



v3 - LEED 2009

Daylight and views

EQc2.4 | Possible 1 point

Glossary

Intent

To provide building occupants with a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building.

Requirements

Project teams must achieve the performance thresholds in either the daylight or views requirements below:

Option 1. Daylight

Through 1 of the 4 paths, achieve daylighting in at least 50% of all regularly occupied spaces.

Path 1. Simulation

Demonstrate through computer simulations that the applicable spaces achieve daylight illuminance levels of a minimum of 10 footcandles (fc) (108 lux) and a maximum of 500 fc (5,400 lux) in a clear sky condition on September 21 at 9 a.m. and 3 p.m.

Provide glare control devices to avoid high-contrast situations that could impede visual tasks. However, designs that incorporate view-preserving automated shades for glare control may demonstrate compliance for only the minimum 10 fc (108 lux) illuminance level.

OR

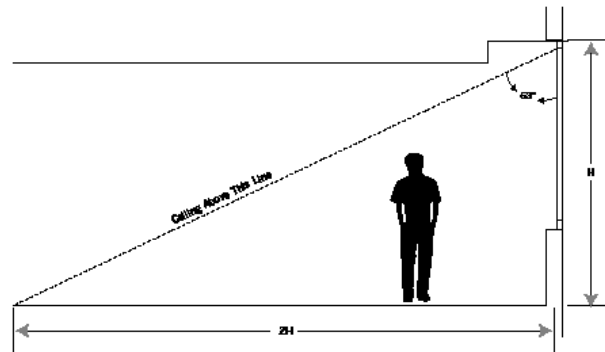
Path 2. Prescriptive

For sidelighting zones:

- Achieve a value, calculated as the product of the visible light transmittance (VLT) and window-to-floor area ratio (WFR) of daylight zone between 0.150 and 0.180.

0.150	<	VLT	x	WFR	<	0.180
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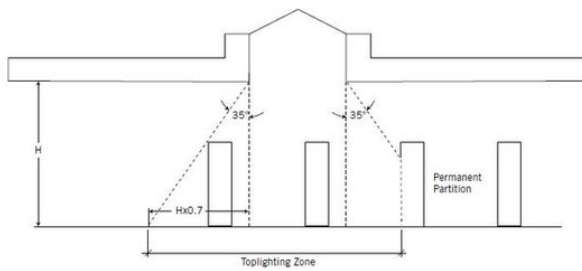
- The window area included in the calculation must be at least 30 inches (0.8 meters) above the floor.
- In section, the ceiling must not obstruct a line in that extends from the window-head to a point on the floor that is located twice the height of the window-head from the exterior wall as measured perpendicular to the glass (see diagram below).



- Provide glare control devices to avoid high-contrast situations that could impede visual tasks. However, designs that incorporate view-preserving automated shades for glare control may demonstrate compliance for only the minimum 0.150 value.

For toplighting zones:

- The toplighting zone under a skylight is the outline of the opening beneath the skylight, plus in each direction the lesser of (see diagram below):
 - 70% of the ceiling height,
 - 1/2 the distance to the edge of the nearest skylight,
 - The distance to any permanent partition that is closer than 70% of the distance between the top of the partition and the ceiling.



- Achieve skylight coverage for the applicable space (containing the toplighting zone) between 3% and 6% of the total floor area.
- The skylight must have a minimum 0.5 VLT.
- A skylight diffuser, if used, must have a measured haze value of greater than 90% when tested according to ASTM D1003.

OR

Path 3. Measurement

Demonstrate through records of indoor light measurements that a minimum daylight illumination level of 10 fc (108 lux) and a maximum of 500 fc (5,400 lux) has been achieved in applicable spaces. Measurements must be taken on a 10-foot (3-meter) grid and recorded on building floor plans.

Provide glare control devices to avoid high-contrast situations that could impede visual tasks. However, designs that incorporate view-preserving automated shades for glare control may demonstrate compliance for only the minimum 10 fc (108 lux) illuminance level.

OR

Path 4. Combination

Any of the above calculation methods may be combined to document the minimum daylight illumination in the applicable spaces.

Option 2. For views

Achieve a direct line of sight to the outdoor environment via vision glazing between 30 inches and 90 inches above the finished floor for building occupants in 45% of all regularly occupied areas. Determine the area with direct line of sight by totaling the regularly occupied square footage that meets the following criteria:

- In plan view, the area is within sight lines drawn from perimeter vision glazing.
- In section view, a direct sight line can be drawn from the area to perimeter vision glazing.

The line of sight may be drawn through interior glazing. For private offices, the entire square footage of the office can be counted if 75% or more of the area has a direct line of sight to perimeter vision glazing. For multioccupant spaces, the actual square footage with a direct line of sight to perimeter vision glazing is counted.