



Intent

Pilot Credit Closed

This pilot credit is closed to new registrations

To increase night sky access, improve nighttime visibility, and reduce development impacts on wildlife environments.

Requirements

Establishment

Option 1. Fixture Shielding

Shield all exterior fixtures (where the sum of the mean lamp lumens for that fixture exceeds 2,500) such that the installed fixtures do not directly emit any light at a vertical angle more than 90 degrees from straight down.

OR

Option 2. BD&C Requirements

If the project is certified under LEED for New Construction, Schools, demonstrate that the project complies with the exterior lighting requirements of the most recent LEED for New Construction SS Credit Light Pollution Reduction.

If the project is certified under LEED for Core & Shell and 75% of the floor area is LEED for Commercial Interiors, demonstrate that the project complies with the exterior lighting requirements of the most recent requirements for both rating systems.

OR

Option 2. Perimeter Measurements

Measure the night illumination levels at regularly spaced points on the project boundary, taking the measurements with the building's exterior and site lights both on and off. At least eight measurements are required, at a maximum spacing of 100 feet (30 meters) apart. The illumination level measured with the lights on must not be more than 20% above the level measured with the lights off.

Performance

None.

General Pilot Documentation Requirements

REGISTER FOR THE PILOT CREDIT

- Participate in the [LEEDuser pilot credit forum](#)
- Complete the feedback survey:

CREDITS 1-14

CREDITS 15-27

CREDITS 28-42

CREDITS 43-56

CREDITS 57-67

CREDITS 68-82

CREDITS 83-103

Credit specific

Building Design & Construction

Exterior Lighting – provide the following:

- A site plan showing all sign locations and exterior light fixtures with designations and an associated fixture schedule with brief descriptions including lamp information for all fixtures

- A description with drawings and/or images of the site and all immediately adjacent properties, documenting a lighting zone for each of these. Any lighting zone
- 4 designations should include a document from the local zoning authority showing that they have authorized that zone designation for that site.
- A list of all exempt exterior luminaires and which exemption they qualify under.
- Signage: Narrative and drawings describing the luminance levels of the signs during hours of darkness and hours of daylight. Daylight hours are between 30 minutes after sunrise and 30 minutes before sunset. Nighttime hours are between 30 minutes after sunset and 30 minutes before sunrise.

Uplight

Option 1 BUG Rating Method:

- The lighting zone designation used for this option
- A lighting schedule documenting the three-dimensional orientation (plan/ elevation) of each non-exempt exterior fixture and it's U-Rating in that orientation (identical luminaires in the same orientation may be grouped).

Option 2 Calculation Method:

- The lighting zone designation used for this option
- A spreadsheet showing the following for each non-exempt luminaire (including summations where appropriate): (identical luminaires in the same orientation may be grouped)
 - Catalog #
 - Quantity of this luminaire
 - The three dimensional orientation of the luminaire (plan/ elevation)
 - The lumens emitted by the luminaire in that orientation
 - The lumens emitted by the luminaire in that orientation above the horizon
- A summation calculation showing compliance based on the data presented above.

Light Trespass

Option 1 BUG Rating Method:

- The lighting zone designation used for this option
- Where appropriate, a narrative justifying extending the lighting boundary line past the property line in accordance with the credit requirements.
- a spreadsheet showing the following for each non-exempt luminaire: (identical luminaires in the same orientation may be grouped)
 - Catalog #
 - The three dimensional orientation of the luminaire (plan/ elevation)
 - The orientation of the luminaire relative to the nearest lighting boundary line
 - The backlight and glare ratings of the luminaire in the defined position
 - An statement of compliance

Option 2 Calculation Method:

A point-by-point calculation showing initial vertical illuminances. Each vertical plane shall include:

- The maximum vertical illuminance encountered
- The lighting zone for this plane
- A statement of compliance

Multitenant Complex Projects:

Include a narrative that describes:

- How the safety/security issues, comfort, and economic activity were addressed and enhanced,
- The shared exterior lighting amenities,
- How light pollution and energy consumption was minimized, and
- How specific projects fit into the overall design.

Existing Buildings: Operations & Maintenance

Interior Lighting- provide the following:

- Narrative and drawings showing control locations, describing the lighting controls used on the interior lighting, the sequence of operation, and how these controls comply with this credit and section 9 of the ANSI/ASHRAE/IES Standard 90.1-2010.

Exterior Lighting

Option 1:

- A luminaire schedule identifying those luminaires where the sum of the mean lamp lumens exceeds 2,500
- A photometric report of those luminaires demonstrating that no light is emitted above 90 degrees from straight down in their final installed position(s).

Option 2:

- Provide proof that the project complies with NC, CS, Schools, Retail, Healthcare above.

Option 3:

- A plan showing the location of the measurement points used to measure the night illumination levels.
- A description of the measurement results.

Additional questions

1. Were you able to understand and comply with the credit language as written?
2. Were there barriers to implementing the strategies used under this credit?
3. Do the criteria associated with quality exterior lighting align with your project's productivity, safety, and quality needs?

Changes:

- 1/15/2013: minor language changes to align with [LEED v4 5th public comment version of SSc6](#)
- BD&C
 - Reordered requirements
 - Removed multitenant complex requirements
 - Added language to make the credit globally applicable
- EBOM
 - Removed interior lighting requirements
 - Minor wording clarifications