Bank of China
Beijing, China

"With a space this big, the main challenge was how to appreciate the sheer scale of the space but make it inviting using layers of light".

Jerry Kugler, lighting designer, Kugler Tillotson Associates, New York, NY

Background:

Aside from designing a lighting control system for the prestigious Bank of China Headquarters in Beijing that would highlight the sheer grandeur and inspired design of the space lighting designers, Kugler Tillotson Associates, were also required to maintain a sense of openness that was inviting to the public. In addition, the lighting system needed to be powerful enough to handle the enormously varied range of demands placed on the public areas and private office spaces and still realise significant energy savings.

The challenge:

To control the lighting throughout the 158,000 sq. metre building, which includes a 45 metre-high garden atrium, a monumental banking hall, 2,000-seat auditorium, reception hall, executive offices, as well as parking, dining, and other services for more than 2,500 employees, a lighting control system was required that was sufficiently scalable and flexible. In addition, it needed to withstand power quality fluctuations and ensure a consistent, high quality dimming performance, both day and night.

Lutron's GRAFIK 6000® Series:

Capacity to offer control of multiple zones, separated into distinct areas

Offering users a simple graphical user interface

Built-in astronomic timeclock, allowing event scheduling up to a year in advance

The solution:

Pei Partnership Architects, and Kugler Tillotson Associates trusted Lutron Electronics to handle the complex lighting demands of this architecturally and culturally significant project. Following consultation with Lutron, the company's GRAFIK 6000® series lighting control system was chosen to operate the artificial light in the public spaces. To minimise energy costs, Lutron's Homeworks® lighting system was chosen to control more than 13,500 m2 of office space. In addition, power fluctuations were compensated for using Lutron's patented RTISS® (Real Time Illumination Stability System), which filters out line noise to the dimmers to ensure consistent, high quality dimming performance.

The results:

The magnificent atrium forms the functional and symbolic core of the building. Kugler decided to bounce light off of the floors in the public spaces and aim light directly at important walls for maximum effect. "At night, you still want to appreciate the sheer scale of the space but make it inviting using layers of light" he comments. Thanks to 64 dimming panels, the lighting scenes reveal the architectural detail of the building and help conduct occupants and visitors through the space.

In the upper floor corporate office space, Lutron's Homeworks system software controls time clocks and occupancy sensors for more than 1,300 circuits. The system's automated switching of entire floors of fluorescent lighting has significantly reduced energy and maintenance costs for the Bank of China and its tenants.

The overall lighting scheme is both dramatic and highly efficient thanks to Pei Partnership Architect's and Kugler's trust in Lutron to handle the complex lighting demands of this architecturally and culturally significant project.

Client	Bank of China
Architect	Pei Partnership Architects, New York
Lighting Architect	Kugler Tillotson Associates, New York
Equipment provider	Lutron Electronics Co., Inc.
Photography	Kerun Ip and Kiyohiko Higashide, courtesy of Pei Partnership Architects
Lutron products	GRAFIK 6000 control processor and HWI Remote Power Modules

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