

Project Overview

AWeber Communications
Chalfont, PA

Energy Retrofit

Corporate Headquarters
71,000 square feet



Lutron light and shade control retrofit results in the perfect marriage of daylight and electric light.

Dynamic Lighting Control Reinforces AWeber's Energetic Atmosphere

AWeber Communications in Chalfont, PA thrives on creative energy. From free-form office space, to tube slide transports, to a dynamic lighting control system that automatically responds to the outdoor environment, AWeber offices combine playfulness with productivity and energy efficiency.

"That's our culture," says Sean Cohen, Chief Operations Officer. "Our offices are built to encourage collaboration because it's great for business. Freedom, fun, and sustainability are core values that translate into tremendous return on investment."

These values are built into the office design, and evaluated regularly. A recent lighting retrofit at their new headquarters resulted in a total lighting energy savings of 32% below baseline. The company attributes 70% of that reduction to dynamic lighting control strategies, including high-end-trim, wireless daylight and occupancy sensors, and automated shade control.

"Our offices are built to encourage collaboration...freedom and fun are core values that translate into tremendous return on investment."

*Sean Cohen,
Chief Operations
Officer, AWeber*



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Fine-tune light levels for meetings and presentations.



Collaborative workspaces pepper the perimeter...fluorescent lights automatically dim to adjust for available daylight.

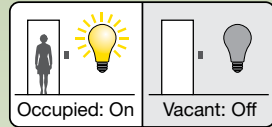


Daylight penetrates deep into the open-office layout, allowing even interior spaces to take advantage of natural light.

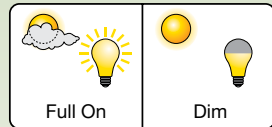


Lutron Experience Centers – hands-on product knowledge

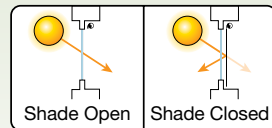
Energy-saving strategies



Wireless occupancy sensing



Wireless daylight sensing



Automated shade control

Challenge

Reduce glare and heat gain to facilitate a better work environment

In AWeber’s original offices, the facilities team was constantly fielding calls about uncomfortable glare, and getting daily complaints about the lighting levels. It was too bright, too dark, or just uncomfortable for team members who were near the windows. “If you have to think about how you feel in your office space, that affects productivity,” Mike Flanagan, Senior Facilities Manager, explains.

Utilize daylight harvesting to minimize use of electric light

The entire perimeter of the building is floor-to-ceiling windows. Excited about offering team members plenty of natural daylight, but aware of potential concerns, the owners immediately identified the need for a total light management system including automated shading controls that took the guesswork out of creating the right lighting levels in the work space.

As part of their commitment to sustainable design, the owners were especially interested in an automated shading solution that could repurpose the existing fabric from the relatively new manual shades. Lutron was able to customize a Sivoia® QS shading system using the original fabrics, creating an automated solution that integrated seamlessly with the lighting management system.

Solution

Digitally-addressable fluorescent dimming ballasts were retrofit or installed into fixtures throughout the facility, maximizing lighting performance, and ensuring appropriate light levels throughout the space.

Seamless integration of lighting and shade controls

Lutron Sivoia QS automated shades with solar-adaptive technology are programmed to environmental patterns based on the building’s location and orientation. The shades move silently and subtly over the course of the day to eliminate glare and reduce heat gain, which also helps to reduce HVAC costs. Wireless window sensors also allow the shades to override programmed levels and respond to real-time conditions like cloudy days or shadows.

Wireless daylight sensors communicate with the dimming controls to automatically adjust electric light levels, supplementing available daylight and reducing electricity use when daylight is sufficient. In addition, wireless occupancy/vacancy sensors ensure lights are never left on when a space is vacant. The entire system is centrally monitored. Lighting adjustments can be made in the space, in real time, using the Lutron app for the iPad.*

The result is a perfect marriage of natural and electric light that just works. “The most important thing that I can tell you about the lighting in our new space is that I never hear anything about it from team members,” says Mike Flanagan. “When our people are comfortable, they are productive, and that’s our goal.”

A visit to the Lutron Experience Center sealed the deal

How did the design team decide on Lutron? A visit to the Lutron Experience Center in Coopersburg, PA made the decision easy. Their visit provided hands-on experience with the products and control strategies, and allowed them to see how the controls performed in practice, not just in theory.

“Our visit to the Lutron Experience Center was the deciding factor. Walking through the center and getting hands-on experience with the products was invaluable.”

*Mike Flanagan,
Senior Facilities
Manager, AWeber*

* iPad is a trademark of Apple, Inc., registered in the U.S. and other countries.



Fixtures closer to the windows are automatically dimmed in response to available daylight. Lighting control strategies account for 70% of the lighting-energy savings in the space, and facilitate a comfortable, productive work environment.



Results

Wulff Architects, under the direction of Principals Dave Schmauk and Roberta Devlin, designed the building renovation to achieve LEED Silver certification. Company executives were thrilled when they learned that it had actually been awarded LEED Gold. The Lutron Quantum® Total Light Management™ system was able to contribute points in three different credits including:

- EA 1.1 – Lighting Power Reduction
- EA 1.2 – Lighting Control
- EA 3 – Measurement and Verification

Wulff Architects and Bala Engineering worked closely with AWeber to provide energy-saving information as part of the renovation. Prior to the renovation, baseline lighting electricity use was 242,830 kWh. Subsequent analysis shows that AWeber has reduced lighting electricity use to 166,489 kWh. Further analysis by Rafael Carrero of Bala Engineering shows that 70% of the savings can be attributed to the lighting control strategies.

How does the environment affect productivity and retention? Sean Cohen sums it up this way, “The lighting system is essential to our goal of creating an environment that plays to our strengths and has a huge impact on our long-term success.”

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