



case study | Access Living, Chicago, IL

Quantum™ total light management



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Richard Lehner, Partner at LCM Architects, Chicago

This facility saves over \$10,000 each year by managing light with Quantum.

Access Living, Chicago, Illinois

Green Facts

Buildings	1
Square Feet	50,000 sq. ft.
Lighting Fixtures	380
Lighting Energy Savings	65%
Annual CO ₂ Reduction	90 metric tons
LEED® Certification	Gold



An architectural milestone was achieved with the headquarters for Access Living in Chicago, believed to be the first building to integrate both universal design and green design. Lutron® lighting control products, including its Quantum® total light management system, played a crucial role in achieving both objectives.

Inclusive. Energy-efficient. Budget-friendly. The new headquarters for Access Living, a non-profit group serving the disabled in Chicago, stands as a model of how the integration of two naturally compatible design philosophies respects those using the space.

Established in 1980, Access Living is a nonresidential Center for Independent Living for people with all types of disabilities. The organization has played a leading role in the drafting and passage of the Americans with Disabilities Act, and worked for improved accessibility within Chicago's public transportation and the Chicago Public School System. Today, Access Living's programs and services promote empowerment, independence and inclusion in every aspect of community life.

After more than 25 years of rental offices, Access Living now has a permanent space that is ideal for their mission. The four-story, 50,000-square-foot facility, designed by LCM Architects of Chicago, features an open plan with meeting rooms and private offices, a self-sustaining green roof with vegetation native to the Chicago area, and numerous sustainable building features.

Attesting to the project's importance, the ribbon-cutting ceremony for the new building, located on West Chicago Avenue, was attended by numerous dignitaries, including Chicago Mayor Richard M. Daley who said the facility "takes us one step further toward reaching our goal to make Chicago the most accessible city in the nation."

The Challenge

Long wanting a modern, fully accessible, permanent facility, Access Living had a vision to build a model of both green and universal design. This building would not only meet, but also exceed elements of sustainability and accessibility.

Universal design is an architectural approach making environments usable by as many people as possible—regardless of age, ability or circumstance—and goes beyond accessible design, which often segregates users by creating one space for people with disabilities and another space for other users. Universal design seeks to re-conceive fundamental architectural ideas and build spaces that accommodate everyone.

The Solution

Access Living Chicago is believed to be the first building anywhere to integrate and incorporate both green design and universal design. Spearheaded by a nationally renowned expert in accessibility compliance and universal design, Jack H. Catlin, FAIA (an LCM partner who was the first practicing architect to serve as chair of the U.S. Access Board), the design team received critical help to achieve these twin objectives with lighting control solutions from Lutron Electronics Co., Inc., including the highly energy-efficient Quantum® total light management system.

“Lutron’s solutions contributed greatly to the intersection of universal and green design for this project,” said Kerri Callahan, AIA, IIDA, interior architect for the project and formerly of LCM Architects. “At first, we weren’t even thinking about daylight sensing or other ‘fancy’ technologies, since this project was for a non-profit organization. But we were pleasantly surprised and decided immediately to adopt them into our design as part of our plans to be both universal and green.”

What does Quantum do?

Quantum prevents wasted lighting energy by maximizing the efficient use of light in your building. Quantum automatically dims or switches all electric lighting and controls daylight using automated window shades. Quantum manages, monitors, and reports on all the lighting usage in your building for optimal energy performance and productivity while minimizing maintenance and operating costs.

What are the benefits?



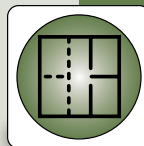
Save electricity and protect the environment

Reduces greenhouse gases by eliminating unnecessary energy use



Save money

Lowers operating costs and peak demand charges



Create a more flexible space

Lighting and shading zones can be re-configured without rewiring



Increase productivity and comfort

Makes occupants more productive and comfortable with preferred light levels and automated shade control

In addition to Quantum, the facility also includes other Lutron products:

EcoSystem® fluorescent lighting control solution;
Lutron automated shades; and
GRAFIK Eye® multi-scene dimming controls

“Lutron is trying to build virtual power plants of saved energy,” says Craig Sieben of Sieben Energy Associates, an energy consultant for the Access Living project, applauding Lutron’s energy-efficient lighting control technology.

Richard Lehner, a partner at LCM Architects, says this about Quantum and the Access Living project: “Lutron helped us drive a solution that was advantageous to serve both green design and universal design. The whole concept is wonderful and I hope it spreads to other buildings.”

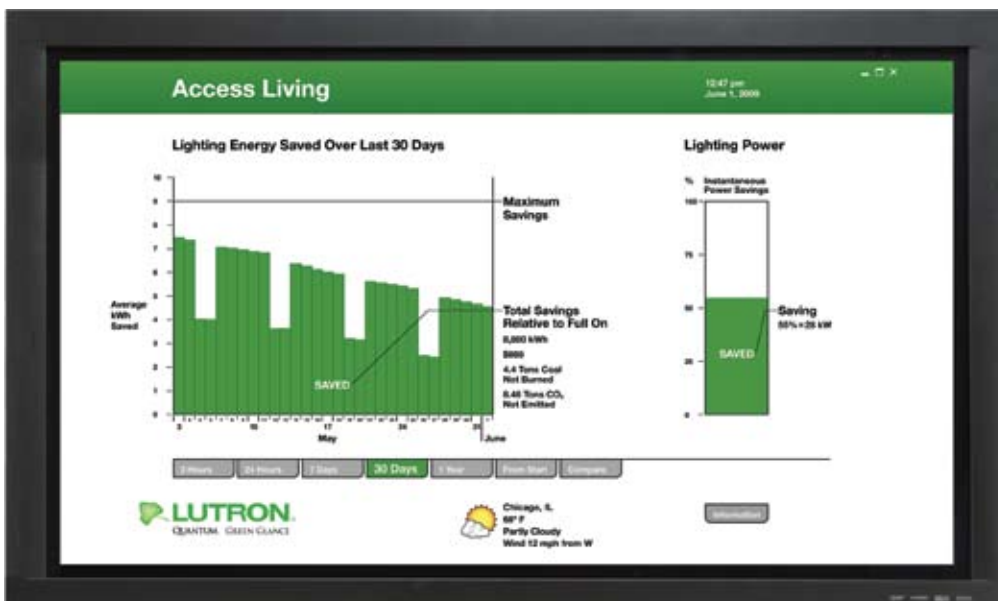
The Lutron automated shades also play an important role for both green and universal design goals, contributing to the building’s energy efficiency. In addition, a disabled person who might not be able to reach or manipulate standard pull-down shades can control their movement using an electronic control.

Since its opening, the building has had a significant impact on the community, attaining Gold certification from the U.S. Green Building Council’s LEED® (Leadership in Energy and Environmental Design) Green Building Rating System for its green design features, a Sustainable Design Award from the local chapter of the American Institute of Architects, a Barrier-Free America Award from the Paralyzed Veterans of America, and a Silver Award from the Association of Licensed Architects.

Access Living says the careful selection of these Lutron lighting control products mirrored the overall approach taken by the design team and others for the entire project.

“Everything, from the lighting to the surface of the floors and the type of carpeting installed, was deliberately chosen to effectively accommodate the widest range of disabilities in ways that are not noticeable and work for everyone,” says Jerry Rauman, Access Living CFO.

Both the lighting energy savings and cost savings command attention, according to a 30-day Green Glance snapshot of Access Living’s headquarters taken in the middle of a busy day on June 1, 2009.



Project Credits:

Client:

Access Living, Chicago, IL
Marca Bristo, President and CEO
Jerry Rauman, CFO

Architect of Record:

LCM Architects
Chicago, IL
Jack H. Catlin, FAIA, Partner
Richard Lehner, Partner

Equipment Provider:

Lutron Electronics Co., Inc.
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Energy Consultant:

Craig Sieben
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