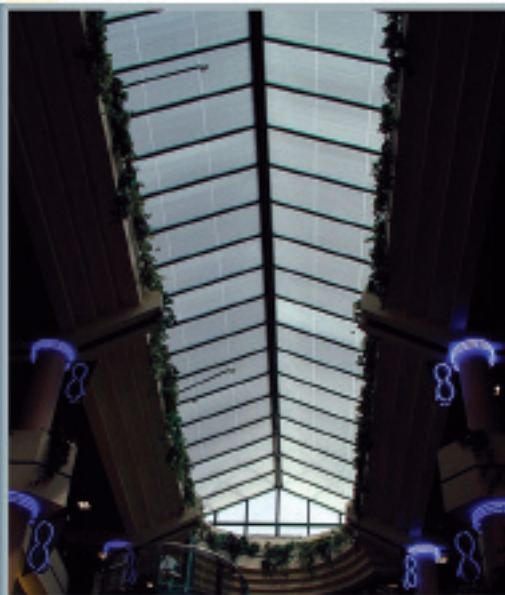


# *IntelSun*® Controlled Daylighting

Intelligently Adjusts Sunlight Transmission and Shading



Maximum Daylighting



Maximum Shading

*Like the Sunflower that  
Follows and Harvests the Sun*

 *IntelSun*®  
CONTROLLED DAYLIGHTING

 **CPI**  
DAYLIGHTING  
*Quality Comes to Light*®

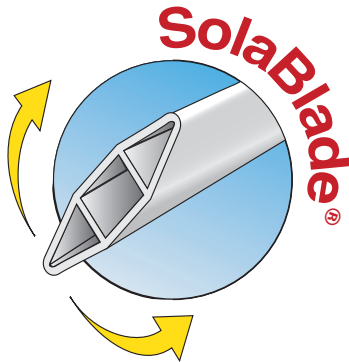


# IntelSun®

*Glazing systems that*

*IntelSun Daylighting systems use intelligent glazing that gauges the sun's position, then dynamically manages the desired sunlight transmission and shading inside the space. A Wall Controller gives the user manual or fully automated management of daylighting levels for optimum performance.*

## SolaBlade® – The Heart of the System

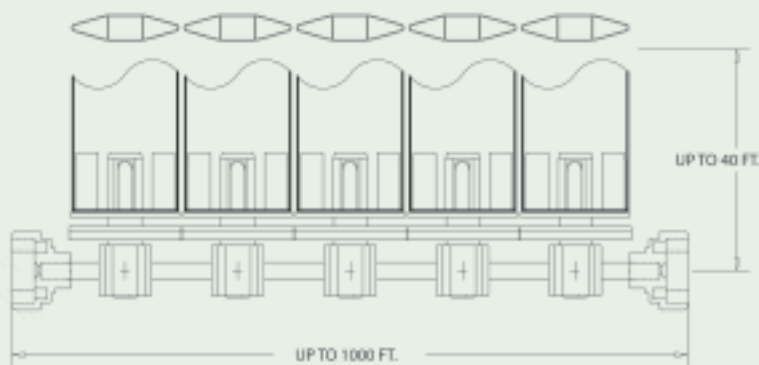


SolaBlades® consist of banks of unique light controlling blades mounted onto a single controlling shaft.

The angle of the SolaBlade is adjusted by the rotation of the controlling shaft to maintain the desired daylight, shading and comfort level—any time of day, any time of year.

The ingenious design of the SolaBlade® system requires only small rotational steps to control a wide range of light and shading levels.

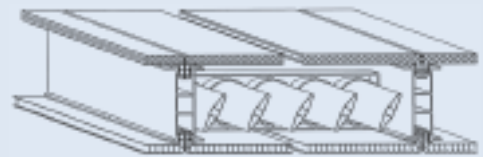
Various designs for the SolaBlades® are available to achieve the desired solar control, ranging from half-cylinder translucent polycarbonate with co-extruded opaque face to special reflectors and specular blades.



SolaBlades® can extend up to 40 feet long in banks of up to 1000 linear feet, with no need for additional operating mechanisms. Fully assembled SolaBlades® are free-floating. Every component is free to expand, contract or move at its own rate, eliminating constraints associated with systems that need mechanical synchronizations, out of square issues, sensors, cables, actuators or the like. The controlling shaft provides single point control of a small or large glazed area.

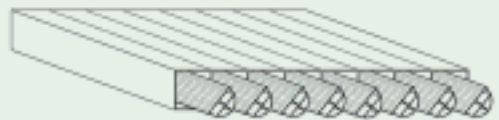
## IntelSun Glazing Systems

SolaBlades® can be mounted into various glazing materials and panels creating an advanced dynamic daylighting system that intelligently adjusts shading and sunlight transmission.



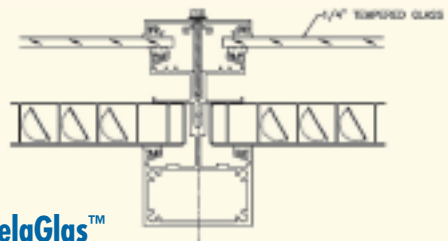
### SolaQuad™

The SolaBlades® are built in between a 4" panelized Quadwall polycarbonate glazing system.



### ControlLite®

The SolaBlades® are built in to 30mm translucent polycarbonate glazing panels.



### IntelGlas™

The SolaBlades® are built in below a glass skylight system.

## User Wall Controller:

The SolaBlades® are controlled via a user's Wall Controller. Control options are available from simple manual control to a fully automated sun-tracking system. Daylighting controls include single zone and multi zones among many other options. Integration with intelligent building or lighting controls is optional.





# *provide the exact daylighting you want—no more no less!*

## Dynamic Daylighting

**Control of Daylight** – Provides uniform light distribution at preferred shade levels.

**Solar Control** – Adjustable SolaBades® ensure balanced light levels, solar heat, and shade-providing a comfortable and productive environment.

**Low Angle Daylight Harvesting** – System provides more useful daylighting hours by capturing available sunlight at a low incident angle, early and late in the day.

**Glare Control** – Provides either direct or diffused sunlight with effective glare control.

**Sun's Position in the Sky** – Innovative sun sensor gauges the sun's position in relation to the skylight, allowing delivery of the exact preferred daylighting mix—no more, no less.

## Simple & Economical Green Solution

**Economical Sustainable Construction** – The most value for your LEED construction dollar.

**Energy Savings** – Reduce a building's energy expense with daylight control.

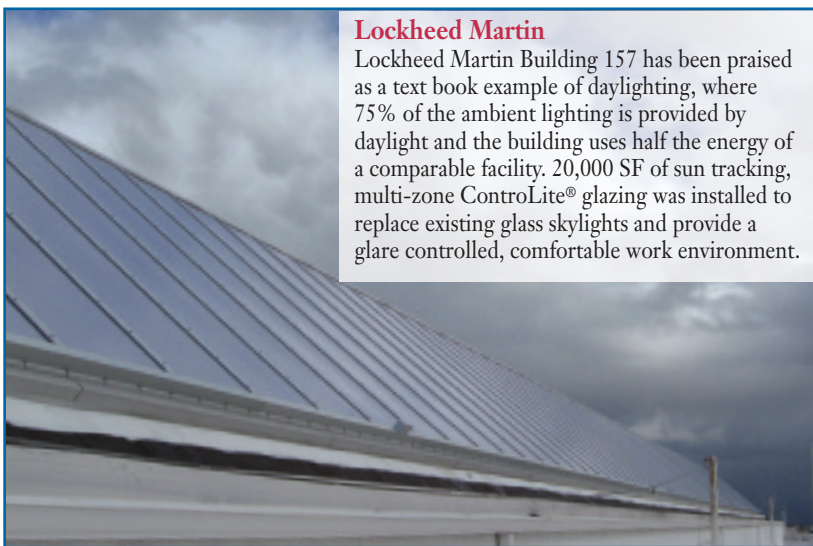
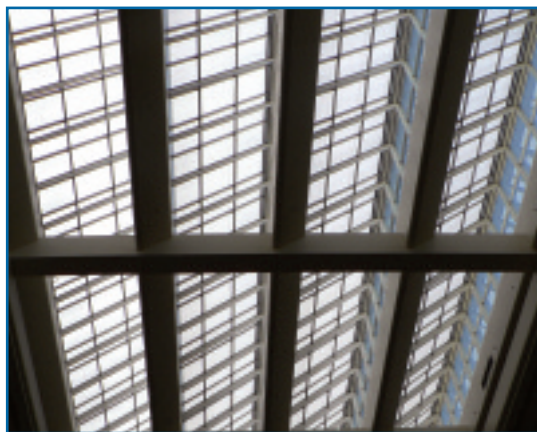
**Ease of Use** – Simply control daylighting manually with the push of a button or automatically with sun tracking controls, ensuring comfort.

**System Longevity** – One-piece panel simplicity and durable design ensures long system life.



### ▲ Indianapolis Colts – Lucas Oil NFL Football Stadium

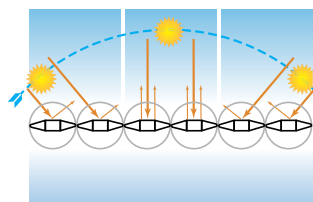
A fully automated ControLite® Wall system was selected by this NFL Football Franchise to introduce managed natural daylighting into their new domed stadium while controlling glare on the playing field.



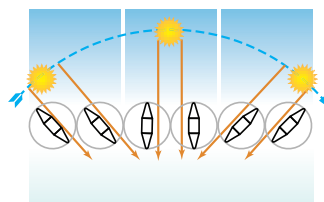
### Lockheed Martin

Lockheed Martin Building 157 has been praised as a text book example of daylighting, where 75% of the ambient lighting is provided by daylight and the building uses half the energy of a comparable facility. 20,000 SF of sun tracking, multi-zone ControLite® glazing was installed to replace existing glass skylights and provide a glare controlled, comfortable work environment.

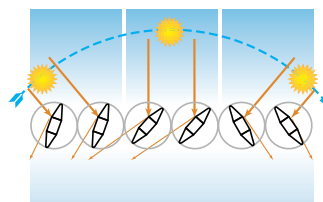
## SolaBlade® Sun Tracking Options



Minimum light transmission and solar heat gain



Maximum light transmission regardless of the sun's angle



Angled to diffuse light transmission to suit user preference

The SolaBlades® can be set to deliver direct or diffused sunlight. By angling the sunlight that penetrates the space, the SolaBlades® make use of the physical fact that light hitting at an angle delivers less energy per square foot than direct sunlight. A sun-tracking sensor also allows alignment of the SolaBlades® to an optimal position in relation to the sun's position in the sky to harvest daylight that would otherwise be lost due to the low incident angle of the sun early and late in the day.





### Mount Angel Abbey, Eugene OR

ControLite® was selected as a central component of this award winning school project that achieved an 85% increase in energy efficiency while keeping construction costs down.



### Hartnell College, Salinas CA ▲

A ControLite® Skylight was selected to replace an acrylic skylight that had caused glare and heat gain problems in this student gathering area.



### K S Shopping Mall ▼

An uncomfortable shopping environment, caused by a traditional clear glass skylight's excessive glare and solar heat gain, made it difficult to rent space on this mall's third floor. ControLite® cuts glare and heat gain without AC equipment upgrades, maintaining a comfortable atmosphere and enabling the mall to fill every available space.



### Winchester Middle School, Virginia ▲

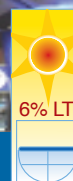
Several ControLite® Ridge Skylight systems provide managed natural daylighting for this new Virginia school.



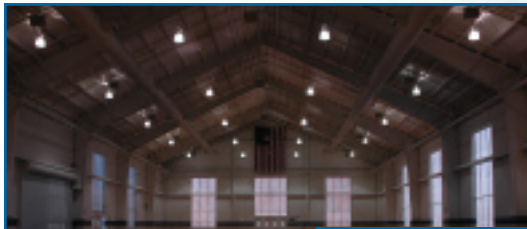
SolaBlades® in **OPEN** position  
60% light transmission



SolaBlades® in **CLOSED** position  
6% light transmission



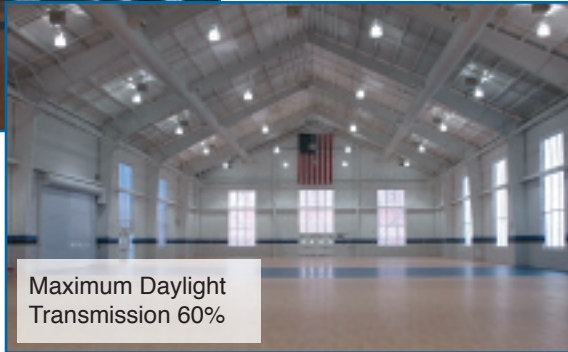




### ▲ Parc@Buckhead, Atlanta, GA ▲

A ControLite® Ridge Skylight is featured over a public area to introduce natural daylight while controlling glare and heat.

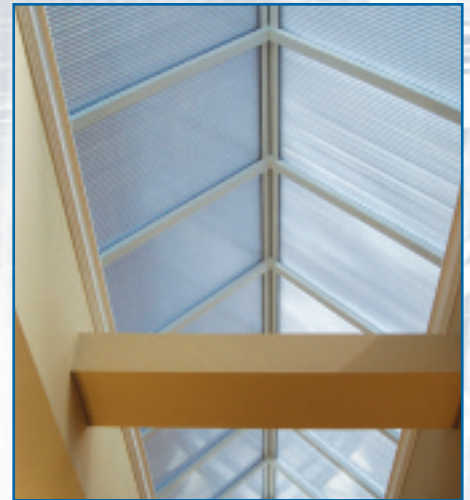
Minimum Daylight Transmission 6%



Maximum Daylight Transmission 60%

### ▲ Great Lakes Naval Base Training Facility ▲

A ControLite® Wall Light system provides managed natural daylighting at this military training facility.



### ▲ Gillette Intermediate School, Texas ▲

A fully automated 10,000 SF ControLite® Skylight covers this central corridor of a new Texas school, introducing managed daylight, yet controlling excessive heat gain from the scorching Texas sun.



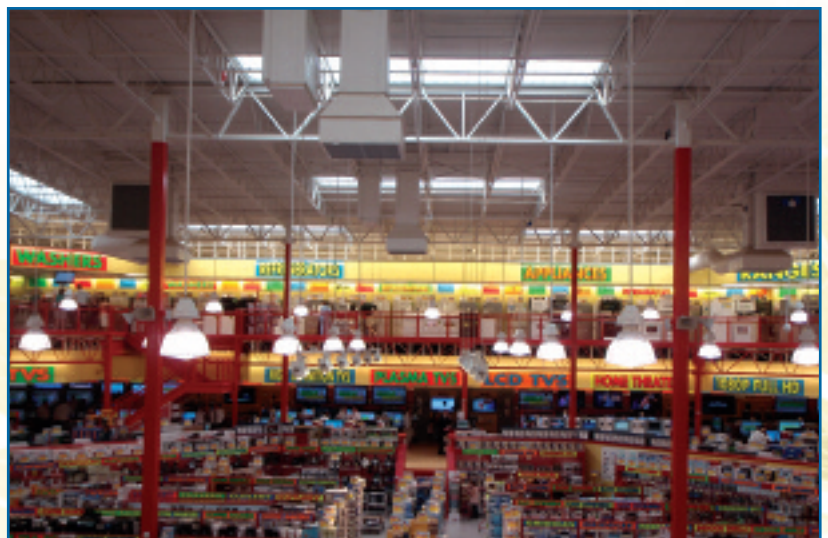
### ▲ St. Mary Star of the Sea Gymnasium, Virginia ▲

A 3500 SF vertical ControLite® system provides controlled natural daylighting for this multipurpose school gymnasium.



### ▲ Lake Bluff School, IL ▲

A fully automated ControLite® pyramid skylight, shown here at the maximum shade setting, manages the distribution of pleasant natural daylight into the lobby of this Illinois school.



### ▲ BrandSmart USA, Atlanta GA ▲

BrandSmart USA is targeting energy savings at this new LEED certified store. Sixteen 5' x 24' SolaQuad™ intelligent sun-tracking unit skylights were installed to maximize the benefits of natural daylighting. Electric lights are automatically dimmed when daylighting is delivered by the SolaQuad™ skylights.

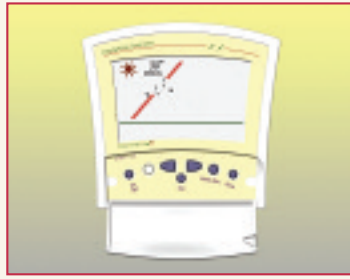
# IntelaSun Daylighting User Control Options

Each model comes fully equipped with all of the required operators and system design needed for convenient control of natural daylighting.



**Unit Motorized Systems**

This IntelaSun Unit Skylight / LiteWall system is equipped with built-in 12/24 volt operators. The user controls the angle of the IntelaSun SolaBlades® with an electric switch or optional remote control to achieve desired light levels on demand.



**Manual Motorized Systems**

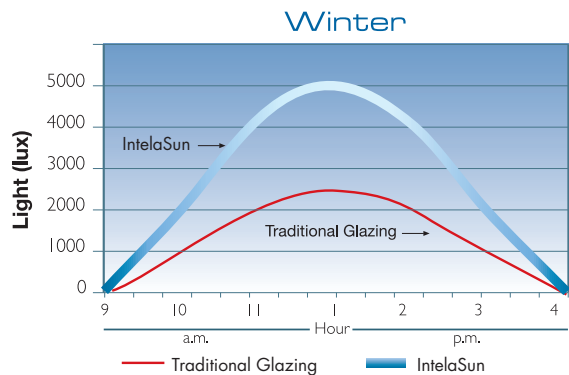
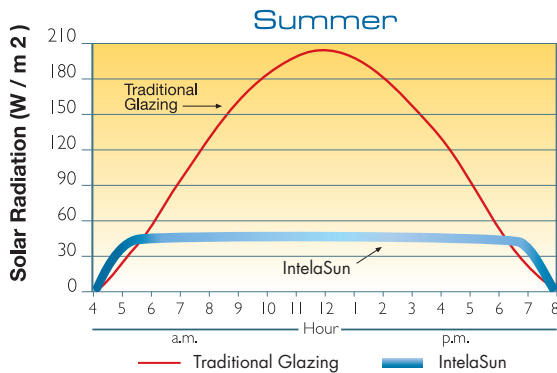
The user controls the angle of the motorized IntelaSun system's SolaBlades® at a wall mounted controller to achieve desired light levels on demand. An LCD display shows the selected angle of the SolaBlades® and the interior light level.



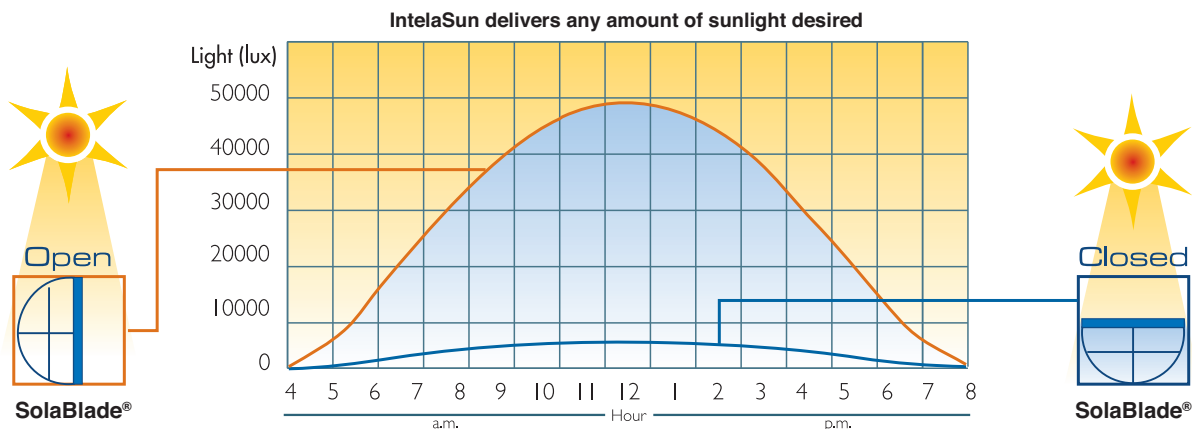
**Sun Tracking Automated Systems**

The user sets desired light levels at a wall mounted controller. The IntelaSun system uses sensors to monitor the position of the sun and interior light levels. An intelligent controller automatically adjusts the SolaBlades® to maintain the desired light level throughout the day.

## IntelaSun Compared to Traditional Glazing\*

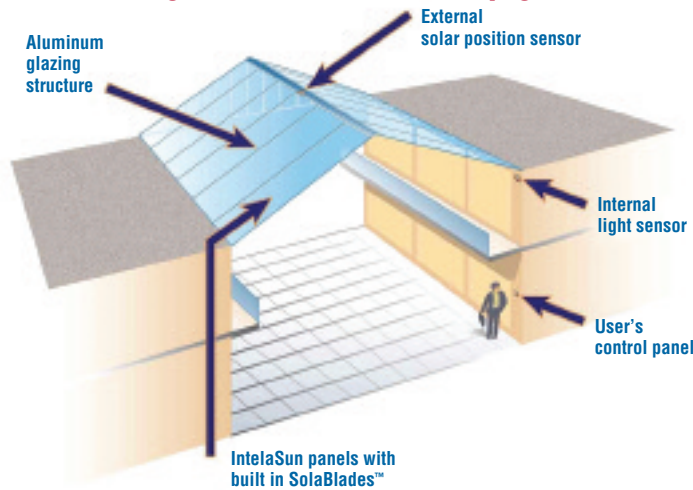


## Typical Light (lux) vs Hour of Day





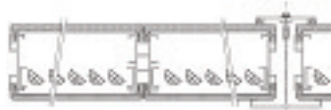
## Sun Tracking Automated InteltaSun Skylight



### SolaQuad™

**"U" Value Range: 0.20 to 0.23**  
**LT% Range: 3% to 62%**

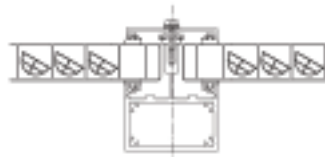
SolaBlades® may be incorporated into Quadwall® panelized systems including LiteWall, Fastrak or Structural Ridges, Slopes and Pyramids.



### Controlite®

**"U" Value Range: 0.27 to 0.33**  
**LT% Range: 6% to 58%**

SolaBlades® may be incorporated into 30mm Controlite® glazing configured for LiteWall, Ridge, Slope and Pyramid applications.



### InteltaGlas™

**"U" Value Range: 0.23 to 0.25**  
**LT% Range: 5% to 50%**

SolaBlades® are configured under a ridge, pyramid or sloped glass skylight system for optimal dynamic daylighting performance.



## InteltaSun Daylighting Products

### The Ultimate Solution for Sustainable Construction

*InteltaSun products have been selected repeatedly for "state-of-the-art" daylighting projects in applications requiring maximum performance for LEED certification.*



## System Features



- **User Wall Controller** – consists of an easy-to-read LCD screen and a panel of control buttons. Several types of Wall Controllers are available: Automatic, Manual, Single Zone and Multiple Zones.
- **Quick dim key** – For quick room darkening.
- **Analog SolaBlades® Positioning** – (0-10Vdc) is an input used for direct control of Rota-blade angles by other control systems.
- **Multi-zone** – Capable of applying unique settings for four separate zones (or branches) within a glazing system.
- **Direct Sunlight Mode** – In the Direct Sunlight Mode the SolaBlades® are angled to diffuse the sunlight. Thus direct sunlight illumination dominates. It is the optimal mode for winter.
- **Indirect Sunlight Mode** – In the Indirect Sunlight Mode the SolaBlades® are mostly directed perpendicular to the sun rays. Thus indirect room illumination dominates. It is the optimal mode for summer.

### External Connections

CAN Bus – 3 x RJ45 parallel options (hardwired)  
 PC – RS 232 port; 28Vdc optional input; 2 x RJ12

### Power

The System is driven by 28Vdc power supply connected to the panels. Typically, each power supply has 100VA capability and conforms to UL-1330 Class 2 standards and ELV.

### Sun Sensor

Gauges the intensity of the sunlight and the sun's position relative to the glazing panels.

### Room Sensor

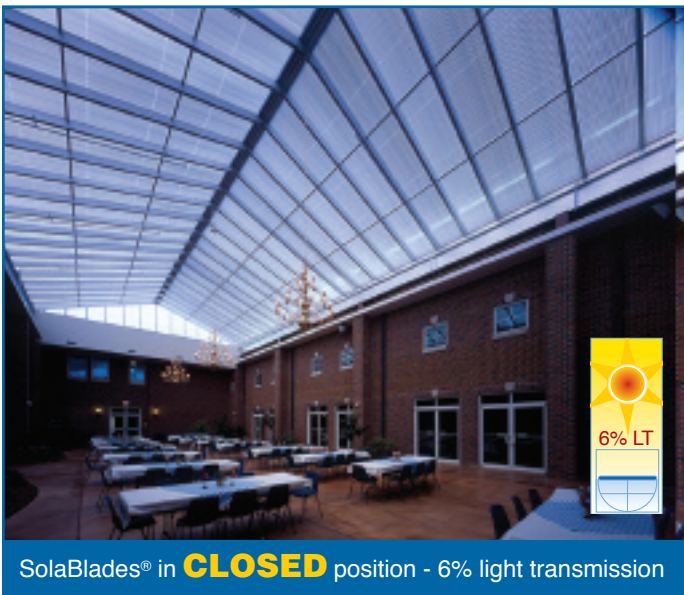
Gauges the intensity of the light entering the space below the glazing panels.

## Optional Control Devices

**Occupancy Sensor Input** – Is an input for an external Person-in-Room Occupancy device (commercially available – not part of the system). It delivers a dry contact whenever a person is detected as present in the room.

**E-Light Relay** – The E-Light (Electric Light) Relay is part of the Zone Unit component and delivers a dry contact to close the artificial light circuit. The relay is enabled if the daylight level is too low, allowing activation or deactivation of artificial lighting.

**Dimmer Output** – The Dimmer Output is for an external Dimmer device (commercially available – not part of the system) delivering a control signal range of 0-10V.



#### First Baptist Church, West Monroe LA

An open courtyard at the center of the First Baptist Church complex in West Monroe, LA has been enclosed and covered by a fully automated ControLite® system, allowing the space to be used year around for special meals and functions.



#### Idrottens Hus, Sweden

When the Idrottens Hus was selected as the site for the Davis Cup tennis tournament, management faced a requirement for sufficient lighting to televise the matches, but prevention of glare from the sun that would hinder the athletic competition. ControLite® was chosen as the best solution allowing pleasant natural daylighting to enhance the environment with the ability to control the intensity of transmitted sunlight as needed.



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