



sustainable lighting for  
**schools**



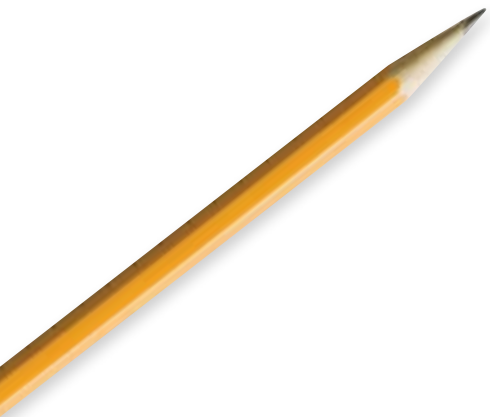
**We help to create an environment.  
We help to preserve the environment.**

LITECONTROL



Mod-22xa P-I-0200 and Mod<sup>2</sup> P-ID-4600

## When it comes to innovative sustainable thinking and product savvy, we are a fixture. And, much more.



### We understand the climate out there. We understand the climate in here.

Sustainable school design provides safe, healthy and productive environments for students and teachers to work collaboratively towards common goals. Lighting plays a crucial role in sustainable school design.

Before we enter a classroom, you can rest assured we've done our homework. At Litecontrol, our school lighting systems must provide high quality visual environments, with a minimal effect on the natural environment.

The LEED for Schools and the CHPS rating systems offer several opportunities for the design team to achieve points with the lighting and daylighting design of the school. Litecontrol products can help designers achieve some of these points.



#### LEED for Schools (Leadership in Energy & Environmental Design)

- Energy & Atmosphere EA Credit 1: Optimize energy performance (up to 10 points for total building energy, including lighting)
- Indoor Environmental Quality EQ Credit 6.1: Lighting system design and controllability (1 point, including classroom lighting that operates in general and AV mode)
- Innovation & Design ID Credit 1: Innovation in Design (up to 4 points, including 1 point possible for using C2C Certified products)



#### CHPS (Collaborative for High Performance Schools)

- Energy EE 1.1: Superior energy performance (up to 13 points for total building energy, including lighting)
- Indoor Environmental Quality EQ 1.1: Daylighting (up to 4 points; design must include photosensor-based lighting control to earn any points)
- Indoor Environmental Quality EQ 1.3: Electric lighting (1 point, including classroom lighting that operates in general and AV mode)



Inde-Pendants - Scion P-ID-3300



## Put your lighting on the honor roll.

### Report cards from LEED, CHPS and C2C.

A number of rating systems and certification programs are available that support sustainable design goals. For school buildings, the US Green Building Council administers the LEED for Schools rating system, and the Collaborative for High Performance Schools has the CHPS rating criteria. Litecontrol products have been used on many successful school projects that used these rating systems.

For products, the Cradle to Cradle (C2C) Certification program administered by MBDC evaluates the materials and the manufacturing processes of building products. Litecontrol offers the only C2C Certified architectural lighting fixtures. Our C2C Certification shows that we "made the grade" in MBDC's thorough review.

*sustainable lighting:*

*"Sustainable lighting design meets the qualitative needs of the visual environment, with the least impact on the physical environment."  
(IESNA and IALD)*

### Cradle to Cradle Certification<sup>CM</sup>

Evaluates products and manufacturers based on:

- the use of environmentally safe and healthy materials
- product design for material reutilization, such as recycling
- energy efficiency and the use of renewable energy
- efficient use of water, and maximum water quality associated with production
- instituting strategies for social responsibility

Cradle to Cradle Certified<sup>CM</sup> is a certification mark of MBDC.





LC-94 P-ID-9400

# Classroom lighting requirements

## Systems designed with precision, to fill classrooms with light while keeping electricity use down.

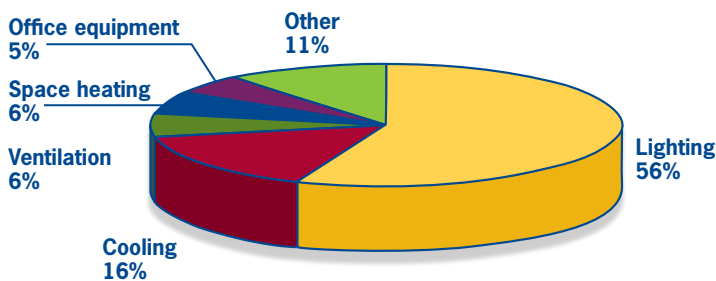
Teachers in the classroom work passionately to keep students' attention. Facility designers and managers constantly look for new ways to make the classroom environment functional and cost-effective. Students want an atmosphere that enables them to do their work within a pleasant and comfortable setting. Effective classroom lighting addresses all these concerns.

Truth is, lighting systems represent the largest portion of a school's electricity use, impacting the environmental "footprint" of the school. Highly efficient fixtures and effective controls can reduce this footprint. As a result, the lighting design needs to address the qualitative visual needs of students and teachers while minimizing the impact on the environment.



SAE P-ID-9700

### Electricity use in schools



Electricity use source: Energy Information Administration



## Litecontrol believes that the best classroom lighting solutions:

- Provide some indirect lighting to increase perceived brightness and reduce glare and shadows
- Provide some direct lighting to meet footcandle goals and add interest
- Provide flexibility for different teaching modes such as lecture, teamwork, and audio-visual projection
- Provide automatic controls based on daylight and occupancy sensing to maximize energy efficiency

### LEED Classroom lighting criteria

- Provide a lighting system that operates in two modes: general and AV
- General mode must provide average light level at desk of 35-50 footcandles
- AV mode must provide average light level at desk of 10-20 footcandles
- AV mode must provide no more than 7 vertical footcandles on the projection screen

### CHPS Classroom lighting criteria

- Use photocontrols to automatically turn off or dim the electric lights when daylighting is available
- Use multi-scene indirect/direct lighting systems with general and AV modes
- General mode must provide average light level at desk of 35-50 footcandles
- AV mode must provide average light level at desk of 10-20 footcandles
- AV mode must provide no more than 7 vertical footcandles on the projection screen

### Our new systems are models of efficiency, a marriage of both style and substance.

Litecontrol is pleased to announce two new fixtures: the SAE 7700 and the Radi-X fixture with LiteCycle resin. These fixtures provide high efficiency and high comfort for sustainable school designs. Along with these fixtures, Litecontrol has developed two new controls solutions to provide the flexibility and automatic control required in the classroom today. These new fixtures and control solutions help satisfy LEED for Schools and CHPS criteria.

To be perfectly blunt, you can consider these lean, green lighting machines.





## SAE SYSTEMS™ P-ID-7700

### We can put any classroom in the proper light.

It's elementary. The Litecontrol SAE family has been a popular solution for school lighting for years. The new SAE 7700 complements the existing SAE 9700 and 9800 fixture families with its highly efficient optics and open steel baffle design. The SAE 7700 includes several important new features for contractors to make installation and re-lamping easier than ever.

#### Features

Open steel baffle design

2 or 3 lamp options with T8 or T5 lamps

C2C Certified

New AV controls solution available

New daylight harvesting solution available

Contractor-friendly design features

#### Benefits

Provides over 90% efficiency

Maximizes flexibility in designing the space

Assures design team and school administrators that the manufacturer has sustainable practices

Gives teachers great flexibility and satisfies LEED and CHPS requirements

Saves energy and helps meet CHPS, LEED and energy code requirements

Provides for ease of installation and maintenance



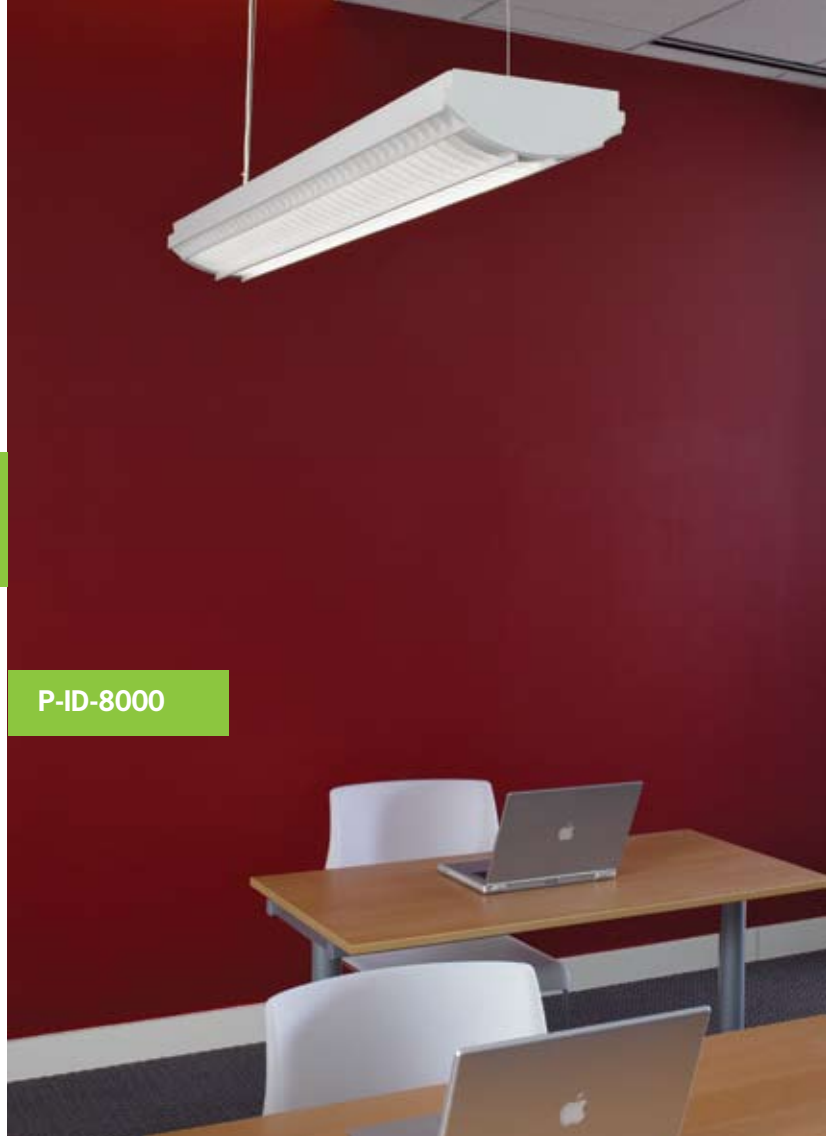


Fixture shown with optional sculpted resin end cap

In terms of efficiency and performance, you could say that X marks the spot. The new Radi-X from Litecontrol uses an exciting new baffle material, the exclusive LiteCycle resin, in an innovative design that maximizes visual comfort for students and teachers. The combination of radial and axial elements in the Radi-X design carefully cuts off any potential glare from the lamps, while still delivering light to the desks in a highly efficient way.



The new LiteCycle Resin consists of 50% recycled content – 45% post-industrial and 5% post-consumer – and can be completely recycled when removed from the fixture. It provides exciting new opportunities for sustainable lighting systems, and is exclusively available from Litecontrol. This advanced engineered resin is fully UV stabilized to maintain its performance.



P-ID-8000

Fixture shown with flat end cap

**Features**

Radial + Axial baffle elements

Precise optical design

LiteCycle Resin baffle material

2 or 3 lamp options with T8 or T5 lamps

C2C Certified

New AV controls solution available

New daylight harvesting solution available

Contractor-friendly design features

**Benefits**

Provides high visual comfort without glare  
Lamps are shielded from view at angles above 55°

Balances the brightness across the fixture, with subtle gradients that add visual interest

Contains 50% recycled content and is fully recyclable to satisfy sustainable design goals

Maximizes flexibility in designing the space

Assures design team and school administrators that the manufacturer has sustainable practices

Gives teachers great flexibility and satisfies LEED and CHPS requirements

Saves energy and helps meet CHPS, LEED and energy code requirements

Provides for ease of installation and maintenance



LC-94 P-ID-9400

SAE Systems P-ID-7700

## On occasion, students need extra help. From our perspective, so do the rooms they study in.

### When it comes to daylight harvesting, you reap what you sow.

An important part of today's classroom is the effective use of daylighting. Contemporary classrooms designed to create active, pleasant environments depend on effective daylighting techniques. The illumination provided by this daylight can offset the need for electric light, enabling energy savings if the lights are dimmed.

Our new CS/dl controls solution automatically dims electric lighting in response to daylight. Our new daylight harvesting system is available in both the Radi-X and SAE 7700 classroom fixtures. It provides one of the easiest-to-implement daylight harvesting solutions available.

In addition to the new CS/dl system, Litecontrol continues to offer solutions through the CS/e Lutron EcoSystem products. These controls solutions are available in a wide variety of Litecontrol fixtures.

### CS<sup>dl</sup> system

The new Litecontrol CS/dl controls solution includes:

- A fixture-integrated photosensor from Watt Stopper
- Integrated dimming ballasts
- A wireless remote control device that serves two purposes:
  - 1) easy commissioning by the school
  - 2) adjustable light levels by the teacher

The fixture-integrated photosensor controls the entire row of fixtures.



### CS<sup>e</sup> systems

Specifiers who want to develop their own comprehensive controls solutions for classrooms can do so using Litecontrol CS/e compatible products. These solutions combine the performance of Litecontrol classroom fixtures with the flexibility of Lutron EcoSystem controls. Photosensors and occupancy sensors can be fixture-integrated in many cases, and the fixtures are wired in our factory for full compatibility with EcoSystem ballasts and controls components.



**Teachers adapt to different learning styles. So should the classroom lighting.**

The contemporary classroom may have whiteboards, smart boards, computers, and LCD projectors. Classroom lighting systems must provide the flexibility and control to enable this sort of multi-modal teaching and learning.

The new AV controls solution from Litecontrol provides the flexibility needed in today's classrooms, while also helping the design team to satisfy energy code demands and the requirements of LEED and CHPS ratings. All Litecontrol CS/av systems include an occupancy sensor that combines both passive infrared and ultrasonic devices (dual technology) to check for motion and turn the lighting off when the room is empty.



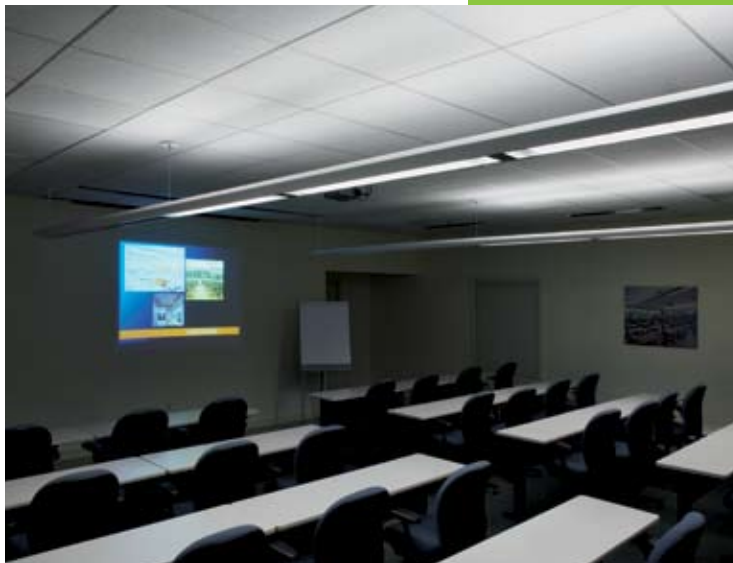
The new Litecontrol CS/av control solutions include:

- A dual technology occupancy sensor to switch off the lighting when the room is vacant
- Three wall switches
  - Switch #1** serves as an overall on/off switch, and can be combined with additional entrance switches as needed
  - Switch #2** to choose either the two outer lamps or one inner lamp (high or low light level)
  - Switch #3** to choose all the fixtures for general mode or just the back of the room for AV mode
- A custom-engraved face plate (see left)
- A modular wiring box and power leads for easy connections between the power supply, occupancy sensor, switch box, and fixture rows
- Fixtures pre-wired for two-circuit operation and front-to-back switching
- A double power feed at one end of the row of fixtures, if desired

**Without AV control**



**With AV control**





Arcos ID P-ID-5900



LC-94 P-ID-9400

## Time for a history lesson: Litecontrol has been lighting classrooms for more than 50 years.

We have several new products for sustainable schools. In addition, our current product portfolio offers great opportunities for your classrooms. The popular LC family (LC-82, LC-90, LC-93 and LC-94) can be found in many classrooms and lab spaces across the country. The Arcos family and the SAE 9800 both have graceful, curved shapes and several distribution options for design flexibility. And for a more modular, rectilinear look, our Mod families may offer what you need.

### Explore your options.

Consider the possibilities. Consult the chart at the end of this brochure to see our products for each space in your school. Then, when you are ready for more specifics, consult your Litecontrol representative or visit [litecontrol.com](http://litecontrol.com).



LC-93 P-ID-9300



Wall SAE W-AI-96P



SAE Systems P-I-98PF

**Arcos ID** Charles Mayer Photography **LC-93** Lone Mountain Elementary School Cave Creek, AZ Architect - Ernie Prior Orcutt Winslow Partnership Phoenix, AZ Charles Mayer Photography **Wall SAE** Kingsley Montessori School Boston, MA Photography - Craig Davis Architect - Symmes, Maini & McKee Associates **LC-94** See Homewood Middle School page 5 **SAE P-I-98PF** Vinal Elementary School Norwell, MA Charles Mayer Photography

## Our whiteboard and chalkboard lighting is advanced. Of course, that's just scratching the surface.



Recessed Wall/Wash G-D-1000

### The writing is on the wall.

Sometimes, a separate fixture is desired for lighting the chalkboard or white board. This fixture may be as simple as a recessed or pendant-mounted fixture with direct light only, or it may be a fixture with an asymmetric distribution that directs its light primarily towards the vertical surface.

For recessed applications, Litecontrol now offers a new fixture with a high performance asymmetric distribution. This Mod<sup>2</sup> recessed fixture has a narrow opening – just 4" wide – and an optical system that was developed with the classroom in mind. The asymmetric reflector effectively washes the chalkboard with light, while the complementary optical elements control the fixture brightness to avoid glare for the students and teacher. We also have a recessed asymmetric fixture with a 6" aperture.

If a recessed fixture is not practical, the Litecontrol Mod-66 family offers an asymmetric distribution and an extended wall bracket that was specifically designed for mounting above chalkboards. This fixture can also be pendant-mounted if desirable. Or the surface-mounted Wall/Cove fixture has an optional specular reflector for lighting vertical surfaces.



Mod-66 W-ADW-66N





Classica P-I-5500



## Subtle lighting for quiet places.

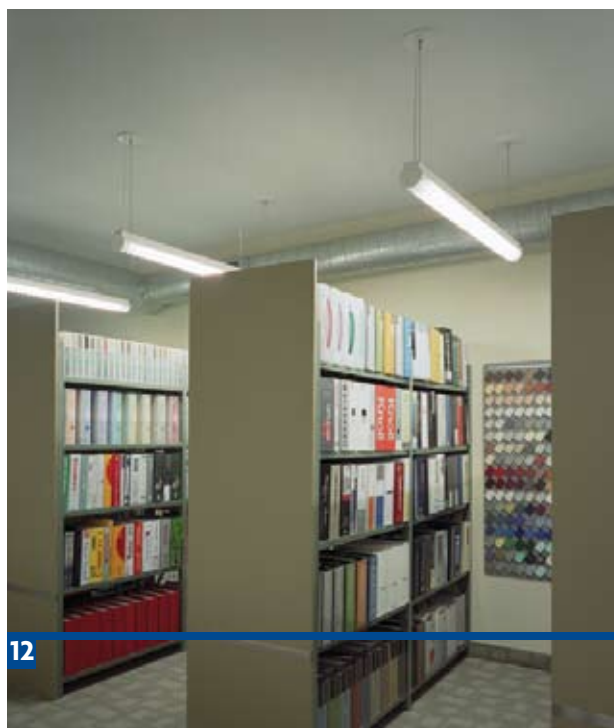
### Library lighting that everyone will want to “check out.”

Whether a simple reading room or a full reference library with book stacks, the school library requires high quality lighting. And as library technology keeps improving, our lighting solutions are staying ahead of the game. For the basic reading room, the same lighting used in the classrooms will often suffice. But a more sophisticated solution is needed for book stack areas.

Book stacks require a lighting system that can deliver light to the vertical planes on either side of the aisle – and the Litecontrol Staklite was designed for that specific purpose. We scaled the Staklite’s small cross-section and circular shape for the tight confines between stacks, and its optics deliver light exactly where it is needed.



And if you really want to show off your smarts – use the new Staklite with integrated occupancy sensor. These fixtures use an infrared motion sensor to turn themselves off whenever the aisle is vacant, saving energy for the school. Step into the aisle, and the lights come on again. It’s that simple. It’s that smart. Staklite with the CS/ir controls solution.



Staklite 500 P-I-0500



LITECONTROL ™  
control solutions

sustainable lighting for schools



Mod-22xa P-I-0200

## You won't hear complaints about the cafeteria lighting.

### Appetizing lighting for the cafeteria.

The school cafeteria provides an area for students and teachers to interact and recharge. For the lighting system to support this vital social area, designers look to be more creative. Often, this means using individual suspended fixtures rather than the continuous rows used in the classrooms. These fixtures, which can be round or linear, can add to the visual interest and visual appeal of the space, enhancing the cafeteria atmosphere.

### Cafeteria lighting solutions

The Litecontrol Inde-pendant family provides designers with four different fixture designs in two sizes of circular pendants. The fixtures combine indirect lighting to enhance the brightness and perceived activity level of the cafeteria with a direct component that adds interest to the space. Matching wall sconce designs enable a complete cafeteria solution from this family of fixtures.

For linear products, the Litecontrol SDx series provides an opportunity to suspend visually interesting individual fixtures in any pattern desired. The designer can choose from several baffle styles to meet the aesthetic goals in the cafeteria.



Inde-Pendants - Scion P-ID-3300



SDx P-S/D-1800

**Classica** North Georgia Perimeter College Learning Resources Center Dunwoody, GA Architect - The Architecture Group Eng/Lighting Design - Nottingham, Brook, Pennington Photography - Fred Gerlich **Staklite 500** DePM Inc. Interior Design Firm Toronto, Canada Interior Design - Janice LeBlanc and Tony Degregorio Photography - Patrick Kennedy **Mod-22xa** Matouk Headquarters Fall River, MA Charles Mayer Photography **Scion** Alcott Elementary School Concord, MA Architect - Symmes, Maini & McKee Associates Photographer - Edward Jacoby **SDx** Charles Mayer Photography



Mod-22xa P-ID-0200



Mod<sup>2</sup> P-ID-4600

## Lighting that makes you want to be sent to the principal's office.

While focusing on function and form, the lighting needs in office areas can vary. In these spaces, the visual task demands can be very high, with a combination of paper and computer tasks making the lighting challenges more difficult. Depending on the ceiling height, suspended indirect or indirect/direct fixtures often provide the best solution. With lower ceilings, recessed or surface-mounted fixtures can meet the lighting needs in these spaces.

### Office lighting solutions

The Litecontrol Mod family gives designers many options for lighting the office areas within schools. With fixture widths available from 7" to less than 3" and with many options for recessed, surface or pendant mounting, this family provides great flexibility in design.

The newest line in this family, the Mod-22xa, is a small-scale extruded aluminum fixture series that fits well with a minimalist design approach. Or, there is the original Mod-66 and Mod<sup>2</sup> families which are suitable for many school design solutions.

When the office design is limited by budgetary concerns or low ceilings, the SAE Litewave family offers another option. These fixtures provide soft, low-glare lighting for administrative tasks.



sustainable lighting for schools

**Mod-22xa** Charles Mayer Photography  
**Mod<sup>2</sup>** Wunderlich Securities Chicago, IL, Architect - Eastlake Studio Photographer: Mark Ballogg

# Product Selection Guide

Litecontrol combines a long history in school lighting with exciting new products to offer the designer many options. This chart shows many of our popular school fixtures, with the new products introduced in this brochure. For full details on these and other Litecontrol fixtures, consult the Product tab at [litecontrol.com](http://litecontrol.com).

	Good	Better
General Classroom Lighting	<b>SAE 7700</b> <small>New</small> Suspended indirect/direct system	<b>Radi-X</b> <small>New</small> Suspended indirect/direct system
	SAE 9700 Suspended indirect/direct system	LC-82 Suspended indirect/direct system
	SAE 9800 Suspended indirect and indirect/direct system	LC-90 Suspended indirect/direct system
	SAE Litewave Recessed "basket" family	LC-93 Suspended indirect/direct system
		LC-94 Suspended indirect/direct system
		Arcos Suspended indirect & indirect direct systems
		Mod <sup>2</sup> Family Suspended or recessed direct or semi-direct systems
Whiteboard Lighting	Recessed Wall/Wash Recessed asymmetric, 6" aperture	<b>Mod<sup>2</sup> family</b> <small>New</small> Recessed asymmetric, 4" aperture
	Mod-66 Wall or pendant-mounted asymmetric	
	Wall/Cove (SP) Surface-mounted asymmetric	
Office Lighting	SAE Litewave Recessed "basket" family	Mod-22xa Suspended indirect, indirect/direct, and semi-indirect
		Mod <sup>2</sup> Family Suspended or recessed direct or semi-direct systems
Library Lighting	SAE 9800 Suspended indirect	Staklite 500 Suspended direct
		Mod-22xa Suspended indirect
		Arcos Suspended indirect
Cafeteria Lighting		SDx Suspended semi-direct linear
		Scion, Echelon, Mantra, Nexus Suspended indirect/direct round
		Scion, Echelon, Mantra, Nexus Sconces Wall-mounted indirect/direct round

New control solutions :   for classrooms  for libraries



sustainable lighting for

# schools

**When it comes to sustainable schools,  
we're lighting the way.**

At Litecontrol, we understand the call to safeguard our natural resources while creating solutions that are remarkably resourceful. If you would like your school lighting to graduate to a higher level, please contact your nearest Litecontrol representative, drop by our website, or simply call 781 294 0100 today.



**LITECONTROL**  
employee owned | customer driven

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**MOHAWK** windpower 

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