

The Impact of Shading and Lighting Control on Energy Demand

The main energy savings from SunProject Interior shading system:

1. When dimmable lights are controlled by SunProject automated interior roller shades, lighting energy savings occur. Depending on weather conditions, the shades raise or lower controlling light levels. Thus, the appropriate amount of light is provided at all times, which minimizes the need for artificial lighting allowing natural daylight and reducing electricity consumption.
2. SunProject automated interior roller shading system plays an essential role in the Dynamic Facade, Capital costs decrease dramatically. Controlled by sun sensors or sun tracking systems, the shades automatically lower to protect from solar heat gain, which results in reduction in peak cooling loads. Moreover, EcoScreen high performance environmentally-friendly fabrics provide additional protection.
3. Due to the reduction in peak cooling loads and energy consumption, Operational energy costs are reduced dramatically.

Honda Headquarters, Markham - LEED GOLD



Total area: 138,000 sq. f.

of floors: 4

Product: SunProject Moduline Interior Shading system

According to the analysis results:

- **Total annual lighting energy demand** with automated interior shades and lighting control is reduced by **22%**
- **Peak cooling load** with automated interior shades and lighting control is reduced by **23%**
- **Annual cooling energy consumption** with automated interior shades is reduced by **28%**

Potential operational and capital cost savings with SunProject™ Interior Roller Shades

| | Automated shades | Automatic shading and lighting control |
|---|------------------|--|
| Cooling energy savings (\$/year) | \$4,000 | \$5,400 |
| Lighting energy savings (\$/year) | - | \$5,250 |
| Peak cooling demand savings (\$/year) | \$7,000 | \$11,000 |
| Total operational energy savings (\$/year) | \$11,000 | \$21,650 |
| Capital cost savings (\$) | \$21,750 | \$33,750 |
| Average annual daylight autonomy (%) | 22% | 22% |