

Application:

Perimeter Wall Wash

Add controllable wall wash illumination using natural light

For most interior spaces, wall illumination has a profound effect on how occupants visually perceive a space. Brightly lit perimeter walls produce a “widening” effect, and prompts occupants to perceive the space as being visually comfortable and well-lit.

Objective

Use daylighting to create a wall wash effect with recessed “slots” around the perimeter that extend above the finished ceiling plane.

Potential Products Used

- Solatube® Brighten Up® Series 160/290 DS Daylighting Systems; Solatube Smart LED Systems
- Optional Solatube Daylight Dimmers™ with switch
- Optional Solatube Light Add-on Kits (for Brighten Up Series Daylighting Systems)

Solution

Using the diameter of the Solatube product as a guide, optimal slot dimensions, ceiling height and fixture spacing were determined. Based on these calculations, a drywall soffit was constructed along the perimeter walls. The Solatube Daylighting Systems were then installed with optional Daylight Dimmers for daytime brightness control and electric Light Add-on Kits for nighttime illumination.

Considerations

To recreate this effect, keep the following considerations in mind:

- To control brightness, install optional Solatube Daylight Dimmers with Switch Kit.
- For nighttime use, install optional Solatube Light Add-on Kits or use Solatube Smart LED Systems.
- To create different wall wash effects, vary Solatube product spacing or slot width, height and finish.
- To minimize the potential for direct view of the perimeter wall wash fixtures, the perimeter slot should extend above the ceiling plane by approximately two product diameters. It also should be no more than two product diameters wide (measured from the illuminated perimeter wall to the adjacent finished ceiling plane). An example is shown in the adjacent image of a conference space incorporating wall wash illumination provided by Solatube Brighten Up Series 290 DS Daylighting Systems (with a product diameter of 14 in.). As shown, the wall wash slot extends 24 in. above the finished ceiling plane and is 24 in. wide (the distance from the perimeter wall to the finished floating ceiling plane), and runs the length of the illuminated wall.
- To maximize perimeter wall uniformity, center-to-center spacing between the perimeter wall wash daylighting systems should not exceed one ceiling height.

