DEFINITION
Leviton’s photocell sensors precisely monitor either task or ambient light levels. As part of a Leviton lighting and energy solution, photocells work with other components in the system to automatically adjust light levels to a user-defined level. Photocells are most suitable for installation in rooms with windows and open spaces receiving substantial ambient light.

Photocells must be hardwired to a compatible Leviton lighting control system. The photocell measures ambient light in a specific area and sends this data to a dimmer or relay that, in turn, adjusts fixtures to a constant lighting level as measured in that specific area. Daylight harvesting is achieved as lights in a room (with windows or significant, artificial ambient light) automatically brighten or dim depending on how much light the photocell detects.

BENEFITS
• Constant lighting at the optimal level for greater visual comfort and acuity, which contributes to improved productivity
• Provides convenient, automatic hands-free daylight harvesting when integrated with Leviton lighting control products
• Lowers electric bills by reducing usage of lighting where ambient natural light is also present
• Lumen maintenance opportunity compatible

DAYLIGHT HARVESTING
With daylight harvesting, ambient (often natural) light supplements in-room, artificial light in order to keep a constant lighting level while simultaneously saving energy. This ensures unnecessary overhead lighting remains dimmed or OFF. This constant level is programmed into a compatible control device. Once hardwired to the photocell, the dimmer or relay receives the photocell’s real-time light measurement and maintains a steady level within the photocell’s area of detection.

RULES OF OPERATION
Measured light level = Light Maintain Level
Action: Output to lights remains constant

Measured light level < Light Maintain Level
Action: Lights are brightened

Measured light level > Light Maintain Level
Action: Lights are dimmed

Leviton Manufacturing Co., Inc. Global Headquarters
201 North Service Road, Melville, NY 11747-3138 tech line 800-824-3005 fax 800-832-9538 ©2019 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.
FEATURES

- Indoor photocells designed with a flat Fresnel lens looks downward in a 60° cone of reference to measure actual light on the work surface and reduce the influence of stray light striking the photocell from nearby windows or incidental side lighting.
- Outdoor photocells are IP54 rated to guarantee ultimate protection from dirt, dust, oil and other non-corrosive material.
- Measures light from any source in the visible spectrum within a 60° cone or 180° angle of response depending on the model.
- **ODC0P-00W photocell** with 60° clear lens operates between 1-1,600FC. ODC0P should be surface mounted or direct to ceiling box.
- **ODC0P-50W switching photocell** with 60° clear lens operates between 1-1,600FC. ODC0P should be surface mounted or direct to ceiling box.
- **ODC0P-D0W dimming photocell** with 60° clear lens operates between 1-1,600FC. ODC0P should be surface mounted or direct to ceiling box.
- **PCCxD-00W, PCCxS-00W, PCCSD-00W line voltage photocells** with 60° clear lens for applications where zone control switching, dimming, and demand response are required. Operates between 1-1,600FC. PCC photocells should be mounted to the ceiling in standard 4”x4” square or octagon electrical boxes.
- **PCIND-000 indoor photocell** with 60° clear Fresnel lens is default setting = 75-800FC sensing range; can be field adjusted to 800FC max sensing range. PCIND should be mounted to the ceiling, facing down.
- **PCIND-0SV side view photocell** for applications where ceiling mounting is required yet the view should be of the lighting entering the space through a window; or, for installation to the wall of skylights where the view should be up into the skylight. Default setting = 0-30FC sensing range; can be field configured with a jumper for a 3FC, 30FC, 300FC, or 600FC max sensing range.
- **PCOUT-000 outdoor photocell** is enclosed in a weatherproof housing with a visor for shading and lens protection. Default setting = 50-750FC sensing range.
- **PCOUT-0SV side view photocell** for applications where wall mounting is required yet the view should be of the lighting entering the space through a top/side and/or face of the photocell. Reference placement diagrams. Default setting = 0-30FC sensing range; can be field configured with a jumper for a 3FC, 30FC, 300FC, or 600FC max sensing range.
- **PCATR-000 atrium photocell** with opaque dome lens filters 33% of light level in upper atrium. Default setting = 215-2,690FC sensing range; can be field adjusted to 2,690FC max sensing range.
- **PCSKY-000 skylight photocell** with dark dome lens filters 90% of light level in skylight. Default setting = 1,076-8,072FC sensing range; can be field adjusted to 8,072FC max sensing range.

DIMENSIONS
PHOTOCELL PLACEMENT

**ODC0P/PCIND INDOOR PHOTOCELL MOUNTING LOCATION**

- Mount photocell in a circular arrangement.
- Optimal placement is 6-8 ft. away.
- Secure with appropriate hardware.

**ODC0P/PCIND INDOOR PHOTOCELL MOUNTING LOCATION**

- Place in atrium or similar space.
- Aim towards glass.
- Ensure visibility for efficient operation.

**OUTDOOR PHOTOCELL MOUNTED IN 1/2" CONDUIT**

- Mount horizontally on roof or equal.
- Hooded portion facing away from nighttime light sources.
- Ensure conduit integrity.

**REFLECTING WALL USING INDOOR SENSOR**

- Use in light wells with or without sconces.
- Mount photocell for elevation, not directly in line.
- Facilitate efficient light reflection.

**LOW VOLTAGE PHOTOCELL WITH OCCUPANCY SENSOR ROOM CONTROL**

- Use with power pack and load switching.
- Ensure proper phasing.
- Support conduit as per NEC.

**SKYLIGHT APPLICATION WITH SKYLIGHT PHOTOCELL**

- Top of photocell aligned with skylight curb.
- Photocell in 1/2" conduit.
- Minimum 12" clearance from sides.
- Facilitate natural light detection.

**OUTDOOR PHOTOCELL MOUNTED IN 1/2" CONDUIT**

- Extend horizontally on roof or equal.
- Hooded portion pointed away from nighttime light sources.
- Ensure proper positioning.

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**PRODUCT DATA**

**WIRING DIAGRAMS**

**Line Voltage Dimming Photocell (PCCxD)**

- Neutral Line
- Load

**Line Voltage Switching Photocell (PCCxS)**

- Neutral Line
- Load

**Low Voltage 0-10V Dimming Photocell (ODC0P-D)**

- RED - 24V In
- ORANGE - 24V Control Out
- BLACK - Common
- VIOLET - 0-10V Dim Out
- GRAY - 0-10V Common

**Low Voltage Switching Photocell (ODC0P-S)**

- RED - 24V In
- ORANGE - 24V Control Out
- BLACK - Common

**Indoor Photocell (PCIND)**

- RED - Input Voltage
- BLACK - Input Return/Output Common
- YELLOW - Output Signal to Controller

**Outdoor Photocell (PCOUT)**

- RED - Input Voltage
- BLACK - Input Return/Output Common
- YELLOW - Output Signal to Controller

**Emergency Interface**

- N/C = No Connection

**Class 1 or Class 2 (SELV)**

- DIM 1
  - 10V
  - 0V
  - VIO
  - GRAY

- DIM 2
  - 10V
  - 0V
  - VIO
  - GRAY

**Neutral 120-277VAC 50/60Hz**

**Line**

**Load**

**Load OUT**

**Neutral**

**N/C**

**N/C**

**EMER.**

**INPUT**

**N/C**

**N/C**

**EM +**

**EM -**

**MS +**

**MS -**

**Class 1 or Class 2**

**Manual Switch**

**Low Voltage 0-10V Dimming Photocell (ODC0P-D)**

**Low Voltage Switching Photocell (ODC0P-S)**

**Line Voltage Dimming Photocell (PCCxD)**

**Line Voltage Switching Photocell (PCCxS)**

**Line Voltage Dimming Photocell (PCCxD)**

**Line Voltage Switching Photocell (PCCxS)**

**Indoor Photocell (PCIND)**

**Outdoor Photocell (PCOUT)**

**Atrium (PCATR)**

**Skylight (PCSKY)**
### INSTALLATION
- Low Voltage Class 2 Wiring
  - Connect directly to dimmer or relay panel

### SPECIFICATIONS

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<th>ODCOP-00W</th>
<th>ODCOP-S0W</th>
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ADJUSTABLE CORRESPONDING FC RANGES

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