

COLORADO REAL ESTATE JOURNAL

THE COMMUNICATION CHANNEL OF THE COMMERCIAL REAL ESTATE COMMUNITY

JUNE 1, 2011 – JUNE 14, 2011

Light control strategies can enhance your building's value

Lighting uses more electric energy than any other system in a commercial building, about 38 percent of total energy output. Getting control over how the lights are used, how long they are on, how bright they are and how they are configured in a space dramatically decreases operating costs, and can increase your top-line revenues, your profits and the value of your property. A well-designed and properly commissioned light control system can save more electricity than any other system in a building.

■ Light control strategies. Devices such as time clocks and occupancy sensors already are familiar to most people; such devices save energy, typically 15 percent to 20 percent in a building, by turning the lights off either at a set time or when the space is not in use. Although these devices are a great step, they do nothing to curtail energy use during times when the lights are on. More advanced technologies, such as high-end trim, daylight harvesting and personal light control can be combined to save up to 80 percent to 85 percent of lighting energy in specific areas of a building. These strategies not only save energy, but also can greatly enhance the ambiance of a space, and the productivity of its occupants. By using a variety of strategies in combination, it is typical for buildings to cut their lighting energy usage in half or even more.

■ Daylight harvesting. Daylight harvesting automati-

cally dims electric lights when enough daylight is present. Savings increase when daylighting is employed in buildings with many windows or skylights.

■ High-end trim. Setting the maximum light allowance, or high-end trim, saves energy, as not every space requires 100 percent light output.

■ Personal light control. Wireless remotes give occupants the ability to set the light to a level that's comfortable for them, increasing productivity. Buildings with personal light control have realized additional savings because employees tend to keep the light levels low.

■ Occupancy sensing. Occupancy/vacancy sensors automatically turn lights on when people enter a space, and off after they leave. The latest sensor solutions use radio frequency technology, allowing them to be installed in minutes with no additional wiring. Wireless solutions are cost-effective, using less man-hours and materials compared with wired solutions, making them an ideal choice for retrofit applications.

■ Scheduling. Scheduling automatically dims or turns lights off at certain times of the day. Few buildings operate on 24-hour schedules, and many are empty during the overnight and weekend hours.

■ Dimming controls and light levels. Dimmers can reduce electricity usage 15 percent to 20 percent with a high-end trim feature that effectively reduces the maximum light level. Using

dimmers, the process of light-level tuning sets the appropriate level for tasks in each space.

■ Digitally addressable ballasts. Digitally addressable ballasts, such as our EcoSystem



Tom Myers
Director, Commercial
Real Estate Solutions,
Lutron Electronics,
Denver

ballasts, are the building blocks of systems that are fully expandable and highly flexible. Over the life of the building, as tenant requirements change, lighting fixtures and control zones can be reconfigured via system software without the need to change power wiring to the lights. These solutions help to reduce churn costs by not having to re-wire or reconfigure lights for new tenants.

■ Stairwell fixtures. Utilizing high-end trim and occupancy sensing, the stairwell retrofit solution provides the opportunity to save more than 80 percent of lighting energy in stairwells. Current stairwell systems operate by turning off some lights completely, while leaving the rest on full bright; this creates uneven lighting and reduces bulb life. Our solution allows the user to program occupied and unoccupied light levels for all stairwell light fixtures, providing even lighting, longer bulb life and maximum energy savings.

■ Controllable window shades. Electronic shading serves a dual purpose: to let daylight in, and to keep excess heat and cold out. For total control of the visual environment, our shades can open and close automatically at different times in order to harvest daylight and reduce HVAC costs by as much as 30 percent.

■ The sustainable solution. Light control enhances the experience of a space, accentuates architecture with light, and increases the comfort and productivity of occupants. In today's economy, competition for a shrinking customer base is intense. To stay ahead of the game, developers and property managers have to enhance the appeal and performance of their investments. A strategic approach to energy management through the use of light controls can produce twice the savings as typical approaches; the Energy Star program offers a proven energy management strategy that helps in measuring current energy performance, setting goals, tracking savings, and rewarding improvements. Owners and developers can apply to have their buildings Energy Star rated, and promote the rating to tenants. Attracting and retaining tenants, decreasing operating costs, increasing property values, and saving energy: Light control is one way to do it all.▲