The new Zurich North America Headquarters in Schaumburg, IL is an architectural masterpiece, designed to maximize the comfort and productivity of its employees in a creative, collaborative work environment, and set a standard for future Zurich offices. An integrated Lutron lighting and shading control solution automatically monitors and adjusts daylight and electric light to help create the right environment throughout the corporate campus.

Challenge

As part of the planning process, Zurich management surveyed employees, who expressed a significant preference for an environment filled with natural light. The Chicago-based architecture firm, Goettsch Partners, designed the curtain wall system in the predominantly glass structure to deliver the desired productive, bright, open atmosphere. They also knew that unchecked daylight could create glare and heat gain, mitigating the advantages of all that beautiful sunlight.

The new Zurich Headquarters not only achieved its goal of LEED certification, it was awarded LEED Platinum certification – the highest rating from the US Green Building Council for its environmental design and sustainability initiatives.
Solution – Integrated lighting control and solar-adaptive shades

Goettsch Partners chose a Lutron Quantum integrated lighting control and QS shade solution to automatically monitor and adjust the total light environment. Lutron Hyperion solar-adaptive shading software ensures that the low-voltage motorized shades quietly and unobtrusively respond to the changing position of the sun, maximizing natural daylight, improving occupant comfort, preserving views and eliminating disruptive glare.

The Quantum system incorporates a broad range of additional control strategies, including daylighting, occupancy sensing, simple integration with time clocks and the HVAC system, and personal control to accommodate personal light preferences. To achieve Zurich’s goal of maximizing view through closed shades, Goettsch selected a dark, solar-screen fabric with a low openness factor to reduce diffuse light while preserving view to the outside.

Randall Chapple, Associate Principal at Goettsch Partner, says Lutron’s low-voltage shading and light management solution simplifies design, installation, and setup, and system integration, “Because the shades and the controls feature low-voltage wiring, installation was easier and more cost-effective than other options. Our ability to minimize wiring material cost, as well as reduce time and labor costs, was a major consideration in our choice of Lutron solutions. These were critical to meeting project timelines.”

Emphasized the benefits of working with a single provider. “System integration is many times easier when control and shades are by the same provider. This is a major benefit of the Lutron solution,” he said.

Results – Achieving LEED Platinum in an employee-friendly environment

Lutron automated shading solutions not only help regulate building temperature and lower energy use, they reduce heat gain, reduce glare, and provide a beautiful consistent look from outside the building as well as from within. The comfortable, flexible environment contributes to a campus that enhances communication and collaboration.

The Lutron QS roller shades with Hyperion software were a contributing factor in achieving credits toward LEED Platinum Core and Shell certification in the following categories:

• EAp2: Minimum Energy Performance
• EAc1: Optimize Energy Performance (21 points achieved)
• IEQc8.1: Daylight and Views, Daylight 75% of Spaces (1 point achieved)

Zurich employees, especially the 180 volunteer “change champions” who were encouraged to participate in the planning process by providing crowdsourced ideas for the ideal working environment, shower high praise on the building, and the inspiring views from their workspaces.

Fabric Facts & Figures:
• Sheer Fabric: E Screen
• Color: Charcoal/Grey
• Openness: 3%
• Greenguard Gold certified = Low VOC
• Performance:
  - Low glare probability
  - High daylight harvesting potential
  - Preserves a view to the outdoors through the fabric
  - The automation maximizes the time that the shades are open or mostly open - blocking the bright sky

Fabric Model #: S3001-E-3
“System integration is many times easier when controls and shades are by the same provider. This is a major benefit of the Lutron solution.”

Randall Chapple, AIA, CSI, LEED AP, Associate Principal Architect at Goettsch Partners Inc.

Lutron Solutions Installed:

- Quantum Vue Facility Management Software
- Hyperion Solar Adaptive Shading System
- QS Low Voltage Motorized Roller Shades
- seeTouch keypads & Pico Wireless controls to manually control lighting & shading
- Daylight sensors to dim lighting
- Local window sensors to override shades based on daylight conditions
- Occupancy sensors to turn lights on and off
- Reliable BAC net integration to the building management system
- Automatic control of lights & shades with time-based events

Architect: Goettsch Partners
Interior Design: CannonDesign
Developer and Design/Build Contractor: Clayco Integrated Real Estate Solutions
Interior Builder: Executive Construction, Inc.
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