Starconomy

PRK - Panel Retrofit Kit

Product Specification Sheet

Product Overview

The LED Panel Retrofit Kit is a high-efficiency solution designed to upgrade outdated fluorescent troffers into modern LED panels. Featuring an ultra-slim design, easy installation, and compatibility with existing fixtures, it provides enhanced brightness, uniform illumination, and significant energy savings.

Available in multiple wattages and color temperatures, the kit ensures a seamless transition to LED technology, reducing maintenance costs while improving visual comfort. Ideal for offices, schools, healthcare facilities, and commercial spaces, the LED Panel Retrofit Kit meets DLC and UL certification standards for superior performance and reliability.

Key Features

- Aluminum frame with frosted polystyrene lens.
- High Brightness: Delivers up to 150 LPW for powerful, efficient lighting.
- Versatile Voltage: Compatible with AC120-277V or AC120-347V, providing flexibility for various applications.
- Durable Housing: Constructed with rugged galvanized rolled metal for improved cooling, light quality, and a longer lifespan.
- Dimmer Ready: 0-10V dimming capability for customizable light levels to suit your needs.
- Auxiliary Dimming: Includes a 12Vdc auxiliary dimming feature for added flexibility.
- Smart Control: Easy-to-install Bi-Level sensor with plug-and-play capability, allowing you to optimize energy use with automated lighting control.
- Flicker: Produces no greater than 30 percent flicker at 200 Hz or below when paired with control devices per CEC Title 24 JA10

Technical Specification

- **Models and Wattage Options**
  - The LED Panel Retrofit Kit lighting consists of two performance packages for 1x4, 2x2 and 2x4 applications. Each offers multiple wattage options to suit different lighting needs. Each model provides flexibility in power consumption, allowing users to optimize energy usage while maintaining high performance.
  - SE-PRK-P1: 2250/2750/3750/4500 Lumens
  - SE-PRK-P2: 2500/3000/4200/5100 Lumens

- **High Efficiency and Performance**
  - Efficacy: Up to 150 lumens per watt (LPW) across all models, ensuring optimal energy efficiency.
  - Correlated Color Temperature (CCT) Selectable: Available in 2700K, 3000K, 3500K, 4000K, and 5000K, providing different lighting tones suitable for various applications.
  - Color Rendering Index (CRI): Ra 80, ensuring clear and accurate color representation.

- **Electrical and Operational Features**
  - Input Voltage: AC 120-277V or 120-347V
  - Power Factor: >0.9
  - Dimming Capability: 0-10V dimmable for adjustable brightness and energy savings.
  - Driver Efficacy: >94%; Ensures stable power delivery with minimal flickering.

- **Durability and Environmental Adaptability**
  - Life Span: L70 over 100,000 hours, ensuring long-lasting performance with minimal maintenance.
  - Working Temperature: Operates reliably in extreme temperatures ranging from -40°F to 113°F.
  - Storage Temperature: Can be stored safely between -40°F and 176°F.
  - Rated for damp locations, making it suitable for environments with moderate moisture exposure.

- **Warranty**
  - 5-year limited warranty, providing assurance of product reliability and support.

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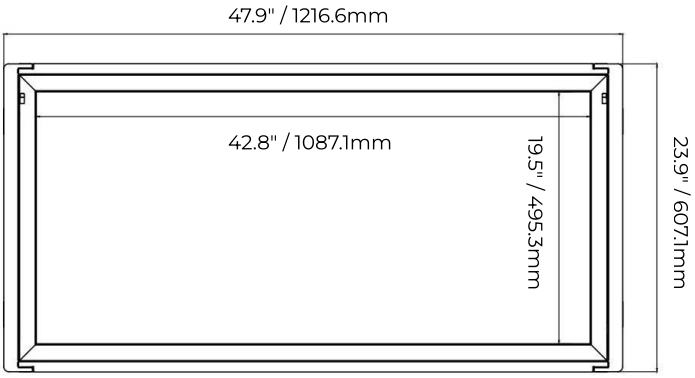
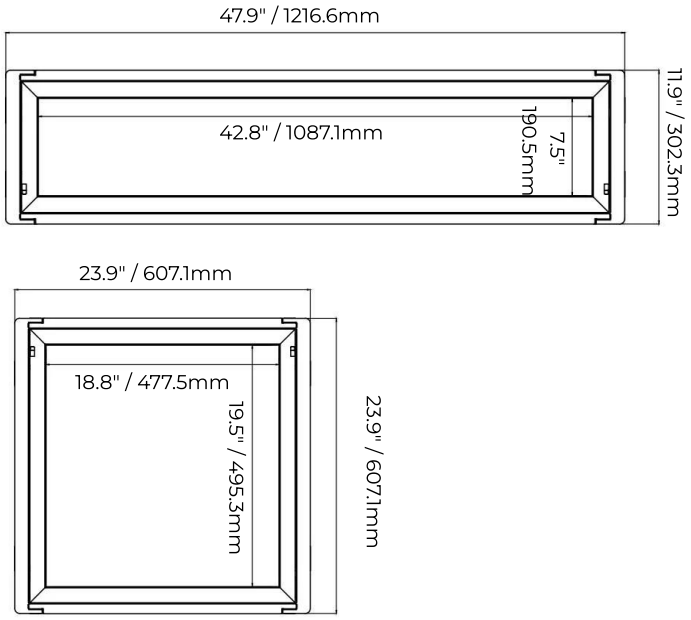
Dimension

Panel Retrofit Kit

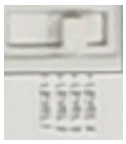




Switch&Sensor

CCT Selectable Switch

Power Selectable Switch



Occupancy & Daylight Harvesting Sensor
with mounting base
Wireless Bluetooth Optional*

Order Information

Example: SE-PRK-24-P2-CS-U-HE

SE	PRK					
Series	Type	Size	Performance Package	Color Temperature	Voltage	Efficacy
SE=Starconomy	**PRK**=Panel Retrofit Kit	**14**=1x4 **22**=2x2	**P1**=15/18/25/30W	**CS**=2700/3000/ 3500/4000/5000K	**U**=120-277V **H**=120-347V	**HE**=High Efficacy 150lm/w
		24=2x4	**P2**=17/20/28/34W			
Options						
Blank=No Sensor **M**=Occ & Daylight Sensor **S**=Bluetooth Occ & Daylight Sensor						

Accessories

Panel Retrofit Kit

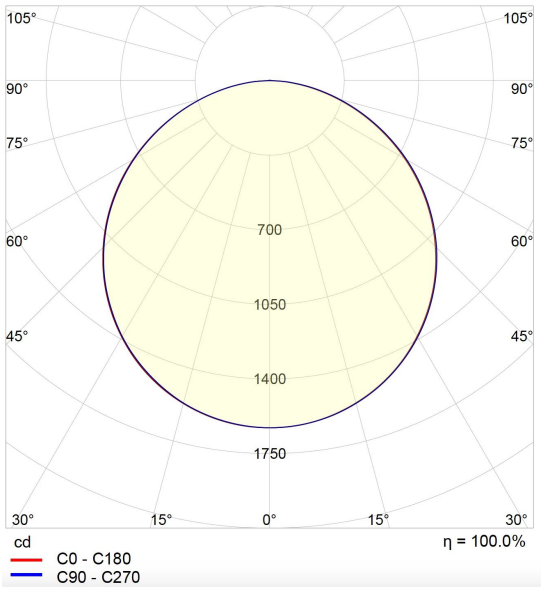
EMD-10 EMD-20 EMD-30		**10W Emergency LED Battery Backup** **20W Emergency LED Battery Backup** **30W Emergency LED Battery Backup**

Photometrics

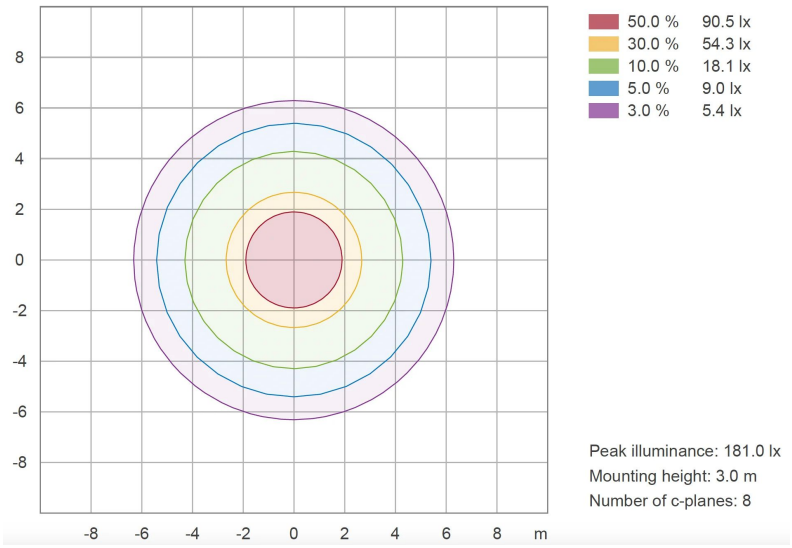
Panel Retrofit Kit

SE-PRK-P1 (30W)

Polar Light Distribution

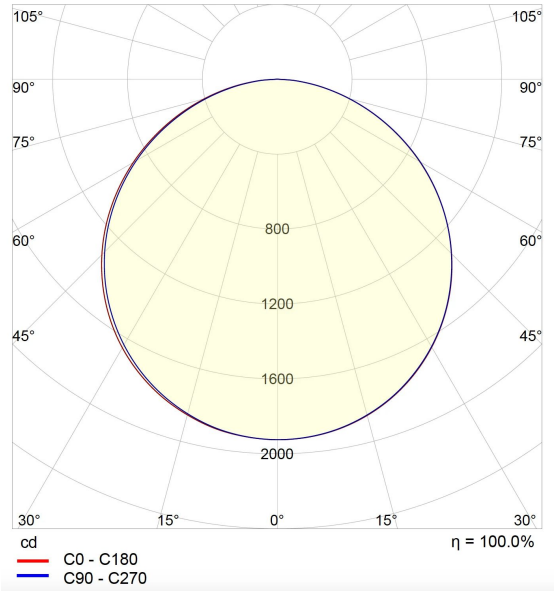


Iso-illuminance Diagram

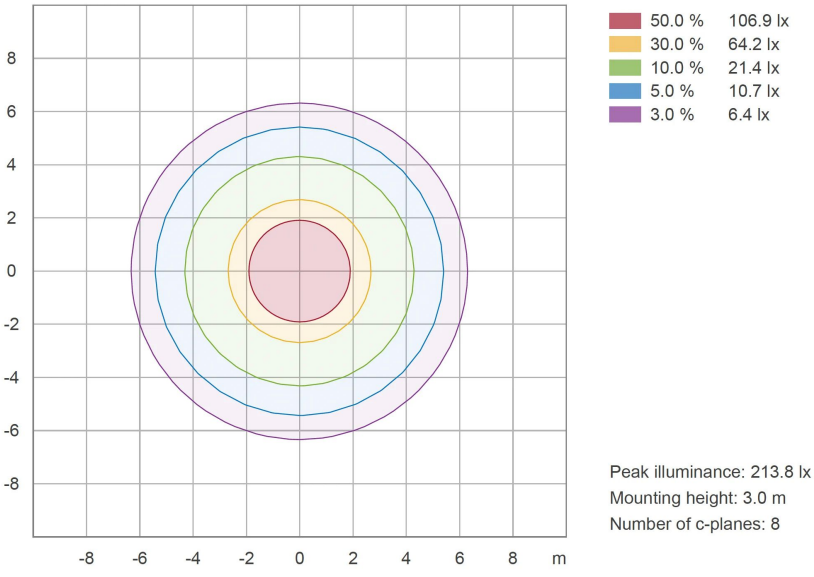


SE-PRK-P2(34W)

Polar Light Distribution



Iso-illuminance Diagram



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Performance Table

Panel Retrofit Kit

Performance Package	Wattage	CCT	Lumen Output	Efficacy
P1 (1X4, 2X2)	15	2700K	2235	149
		3000K	2235	149
		3500K	2250	150
		4000K	2265	151
		5000K	2265	151
	18	2700K	2682	149
		3000K	2682	149
		3500K	2700	150
		4000K	2718	151
		5000K	2718	151
	25	2700K	3725	149
		3000K	3725	149
		3500K	3750	150
		4000K	3775	151
		5000K	3775	151
	30	2700K	4470	149
		3000K	4410	147
		3500K	4470	149
		4000K	4500	150
		5000K	4500	150
P2 (2X4)	17	2700K	2533	149
		3000K	2533	149
		3500K	2550	150
		4000K	2567	151
		5000K	2567	151
	20	2700K	2980	149
		3000K	2980	149
		3500K	3000	150
		4000K	3020	151
		5000K	3020	151
	28	2700K	2533	149
		3000K	4116	147
		3500K	4172	149
		4000K	4200	150
		5000K	4200	150
	34	2700K	2533	149
		3000K	4998	147
		3500K	5066	149
		4000K	5100	150
		5000K	5100	150

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Wireless Control

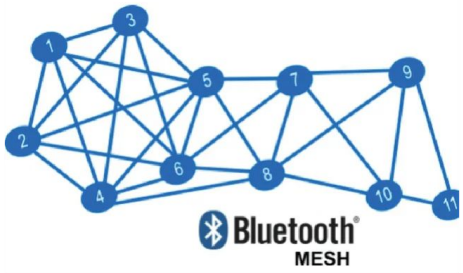
Panel Retrofit Kit

Bluetooth Mesh Wireless Motion&Daylight Sensor

Features

- 2 channels 0-10V
- 12-24VDC powered
- PIR motion sensing
- Ambient daylight sensing
- Output: 15mA @0-10VDC
- Dimming range: 0-100%
- Working temperature: -20 to 50°C (-4 to 122°F)
- BLE5.2 based non-flooding intelligent communication
- Available with either an audio jack or a Zhaga Book 18 connector
- IP65 rated for outdoor applications

Our lights feature integrated Bluetooth Mesh wireless sensors, enabling seamless wireless control for enhanced efficiency and flexibility. This technology allows for real-time monitoring, automated adjustments, and energy savings without the need for additional wiring, making installation and operation simple and cost-effective.



Mobile App

- For commission, configuration and controlling lighting networks including device replacement feature that makes commission easier.
- Setting up schedules, scenes and animations for individual devices or groups or zones
- Always get the latest features and improvements using OTA updates for devices
- Safe and reliable communication with AES 128-bit encryption and ensure safety using 4-digit code

Desktop App

- Track power usage and access reports.
- Occupancy pattern and device usage
- Emergency testing report

BMS Intergration

- Starco Control ecosystem leverages the Niagara framework to intergrate with any of the 120+ BMS protocols.
- Very simple to connect as plugging the two systems into a common Ethernet network.
- All data can be shared and BMS can monitor and control the lighting system.
- Adding OpendADR gateway, the customer can take advantage of any current or future utility demand response programs including peak pricing, capacity bidding and direct laod control