**Provolt™ Line Voltage Photocell**

**DESCRIPTION**
Leviton Provolt™ Line Voltage Photocell is a first-of-its-kind, self-contained mini daylight harvesting system offering the functionality of a 1-10V dimming photocell combined with the robustness of a Leviton power pack. Ideal for daylight harvesting applications and lighting control in airports lobbies, commercial lobbies, conference rooms and classrooms. The integrated design eliminates the need for additional components such as a separate power pack and low voltage photocell making it a low-cost, efficient energy solution for new construction and retrofits.

The Provolt Line Voltage Photocell uses patented daylighting design level technology to auto-calibrate a room or corridor for a more accurate daylight harvesting operation. The photocell maintains the architectural lighting design level through calculation and measurement of ambient (natural and artificial) lighting and fine dimming adjustment.

For installers, the Provolt Line Voltage Photocell provides a simple all-in-one solution for new construction and flexible retrofitting. This revolutionary photocell auto-detects existing momentary or maintained switches and will work automatically with either. The photocell also complies with growing energy regulations and includes a connection for emergency lighting and demand response to meet California Title 24 and ASHRAE Standard 90.1 2010.

**DIMMING MODELS**
- Single 1-10V dimming with single relay ON/OFF for single zone day/night single office or corridor
- Dual 1-10V dimming with dual relay ON/OFF for two zone classroom or large space
- Single 1-10V dimming with single/dual relay ON/OFF for single zone large office space or corridor

**SWITCHING MODELS**
- Single relay ON/OFF
- Dual relay ON/OFF

**FEATURES**
- Self-contained, open and closed loop daylight harvesting system
- Dual Zone Dimming — use two photocells in a 2 circuit or 2 zone room for optimized daylight harvesting performance
- Leviton-exclusive auto-calibration eliminates the need for on-site configuring at a specific time of day
- Industry exclusive “fail-safe” circuitry assures lights ON to meet life safety requirements (NFPA101)
- Auto-detects momentary or maintained wall station for manual override control
- Manual calibration — used for precise fine tuning and open loop applications
- Low voltage contact closure uses:
  - Wall station — dimming/switching and daylight harvesting control
  - Emergency lighting — energy savings and safety
  - Demand response — meets energy codes
  - BMS integration — incorporate into whole building controls
- Dim to OFF (dimming models only) — switches load off when minimum level is reached for maximum savings
- Forced ON — user forces lights on for 2 hours through wall station, auto-exit to daylighting state
- Forced OFF — user forces light off through wall station
- Test Mode — fade rate is set to 30 seconds for 60 minutes and then product auto-exits to normal operation
- Power-Up Restore — if manual switch is forced off after a power outage, the lights will remain off
- LED Enable/Disable — flexibility for light sensitive requirements
- 1-10V sinking (dimming models only) operation for dimmable LED driver or electronic ballast
- Lamp Burn-In Mode — seasons fluorescent lights
**PRODUCT DATA**

**LED INDICATORS**
- Red or Blue — solid during device failure
- Red — blinking during manual calibration
- Green
  - Solid during auto calibration
  - Blinking during burn-in (dimming models only)
- Blue — blinking when lights are off (daylight, wall station, demand response)
- Yellow
  - Solid when device is in emergency mode
  - Blinking in test mode

**DAYLIGHT HARVESTING APPLICATIONS**
Daylight harvesting is an automated lighting control strategy that maximizes the use of natural daylight and minimizes the use of electrical (artificial) light in response to the availability of natural light in a space. The photocell uses three types of daylight harvesting applications:

- **Closed loop** — photocell detects total photometric light from daylight or electric sources in the space
- **Open loop** — photocell detects daylight or electric light only; requires manual calibration
- **Adjustable daylight design levels** — Normal (OFF) and Auto-Calibration

**DAYLIGHT DESIGN LEVELS (DIMMING PHOTOCELLS)**

**PHOTOCELL PLACEMENT**

**Open Loop Application - Angled Light Pipe**

**Closed Loop Application - Diffused Lens**

**PHOTOCELL OPERATION (SWITCHING PHOTOCELLS)**

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Note: Long side of angled light pipe must face toward natural light source (window)
**PRODUCT DATA**

**INSTALLATION**

- Easy installation into junction boxes with Leviton-exclusive screw guides, coasters and terminal blocks
- Faceplate ridges make it easy to identify pressure points for simple press and release installation
- Includes a 4"x4" cosmetic adapter to enhance final installation and alleviate potential contrast between the sensor and back box

**DIMENSIONS**

- 4.81" (122.21mm)
- 1.16" (29.60mm)
- 1.09" (27.91mm)
- 0.94" (24.06mm)
- 2.39" (60.71mm)

**WIRING DIAGRAMS**

**Switching Photocells**

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

**Dimming Photocells**

- Manual Switch
- Emergency Interface
- \*N/C = No Connection

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Leviton Mfg. Co., Inc. Lighting & Energy Solutions

20497 SW Teton Avenue, Tualatin, OR 97062  1-800-736-6682  Tech Line: 1-800-959-6004  Fax: 503-404-5594  www.leviton.com/les

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## Product Data

### Specifications

#### Electrical

<table>
<thead>
<tr>
<th></th>
<th>120V, 50/60 Hz</th>
<th>240V, 50 Hz</th>
<th>277V, 50/60 Hz</th>
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<tbody>
<tr>
<td>Input Voltage</td>
<td>120V, 50/60 Hz</td>
<td>240V, 50 Hz</td>
<td>277V, 50/60 Hz</td>
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<td>Current Consumption</td>
<td>60-30mA</td>
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<td>Range</td>
<td>1-1,600 FC (10-16,000 LUX)</td>
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<td>LED Loads</td>
<td>400W/1-10V sinking</td>
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#### Environmental

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<tr>
<td>Operating Temperature</td>
<td>32-104°F (0-40°C)</td>
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<tr>
<td>Storage Temperature</td>
<td>-14-160°F (-26-71°C)</td>
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<tr>
<td>Relative Humidity</td>
<td>10-90% non-condensing</td>
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#### Other

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<tr>
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<tr>
<td>Mounting Height</td>
<td>8-20' (2.43-6.09m)</td>
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<td>Listings</td>
<td>CA Title 20/24 Compliant, ASHRAE Standard 90.1 2010 Compliant, UL 773A (Occupancy Standard), UL 924 (Emergency Equipment), cUL Listed, NOM Certified, RoHS Compliant, NY LLC48 Compliant</td>
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<td>Warranty</td>
<td>5-Year Limited Warranty</td>
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### Ordering Information

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<tr>
<td><strong>Dimming Models</strong></td>
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<tr>
<td>PCC1D-00W</td>
<td>Provolt Single 1-10V Photocell with single relay ON/OFF</td>
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<tr>
<td>PCC2D-00W</td>
<td>Provolt Single 1-10V Photocell with dual relay ON/OFF</td>
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<tr>
<td>PCCSD-00W</td>
<td>Provolt Single 1-10V Photocell with single/dual relay ON/OFF</td>
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<tr>
<td><strong>Switching Models</strong></td>
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<tr>
<td>PCC1S-00W</td>
<td>Provolt Photocell with single relay ON/OFF</td>
</tr>
<tr>
<td>PCC2S-00W</td>
<td>Provolt Photocell with dual relay ON/OFF</td>
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</tbody>
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