

The Energy Foundation, San Francisco, CA  
LEED rating: Platinum

# LEED® buildings

Light Control Solutions



# Lutron® light control for sustainable design

Today's innovative buildings are designed to be sustainable, adaptable, and energy efficient. Lutron is committed to helping design and construction professionals achieve these goals. We offer solutions for integrated control of daylight and electric light, and unsurpassed project support.

Lutron can help you design and layout any project, ensuring that the light control strategies complement your unique vision. Lutron light control solutions meet the specific requirements of the latest environmental design criteria, including the LEED® Green Building Rating Systems.



Lutron is a national member of the United States Green Building Council and a sponsor of Delaware Valley Green Building Council.

Genzyme Center, Cambridge, MA  
LEED rating: Platinum

Photograph © Peter Vanderwarker

## What is LEED®?

LEED – Leadership in Energy and Environmental Design – is a rating system started in 1998 and administered by the United States Green Building Council (USGBC). It provides an objective national standard for what constitutes a green building. It offers a set of scientifically based performance criteria for LEED project certification.

The LEED Green Building Rating Systems address seven topics. Lutron helps with six of the seven categories:

- 1 Sustainable Sites\*** – for responsible and environmentally-friendly site selection and design strategies
- 2 Water Efficiency** – for responsible water use and conservation
- 3 Energy and Atmosphere\*** – to optimise whole-building energy efficiency
- 4 Materials and Resources\*** – to promote responsible waste management and materials selection
- 5 Indoor Environmental Quality\*** – to minimise contaminants and optimise the indoor environment including the use of lighting controls and daylighting
- 6 Innovation in Design\*** – for exemplary performance above LEED requirements or for new green building innovations
- 7 Regional Priority\*** – to incentivize the achievement of LEED credits that are important to the local geography

\* Lutron solutions help with this category.

[www.lutron.com/europe](http://www.lutron.com/europe)

## Lutron® strategies for LEED projects include:

- astronomical timeclock scheduling
- occupancy/vacancy sensing
- dimming and switching systems (including fluorescent and LED dimming)
- tuning or high-end trim of light levels
- daylight harvesting
- automated window shades
- glare control
- personal control of light
- real-time monitoring
- load shedding and demand response
- integration to Building Management Systems (BMS)
- commissioning

# LEED® 2009 rating systems

## LEED 2009 points

### New Construction and Major Renovations

Sustainable Sites	26
Water Efficiency	10
Energy and Atmosphere	35
Materials and Resources	14
Indoor Environmental Quality	15

### Core and Shell Development

Sustainable Sites	28
Water Efficiency	10
Energy and Atmosphere	37
Materials and Resources	13
Indoor Environmental Quality	12

### Schools

Sustainable Sites	24
Water Efficiency	11
Energy and Atmosphere	33
Materials and Resources	13
Indoor Environmental Quality	19

### Commercial Interiors

Sustainable Sites	21
Water Efficiency	11
Energy and Atmosphere	37
Materials and Resources	14
Indoor Environmental Quality	17

### Existing Buildings:

#### Operations and Maintenance

Sustainable Sites	26
Water Efficiency	14
Energy and Atmosphere	35
Materials and Resources	10
Indoor Environmental Quality	15

#### Bonus Points for LEED 2009

Innovation in Design/Operations	6
Regional Priority	4

<b>Total Possible Points</b>	<b>110</b>
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## New Construction and Major Renovations

The LEED for New Construction rating system is designed to guide and distinguish high-performance commercial and institutional projects, including office buildings, high-rise residential buildings, government buildings, recreational facilities, manufacturing plants and laboratories.

## Core and Shell Development

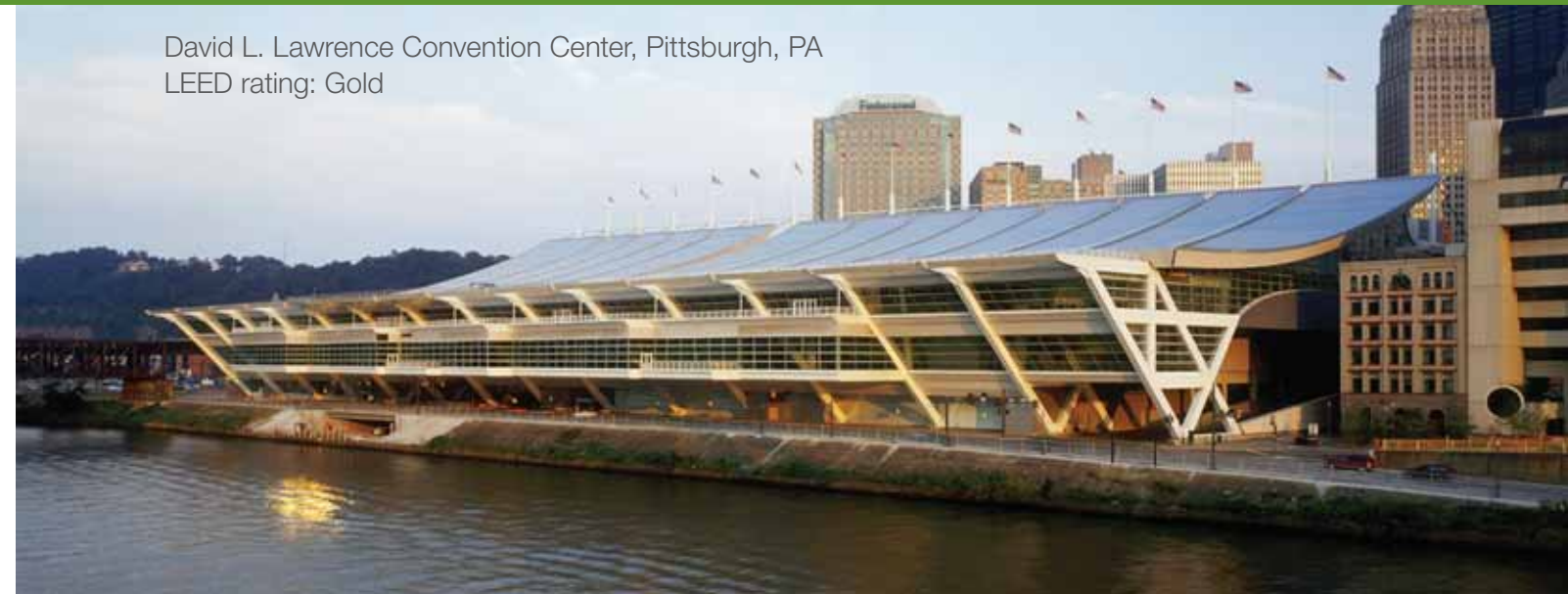
LEED for Core and Shell is a green building rating system for designers, builders, developers and new building owners who want to address sustainable design for new core and shell construction. Core and shell covers base building elements such as structure, envelope and the HVAC system. LEED for Core and Shell is designed to be complementary to the LEED for Commercial Interiors rating system, as both rating systems establish green building criteria for developers, owners and tenants.

## Schools

The LEED for Schools rating system recognises the unique nature of the design and construction of K-12 schools. Based on the LEED for New Construction rating system, it addresses issues such as classroom acoustics, master planning, mold prevention and environmental site assessment.

By addressing the uniqueness of school spaces and children's health issues, LEED for Schools provides a unique, comprehensive tool for schools that wish to build green, with measurable results. LEED for Schools is the recognized third-party standard for high-performance schools that are healthy for students, comfortable for teachers, and cost-effective.

David L. Lawrence Convention Center, Pittsburgh, PA  
LEED rating: Gold



Photograph © Roman Viñoly/Rafael Viñoly Architects PC

## Commercial Interiors

LEED for Commercial Interiors is the green benchmark for the tenant improvement market. It is the recognized system for certifying high-performance green interiors that are healthy and productive places to work, are less costly to operate and maintain, and have a reduced environmental footprint. LEED for Commercial Interiors gives the power to make sustainable choices to tenants and designers, who do not always have control over whole building operations.

## Existing Buildings: Operations and Maintenance

The LEED for Existing Buildings rating system helps building owners and operators measure operations, improvements, and maintenance on a consistent scale, with the goal of maximizing operational efficiency while minimizing environmental impacts. LEED for Existing Buildings addresses whole-building cleaning and maintenance issues (including chemical use), recycling programs, exterior maintenance programs, and systems upgrades. It can be applied both to existing buildings seeking LEED certification for the first time and to projects previously certified under LEED for New Construction, Schools, or Core and Shell.

## Certification levels for all LEED® 2009 rating systems:

100 base points plus 10 bonus points

**Certified:** 40–49 points

**Silver:** 50–59 points

**Gold:** 60–79 points

**Platinum:** 80 points and above

# Lutron can contribute to LEED® 2009 certification



## Sustainable Sites

### Light Pollution Reduction

#### Intent of the Credit:

Minimise light trespass from the building

#### Lutron Solution:

- Automated window shades with the right fabrics prevent light from escaping the building
- Occupancy sensors turn lights off when spaces are vacant to save energy and prevent light pollution from escaping the building
- Timeclock scheduling can be used to provide a building lighting sweep at night so that lights are off or set to a low dimmed level at certain times, saving energy and preventing light pollution

The Plaza at PPL Center, Allentown, PA  
LEED® rating: Gold

## Energy and Atmosphere

### Commissioning

#### Intent of the Credit:

Verify that the building's energy systems are installed, calibrated, and performing effectively

#### Lutron Solution:

- Lutron field service team will help the Commissioning Authority (CxA) verify the installation and performance of the Lutron systems
- Lutron field service can train and provide necessary manuals to operating personnel
- Lutron field service system optimisation or lighting energy audit <sup>1</sup>

### Energy Efficiency Best Management Practices: Planning, Documentation, and Opportunity Assessment

#### Intent of the Credit:

Promote continuity of information to ensure that energy-efficient operating strategies are maintained and provide a foundation for training and system analysis

#### Lutron Solution:

Lutron field service system optimization or lighting energy audit <sup>1</sup>

### Minimum Energy Performance

#### Intent of the Credit:

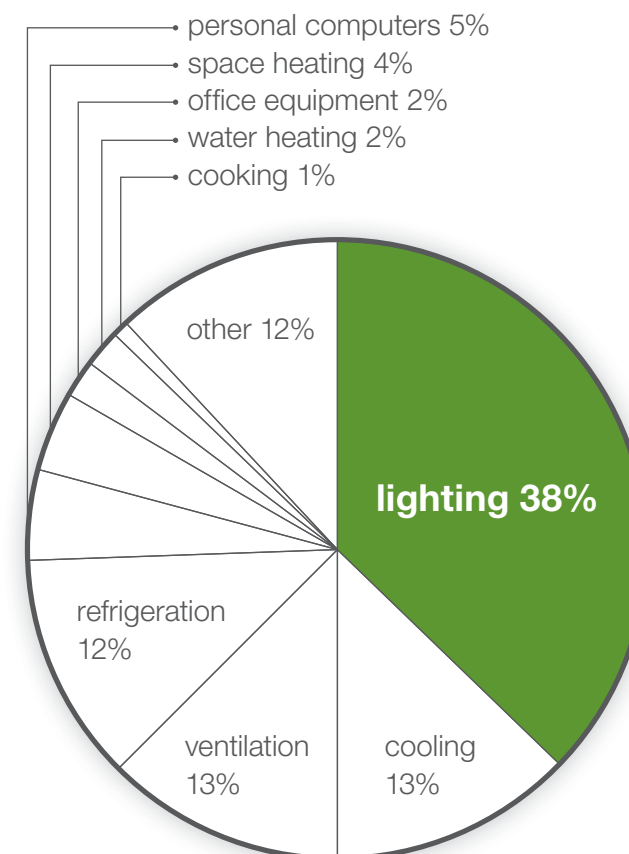
Establish a minimum level of energy efficiency for the building

#### Lutron Solution:

Occupancy sensors and timeclock scheduling can be used to meet the mandatory lighting control requirements in Section 9.4 of ASHRAE 90.1 2007

**Did you know that more electricity is consumed for lighting than any other end use? <sup>2</sup>**

**Lutron solutions can reduce that by 60% or more while enhancing the space.**



<sup>1</sup> [www.lutron.com/optimize](http://www.lutron.com/optimize)

<sup>2</sup> Energy Information Administration, 2003 Commercial Buildings Energy Consumption Survey, Figure 4, released April 2009. [www.eia.doe.gov/emeu/cbecs/cbecs2003/lighting/lighting1.html](http://www.eia.doe.gov/emeu/cbecs/cbecs2003/lighting/lighting1.html)

# Lutron can contribute to LEED® 2009 certification

## Energy and Atmosphere (cont.)

### Optimise Energy Performance

#### Intent of the Credit:

Achieve energy performance beyond the prerequisite standard

#### Lutron Solution:

Using a combination of energy-saving light control strategies such as automated shading, daylight harvesting, high-end trim, light level tuning, dimming, scheduling, and occupancy sensing can reduce lighting loads by 60% or more; these strategies can also reduce HVAC loads by 20%

### Measurement and Verification

#### Intent of the Credit:

Provide ongoing accountability of building energy consumption over time

#### Lutron Solution:

Quantum® lighting power monitoring provides continuous lighting energy consumption and savings data, and light control strategies, such as light level tuning, can be easily implemented to provide necessary corrective action to achieve the desired energy savings

## Material and Resources

### Recycled Content

#### Intent of the Credit:

Increase demand for building products that incorporate recycled materials

#### Lutron Solution:

100% Recycled fabrics for Lutron automated window shades

## Indoor Environmental Quality

### Low Emitting Materials – Systems Furniture and Seating

#### Intent of the Credit:

Reduce the quantity of indoor air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of installers and occupants

#### Lutron Solution:

GREENGUARD® Certified fabrics for Lutron automated window shades

### Controllability of Systems – Lighting

#### Intent of the Credit:

Provide a high-level of lighting system control for individual occupants or groups in multi-occupant spaces (i.e. classrooms, conference rooms) and promote their productivity, comfort, and well-being

#### Lutron Solution:

All Lutron lighting controls from wallbox dimmers to preset scene controls such as GRAFIK Eye® QS help achieve this credit

### Daylight and Views

#### Intent of the Credit:

Provide occupants a connection to outdoors through daylight and views into regularly occupied spaces

#### Lutron Solution:

Lutron automated window shades help control glare while still providing daylight and access to views

## Innovation and Design

### Innovation in Design

#### Intent of the Credit:

Additional points for exceptional performance above LEED® requirements and/or innovative performance in green building categories not addressed by LEED

#### Lutron Solution:

- Using the Quantum® Green Glance® energy savings display in conjunction with a distributed case study or building tours helps achieve innovation point for green education
- Using Quantum Hyperion™ solar-adaptive shading which automatically adjusts shades based on the position of the sun, may achieve an innovation point for Daylight and Views

### LEED AP

#### Intent of the Credit:

Support and encourage the design integration required by LEED to streamline the application and certification process

#### Lutron Solution:

Lutron has several LEED APs on staff who can assist the project team with the LEED rating system

### The School as a Teaching Tool

#### Intent of the Credit:

Integrate the sustainable features of a school facility with the school's educational mission

#### Lutron Solution:

Lutron Greenovation® provides state-of-the-art classroom lighting with state-correlated energy lessons<sup>3</sup>

<sup>3</sup> www.greenovationNation.com



Access Living, Chicago, IL  
LEED rating: Gold

# LEED® 2009 rating systems

Lutron solutions can contribute to 40 or more of the 110 possible points in LEED® NC, CS, or S.

<b>NC</b> New Construction and Major Renovations <b>CS</b> Core and Shell Development <b>S</b> Schools	<b>NC</b> Points	<b>CS</b> Points	<b>S</b> Points
<b>Sustainable Sites</b>	<b>26</b>	<b>28</b>	<b>24</b>
<b>PREREQUISITE 1</b> Construction Activity Pollution Prevention	Req.	Req.	Req.
<b>PREREQUISITE 2</b> Environmental Site Assessment	–	–	Req.
<b>CREDIT 1</b> Site Selection	1	1	1
<b>CREDIT 2</b> Development Density and Community Connectivity	5	5	4
<b>CREDIT 3</b> Brownfield Redevelopment	1	1	1
<b>CREDIT 4.1</b> Alternative Transportation: Public Transportation Access	6	6	4
<b>CREDIT 4.2</b> Alternative Transportation: Bicycle Storage and Changing Rooms	1	2	1
<b>CREDIT 4.3</b> Alternative Transportation: Low-emitting and Fuel-efficient Vehicles	3	3	2
<b>CREDIT 4.4</b> Alternative Transportation: Parking Capacity	2	2	2
<b>CREDIT 5.1</b> Site Development: Protect or Restore Habitat	1	1	1
<b>CREDIT 5.2</b> Site Development: Maximize Open Space	1	1	1
<b>CREDIT 6.1</b> Stormwater Design: Quantity Control	1	1	1
<b>CREDIT 6.2</b> Stormwater Design: Quality Control	1	1	1
<b>CREDIT 7.1</b> Heat Island Effect: Nonroof	1	1	1
<b>CREDIT 7.2</b> Heat Island Effect: Roof	1	1	1
<b>CREDIT 8</b> Light Pollution Reduction	1	1	1
<b>CREDIT 9</b> Tenant Design and Construction Guidelines	–	1	–
<b>CREDIT 9</b> Site Master Plan	–	–	1
<b>CREDIT 10</b> Joint Use of Facilities	–	–	1
<b>Water Efficiency</b>	<b>10</b>	<b>10</b>	<b>11</b>
<b>PREREQUISITE 1</b> Water Use Reduction	Req.	Req.	Req.
<b>CREDIT 1</b> Water Efficient Landscaping	2–4	2–4	2–4
<b>CREDIT 2</b> Innovative Wastewater Technologies	2	2	2
<b>CREDIT 3</b> Water Use Reduction	2–4	2–4	2–4
<b>CREDIT 4</b> Process Water Use Reduction	–	–	1
<b>Energy and Atmosphere</b>	<b>35</b>	<b>37</b>	<b>33</b>
<b>PREREQUISITE 1</b> Fundamental Commissioning of Building Energy Systems	Req.	Req.	Req.
<b>PREREQUISITE 2</b> Minimum Energy Performance	Req.	Req.	Req.
<b>PREREQUISITE 3</b> Fundamental Refrigerant Management	Req.	Req.	Req.
<b>CREDIT 1</b> Optimise Energy Performance	1–19	3–21	1–19
<b>CREDIT 2</b> On-site Renewable Energy	1–7	4	1–7
<b>CREDIT 3</b> Enhanced Commissioning	2	2	2
<b>CREDIT 4</b> Enhanced Refrigerant Management	2	2	1
<b>CREDIT 5</b> Measurement and Verification	3	–	2
<b>CREDIT 5.1</b> Measurement and Verification: Base Building	–	3	–
<b>CREDIT 5.2</b> Measurement and Verification: Tenant Submetering	–	3	–
<b>CREDIT 6</b> Green Power	2	2	2

Lutron solutions help meet the requirements.

<b>NC</b> New Construction and Major Renovations <b>CS</b> Core and Shell Development <b>S</b> Schools	<b>NC</b> Points	<b>CS</b> Points	<b>S</b> Points
<b>Materials and Resources</b>	<b>14</b>	<b>13</b>	<b>13</b>
<b>PREREQUISITE 1</b> Storage and Collection of Recyclables	Req.	Req.	Req.
<b>CREDIT 1.1</b> Building Reuse: Maintain Existing Walls, Floors and Roof	1–3	1–5	1–2
<b>CREDIT 1.2</b> Building Reuse: Maintain Existing Interior Nonstructural Elements	1	–	1
<b>CREDIT 2</b> Construction Waste Management	1–2	1–2	1–2
<b>CREDIT 3</b> Materials Reuse	1–2	1	1–2
<b>CREDIT 4</b> Recycled Content	1–2	1–2	1–2
<b>CREDIT 5</b> Regional Materials	1–2	1–2	1–2
<b>CREDIT 6</b> Rapidly Renewable Materials	–	–	–
<b>CREDIT 6</b> Certified Wood	–	1	–
<b>CREDIT 7</b> Certified Wood	1	–	1
<b>Indoor Environmental Quality</b>	<b>15</b>	<b>12</b>	<b>19</b>
<b>PREREQUISITE 1</b> Minimum Indoor Air Quality Performance	Req.	Req.	Req.
<b>PREREQUISITE 2</b> Environmental Tobacco Smoke Control	Req.	Req.	Req.
<b>PREREQUISITE 3</b> Minimum Acoustical Performance	–	–	Req.
<b>CREDIT 1</b> Outdoor Air Delivery Monitoring	1	1	1
<b>CREDIT 2</b> Increased Ventilation	1	1	1
<b>CREDIT 3.1</b> Construction Indoor Air Quality Mgmt. Plan: During Construction	1	1	1
<b>CREDIT 3.2</b> Construction Indoor Air Quality Mgmt. Plan: Before Occupancy	1	1	1
<b>CREDIT 4</b> Low-emitting Materials	1–4	1–4	1–4
<b>CREDIT 5</b> Indoor Chemical and Pollutant Source Control	1	1	1
<b>CREDIT 6.1</b> Controllability of Systems: Lighting	1	1	1
<b>CREDIT 6.2</b> Controllability of Systems: Thermal Comfort	1	1	1
<b>CREDIT 7.1</b> Thermal Comfort: Design	1	1	1
<b>CREDIT 7.2</b> Thermal Comfort: Verification	1	–	1
<b>CREDIT 8.1</b> Daylight and Views: Daylight	1	1	1–3
<b>CREDIT 8.2</b> Daylight and Views: Views	1	1	1
<b>CREDIT 9</b> Enhanced Acoustical Performance	–	–	1
<b>CREDIT 10</b> Mold Prevention	–	–	1
<b>Innovation in Design</b>	<b>6</b>	<b>6</b>	<b>6</b>
<b>CREDIT 1</b> Innovation in Design	1–5	1–5	1–4
<b>CREDIT 2</b> LEED Accredited Professional	1	1	1
<b>CREDIT 3</b> The School as a Teaching Tool	–	–	1
<b>Regional Priority</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>CREDIT 1</b> Regional Priority	1–4	1–4	1–4
<b>Total Points</b>	<b>110</b>	<b>110</b>	<b>110</b>

Lutron solutions help meet the requirements.

CI Commercial Interiors	CI Points
<b>Sustainable Sites</b>	<b>21</b>
CREDIT 1 Site Selection	1-5
CREDIT 2 Development Density and Community Connectivity	6
CREDIT 3.1 Alternative Transportation: Public Transportation Access	6
CREDIT 3.2 Alternative Transportation: Bicycle Storage and Changing Rooms	2
CREDIT 3.3 Alternative Transportation: Parking Capacity	2
<b>Water Efficiency</b>	<b>11</b>
PREREQUISITE 1 Water Use Reduction	Req.
CREDIT 1 Water Use Reduction	6-11
<b>Energy and Atmosphere</b>	<b>35</b>
PREREQUISITE 1 Fundamental Commissioning of Building Energy Systems	Req.
PREREQUISITE 2 Minimum Energy Performance	Req.
PREREQUISITE 3 Fundamental Refrigerant Management	Req.
CREDIT 1.1 Optimise Energy Performance: Lighting Power	1-5
CREDIT 1.2 Optimise Energy Performance: Lighting Controls	1-3
CREDIT 1.3 Optimise Energy Performance: HVAC	5-10
CREDIT 1.4 Optimise Energy Performance: Equipment and Appliances	1-4
CREDIT 2 Enhanced Commissioning	5
CREDIT 3 Measurement and Verification	2-5
CREDIT 4 Green Power	5
<b>Materials and Resources</b>	<b>14</b>
PREREQUISITE 1 Storage and Collection of Recyclables	Req.
CREDIT 1.1 Tenant Space: Long Term Commitment	1
CREDIT 1.2 Building Reuse: Maintain Existing Interior Nonstructural Elements	1-2
CREDIT 2 Construction Waste Management	1-2
CREDIT 3.1 Materials Reuse	1-2
CREDIT 3.2 Materials Reuse: Furniture and Furnishings	1
CREDIT 4 Recycled Content	1-2
CREDIT 5 Regional Materials	1-2
CREDIT 6 Rapidly Renewable Materials	1
CREDIT 7 Certified Wood	1

› Lutron solutions help meet the requirements.

CI Commercial Interiors	CI Points
<b>Indoor Environmental Quality</b>	<b>17</b>
PREREQUISITE 1 Minimum Indoor Air Quality Performance	Req.
PREREQUISITE 2 Environmental Tobacco Smoke Control	Req.
CREDIT 1 Outdoor Air Delivery Monitoring	1
CREDIT 2 Increased Ventilation	1
CREDIT 3.1 Construction Indoor Air Quality Mgmt. Plan: During Construction	1
CREDIT 3.2 Construction Indoor Air Quality Mgmt. Plan: Before Occupancy	1
CREDIT 4.1 Low-emitting Materials: Adhesives and Sealants	1
CREDIT 4.2 Low-emitting Materials: Paints and Coatings	1
CREDIT 4.3 Low-emitting Materials: Flooring Systems	1
CREDIT 4.4 Low-emitting Materials: Composite Wood and Agrifiber Products	1
CREDIT 4.5 Low-emitting Materials: Systems Furniture and Seating	1
CREDIT 5 Indoor Chemical and Pollutant Source Control	1
CREDIT 6.1 Controllability of Systems: Lighting	1
CREDIT 6.2 Controllability of Systems: Thermal Comfort	1
CREDIT 7.1 Thermal Comfort: Design	1
CREDIT 7.2 Thermal Comfort: Verification	1
CREDIT 8.1 Daylight and Views: Daylight	1-2
CREDIT 8.2 Daylight and Views: Views for Seated Spaces	1
<b>Innovation in Design</b>	<b>6</b>
CREDIT 1 Innovation in Design	1-5
CREDIT 2 LEED Accredited Professional	1
<b>Regional Priority</b>	<b>4</b>
CREDIT 1 Regional Priority	1-4
<b>Total Points</b>	<b>110</b>

› Lutron solutions help meet the requirements.

<b>EB Existing Buildings: Operations and Maintenance</b>		<b>EB Points</b>
<b>Sustainable Sites</b>		<b>26</b>
CREDIT 1	LEED Certified Design and Construction	4
CREDIT 2	Building Exterior and Hardscape Management Plan	1
CREDIT 3	Integrated Pest Management, Erosion Control, and Landscape Mgmt. Plan	1
CREDIT 4	Alternative Commuting Transportation	3–15
CREDIT 5	Site Disturbance: Protect or Restore Open Habitat	1
CREDIT 6	Stormwater Quantity Control	1
CREDIT 7.1	Heat Island Effect: Nonroof	1
CREDIT 7.2	Heat Island Effect: Roof	1
CREDIT 8	Light Pollution Reduction	1
<b>Water Efficiency</b>		<b>14</b>
PREREQUISITE 1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Req.
CREDIT 1	Water Performance Measurement	1–2
CREDIT 2	Additional Indoor Plumbing Fixture and Fitting Efficiency	1–5
CREDIT 3	Water Efficient Landscaping	1–5
CREDIT 4	Cooling Tower Water Management	1–2
<b>Energy and Atmosphere</b>		<b>35</b>
PREREQUISITE 1	Energy Efficiency Best Management Practices: Planning, Documentation, and Opportunity Assessment	Req.
PREREQUISITE 2	Minimum Energy Efficiency Performance	Req.
PREREQUISITE 3	Fundamental Refrigerant Management	Req.
CREDIT 1	Optimise Energy Efficiency Performance	1–18
CREDIT 2.1	Existing Building Commissioning: Investigation and Analysis	2
CREDIT 2.2	Existing Building Commissioning: Implementation	2
CREDIT 2.3	Existing Building Commissioning: Ongoing Commissioning	2
CREDIT 3.1	Performance Measurement: Building Automation System	1
CREDIT 3.2	Performance Measurement: System Level Metering	1–2
CREDIT 4	On-site and Off-site Renewable Energy	1–6
CREDIT 5	Enhanced Refrigerant Management	1
CREDIT 6	Emissions Reduction Reporting	1
<b>Materials and Resources</b>		<b>10</b>
PREREQUISITE 1	Sustainable Purchasing Policy	Req.
PREREQUISITE 2	Solid Waste Management Policy	Req.
CREDIT 1	Sustainable Purchasing: Ongoing Consumables	1
CREDIT 2	Sustainable Purchasing: Durable Goods	1–2
CREDIT 3	Sustainable Purchasing: Facility Alterations and Additions	1
CREDIT 4	Sustainable Purchasing: Reduced Mercury in Lamps	1

› Lutron solutions help meet the requirements.

<b>EB Existing Buildings: Operations and Maintenance</b>		<b>EB Points</b>
<b>Materials and Resources (continued)</b>		<b>10</b>
CREDIT 5	Sustainable Purchasing: Food	1
CREDIT 6	Solid Waste Management: Waste Stream Audit	1
CREDIT 7	Solid Waste Management: Ongoing Consumables	1
CREDIT 8	Solid Waste Management: Durable Goods	1
CREDIT 9	Solid Waste Management: Facility Alterations and Additions	1
<b>Indoor Environmental Quality</b>		<b>15</b>
PREREQUISITE 1	Minimum Indoor Air Quality Performance	Req.
PREREQUISITE 2	Environmental Tobacco Smoke Control	Req.
PREREQUISITE 3	Green Cleaning Policy	Req.
CREDIT 1.1	Indoor Air Quality Best Mgmt. Practices: Indoor Air Quality Mgmt. Program	1
CREDIT 1.2	Indoor Air Quality Best Mgmt. Practices: Outdoor Air Delivery Monitoring	1
CREDIT 1.3	Indoor Air Quality Best Mgmt. Practices: Increased Ventilation	1
CREDIT 1.4	Indoor Air Quality Best Mgmt. Practices: Reduce Particulates in Air Distribution	1
CREDIT 1.5	Indoor Air Quality Best Mgmt. Practices: Indoor Air Quality Management for Facility Alterations and Additions	1
CREDIT 2.1	Occupant Comfort: Occupant Survey	1
CREDIT 2.2	Controllability of Systems: Lighting	1
CREDIT 2.3	Occupant Comfort: Thermal Comfort Monitoring	1
CREDIT 2.4	Daylight and Views	1
CREDIT 3.1	Green Cleaning: High Performance Cleaning Program	1
CREDIT 3.2	Green Cleaning: Custodial Effectiveness Assessment	1
CREDIT 3.3	Green Cleaning: Purchase of Sustainable Cleaning Products and Materials	1
CREDIT 3.4	Green Cleaning: Sustainable Cleaning Equipment	1
CREDIT 3.5	Green Cleaning: Indoor Chemical and Pollutant Source Control	1
CREDIT 3.6	Green Cleaning: Indoor Integrated Pest Management	1
<b>Innovation in Operations</b>		<b>6</b>
CREDIT 1	Innovation in Operations	1–4
CREDIT 2	LEED Accredited Professional	1
CREDIT 3	Documenting Sustainable Building Cost Impacts	1
<b>Regional Priority</b>		<b>4</b>
CREDIT 1	Regional Priority	1–4
<b>Total Points</b>		<b>110</b>

› Lutron solutions help meet the requirements.



# Lutron project profiles

## Hotel Arista Naperville, Illinois

This hotel requires a guestroom lighting control system that supports the highest level of guest satisfaction, delivers energy savings and sustainability, and provides flexibility and simplicity; their choice – a Lutron Stanza™ system.

Hotel Arista is the first LEED certified hotel in Illinois, as recognized by the U.S. Green Building Council (USGBC). With the help of the Lutron Stanza lighting control system, it uses 21% less energy than the typical hotel property while providing unparalleled convenience and comfort to its guests.



### LEED® Facts

Certified	28
Sustainable Sites	7/14
Water Efficiency	3/5
Energy & Atmosphere	3/17
Materials & Resources	3/13
Indoor Environmental Quality	9/15
Innovation in Design	3/5

LEED for New Construction  
Certification awarded  
May 29, 2009

**“Saving energy and extending lamp life is a big part of a sustainable approach. The Lutron system helped us do that. In addition, the ability to dim the lights with this system demonstrates a unique sense of quality and creates a warm welcoming experience.”**

Basil Souder, AIA  
Principal  
Lohan Anderson

## Exelon Headquarters Chicago, Illinois

Exelon Corporation, one of the nation’s largest energy companies, chose Lutron EcoSystem® for their renovated office headquarters in the landmark Chase Tower. With the help of the Lutron system, the flagship headquarters became the largest office space (10 floors, approximately 220,000 square feet) to earn a Platinum rating in the U.S. Green Building Council’s LEED for Commercial Interiors rating system.

Lutron energy conservation strategies such as dimmable lighting, daylight harvesting, and occupancy sensing helped the project achieve a 50% reduction in annual energy costs and 43% less energy than its previous offices. This savings is enough money to pay for the project’s green features in less than five years.



### LEED® Facts

Platinum	44
Sustainable Sites	6/7
Water Efficiency	2/2
Energy & Atmosphere	11/12
Materials & Resources	8/14
Indoor Environmental Quality	12/17
Innovation in Design	5/5

LEED for Commercial  
Interiors Certification  
awarded April 13, 2007

**“Lutron’s system provides a completely integrated daylight dimming system at a relatively reasonable cost.”**

Helen J. Kessler, FAIA, LEED AP  
Founder and Principal  
HJ Kessler Associates

Photograph © Steve Hall – Hedrich Blessing

# Lutron project profiles

## Sidwell Friends Middle School Washington, D.C.

When Sidwell Friends School in Washington, D.C. recently upgraded its Middle School building, the administration decided that, in order to live up to the school's Quaker ideal of environmental stewardship, the building would have to be transformed into a LEED Platinum certified facility.

Sidwell was able to attain that rating with a host of sustainable design features, including the EcoSystem® lighting control solution from Lutron. The Lutron system helped Sidwell cut lighting energy consumption by 92%, and overall energy use by 55%.



### LEED® Facts

<b>Platinum</b>	<b>57</b>
Sustainable Sites	11/14
Water Efficiency	5/5
Energy & Atmosphere	13/17
Materials & Resources	8/13
Indoor Environmental Quality	15/15
Innovation in Design	5/5

LEED for New Construction  
Certification awarded  
March 14, 2007

“Sidwell Friends School wanted a building that set a new standard for environmental responsibility and, in order to give them that, we needed the most advanced lighting system available that can integrate daylight sensing and other technologies.”

Stephen Kieran, FAIA  
Partner  
KieranTimberlake Associates LLP

## More Lutron LEED® projects

Project	Building Type	Rating System	Certification Level	Location
› Access Living	Office	NC 2.1	Gold	Chicago, IL
› AIA Headquarters	Office	CI 2.0	Gold	San Francisco, CA
› Allsteel Showroom	Retail	CI 2.0	Silver	San Francisco, CA
<b>Bank of America</b>	Office	CI 2.0	Silver	New York, NY
› Bently Reserve	Office	CS 2.0	Silver	San Francisco, CA
<b>David L. Lawrence Convention Center</b>	Exhibit Hall	NC 2.0	Gold	Pittsburgh, PA
<b>eBay</b>	Office	NC 2.1	Gold	San Jose, CA
<b>Exelon Headquarters</b>	Office	CI 2.0	Platinum	Chicago, IL
<b>Genzyme Center</b>	Office	NC 2.0	Platinum	Cambridge, MA
› Hotel Arista	Hotel	NC 2.2	Certified	Naperville, IL
<b>HSBC</b>	Office	NC 2.1	Gold	Chicago, IL
<b>ITC Gardenia Hotel</b>	Hotel	India NC	Platinum	Bangalore, India
<b>Montage Hotel Beverly Hills</b>	Hotel	NC 2.2	Gold	Beverly Hills, CA
<b>Orchard Garden Hotel</b>	Hotel	NC 2.1	Certified	San Francisco, CA
<b>Salmon Creek Eco-Resource Building</b>	Education	NC 2.2	Platinum	Occidental, CA
› Sidwell Friends School	School	NC 2.1	Platinum	Washington, D.C.
<b>Starwood Element</b>	Hotel	NC 2.2	Gold	Lexington, MA
› The Energy Foundation	Office	CI 2.0	Platinum	San Francisco, CA
<b>The Plaza Center at PPL</b>	Office	NC 2.1	Gold	Allentown, PA
<b>Yale Sculpture Building</b>	Education	NC 2.1	Platinum	New Haven, CT

› Lutron case study available, visit [www.lutron.com/casestudies](http://www.lutron.com/casestudies) to download.



Printed on Claro Silk, comprising of fibres sourced from well managed sustainable forests.

## A history of sustainability

At Lutron, sustainability is not a new concept. Since 1961, we have been designing industry-leading technology that saves energy and reduces greenhouse gas emissions.

**Each year, Lutron solutions save over 9 billion kWh of energy.\***

**That's equivalent to:**

- over 1 billion dollars in energy costs;
- as much energy as 2,000 windmills produce in one year;
- enough energy to light 4.5 million homes for one year;
- enough energy to light and power Times Square for 10 years; or
- as much CO<sub>2</sub> as 2 million acres of trees absorb in one year.

## Global service and support

You can count on a level of support unequalled anywhere in the industry and anywhere in the world. Lutron provides 24/7 technical phone support. Lutron Field Service, made up of a global network of customer-focused field service engineers, provides world-class services that begin before your building is commissioned and continue throughout the life of your building.

## For more information about LEED®

For more detailed information on all the LEED rating systems, visit [www.lutron.com/LEED](http://www.lutron.com/LEED) or contact [LEED@lutron.com](mailto:LEED@lutron.com). Additional information available at [www.usgbc.org/LEED](http://www.usgbc.org/LEED) or [leedinfo@usgbc.org](mailto:leedinfo@usgbc.org).

\* Sources: Con Edison, Massachusetts Institute of Technology, Lutron sales data, and U. S. Department of Energy.

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