



Illumination Awards 2015

The IES Illumination Awards provide a unique opportunity for public recognition of professionalism, ingenuity and originality in lighting design based upon the individual merit of each entry judged against specific criteria.

This program is not a competition. The program is open to any qualified entrant without limitations as to professional affiliations. The Edwin F. Guth Award, Outdoor Lighting Design Award sponsored by Eaton, Cutler, Energy and Environmental Design Award sponsored by OSRAM SYLVANIA, and the Control Innovation Award sponsored by the Lighting Controls Association are parallel programs created to recognize outstanding lighting design.

The projects that follow represent this year's Final Award and Award of Merit recipients.

Final Judges 2015 Illumination Awards

Pictured from left to right

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Henderson Engineers

Kevin Flynn
Kiku Obata &
Company

Kristin Keilt
Lowe's Companies

Sean O'Connor
Sean O'Connor
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Ornamentation Conceals Shrouds and Shrouds Conceal Glow Lights



Glow Lights

Fiber Optic Spotlights

California Palace of the Legion of Honor, Salon Doré San Francisco



Designers: Patricia Glasow, Marlene Lieu – Auerbach Glasow French

Owner: Fine Arts Museums of San Francisco

Photos: John Martin

To the naked eye, Salon Doré is a neoclassical vision from the era of Louis XVI, complete with chandeliers and a gilded interior. But the simplistic elegance of the space belies complex, modern illumination. The designers wanted to create the illusion that light is emanating only from classic fixtures and Paris's gray twilight, and concealed simulated daylight and multiple lighting systems within architecture and historic fixtures, lending the appearance of authenticity. The effect of Paris's twilight was achieved by floor-mounted LED grazing uplights. **Historic fixtures were rewired, and selected parts duplicated and retrofitted with 7-W wax faux candles.** Glow lights were integrated within all historic fixtures, posing a challenge as mirrors on all four walls reveal most hiding places. **Wiring was disguised with paint and custom shrouds** integrated into the ornament of the fixtures. A programmable preset dimming system extends lamp life and balances light levels, while long-life light sources are replaceable and easily accessible for maintenance.



Fulton Center New York City

Designers: Matt Franks, Star Davis, Brian Stacy, Casey Curbow – Arup Lighting

Owner: Metropolitan Transportation Authority

Photos: James Ewing, Matt Franks, Zak Kostura

Daylight played a critical role in revamping this downtown transit hub serving 11 subway lines and 300,000 daily commuters. By studying the solar geometry of the site, the design team determined the influence of surrounding buildings on daylight access, which informed the location of the building's primary feature, a 50-ft diameter skylight oculus. The skylight is tilted gently toward the south, allowing more direct sunlight to enter. During summer months, sunlight penetrates as far as two levels below ground, delighting passengers who step from subway platforms into light. **A cable-net structure with reflective panels surrounds the interior of the space below the oculus, reflecting both the direct sun and diffuse skylight,** and folding subtle images of the surrounding environment into the space. The oculus and reflector-net illuminate the interior of the building, while the exterior façade allows for transparency and connection to the city. The transparent façade of the dome helps the station blend into the urban fabric.







Restoration of the Nave of Yale Sterling Memorial Library New Haven, CT

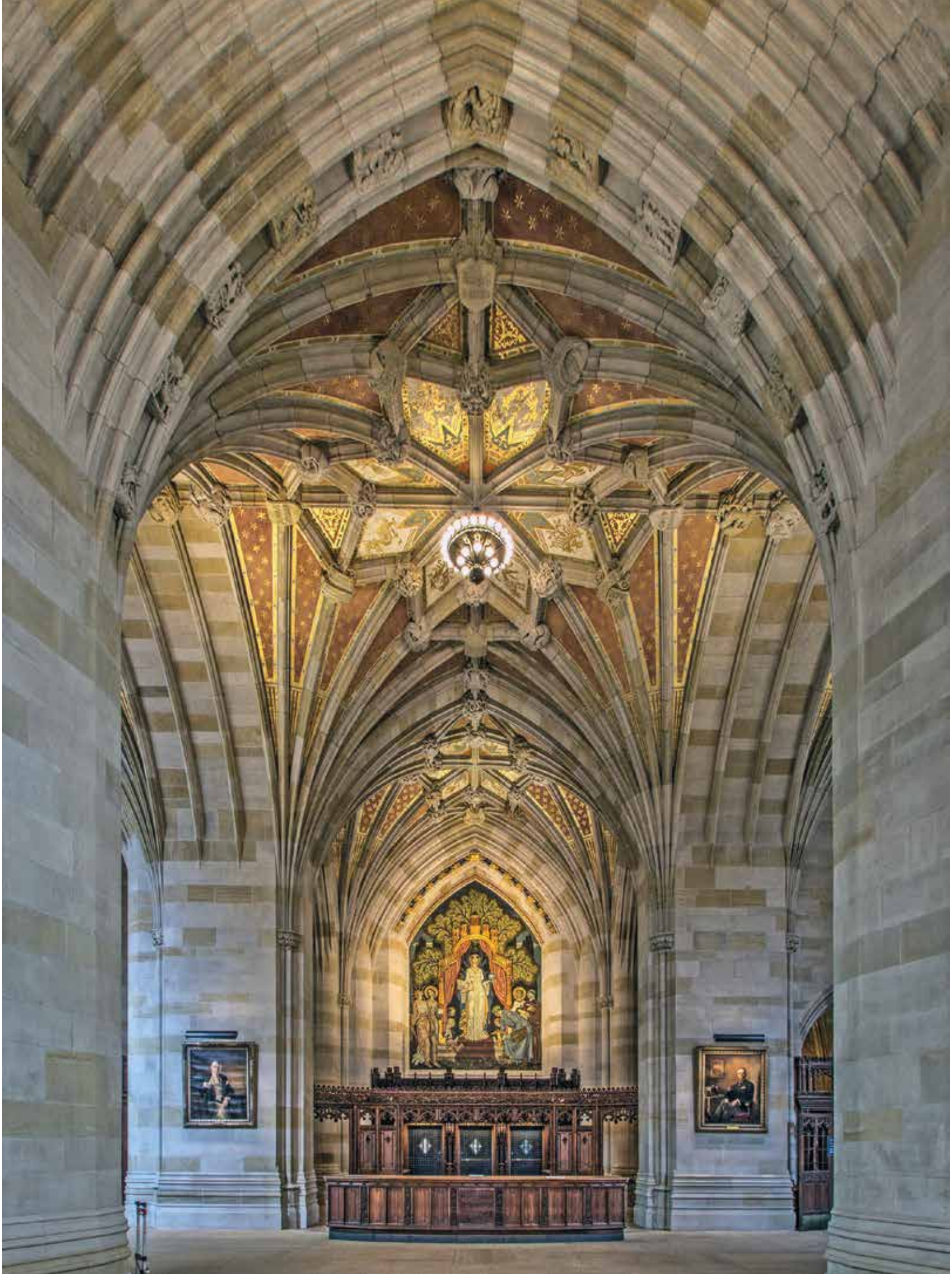
Designers: Jerry Kugler, Jackson Ning, John Newman, Burr Rutledge, Ryoko Nakamura – Kugler Ning Lighting Design

Owner: Yale University

Photos: Brian Rose

When restoring the entrance nave in this Collegiate-Gothic style library, designers were tasked with using updated sources and concealing fixtures. **The nave's oak ceiling, previously in shadows, is now lit by LED PAR uplights mounted on unoccupied side balconies.** Similarly, the choir's mural is now illuminated by MR16 LED uplights hidden within custom picture lights. Existing pendants and card-catalog fixtures were refurbished and relamped with LEDs to balance daylight from restored skylights. For sconces that were retrofitted with LEDs, a diffusion gel was used to soften brightness. To ensure that the period aesthetic remained intact, new chandeliers were hand fabricated using the same materials and methods as original fixtures. Existing wrought-iron **chandeliers were restored as well, but modified to accommodate two sources** that can be controlled separately. All of the sources are 2700K—combined with a dimming system that complements natural light levels, the project's total lighting load is 64 percent below the ASHRAE/IES 90.1-2007 standard.







SFOT₃ BAE San Francisco

Designers: Inga Birkenstock, Jonas Kuo, Hasan Sanli, Natalya Anissimova – Birkenstock Lighting Design

Owner: San Francisco International Airport

Photos: Joe Fletcher

This LEED Gold Certified boarding area within San Francisco International Airport called for a maintenance-friendly solution; airport management restricted the use of fluorescent ballasts, and the lamp specification was consolidated to five types with a 2.2-17.1 year lamp life. **Skylit trapezium coffers connected to linear troughs feature 2,300 ft of continuous 1-in. LEDs**, located between the structures, to provide ambient illumination throughout. Skylights, as well as high-CRI track heads cross-aimed from adjacent ceilings, light art

installations, while linear bulkhead lighting highlights retail spaces, with three-lamp indirect strips employing photocells for ON/OFF functionality. For wayfinding, gate numbers are wrapped with 1-in. recessed linear LEDs. Additional flourishes include the yoga room's star-like, semi-recessed LED glass downlights; decorative floor lamps, color-changing LED pendants and rows of circadian-adaptive LED downlighting in seating areas; and **interactive color-changing 5-ft diameter moving circles in the children's play area.**



Baggage Claim
Ground Transportation
Restrooms

61

60

Arrivals



Microsoft Mississauga MTC Mississauga, Ontario

Designers: Leland Curtis, Matthew Alleman - SmithGroupJJR

Owner: Microsoft Corporation

Photos: Eric Laignel



The Microsoft Technology Center (MTC) in Mississauga, Ontario, needed a lighting system that would meet the needs of its dual purpose as an office and showroom, while also expressing the company's innovative and sophisticated identity. The new aesthetic is characterized by a "clean, tech look," with fixtures remaining out of sight. **A low-resolution feature wall, embedded with touch screens and backlit by dimmable linear white LEDs, creates a bold first impression** in the office. LED covers, hidden within the feature wall, also indirectly light the corridor's exposed concrete

ceiling. The feature wall's visual effect extends into a server room that is illuminated by a halo of continuous recessed linear fluorescent fixtures and backlit by dimmable blue LEDs. When occupied, the MTC's conference room is lighted by linear fluorescents embedded within writeable translucent walls, and ambient illumination is enhanced by vertical fluorescent accent covers. Fluorescent coves and wall slots in relaxation areas reinforce the clean motif, and the integration of automated controls throughout kept the project 20 percent below ASHRAE/IES 90.1-2010 requirements.





Barneys Beverly Hills Beverly Hills, CA

Designers: Emily Monato, YuSun Hwang, Carol Castillo-Kuberski, Chanikarn Vatakapaibool – Cooley Monato Studio
Steven Harris Architects LLP

Gruen Associates

Owner: Barneys New York

Photos: Thomas Sibley, *Women's Wear Daily*

The renovation of this Beverly Hills department store used only LED sources, creating a clean, luxurious aesthetic while meeting Title 24 code requirements. In lieu of overt signage or vendor branding elements, **organically shaped ceiling covers subtly announce areas of product transition.** Fine jewelry cases are internally lit by linear strips concealed within metal channels as well as individually adjustable mini-LEDs. On the main floor, site-specific perimeter relief art panels are accentuated by



LED grazers hidden within ceiling pockets. Regressed trimmed accent lights illuminate products from above while maintaining visibly unbroken ceiling planes. Shoe shelving, inspired by the aerodynamic form of surfboards, integrates very shallow linear lighting both at the front and rear of each shelf, and uplighting on the top shelf energizes the brass rod backdrops while providing soft pools of contrasting warm light on the ceiling above. **The all-white dining area in the rooftop restaurant echoes the same lighting elements found throughout the retail floors.** However, fully dimmable drivers are used when a more relaxed dining atmosphere is desired.



Brown University Building for Environmental Research and Teaching Providence, RI

Designers: Matt Franks, Stephanie Hillegas, Rohit Manudhane – Arup Lighting
Owner: Brown University
Photos: Warren Jagger

The renovated Brown University Building for Environmental Research and Teaching grabs your attention with geometric patterns, particularly those of the new rooftop greenhouse. **The greenhouse meets LEED light pollution requirements and emanates a subtle glow, hinting at interesting new spaces within.** The geometric patterns continue into the auditorium. Here, integrated, glare-free lighting emphasizes the geometric aesthetic by illuminating ceiling panels indirectly. Bright ambient light encourages collaboration, contrasting with your typical dimly lit auditorium, and **front directional**

lighting is zoned to ensure visibility of screens and lecture positions. Interior circulation spaces continue the language of rectangular light lines using fixtures with reduced power, and provide bright, welcoming spaces without over-lighting. The glass-walled office spaces blend with the circulation, allowing borrowed daylight to filter inwards. Each dimmable luminaire is controlled individually based on photocell input so that electric lighting is not used when there is sufficient daylight. Cove lighting for the perimeter ceiling provides illumination at night, but is off during the day to conserve energy.





Guildford Recreation Centre Aquatic Addition Surrey, British Columbia

Designers: Sunny Ghataurah, Doug McMillan, David Chung – Applied Engineering Solutions

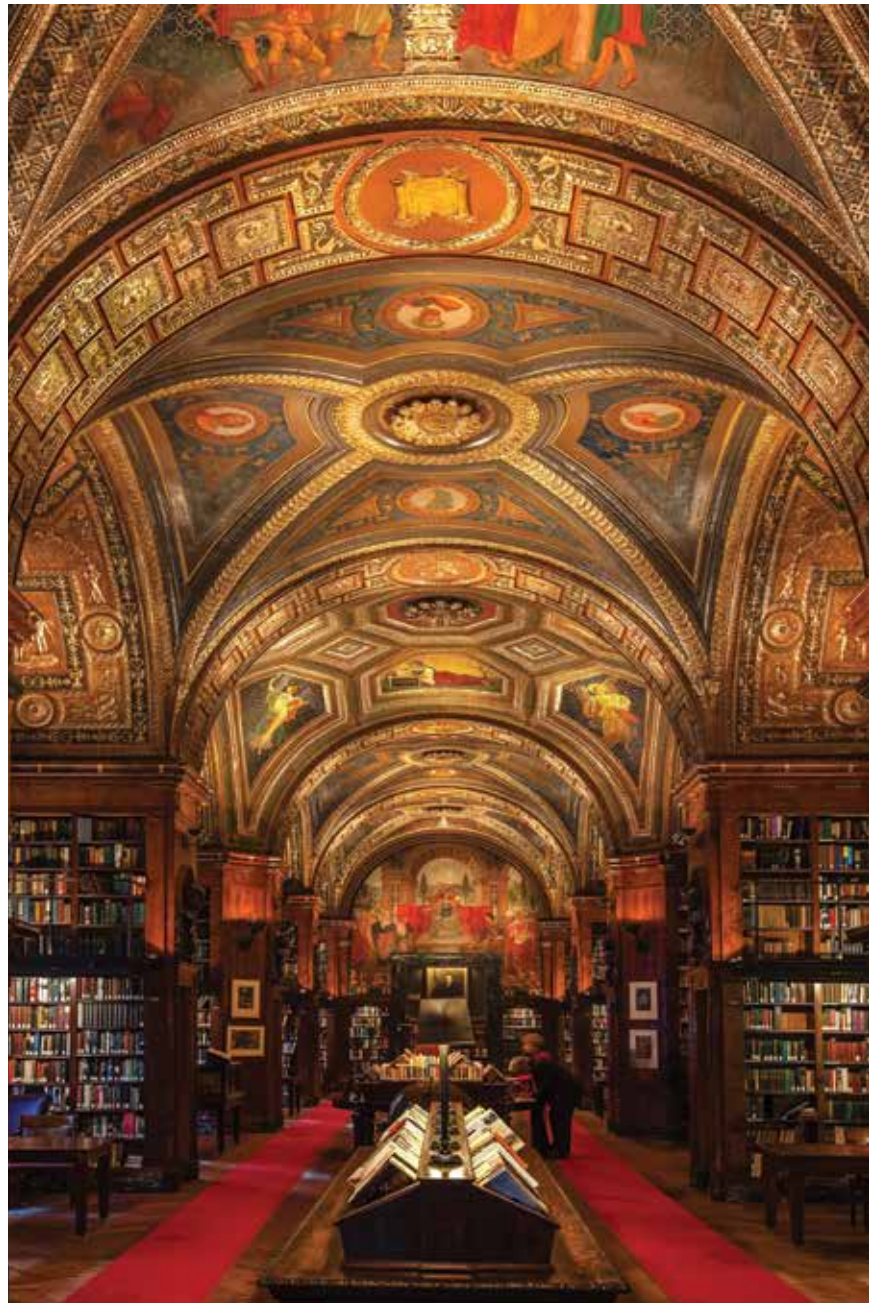
Owner: City of Surrey

Photos: Ema Peter

The challenge was to create a low-glare, unique design that complements the Zen-like architecture and meets code. To this end, the designers used photometric models and renderings to accurately predict results, and indirectly aimed luminaires. **A soft, zero-glare solution is provided by large trusses that house low-mercury lamps** with a long lifespan. The trusses are positioned to avoid line of sight from all angles and are accessible via lift on the pool deck. An internal walkable platform makes them easy to maintain. After dusk, the designers



faced the problem of how to maintain the appearance of natural illumination on the walls via skylights. To simulate daylight, they used linear LED high-output luminaires tucked away from sightlines. **The sauna and steam rooms are illuminated with heat-tolerant fixtures**, and large-channel housed mechanical lighting visually separates the leisure pool from the natatorium. The result is not only a soothing environment, but one that achieves ASHRAE/IES 90.1-2007 and FINA (Federation Internationale de Natation Amateur) illumination requirements.



McKim, Mead & White Library Restoration New York City

Designers: Jerry Kugler, Jackson Ning, Sunhee Lim, Jung Eun Ra – Kugler Ning Lighting Design

Photos: William Philbin

When revamping the lighting inside the private library of financier Pierpont Morgan—now part of New York City’s Morgan Library & Museum—designers focused on highlighting the space’s renowned murals, maintaining a period-appropriate illumination level and concealing fixtures. To illuminate the murals, which were painted in the early 1900s by Henry Siddons Mowbray, **narrow-beam LED lamps were cross-aimed through the library.** While the center bays are lighted by fixtures mounted on balconies, side bays and walls are illuminated

by fixtures mounted in the library’s center. Balcony-mounted fixtures were custom made to replicate the aesthetic of the club’s original fixtures. In the stacks, linear LEDs with internal louvers replaced existing fluorescent tubes. Lastly, custom task lamps and aimable uplights were placed on tables, and sconces and picture lights were added to emphasize intimacy. The entire system is controllable and incorporates daylight and occupancy sensing. Preset scenes help balance natural light levels and reinforce the historic vibe.



Volver by José Garces

Philadelphia

Designers: Sean O'Connor, Ramona Dimon –

Sean O'Connor Lighting

Owner: Garces Group

Photos: Barry Halkin

The goal for this Philadelphia restaurant was a flexible dining environment with responsive lighting that doubles as a visual landmark. **The focal point is the custom decorative pendant suspended above the bar.** Lighted by linear LED strips located behind diffusing material, the fixture provides ambient illumination from the restaurant's center. Behind the bar, a patterned mirror wall is highlighted by LED strips concealed within seating. MR16 stem-mounted monopoints—located in ceiling joist bays and positioned in a radial pattern to follow the bar's

circular shape—add additional diffuse lighting. In the dining area, ambient illumination comes from indirect LEDs and MR16 accents within open ceiling slots. An adjacent wine wall integrates concealed linear LEDs with lensed extrusions to eliminate pixel images in the wine bottles, while track-mounted MR16s with glare control light a fabric-art wall and the bar's banquettes. At the server counter, LED strips with diffusing lenses were incorporated into field-built slots. Throughout, a preset dimming system and long-life sources keep maintenance at a minimum.



W Lakeshore Hotel Lobby and Restaurant Renovation

Chicago

Designers: Jackson Ning, Sunhee Lim, Jung Eun Ra, Tae Kim – Kugler Ning Lighting Design

Owner: Starwood Hotels & Resorts Worldwide

Photos: Eric Laignel

This hotel is sandwiched between Lake Michigan and Chicago, and **the design of its lobby and restaurant follows suit, juxtaposing the aesthetic of a city’s sharp lines with the softness of water.** In the lobby, projections of moving patterns reflect off of mirrors located above seating groups, and back onto translucent film below, creating a rippled water effect. An astronomical clock controls the patterns, which are set to be subtle during the day and intense at night. Minimalism at the reception desk, illuminated by downlights in a single slot, contrasts the dynamic scene. In the main dining area, a central sculptural fixture’s textured outer layers evoke fins, while concealed linear LEDs provide the contrast of a solid, luminous interior. Screen walls—crafted with two identical laser-cut panels that are painted dark on the outside and warm white on the inside—are



utilized throughout. Narrow-optic linear LEDs illuminate the cavity between the panels, creating a layered silhouette that separates spaces and enhances intimacy. Additional layered 2400K LEDs, as well as decorative incandescent fixtures, provide the remaining diffuse lighting throughout.





The Edwin F. Guth Memorial Award for Interior Lighting Design
Special Citation for Architectural Integration with Respect to Historical Elements

888 Brannan Street

San Francisco

Designers: Inga Birkenstock, Jonas Kuo, Kristin Bibat, Natalya Anissimova – Birkenstock Lighting Design

Photos: Joe Fletcher

The renovation of this commercial building, constructed in 1917, preserves the historic, industrial elements of the space while providing tenants with a revamped exterior and welcoming interior. The designers added seating areas in the atrium to foster collaboration between workers, and balconies on the interior atrium corridor create the sense of being on a terrace overlooking the city. At all intersections, lighting is seamlessly integrated into the architecture—**it is hidden in railroad ties, above canopies, within slots, and from toe-kicks**, clearly identifying both new

and historical elements. The designers removed paint from skylights to allow daylight to enter the previously dreary space, and the reuse of existing theatrical lighting provides essential grow lighting for the green wall at minimal cost. At night, daylight is replaced with LED projectors from the fifth-story truss system, and the interior seamlessly connects to the exterior courtyard for day or nighttime functions. The project ran under \$10.00 per sq ft for the lighting equipment. It is California Title 24 2008 compliant and LEED Gold Certified.



The Edwin F. Guth Memorial Award for Interior Lighting Design
Special Citation for Architectural Lighting Integration

1776 Eye

Washington, D.C.

Designers: Frank Feist, Maureen Moran – MCLA

Owner: DTZ

Photos: Prakash Patel

The objective was to transform a building stuck in a 1980s aesthetic into a modern and welcoming commercial center. From the street, the glow of backlighting fins and washed walls invites one in with progressing levels of brightness and color. **Illumination is mostly achieved with the grazing and washing of glass walls.** Spackle-flanged pinhole downlights with low brightness are used in clusters for supplemental illumination, and with such a subtle presence

that the white expanse of the ceiling reads as a clean plane. The warm white LED grazing fixture brings out the luster of the wood walls, and a backlighting glass wall welcomes one into the elevator lobby proper. On special occasions, the guard desk and high glass wall can be set to change color with parallel RGB grazing fixtures. The renovation as a whole conformed to ASHRAE 90.1 energy standard allowances while providing a 10 footcandle average.



Affinity: An Interactive Art Piece

Lima, Peru

Designer: Claudia Paz – Claudia Paz Lighting Studio

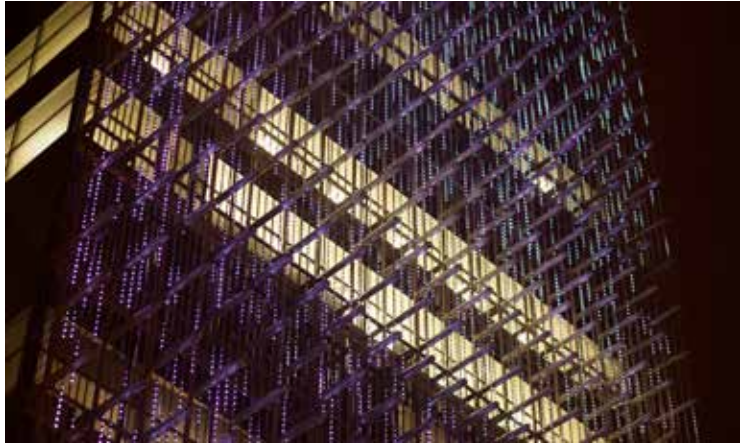
Owner: Banco de Credito del Peru

Photos: Paz & Cheung

An iconic public artwork installation in Peru forges a connection between a bank and the local citizenry. The result is an awe-inspiring experience of light, sound, speed and generative architecture that is directly related to one's own body movements, but can be enjoyed by others regardless of their distance from the building. The piece consists of three main parts: **a 3D façade canvas with six layers of LEDs** (covering 50 by 19 by 1.2 meters); an interactive LED outdoor podium with multi-touch sensors;

and a lighting control system. The fixtures are positioned in two distinct grids: one bright, bold and sparse for dramatic moments; the other concentrated and subtle for nuanced sculptural effects. A total of 26,182 RGB addressable fixtures are used. **As is the case with a musical instrument, people generate their own “composition” at the touch screen podium**, while smart algorithms work in the background to ensure a memorable encounter.

Sponsored by Eaton





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Carnegie Hall Façade Lighting New York City

Designers: Jerry Kugler, Amber Moriarty, Erin Gussert – Kugler Ning Lighting Design

Owner: Carnegie Hall

Photos: Jeff Goldberg, Esto

This historic, iconic building had never been fully illuminated before, posing many challenges to the design team. While the façade lighting design was completed in 2011, the fixtures were not installed until 2014. Three years can yield several generations of LED, so the team had to design a “futureproof” infrastructure. Dimming controls were included in the design to harmonize with the advancing LED technology. In a building that had evolved over the past 125 years, areas where penetrations were allowed were not always easily accessible, and many locations desirable for mounting

fixtures were not structurally sound. Proprietary **2700K white linear LEDs** were selected to **accentuate and blend the three primary materials:** iron spot brick, terra-cotta and painted metal. Once the final lighting was installed, preset dimming controls balanced the façade. As the sun sets, the lighting comes on gradually to its preset level. Carnegie Hall’s good neighbor policy required that all optics and shielding not only accommodate National Historic Landmark requirements but avoid light spill and trespass to nearby buildings.

Sponsored by Eaton

Culture & Art Center Shanghai, China

Designers: Yingjie Xin, Lu Zhang, Sheng Ye – Shanghai Grandar Light Art & Technology Co., Ltd.

Photos: Zhang Jun, Shanghai Grandar Light Art & Technology Co.



Water is a theme for this concise and modern Shanghai building, both in terms of its location facing the sea and its “H₂O” shape. Some 13,380 high-power LED fixtures (each using 4 watts) were installed to achieve the various lighting effects, at an average power density of 3 watts per sq meter (0.28 watts per sq ft). **The curtain wall is in a shape of bamboo weaving**, reflecting traditional Chinese

culture. In order to achieve delicate and uniform effect in each diamond unit, strict optical design was required for projecting light in each. A large-scale, distributed real-time control system mixes colors, delivering bright, warm light and attracting visitors to the site. By day, the fixtures do not affect the appearance of the building, as they are discreetly embedded in the façade.



Outdoor Lighting Design Award Sponsored by Eaton Special Citation for Beacon Lighting Design Collaboration

One World Trade Center New York City

Designers: Claude Engle – Claude R. Engle Lighting Consultant
Nicole Dosso – Skidmore, Owings & Merrill
Barbizon Lighting (Systems Integration)
Owner: Port Authority of NY and NJ
Photos: Michael Lee Photography, Ballantyne Strong (rendering)

The massive spire atop One World Trade Center is illuminated along its full 408-ft span, culminating in a rotating beacon at the top. On a clear night the rotating light-beam can be seen for over 50 miles, and even in a hazy sky, it can be spotted through the clouds from over 1/2 mile in each direction. The beacon, designed to be reminiscent of a light house, was originally anticipated to feature xenon lighting, as the LED technology of the time was insufficient. The

lighting team collaborated with manufacturers to invent an LED solution that increased energy efficiency and allowed for safer and more cost-effective maintenance. Together, they developed **a system using 50-W LED modules custom designed to fit inside a glass capsule** that sits like a wick of a candle atop the 1,776-ft building. The beacon's mirror rotates 1.5 times per minute and outputs over 300,000 lumens in two opposing directions.





West Berkeley Public Library Berkeley, CA

Sponsored by OSRAM SYLVANIA

Designer: Max Pierson – Minuscule Lighting Design
Owner: West Berkeley Public Library System
Photos: Mark Luthinger, Max Pierson

The bar was set high for the designer, as the owner required an approachable, quasi-residential feel for the library with a minimal lighting footprint to reduce energy use (with every fixture on at full intensity the connected load is 30 percent below Title 24-2008). The design strategy called for **high-quality task lighting supplemented by smaller amounts of indirect lighting** to manage contrast ratios. Indirect lighting was provided by wall-mounted linear

asymmetric fixtures that bounce light into the space off the wall, marrying a high-efficiency source with a comfortable, diffused appearance. In addition, stack-mounted LED lighting met the demanding IES criteria for library stacks. Finally, controls—including occupancy and daylight sensors, as well as task tuning—proved to have more impact on energy usage than the fixtures themselves. To ease the operational burden on staff, a simple relay panel with onboard dimming was installed.



Energy and Environmental Lighting Design Award Sponsored by OSRAM SYLVANIA
Special Citation for Luminaire Design

Densan Headquarters Building

Tokyo

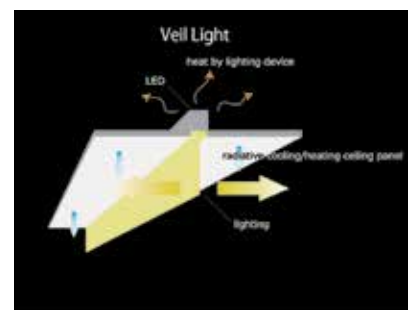
Designers: Risa Nakao, Kouji Odaka, Mutsuo Honma – Nikken Sekkei Ltd.

Yoshiki Nakamura – Tokyo Institute of Technology

Owner: Densan

Photos: Nikken Sekkei Ltd.

Aesthetically pleasing vertical “veil lights” provide ambient illumination at this IT company’s corporate headquarters building. The veil lights act as evenly and softly lit planes, while printed dots of different sizes function as extremely small reflectors. The objective was to create sufficient brightness in the space with little luminous flux. **The veil lights, which delicately dissolve into the architecture, also minimize**



HVAC energy consumption, as heat from the LED modules dissipates into the plenum without increasing the interior thermal load. With a lighting power density of 4.5 watts per sq meter (0.4 watts per sq ft), the design strikes a balance between occupants’ visual comfort and energy savings. Finally, safety was also a factor in the wake of the March 2011 earthquake in Tokyo. Earthquake simulation tests were conducted to test fixture safety.