Leni Schwendinger (left)
Eric Chenault (middle)
Joseph Legros (right)
Leni Schwendinger
Light Projects LTD
New York, New York, USA

A service road and vacant land alongside the historic Clark Memorial Bridge in Louisville, Kentucky was once a dark, ominous area. Now it's a bright, multi-purpose outdoor gathering and event space. A rich palette of time-based effects was achieved with a constrained budget of \$500,000 for installed lighting.



Photography by OTedTorquinio.com

The key design concept is the ingenious use of the underpass as an outdoor luminous room. Ground-level illumination is provided for seating areas, sidewalks and plaza while the iron bridge's underside is enhanced with light that grazes the I-beam surfaces and textures. The duotone red and gold lighting color scheme balances with the lighting

designer's selected cream color paint for the bridge. This palette celebrates the amber liquid of Kentucky bourbon and the colors of sunset. To seemingly bring the structure to life, beacons and projected lighting effects are programmed in rhythmic sequences onto the bridge's face to count down each hour.

The lighting design features GE 70-watt ConstantColor® CMH® G12 lamps in fixtures located on the bridge columns and on poles, and GE 54-watt T5 fluorescent lamps in fixtures placed under the bridge and at the stone pier. The lighting from the T5 fluorescents, mounted vertically and fitted into corners, grazes rivets and metal connections to enhance the 20th century engineering structure details.

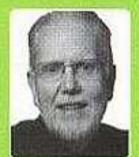
#### Special Citation

#### Ogden High School Auditorium Restoration

Ogden, Utah, USA







Joseph "Jody" M. Good, III LC, FIES, IALD, USITT, LEED® AP Spectrum Engineers Salt Lake City, Utah, USA

The Ogden High School Auditorium is the pride of the city. Since its opening in 1937, the 300+ seat art deco masterpiece has played a central role in educating and entertaining the community. Following a well-organized fundraising effort, the auditorium was restored and seismically retrofitted. Completely respecting the original design and preserving historic materials and aesthetic goals, an advanced performance lighting and control system, new theater technology, and improved access to lights, catwalks and load-in positions, were added.

The original incandescent performance lighting has been replaced with GE 575-watt halogen stage and studio lighting. In the audience areas, the most energy-efficient sources possible were selected within the limitations of the restored historic fixtures. The original glass reflector luminaires were restored, using 300-watt PS25 lamps, always operated on dimmers. Energy-efficient fluorescent fixtures with GE 32-watt T8 High Lumen lamps were added behind glass panels with control lockouts to force the use of the fluorescent lamps except during stage performances. Never-maintained aisle lights in seating standards were restored using LED sources.

The historic restoration extends to the lobby which features new historic pendant lights with long-life incandescent lamps on dimmers, LED-illuminated donor plaques and fluorescent egress lighting.



# GE Edison Award

GE Lighting sponsors the annual GE Edison Award program to recognize excellence and quality in professional lighting designs that use GE light sources (lamps and/or LEDs).

Entries are judged on the following criteria functional excellence; architectural compatibility: effective use of state-of-the-art lighting products and techniques; appropriate color, form and texture revelation; energy effectiveness and cost effectiveness.

Projects must be completed within the prior calendar year and must employ significant use of GE light sources. Qualifying entries remain anonymous throughout the judging process.

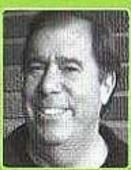
## The Judges



Tanas S. T. AlKhoury Light Concept LLC Abu Dhabi, United Arab Emirates



Wendi Bertelsen, LC, LEED® GA **GE Lighting** Glen Allen, Virginia, USA



Ross A. De Alessi, IALD, MIES Ross De Alessi Lighting Design Seattle, Washington, USA



David Ghatan, IALD, MIES, LC C. M. Kling & Associates, Inc. Alexandria, Virginia, USA



Ion Luh, IALD Assoc. Consullux Lighting Consultants Toronto, Ontario, Canada

