

### Overview

The TAP-41 (Task Ambient Photo) photo sensor incorporates correlated color temperature (CCT) with light intensity monitoring. Facilities wishing to deliver a superior office experience through automated adjustment of an LED fixture's white color output and dimming level now have a solution that responds dynamically throughout the day.

Adding the TAP-41 sensor in conjunction with an Echoflex ELED2 controller to a lighting control system is a reliable and simple method to increase energy savings by daylight harvesting while also enhancing the work environment through control of tunable white LED lights.

The TAP-41 sensor adds light level monitoring, up to 9,290 foot candles (100,000 lux), making the sensor suitable for both closed and open loop daylighting applications. The color temperature range of 1,000 to 10,000 degrees Kelvin covers a broad range to provide feedback of the combined natural and artificial light color temperature.

Batteries are not required for everyday operation due to the advanced solar energy harvesting and power management features of the sensor. After installation, the sensor will operate with exposure to light as little as 50 lux (5 FC) for 5 minutes. The TAP sensor is capable of operating over 70 hours in darkness from maximum charge levels.

The TAP sensor incorporates diagnostic and configuration features to ensure reliable communications and solar harvesting capability. The sensor supports Range Confirmation® technology whereby simple button press and hold sequences result in visual indication of signal strength via on-board LEDs. Solar energy harvesting under existing light levels is provided on demand through LED indication. An accelerated transmission mode is available when energy code compliance inspectors need to verify system operation.

The TAP-41 sensor supports standard and generic EnOcean profiles, in-field selectable.



### Features

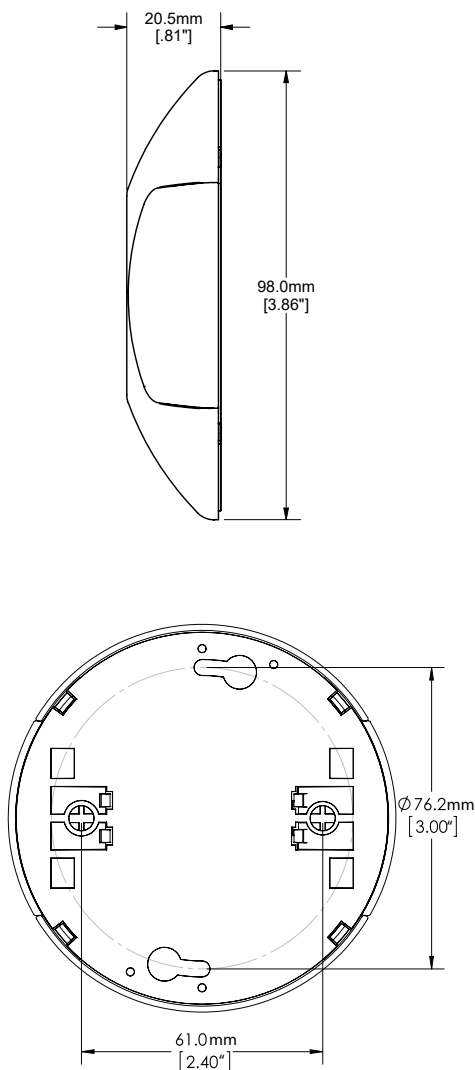
- Solar powered wireless photo sensor for daylight harvesting applications
- Works in conjunction with Echoflex Lighting Controllers
- Measures 0-100,000 lux and color temperature within a range of 1,000 to 10,000 degrees Kelvin
- Integrated Range Confirmation® via tricolored LED indication
- Integrated Solar Harvesting Light Level via tricolored LED indication
- Reliable radio reception range of 24 m (80 ft) - commercial office spaces (typical), up to 100m (330 ft) line of sight
- Simple Tap™ configuration of daylighting settings
- Up to 72 hours operation in complete darkness
- Quick start operation at low light level with minimal charging time
- Batteries not required, start assist battery option available
- Mounting options include integrated magnets for T-Bar or wire strap for ceiling tile. Provisions for screw mounting and double sided tape (not included)
- Energy code compliance test mode
- Quick start operation at low light level with minimal charging time

### Ordering Information

Description	Model	Part Number
Light Intensity and Color Temperature Sensor, 902MHz	TAP-41U	8188A1192-X-1
Light Intensity and Color Temperature Sensor, 868MHz	TAP-41Y	8188A1392-X-1
Light Intensity and Color Temperature Sensor, 928MHz	TAP-41J	8188A1692-X-1

# TAP-41

## Dimensional Diagram



## Energy Code Compliance

California Energy Commission Title 24  
Washington State Energy Code  
ASHRAE 90.1-2013  
IECC 2015

The TAP-41 is a RoHS compliant product

## Equipment Profile

<b>EEP D2-14-25: Light Sensor and CCT</b>	DB0 .. DB2.0 : 0-100,000 lux
	DB2.1 .. DB3: CCT 0-32,767 degrees Kelvin
<b>Generic Profile Telegram</b>	DB0 .. DB1: CCT 0-10,000 degrees Kelvin
	DB2 .. DB3: 0-100,000 lux
	DB4: Voltage 0-5.5V

## Hardware Specifications

<b>Power Supply</b>	Integrated solar cell
<b>Range</b>	0-100,000 lux, resolution 1 lux, accuracy +/- 10%
<b>Operational Light Level</b>	50 lux (5 fc) minimum
<b>Color Temperature Sensor</b>	1,000 to 10,000 degrees K, resolution +/-1, accuracy +/-10%
<b>Minimum charge time to begin operation</b>	5 minutes in 50 lux (5 fc)
<b>Maintain charge time</b>	3 hours per 24 hours @ 480 lux (48 fc)
<b>Maximum charge time</b>	7.5 hours @ 960 lux (96 fc)
<b>Operating life at full charge</b>	72 hours @ 0 lux
<b>Battery - start assist</b>	CR1632 (optional - not included)
<b>Input</b>	Teach button for assignment to receiver
<b>Outputs</b>	Test mode LEDs - red, green and amber

## Communications

<b>Radio Frequency</b>	902 MHz (U) or 868 MHz (Y) or 928MHz (J)		
<b>Antenna</b>	Integrated whip		
<b>Transmission Range</b>	24 m (80 ft) - commercial office spaces (typical), up to 100m (330 ft) line of sight		
<b>Telegram Heartbeat</b>	Light Level	Sample Rate	Update Rate
	< 10 lux (1 fc)	128 seconds	21 min.
	< 50 lux (5 fc)	64 seconds	10 min.
	50-100 lux	32 seconds	320 seconds
	> 100 lux ( 9 fc)	16 seconds	160 seconds

## Mechanical Specifications

<b>Operating Temperature</b>	-25°C to 65°C (-13°F to 149°F)
<b>Relative Humidity</b>	5% to 92% RH (non-condensing)
<b>Weight</b>	70g (2.4oz)
<b>Dimensions</b>	98.0 mm x 2.5mm (3.86 x 1.00") diameter
<b>Mounting</b>	Integrated magnets, wire bracket, screws (not supplied), double sided tape (not supplied)

## Agency Listings

<b>902 MHz models</b>	FCC Part 15.231 - Remote Control Transmitter IC RSS-210	FC
<b>868 MHz models</b>	CE Marking	CE
<b>928 MHz models</b>	Japanese Radio Law (special order item)	⚡

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Specifications are subject to change without notification