

**HOW IT WAS DONE:** *Lightedge Curved Shallow Indirect/Direct luminaires were selected to meet the high performance requirements and the design style befitting a world class financial headquarters. To provide varied light levels throughout the space with same luminaire and lamping required an innovative solution. A curved micro-screen integrated on the lamp side of the louver was developed to reduce the light level in the office spaces and a standard louver was used to meet the higher light levels required on the trading floors.*

## Lighting for a World-Class Headquarters

**PROJECT:**  
Barclays Global  
Investors Headquarters  
San Francisco, CA

**PEERLESS PRODUCTS:**  
Lightedge Curved Shallow  
Indirect/Direct  
Lightedge Rectangular  
Indirect/GrateOptic

**LIGHTING DESIGNER:**  
Architecture & Light  
San Francisco, CA

**ARCHITECT:**  
Studios Architecture  
San Francisco, CA

**LIGHTING REPRESENTATIVE:**  
16500  
Oakland, CA

**PHOTOGRAPHY:**  
John Sutton Photography  
San Francisco, CA  
Fotoworks  
Los Angeles, CA

**Barclays Global Investors**, one of the world's largest asset managers, engaged STUDIOS architecture, with Erik Sueberkrop, principal in charge, to design a new headquarters befitting a financial institution with a combined portfolio exceeding \$2 trillion.

The new 10-floor, nearly 300,000-sq.ft. building, part of the Foundry Square development that STUDIOS designed for Wilson/Equity Office, is a demonstrably world-class headquarters in terms of design, technology and functionality. From vaulted ceilings in open office spaces to extensive daylighting, the building is anything but a typical office.

To produce a lighting design as strong as its architecture, STUDIOS collaborated with lighting consultant ARCHITECTURE & LIGHT. Lighting goals included producing a sense of high brightness but without glare, establishing visual hierarchies through the creation of focal points and contrast, differentiating circulation and open areas, and accommodating multiple functions in meeting spaces.

Techniques such as creating focal points have a strong tradition in lighting design but are not typical in standard offices where lighting tends



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to be flat and uniform. But as with the architecture, STUDIOS and ARCHITECTURE & LIGHT wanted the lighting to go far beyond the utilitarian approach common in many office buildings.

“Good lighting requires multiple layers of light and galvanizing big ideas,” says Darrell Hawthorne, principal of ARCHITECTURE & LIGHT. “Highs and lows, appropriate contrast ratios, daylight balanced with electric light, the ability to control your light locally while globally managing demand—all play parts in the successful drama of light.”

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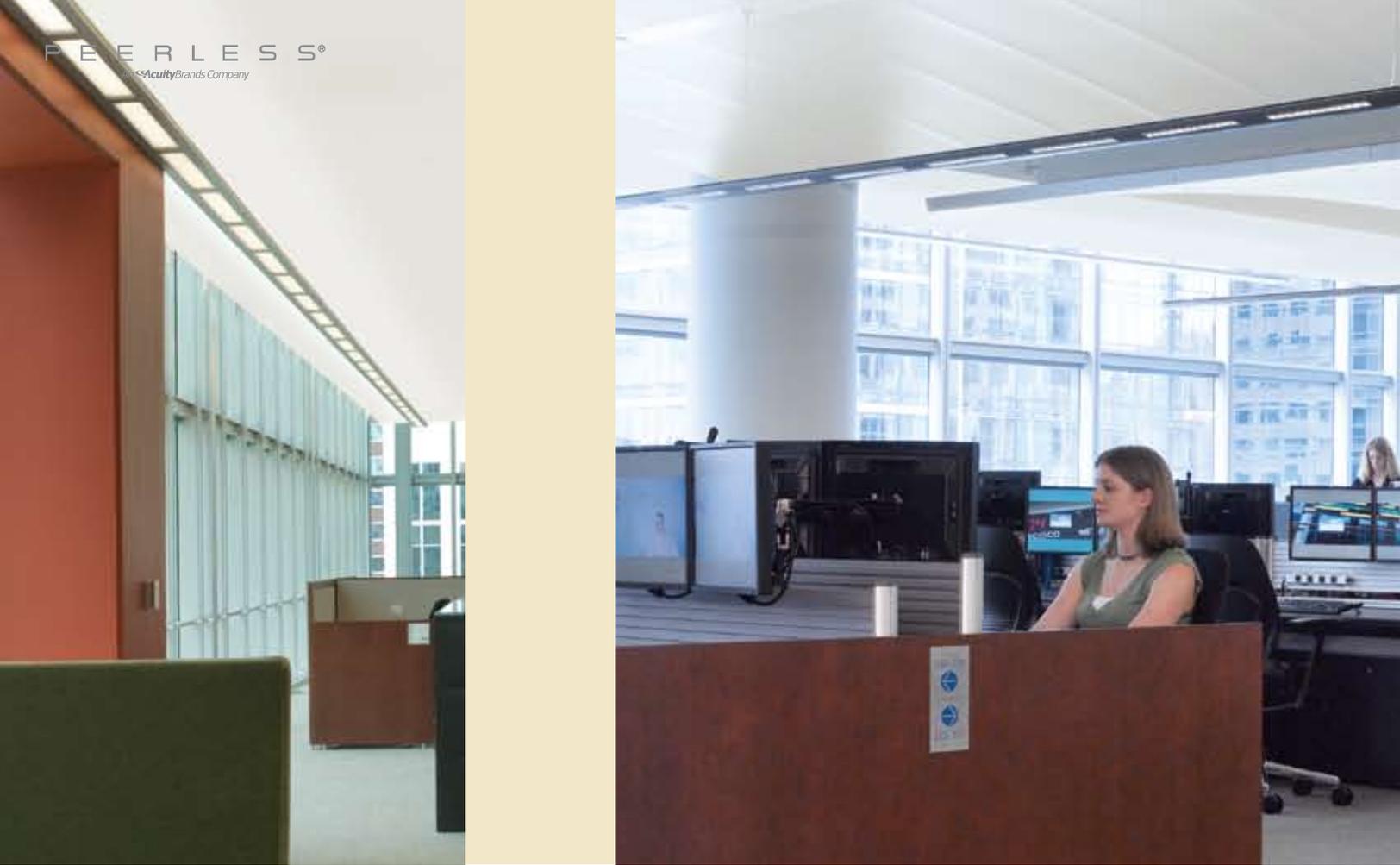
The entry lobby, with its 16- to 28-ft. ceiling and heavy use of wood as a material, establishes Barclays Global Investors’ image as future-oriented and technically advanced but also established and trustworthy. The eighth floor is traversed by a glass bridge and includes access to a 6,100-sq.ft. roof deck and café. The Conference Center on the tenth floor features soaring 22- to 24-ft. Eurospan ceilings.

The office and trading floors are the workhorse floors, but with a twist: The ceilings are designed as multiple shallow barrel vaults. Ample daylight enters the offices via floor-to-ceiling perimeter glazing.

“The vaulted ceiling maximizes the sense of vertical space while differentiating these spaces from typical offices,” Hawthorne explains. “They are perpendicular to the perimeter glazing, the intent being to allow daylight and views to penetrate to the core.”

Lighting the vaults proved to be a major challenge. The typical vault measures 26 ft. x 35 ft., shallow and formed with a curved metal ceiling panel, presenting an approximate 9-ft. height at the edge and an 11-ft. height at the center. Hawthorne envisioned filling each vault with light using indirect/direct luminaires, creating a luminous ceiling and aiding visual comfort. Because of space constraints, however, the luminaires could not be mounted lower than about 8 ft. Because of energy code constraints, the luminaires had to be spaced 15 ft. apart. And because of the metal finish of the vault, it was difficult to light the ceiling evenly without “hot” spots.

Hawthorne needed a luminaire with superior horizontal distribution on the ceiling plane while also producing a significant quantity of downlight, and



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chose Peerless Lightedge Curved Shallow Indirect/Direct luminaires. These luminaires, designed with Lightvent™ optical technology for superior control, feature two T5 lamps in the cross section to produce a distribution of 70 percent uplight and 30 percent downlight.

“Peerless was our first choice for performance, beauty and technical support,” he says.

Typically, Hawthorne is more interested in what a luminaire does than how it looks, but he says Lightedge fit the application aesthetically as well as providing the required performance. “There is a remarkable fit between the shape and finish of the Peerless luminaire, its placement and the form of the vault,” he adds. “In this instance, good product design wed with architectural form to create an integral whole.”

Demand for light levels varied from 35 footcandles in offices to 50 footcandles in trading floors, inspiring Hawthorne to work with Peter Ngai, PE, FIES, LC, Vice President of Research & Development for Peerless, on a creative solution that would satisfy both needs with a single luminaire. Peerless designed its Lightedge luminaires with a micro-screen cover attached to the downlight component of the luminaire, which can be removed to provide more downlight and increase light

levels by about 15 footcandles.

“Thus the same luminaire and solution can be used throughout the facility,” Hawthorne says. Lightedge with the cover for open offices and without the cover for trading floors. “Peter Ngai perfected the idea of the micro-screen and supported us throughout the process of planning, mockups and troubleshooting.”

Photocontrolled, the dual-circuit luminaires in the open offices produce energy savings by reducing light output through simple switching at the perimeter zones in response to sufficient daylight, while the entire building is controlled by a building management system.

The result: Best practice that goes beyond the standard, creativity that goes beyond best practice, to produce a bright, glare-free environment that is cheerful as well as visually stimulating. “In preliminary walkthroughs, management expressed excitement about a facility that expresses the identity and fit they were seeking while creating an architectural space that fulfills their aspirations,” says Hawthorne.

He concludes: “Architecture is a collaborative process. Commit to those who wish to explore what you are seeking. Listen and together you will achieve great results.”



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### ABOUT THE DESIGNER

Darrell Hawthorne is a graduate of UC Berkeley in Architecture with an MFA in painting from Boston's Massachusetts College of Art. He worked for a time in London as a project designer and later was founding partner of a design and construction firm. Hawthorne's lifelong love of painting, however, spurred an appreciation for the expressive qualities of light, leading him to form ARCHITECTURE & LIGHT with Mark Stevens in 1993. The principals and staff of this San Francisco firm have extensive experience in the design, management and construction of a wide range of projects in architecture, interiors and lighting. As principal lighting designer at A&L, Hawthorne has won international acclaim in lighting design both for his work with partner Mark Stevens and his collaboration with many highly respected architects on projects both in the United States and abroad. His designs have appeared in numerous books and publications such as *Architectural Record*, *Interior Design*, *LD+A*, *Contract Design* and *VM+SD*.