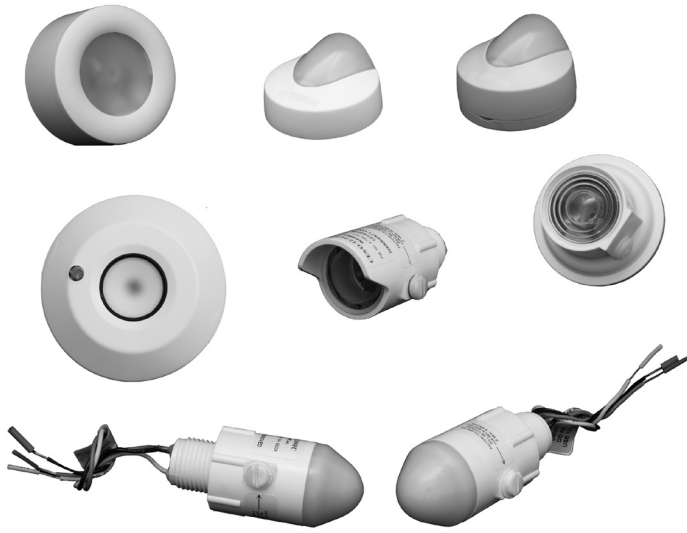


# Photocells



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

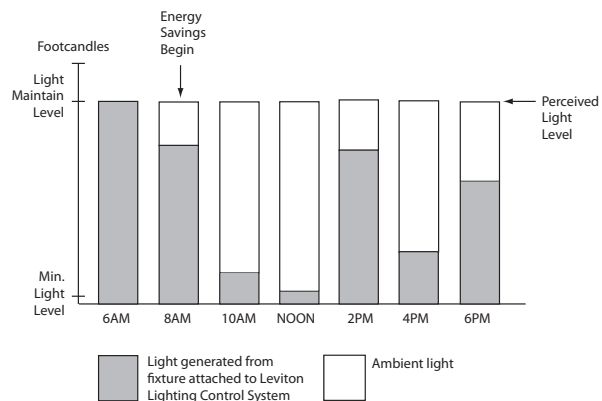
Action: Output to lights remains constant

Measured light level < Light Maintain Level

Action: Lights are brightened

Measured light level > Light Maintain Level

Action: Lights are dimmed

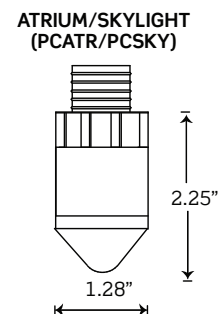
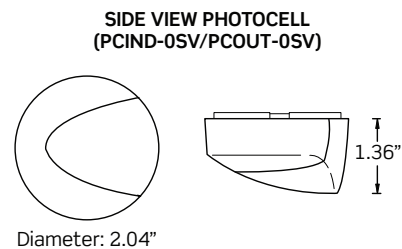
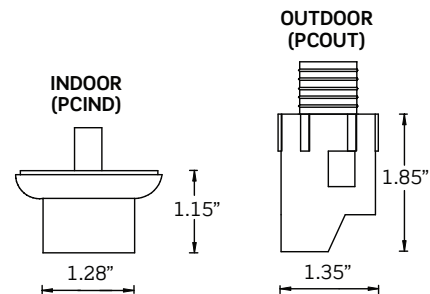
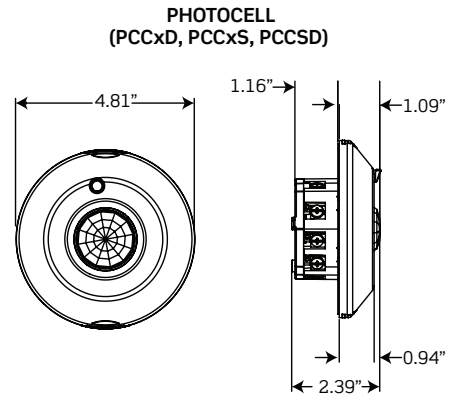
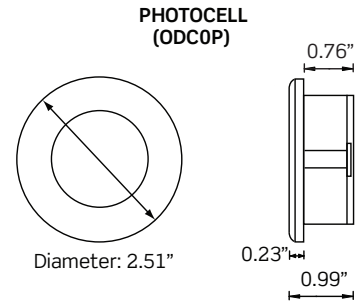


## PRODUCT DATA

### 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-S0W 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**

<p><b>ODCOP/PCIND INDOOR PHOTOCELL MOUNTING LOCATION</b></p> <p>6-8 FT.</p> <p>ODCOP, PCIND or PCCxx</p>	<p><b>ATRIUM PHOTOCELL MOUNTING LOCATION</b></p> <p>PCATR</p> <p>Ideal photocell location is in the middle of the atrium glass pointing toward the glass</p>
<p><b>REFLECTING WALL USING INDOOR SENSOR</b></p> <p>Sconces</p> <p>PCIND, PCCxx</p> <p>18"</p> <p>60°</p> <p>PCIND</p> <p>Light well - with sconces - (UP or UP/DOWN) Mount photocell in elevation on centerline of fixture. Do not mount directly in line with sconces.</p> <p>Light well - no sconces - indoor photocell</p>	<p><b>LOW VOLTAGE PHOTOCELL WITH OCCUPANCY SENSOR ROOM CONTROL</b></p> <p>OPP20-RD3</p> <p>ODCOP-D0W Low Voltage Photocell</p> <p>Occupancy Sensor</p> <p>NOTE: Power Pack and the load switched by the power pack MUST be fed from the same phase.</p>
<p><b>SKYLIGHT APPLICATION WITH SKYLIGHT PHOTOCELL</b></p> <p>Top of photocell should be level with top of skylight curb</p> <p>Photocell in 1/2" conduit. Photocell must be at least 12" from side of skylight and facing up</p> <p>UNISTRUT</p> <p>1/4" ANGLE SUPPORT</p> <p>JUNCTION BOX</p> <p>NOTE: Support conduit from unistrut as required per NEC</p>	<p><b>OUTDOOR PHOTOCELL MOUNTED IN 1/2" CONDUIT</b></p> <p>North</p> <p>Snow Line</p> <p>Outdoor photocell mounted horizontally on roof or equal, facing northern sky. Hooded portion on top, pointed away from any nighttime light sources</p>

## PRODUCT DATA

### INSTALLATION

- Low Voltage Class 2 Wiring
  - Connect directly to dimmer or relay panel

### SPECIFICATIONS

	ODCOP-00W	ODCOP-S0W	ODCOP-D0W	PCCxD-00W	PCCxS-00W	PCCSD-00W
Input Voltage	24VDC		12-24VDC	120-277VAC		
Input Current	10mA			30mA		
IP Rating	32			30		
Default Range	1-1,600 FC (10-16,000 LUX)					
Output Voltage	12-24VDC		Switched: 12-24VDC/ Dimmed: 1-10V Sinking	N/A		
Operating Temperature Range	32-131°F (0-55°C)			32-104°F (0-40°C)		
Storage Temperature Range	14-185°F (-10-85°C)			14-160°F (-26-71°C)		
Warranty	Limited 5-Year Warranty					
	PCIND-000	PCIND-0SV	PCOUT-000	PCOUT-0SV	PCTAR-000	PCSKY-000
Input Voltage	24VDC					
Input Current	10mA					
IP Rating	20		54	54	65	
Default Range	75-800 FC (807- 8,611 LUX)		0-30 FC (0-322 LUX)		215-2,690FC (2,314-2,8954 LUX)	1,076-8,072 FC (11,581- 8,6886 LUX)
Output Voltage	10VDC full output 12-140°F (-11-60°C)		0-10VDC		10VDC full output	
Operating Temperature Range			-40-122°F (-40-50°C)		12-140°F (-11-60°C)	
Storage Temperature Range	14-185°F (-10-85°C)					
Warranty	Limited 2-Year Warranty					

### SELECTION

PHOTOCELL	LENS	MOUNTING	ORIENTATION	HEIGHT	DIAMETER
ODCOP-00W	Clear	Ceiling	Down	0.99" (25.14mm)	2.51" (63.75mm)
ODCOP-S0W					
ODCOP-D0W					
PCCxD-00W				2.00" (50.8mm)	1.00" (25.4mm)
PCCxS-00W					
PCCSD-00W					
PCIND-000	Fresnel				
PCIND-0SV	Diffuse	Ceiling/Wall	Up/Down	1.36" (34.54mm)	2.04" (51.81mm)
PCOUT-000	Clear Hood	1/2" IPT	Horizontal	1.85" (46.99mm)	1.28" (32.51mm)
PCOUT-0SV	Diffuse	Ceiling/Wall	Up/Down	1.36" (34.54mm)	2.04" (51.81mm)
PCATR-000	Dome/Frost	1/2" IPT	Horizontal	2.25" (57.15mm)	1.28" (32.51mm)
PCSKY-000			Up		

### ADJUSTABLE CORRESPONDING FC RANGES

SENSOR	MAXIMUM
ODCOP-00W	1-1,600 FC
ODCOP-S0W	
ODCOP-D0W	
PCCxD-00W	
PCCxS-00W	
PCCSD-00W	
PCIND-000	75-800 FC
PCIND-0SV	3, 30, 300 or 600 FC
PCOUT-000	50-750 FC
PCOUT-0SV	3, 30, 300 or 600 FC
PCATR-000	215-2,690 FC
PCSKY-000	1,076-8,072 FC

### ORDERING INFORMATION

CAT. NO.	DESCRIPTION	COLOR
ODCOP-00W	Photocell	White
ODCOP-S0W	Switching Photocell	
ODCOP-D0W	Dimming Photocell	
PCCxD-00W	Line Voltage Dimming Photocell	
PCCxS-00W	Line Voltage Switching Photocell	
PCCSD-00W	Line Voltage Dimming/Switching Photocell	
PCIND-000	Indoor Photocell	
PCIND-0SV	Indoor Side View Photocell	
PCOUT-000	Outdoor Photocell	
PCOUT-0SV	Outdoor Side View Photocell	
PCATR-000	Atrium Photocell	
PCSKY-000	Skylight Photocell	

**Leviton Manufacturing Co., Inc. Lighting & Energy Solutions**

20497 SW Teton Avenue, Portland, OR 97062 • Telephone: 1-800-736-6682 • FAX: 503-404-5594 • Tech Line (6:00-4:00 Monday-Friday): 1-800-959-6004

**Leviton Manufacturing Co., Inc. Global Headquarters**

201 N. Service Rd. Melville, NY 11747-3138 • Tech Line: 1-800-824-3005 • Fax: 1-800-832-9538

**Leviton Manufacturing of Canada, Ltd.**

165 Hymus Boulevard, Pointe Claire, Quebec H9R 1E9 • Telephone: 1-800-469-7890 • FAX: 1-800-563-1853

**Leviton S. de R.L. de C.V.**

Lago Tana 43, Mexico DF, Mexico CP 11290 • Tel. (+52) 55-5082-1040 • FAX: (+52) 5386-1797 • [www.leviton.com.mx](http://www.leviton.com.mx)

**Visit our Website at: [www.leviton.com/les](http://www.leviton.com/les)**

2015 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.