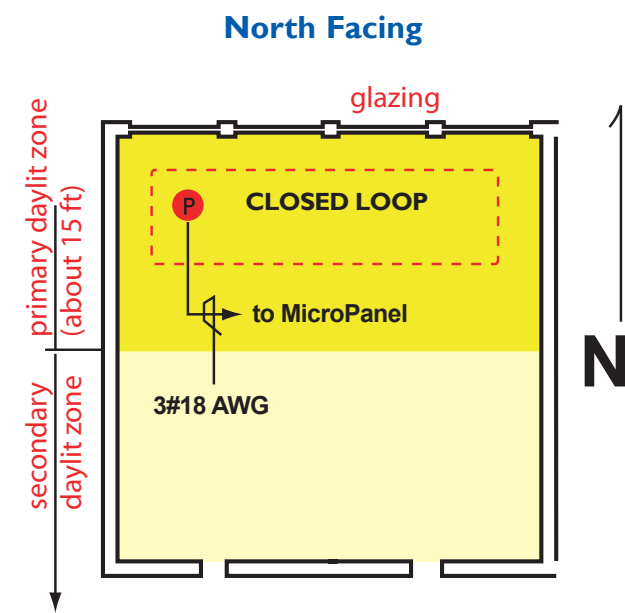
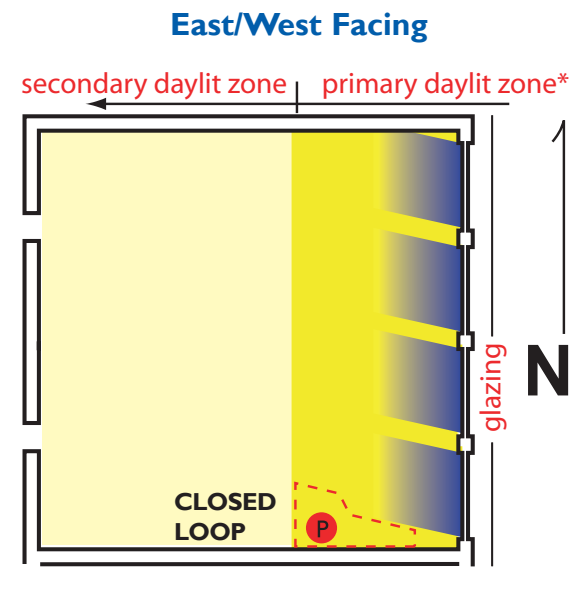


Single Daylight Zone



North facing rooms are not exposed to direct sunlight. LC&D recommends Closed Loop daylight harvesting.

Refer to elevation drawings for mounting details.

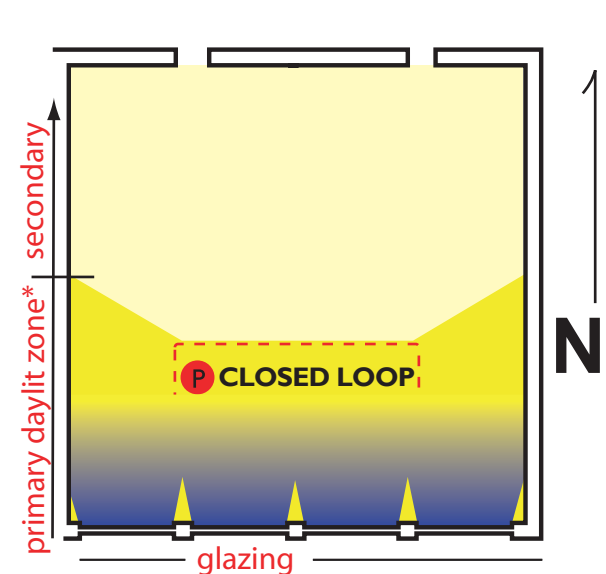


East/West facing rooms are often exposed to direct sunlight.

Closed Loop photosensors are mounted away from glazing towards the southern portion of the room (to avoid direct exposure to sunlight).

*avoid sunlight

South Facing

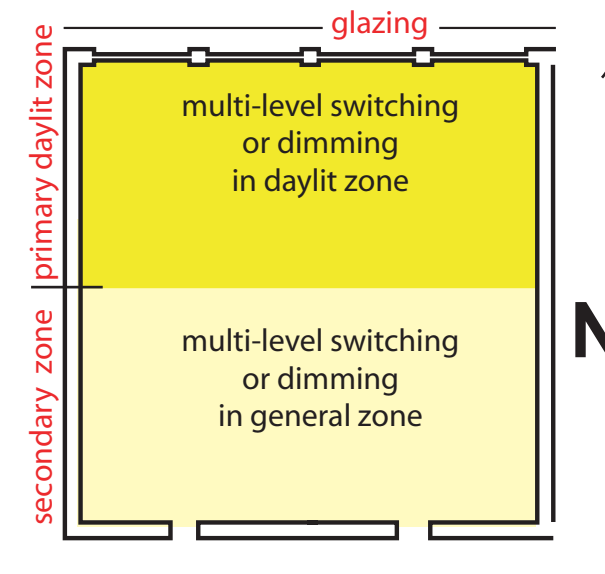


South facing rooms are often exposed to direct sunlight.

Placement for Closed Loop should avoid any possibility of exposure to direct sunlight - towards the center portion of the room in the secondary zone.

*avoid sunlight

Electric Lighting



Lighting reductions should be relatively even throughout the zone. LC&D recommends multi-level switching or dimming for both zones (daylit and general).

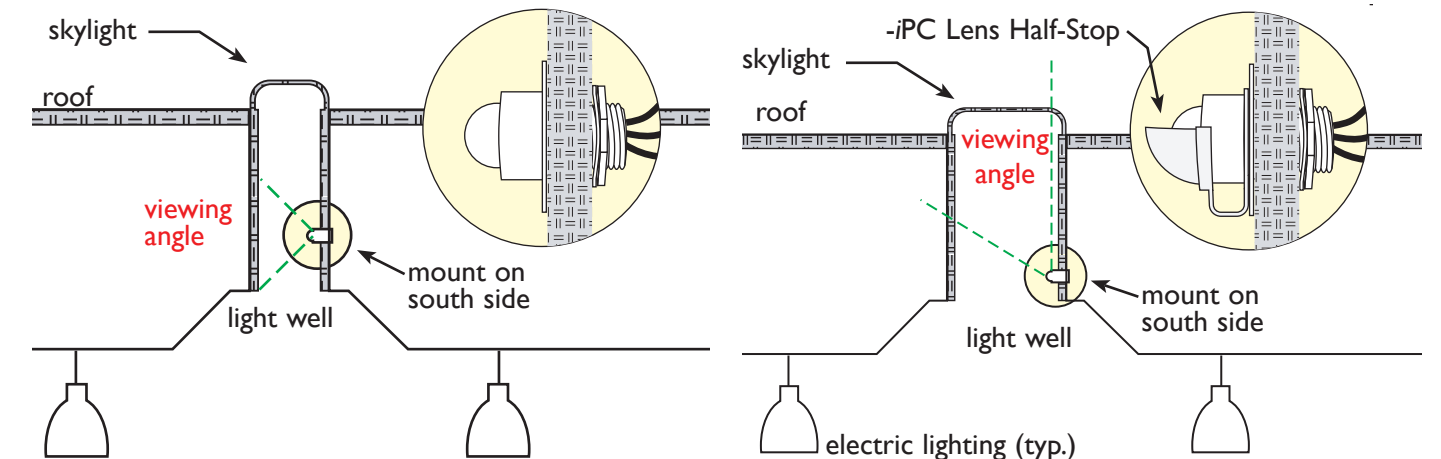
Lighting Control & Design

Photosensor Placement Guide

Open Loop Definition: "The photosensor views daylight directly and does not respond to or 'see' the electric light that it controls."

*Note: Open loop photocell placement is an art that aims to measure the brightness of the light reaching the room. This concept is senior when implementing.

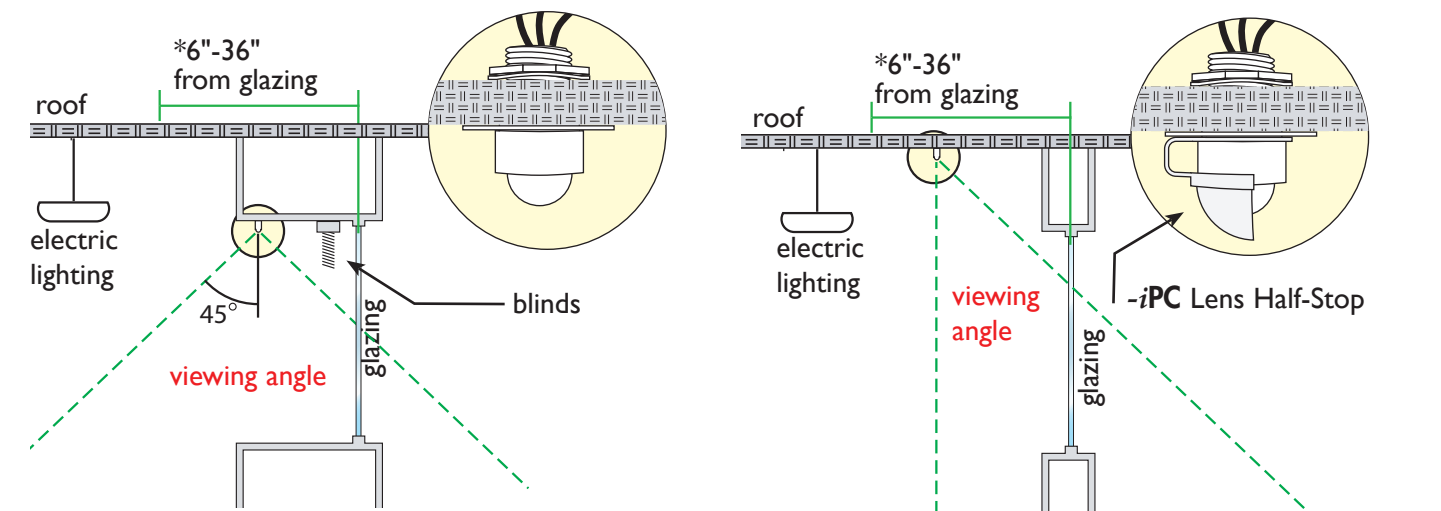
Open Loop Top-Lit Applications



To avoid direct exposure to sunlight, photosensor placement shall be on the south face of the light well (facing north) mounted toward the bottom of the light well.

If placement cannot be isolated from electric light, then the contribution from electric light can be minimized with an **-iPC Lens Half-Stop**.

Open Loop Side-Lit Applications



Photosensor placement should be as close as possible to vertical glazing. Window treatments, such as blinds, should be inside the photosensor viewing angle.

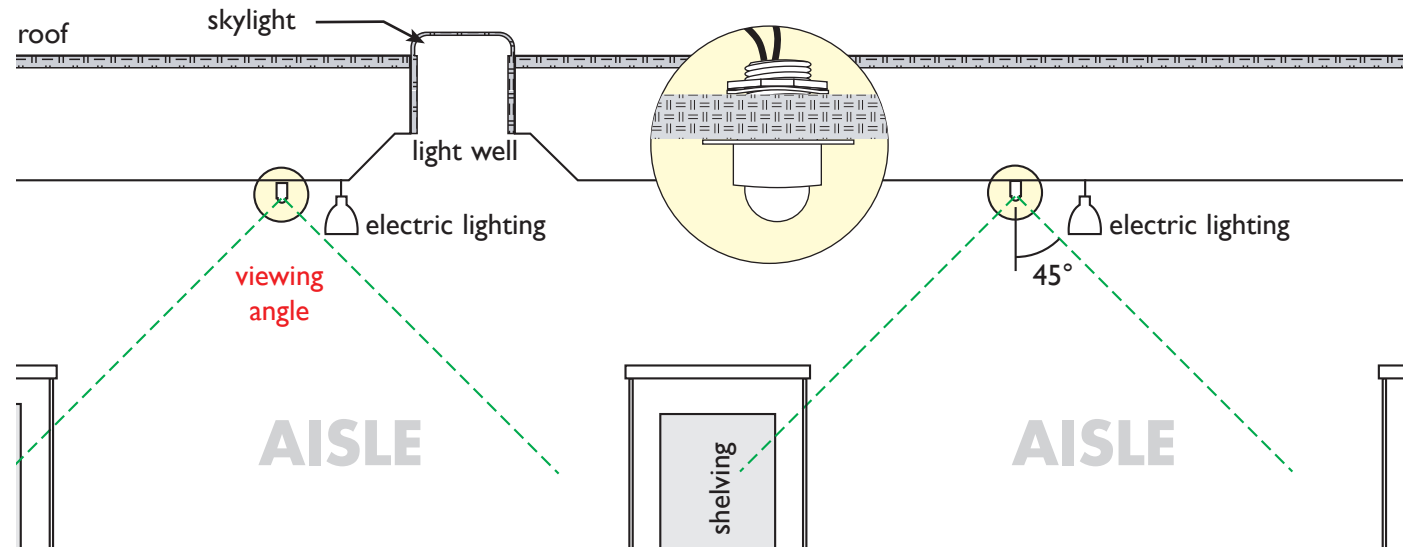
Placement is usually in the window well or the ceiling mounted near the window. Placement from 6" - 36" is

acceptable as long as the light seen from the window is the major contributor. This may require the use of an **-iPC Lens Half-Stop**.

Closed Loop Definition: "The photosensor is exposed to an area that represents the brightness of the room, including contribution from daylight."

*Note: Closed loop photocell placement is an art that aims to measure light that represents the brightness of the room. This concept is senior when implementing.

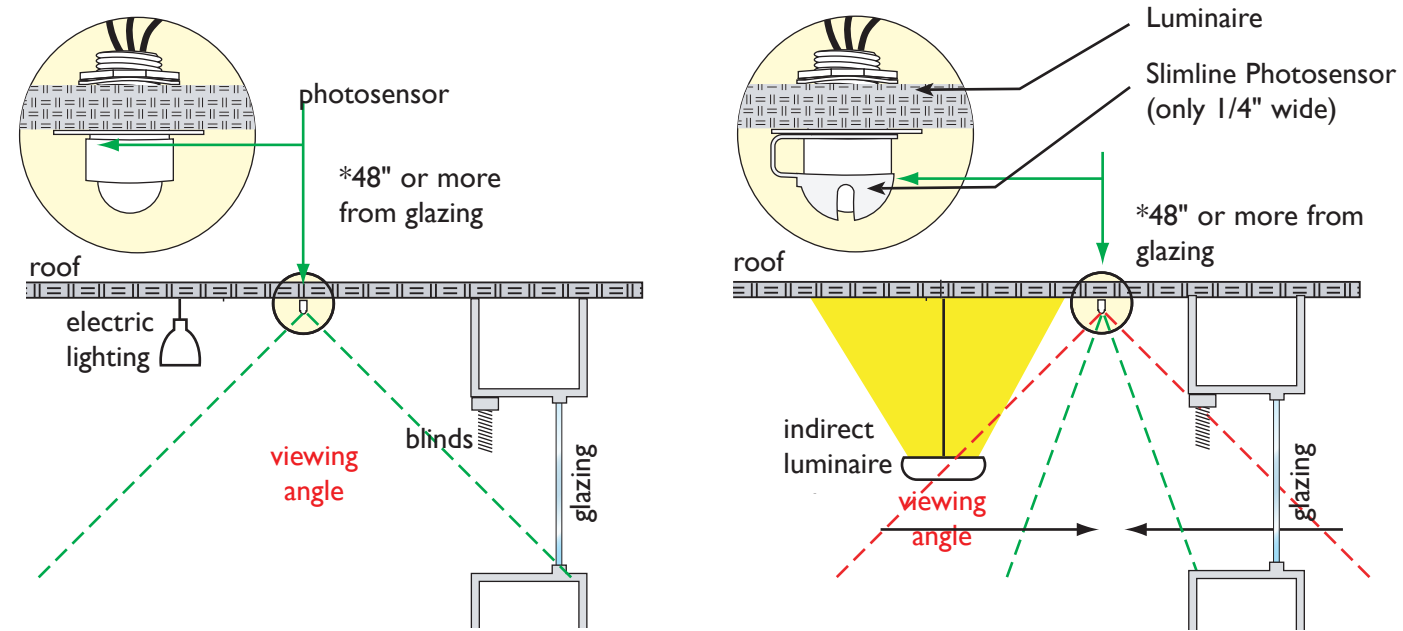
Closed Loop Top-Lit Applications



Where the contribution from daylight is considerably different in each area controlled, additional closed loop sensors may be required.

Photosensor placement does not need to be above every aisle, as long as they are placed strategically above a space representing the different daylight and electric light contributions.

Closed Loop Side-Lit Applications



Mounting to be greater than 48" from glazing*. Mounting must be inside any window treatments to allow photosensor to respond to adjustments made to blinds.

To avoid placement in the direct line of sight of indirect electric luminaires, mount a Slimline Photosensor™ directly onto a direct/indirect luminaire.

Multiple Daylight Zones

Photosensors must be placed near each separate daylight exposure (or less desirably, sunlight).

Photosensors in this example are placed separately for vertical and horizontal glazing.

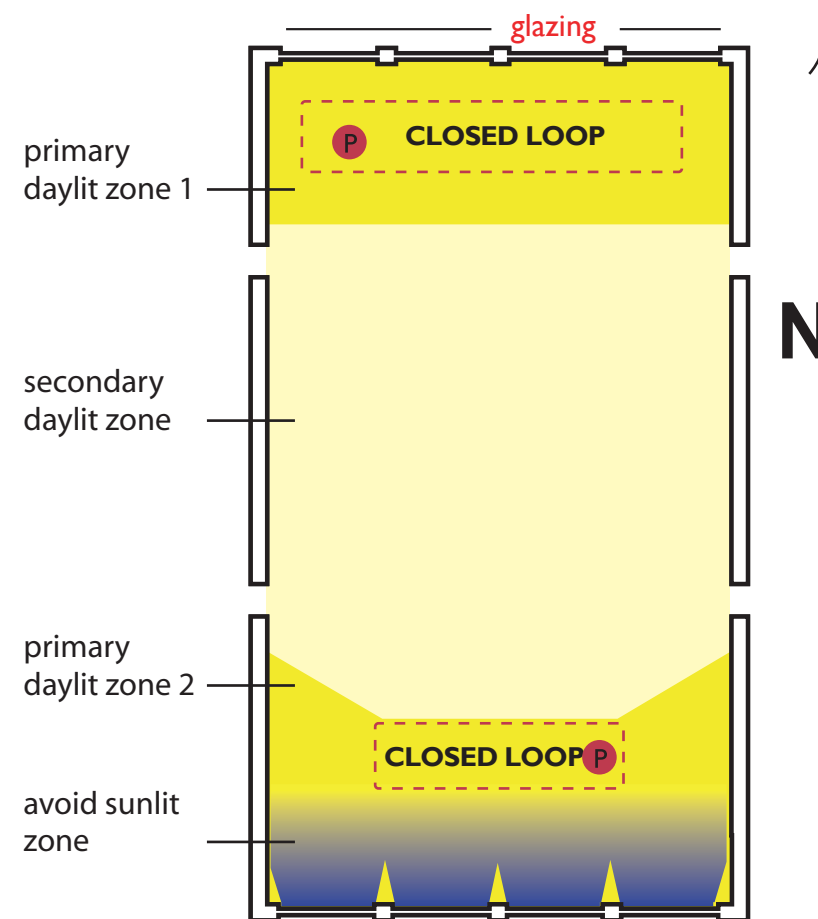
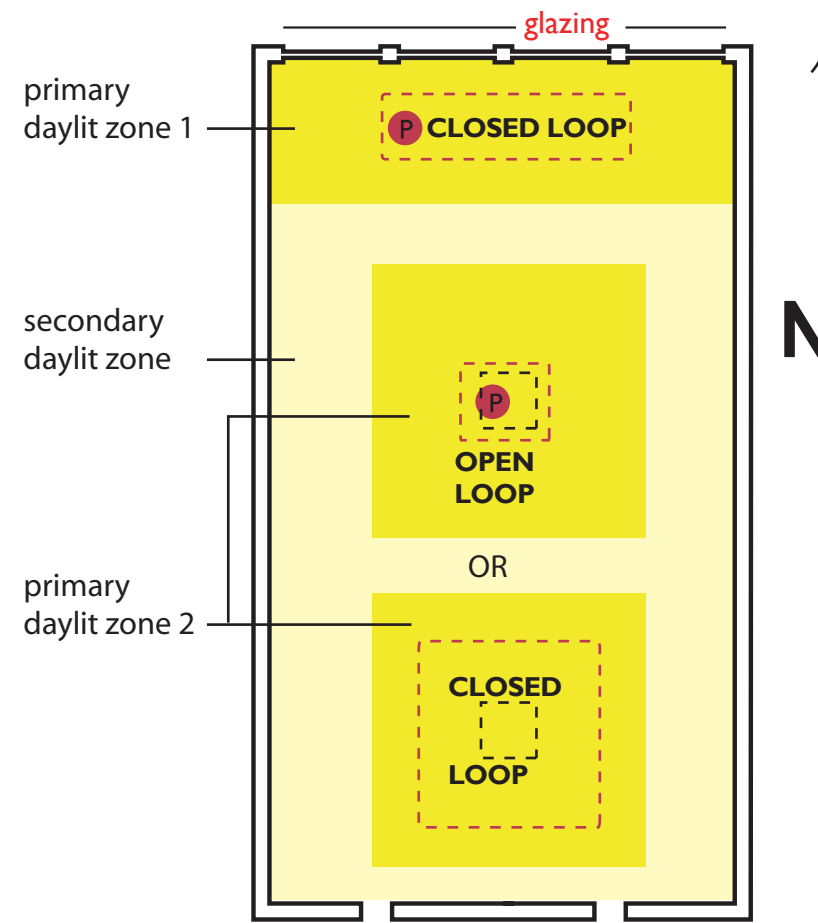
A simple rule of thumb is skylights have an order or magnitude greater impact on the daylight levels of a room than does side-lighting.

Symbol List

- Potential Direct Sunlight zone
- Primary Daylit zone
- Secondary Daylit Zone
- Acceptable Photosensor Placement Area
- P Photosensor

Photosensors must be placed near each separate daylight exposure.

Photosensors in this example are placed separately for north and south facing exposure. The same would be true for any vertical glazing (east & west, north & east, etc).



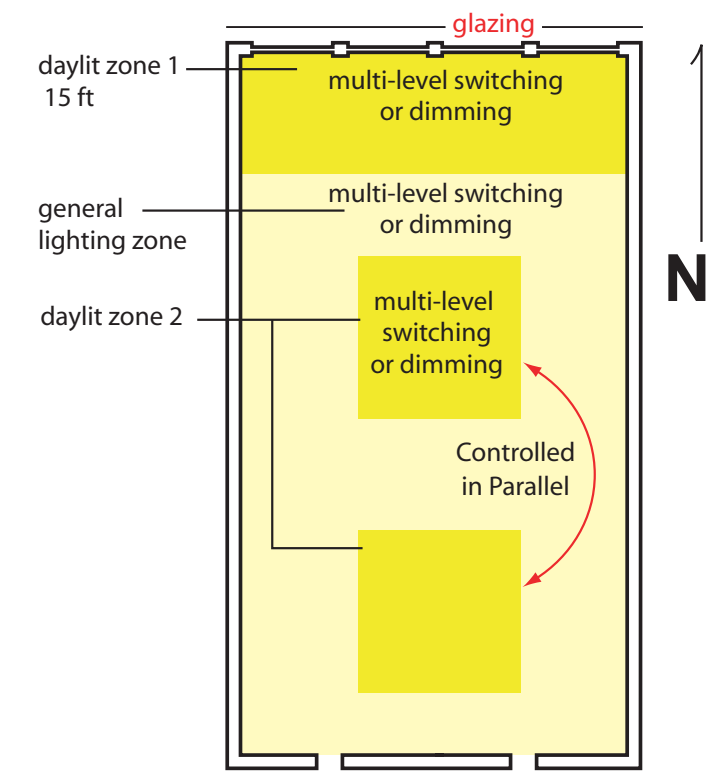
Electric Lighting

Best practice is dimming, multi-level or at a minimum bi-level switching for each zone (6 switch legs or 3 dim zones):

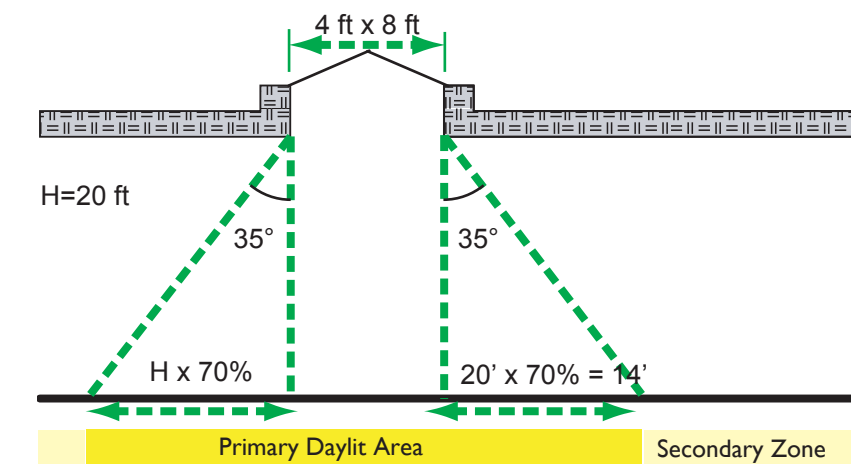
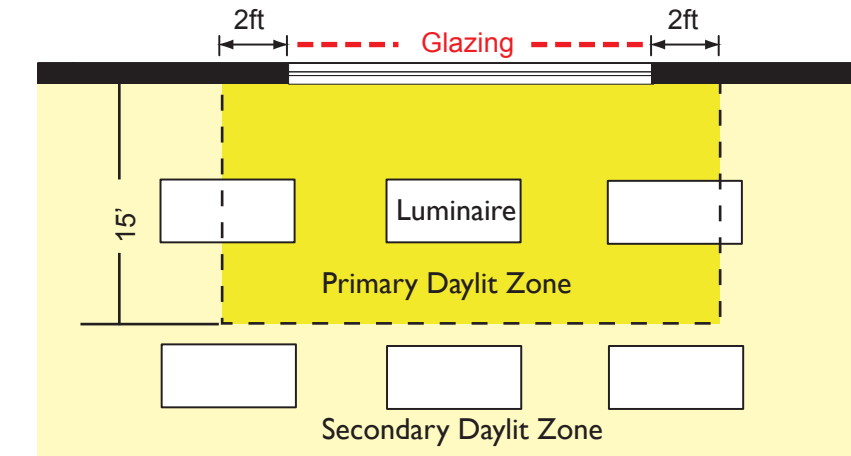
daylit zone 1
daylit zone 2
general lighting zone

Symbol List

- Primary Daylit zone
- Secondary Daylit Zone



California Title 24 Lighting Calculator



The architect in cooperation with the electrical engineer or lighting designer should draw the daylit area on the lighting plans so that it is easy to see which luminaires must be on separate daylit area circuits.