

# Draper's Impact on LEED 2009

By Clint Childress (LEED®-AP)

Green Buildings Coordinator and Window Shades Product Specialist, Draper, Inc.

Below is a list of credits toward which Draper can help contribute or provide needed information. LEED Reference Guide for Green Building Design and Construction, 2009 edition, is the source used for the information in this document.



## Sustainable Sites

### Credit 8, Light Pollution Reduction:

This credit has two parts, interior lighting control and exterior lighting control. Both parts must be satisfied to earn this credit. The interior lighting portion of this credit has two compliance options to choose from. Draper's motorized shades, used in conjunction with Draper controls, can meet the option 2 compliance method for the interior lighting portion of the credit:

“All exterior openings, such as windows, must have shielding that can be automatically controlled and programmed to close from 11:00 p.m. to 5:00 a.m. Shielding options include automatic shades that have less than 10% transmittance. An example is a timer-controlled automated rolling shade with the appropriate light transmittance.”<sup>1</sup>

### Credit 9, Tenant Design and Construction Guidelines:

This credit is only for LEED Core & Shell (CS). The intent of this credit is to educate tenants on sustainable design for their tenant improvement build-out. One of the LEED 2009 credits to be addressed is Daylighting and Views. Window shades are an excellent choice to control glare when pursuing a daylighting strategy.

“So that tenants can optimize daylighting, a LEED for Core & Shell commercial office building design should consider floor-to-ceiling heights, the bay size, the type of glazing, and the depth of occupied spaces. Daylight shelves and glare control devices should also be considered.”<sup>2</sup>

### Credit 9, Site Master Plan

This credit is only for LEED SCHOOLS. The credit requires that 4 out of 7 credits be achieved. One of the credits is SS Credit 8: Light Pollution Reduction. The effects of Draper window shades on this credit are described above.

# DRAPER®

411 S. Pearl St., Spiceland, IN 47385 USA ■ 765-987-7999  
www.draperinc.com ■ fax 765-987-7142

<sup>1</sup> P. 134, *LEED Reference Guide For Green Building Design and Construction*, 2009 Edition

<sup>2</sup> P. 145, *LEED Reference Guide For Green Building Design and Construction*, 2009 Edition



## Energy & Atmosphere

### Prerequisite 1- Fundamental Commissioning of Building Energy Systems:

To achieve LEED certification all prerequisites must be satisfied. This prerequisite requires a commissioning authority (CxA) to take a number of fundamental commissioning steps. Commissioning activities must be completed for lighting and daylighting controls. Draper can provide information about our window shade controls.

“Commissioning process activities must be completed for the following energy-related systems, at a minimum (if they are installed as part of the core and shell project)...lighting and daylighting controls...”<sup>3</sup>

Sustainable Sites Credit 8: Light Pollution Reduction is a related credit (see page 1).

### Prerequisite 2- Minimum Energy Performance

To achieve LEED certification all prerequisites must be satisfied. This prerequisite requires a 10% improvement (55% for existing buildings) compared with the baseline building performance rating. Draper motorized shades, operating based on the sun’s movement through automated controls such as the Draper Digital Network, will increase energy efficiency. Motorized shades should be included in the energy model.

### Credit 1- Optimize Energy Performance

This credit is worth up 19 points. The minimum energy cost savings percentage is 12% for new buildings and 8% for existing building renovations. Additional points (up to 19) can be awarded for greater percentage savings. Draper’s motorized shades, operating based on the sun’s movement through automated controls such as the Draper Digital Network, will increase energy efficiency. Motorized window shades should be included in the energy model.

“Manually controlled interior shading devices such as blinds and curtains should not be modeled. Automatically controlled interior shading devices can be modeled...”<sup>4</sup>

### Credit 3- Enhanced Commissioning

There are 12 steps involved in the enhanced commissioning process. By providing information and documentation, Draper can assist with Steps 9 and 10. Step 9 specifies that a systems manual be developed for all commissioned systems. Daylighting controls were a requirement Prerequisite 1, Fundamental Commissioning. Step 10 requires training on commissioned systems for operating personnel and building occupants. Related credits include: Sustainable Sites Credit 8: Light Pollution Reduction; and Energy and Atmosphere Credit 1: Optimize Energy Performance.

<sup>3</sup> P. 217, *LEED Reference Guide For Green Building Design and Construction*, 2009 Edition

<sup>4</sup> P. 270, *LEED Reference Guide For Green Building Design and Construction*, 2009 Edition



## Materials & Resources

### Credit 3- Materials Reuse

This credit considers the reuse of materials on the project. This credit only considers products in CSI divisions 3-10. Draper projection screens are in Division 11. Draper gymnasium equipment is in Division 11. Draper window shades are in Division 12, which can possibly be counted in this credit. It is possible that Draper window shades salvaged for reuse could contribute towards this credit.

“Exclude furniture and furnishing (CSI Division 12 components) unless they are included consistently across MR credits 3-7.”<sup>5</sup>

### Credit 4- Recycled Content

This credit considers the recycled content of materials on the project. This credit only considers products in CSI divisions 3-10. Draper projection screens are in division 11. Draper gymnasium equipment is in Division 11. Draper window shades are in Division 12 which can possibly be counted in this credit. Draper uses components with recycled content. It is possible that Draper window shades could contribute to this credit. Please contact Draper for recycled content information.

“Exclude furniture and furnishing (CSI Division 12 components) unless they are included consistently across MR credits 3-7.”<sup>6</sup>

### Credit 5-Regional Materials

This credit considers products which have been extracted, harvested and manufactured within 500 miles of the project. This credit only considers products in CSI divisions 3-10. Draper projection screens are in division 11. Draper gymnasium equipment is in Division 11. Draper window shades are in Division 12 which can possibly be counted in this credit.

“Exclude furniture and furnishing (CSI Division 12 components) unless they are included consistently across MR credits 3-7.”<sup>7</sup>



## Indoor Environmental Quality

### Credit 8.1- Daylight and Views-Daylight

The intent of this credit is to provide building occupants with a connection between indoor spaces and the outdoors through the introduction of daylight and views. Go to Draper’s Web

<sup>5</sup> P. 365, *LEED Reference Guide For Green Building Design and Construction*, 2009 Edition

<sup>6</sup> P. 372, *LEED Reference Guide For Green Building Design and Construction*, 2009 Edition

<sup>7</sup> P. 382, *LEED Reference Guide For Green Building Design and Construction*, 2009 Edition

site, [www.draperinc.com](http://www.draperinc.com), to view our case study on how our shades solved the glare problem at Heifer International HQ in Little Rock, AR.

“Glare control is perhaps the most common failure in daylighting strategies. Large windows provide generous amounts of daylight. If not controlled, properly, this daylight can produce unwanted glare and affect interior lighting quality. Measures to control glare include light shelves, louvers, blinds, fins, and shades...Glare control is required for each window.”<sup>8</sup>



## Innovation in Design

### Credit 1- Innovation in Design

This credit is worth up to 5 points (4 for LEED SCHOOLS). One point is awarded for each innovation achieved. Draper products could contribute to a number of innovative strategies. One past accepted strategy was the use of GREENGUARD Certified products. The use of numerous GREENGUARD products would be a possible innovative strategy if it met the intent of the strategy being used on the project.

“Installing a single green product or addressing a single aspect of a sustainability issue is not a sufficient level of effort.”<sup>9</sup>



## Regional Priority

### Credit 1- Regional Priority Credits

This credit addresses regional issues by emphasizing 6 credits based upon zip code. You can earn up to four points by achieving 4 out of the 6 regional credits. If Draper products help you achieve regional credits, then they may also help contribute towards Regional priority credits. For example, if SS credit 8 is a regional credit for your project, and you achieved SS credit 8 with the help of Draper motorized shades, then you would earn the SS credit 8 **and** a regional priority credit.

<sup>8</sup> P. 553, *LEED Reference Guide For Green Building Design and Construction*, 2009 Edition

<sup>9</sup> P. 595, *LEED Reference Guide For Green Building Design and Construction*, 2009 Edition

# Draper Product Considerations

Below is a list of additional LEED credits and some Draper products to consider when thinking about these credits. Draper products will not impact the awarding of these credits, but going after these credits might impact product selection.



## Sustainable Sites

### Credit 10-Joint Use of Facilities

This credit, which is for LEED SCHOOLS, requires that certain common areas be open to the public. The gymnasium is one of these areas. However, when opening your gym for public use, it is important to provide products that the public can use without damaging equipment used by school athletic teams and students. Draper offers a wide range of gymnasium equipment to provide equipment for both community and school use, and GREENGUARD-certified gym divider curtains to keep public and school areas separate.



## Indoor Environmental Quality

### Credit 4.5- Low-Emitting Materials- Furniture and Furnishings

This credit is for LEED SCHOOLS, and applies to classroom furniture. One compliance option is to provide furniture that is GREENGUARD Children and Schools certified. If low-emitting products in schools—or any facility—is important to you, Draper has a wide range of GREENGUARD Children and Schools-certified products. Many of our window shade and projection fabrics are certified. We were the first manufacturer of these products to be listed on the GREENGUARD Web site. We are also the only manufacturer of GREENGUARD Children and Schools-certified gymnasium wall pads and divider curtain material.

### Credit 6.1- Controllability of Systems-Lighting

It is important that lighting levels be suitable for the tasks that take place in that area. In AV conditions, the room should be dark enough for the screen but not too dark for note-taking. With Draper's years of experience as both a window shade and projection screen manufacturer, we can help you match the correct window shade material with the right projection screen surface.