

**【Cleanroom LED Panel Light】 - NO: 9405500000LPL03**  
**SPECIFICATION FOR APPROVALFOR APPROVAL**



## Features:

**Ultra-Slim, Seamless Design:** Minimalist profile with a screw-free front surface and seamless anodized aluminum frame for smooth integration into cleanroom ceilings.

**Low Particle Emission:** Utilizes low-outgassing SMD LEDs and anti-static PMMA diffuser to maintain air purity in sensitive environments.

Available in various sizes: 300x300mm, 600x600mm, 300x1200mm, 600x1200mm

**High Luminous Efficacy:** 90–110 lm/W for energy-efficient operation across 18W, 20W, 40W, 48W, and 60W power options.

**Color Quality & Flexibility:** High CRI  $\geq 80$  and selectable CCT options (3000K warm white, 4000K neutral, 5000K cool, 6500K daylight) for optimal visual clarity.

**Flexible Installation:** Compatible with recessed or surface mounting; includes airtight gasket option for maintaining cleanroom pressure integrity.

**Optional Advanced Functions:** Available with DALI dimming, emergency backup power, or integrated UV-C disinfection module.



## Descriptions:

The Cleanroom LED Panel Light is engineered specifically for use in ISO Class 5–8 controlled environments where hygiene, reliability, and contamination control are critical. Combining advanced back-lit LED technology with a hermetically sealed construction, this luminaire delivers consistent, high-quality illumination while minimizing particle generation and microbial retention.

The fixture features a fully sealed optical system using an anti-static, non-porous PMMA diffuser and a smooth, easy-to-disinfect anodized aluminum housing—ideal for frequent cleaning with harsh sanitizing agents. With auto-ranging AC 85–265V input and universal 50/60Hz compatibility, it ensures stable performance across global electrical systems.

Designed for both new installations and retrofit projects, the panel offers exceptional luminous uniformity and visual comfort, making it suitable for mission-critical facilities such as pharmaceutical production lines, biotech labs, and semiconductor manufacturing cleanrooms.

## Applications:

**Pharmaceutical Manufacturing:** Filling rooms, formulation areas, aseptic processing zones (ISO Class 5–8)

**Biotechnology & Life Sciences:** Research laboratories, cell culture rooms, PCR suites

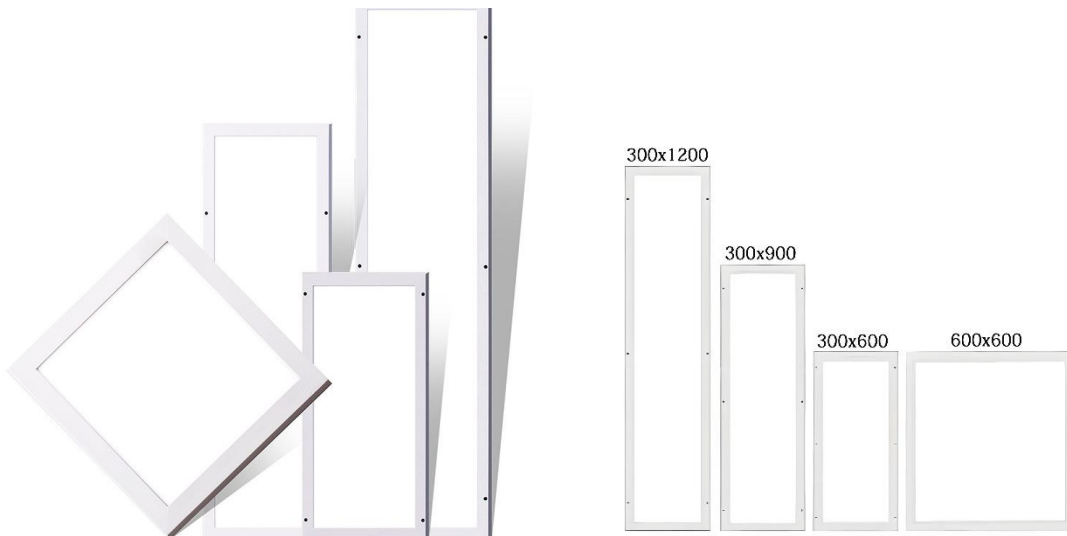
**Electronics & Semiconductor:** Wafer fabrication, assembly cleanrooms, inspection stations

**Medical Facilities:** Operating theaters, isolation rooms, clean corridors in hospitals

**HVAC-Controlled Industrial Spaces:** Precision engineering workshops, coating rooms

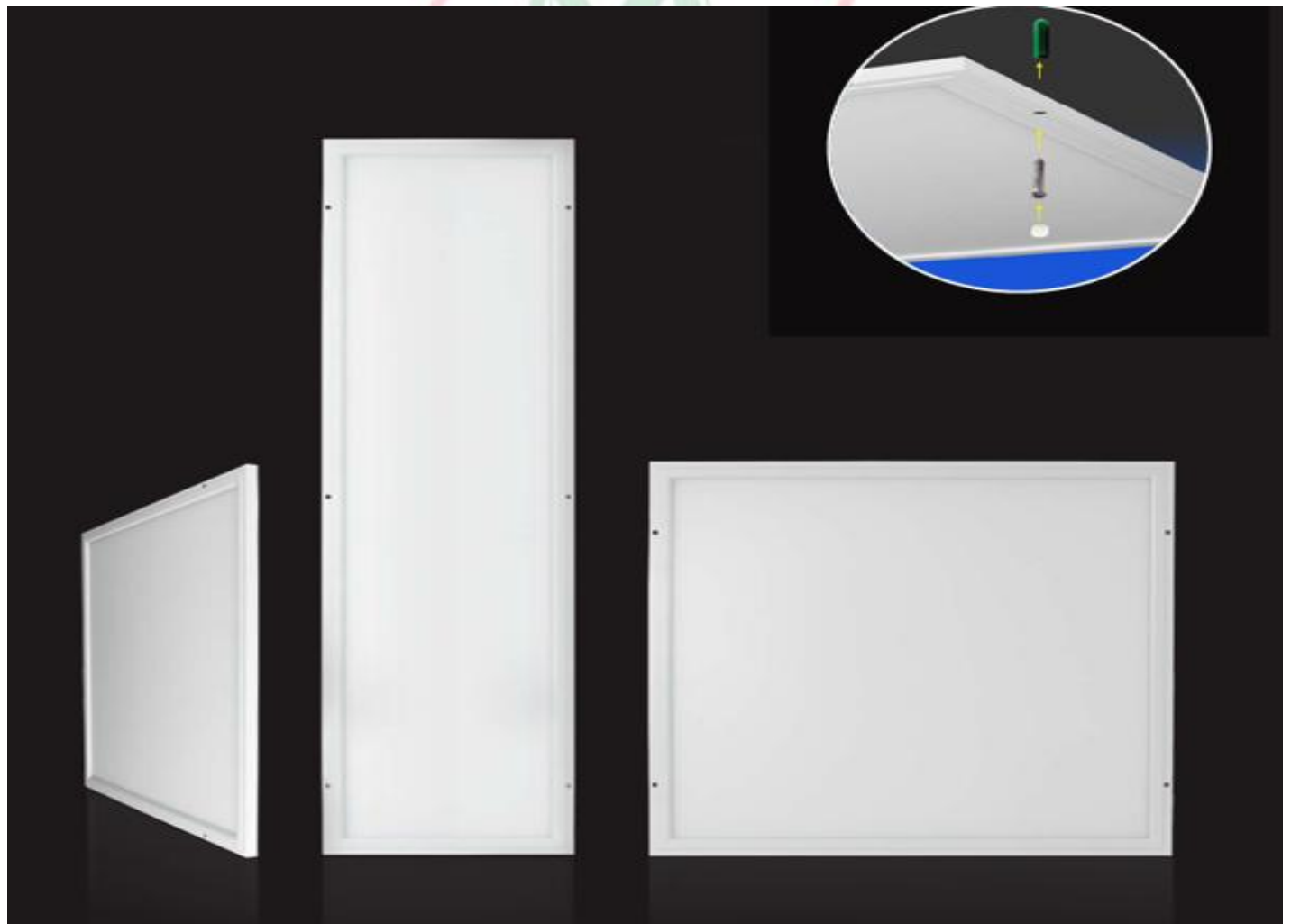
**Critical Infrastructure:** Data centers (support areas), vaccine storage facilities

## Specifications and dimensions



Select your Color Temperature and CRI

3000K 3500K 4000K 5000K 5700K 6500K



## Absolute Maximum Ratings

Table 1. Absolute maximum ratings for QUEENDOM LED PANEL

PARAMETER	Cleanroom LED Panel Lights
Continuous forward voltage [1, 2]	AC 85-230 V
Maximum pulse forward voltage [1, 3]	AC 245 V
Frequency	50/60hz
Protection level	>IP54 (front sealed against dust and splashes)
LED storage temperature	-40°C to 80°C
Operating Temperature Range T <sub>OPR</sub>	Minus -20°C To plus45°C
ESD Sensitivity T <sub>OPR</sub>	2000V HBM

## Product Selection Guide

### Model & Approved Driver

PRODUCT	RANK NO.	NOMINAL	SIZE	PART NUMBER
		CCT (K)	(mm)	
CP3030S20WA2	LPL0301	2700	300×300×10	9405500000LPL0301
CP3030S20VA2	LPL0302	3000	300×300×10	9405500000LPL0302
CP3030S20TA2	LPL0303	4000	300×300×10	9405500000LPL0303
CP3030S20RA2	LPL0304	5000	300×300×10	9405500000LPL0304
CP3030S20QA2	LPL0305	5700	300×300×10	9405500000LPL0305
CP3030S40PA2	LPL0306	6500	300×300×10	9405500000LPL0306
CP3060S20WA2	LPL0307	2700	300×600×10	9405500000LPL0307
CP3060S20VA2	LPL0308	3000	300×600×10	9405500000LPL0308
CP3060S20TA2	LPL0309	4000	300×600×10	9405500000LPL0309
CP3060S20RA2	LPL0310	5000	300×600×10	9405500000LPL0310
CP3060S20QA2	LPL0311	5700	300×600×10	9405500000LPL0311
CP3060S40PA2	LPL0312	6500	300×600×10	9405500000LPL0312
CP0312S48WA2	LPL0313	2700	300×1200×10	9405500000LPL0313
CP0312S48VA2	LPL0314	3000	300×1200×10	9405500000LPL0314
CP0312S48TA2	LPL0315	4000	300×1200×10	9405500000LPL0315
CP0312S48RA2	LPL0316	5000	300×1200×10	9405500000LPL0316
CP0312S48QA2	LPL0317	5700	300×1200×10	9405500000LPL0317
CP0312S48PA2	LPL0318	6500	300×1200×10	9405500000LPL0318
CP6060S40WA2	LPL0319	2700	600×600×10	9405500000LPL0319
CP6060S40VA2	LPL0320	3000	600×600×10	9405500000LPL0320
CP6060S40TA2	LPL0321	4000	600×600×10	9405500000LPL0321
CP6060S40RA2	LPL0322	5000	600×600×10	9405500000LPL0322
CP6060S40QA2	LPL0323	5700	600×600×10	9405500000LPL0323
CP6060S40PA2	LPL0324	6500	600×600×10	9405500000LPL0324
CP0612S60WA2	LPL0325	2700	600×1200×10	9405500000LPL0325
CP0612S60VA2	LPL0326	3000	600×1200×10	9405500000LPL0326
CP0612S60TA2	LPL0327	4000	600×1200×10	9405500000LPL0327
CP0612S60RA2	LPL0328	5000	600×1200×10	9405500000LPL0328
CP0612S60QA2	LPL0329	5700	600×1200×10	9405500000LPL0329
CP0612S60PA2	LPL0330	6500	600×1200×10	9405500000LPL0330

## Photoelectric properties

**Table 1. Product performance of QUEENDOM LED PANEL LIGHTS VF=220V, Tj=25°C,.**

PRODUCT	RANK NO.	POWER	VOLTAGE	FLUX	EFFECT	CRI	TYPICAL	PART NUMBER
		(W)	(VF/V)	(lm)	(LM/W)	(Ra)	DEG	
CP3030S20WA2	LPL0301	18	100-240	1620	90	80 ↑	120	9405500000LPL0301
CP3030S20VA2	LPL0302	18	100-240	1620	90	80 ↑	120	9405500000LPL0302
CP3030S20TA2	LPL0303	18	100-240	1620	90	80 ↑	120	9405500000LPL0303
CP3030S20RA2	LPL0304	18	100-240	1620	90	80 ↑	120	9405500000LPL0304
CP3030S20QA2	LPL0305	18	100-240	1620	90	80 ↑	120	9405500000LPL0305
CP3030S40PA2	LPL0306	18	100-240	1620	90	80 ↑	120	9405500000LPL0306
CP3060S20WA2	LPL0307	20	100-240	1800	90	80 ↑	120	9405500000LPL0307
CP3060S20VA2	LPL0308	20	100-240	1800	90	80 ↑	120	9405500000LPL0308
CP3060S20TA2	LPL0309	20	100-240	1800	90	80 ↑	120	9405500000LPL0309
CP3060S20RA2	LPL0310	20	100-240	1800	90	80 ↑	120	9405500000LPL0310
CP3060S20QA2	LPL0311	20	100-240	1800	90	80 ↑	120	9405500000LPL0311
CP3060S40PA2	LPL0312	20	100-240	1800	90	80 ↑	120	9405500000LPL0312
CP0312S48WA2	LPL0313	48	100-240	4320	90	80 ↑	120	9405500000LPL0313
CP0312S48VA2	LPL0314	48	100-240	4320	90	80 ↑	120	9405500000LPL0314
CP0312S48TA2	LPL0315	48	100-240	4320	90	80 ↑	120	9405500000LPL0315
CP0312S48RA2	LPL0316	48	100-240	4320	90	80 ↑	120	9405500000LPL0316
CP0312S48QA2	LPL0317	48	100-240	4320	90	80 ↑	120	9405500000LPL0317
CP0312S48PA2	LPL0318	48	100-240	4320	90	80 ↑	120	9405500000LPL0318
CP6060S40WA2	LPL0319	40	100-240	3600	90	80 ↑	120	9405500000LPL0319
CP6060S40VA2	LPL0320	40	100-240	3600	90	80 ↑	120	9405500000LPL0320
CP6060S40TA2	LPL0321	40	100-240	3600	90	80 ↑	120	9405500000LPL0321
CP6060S40RA2	LPL0322	40	100-240	3600	90	80 ↑	120	9405500000LPL0322
CP6060S40QA2	LPL0323	40	100-240	3600	90	80 ↑	120	9405500000LPL0323
CP6060S40PA2	LPL0324	40	100-240	3600	90	80 ↑	120	9405500000LPL0324
CP0612S60WA2	LPL0325	60	100-240	5400	90	80 ↑	120	9405500000LPL0325
CP0612S60VA2	LPL0326	60	100-240	5400	90	80 ↑	120	9405500000LPL0326
CP0612S60TA2	LPL0327	60	100-240	5400	90	80 ↑	120	9405500000LPL0327
CP0612S60RA2	LPL0328	60	100-240	5400	90	80 ↑	120	9405500000LPL0328
CP0612S60QA2	LPL0329	60	100-240	5400	90	80 ↑	120	9405500000LPL0329
CP0612S60PA2	LPL0330	60	100-240	5400	90	80 ↑	120	9405500000LPL0330

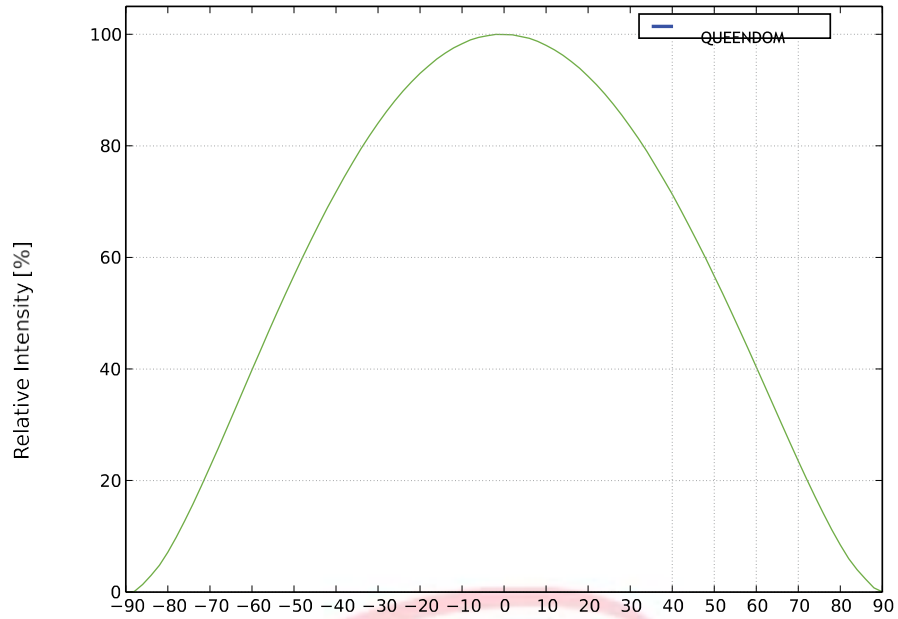
**Notes for Table 1:**

Correlated color temperature is cold-targeted at Tj=25°C.

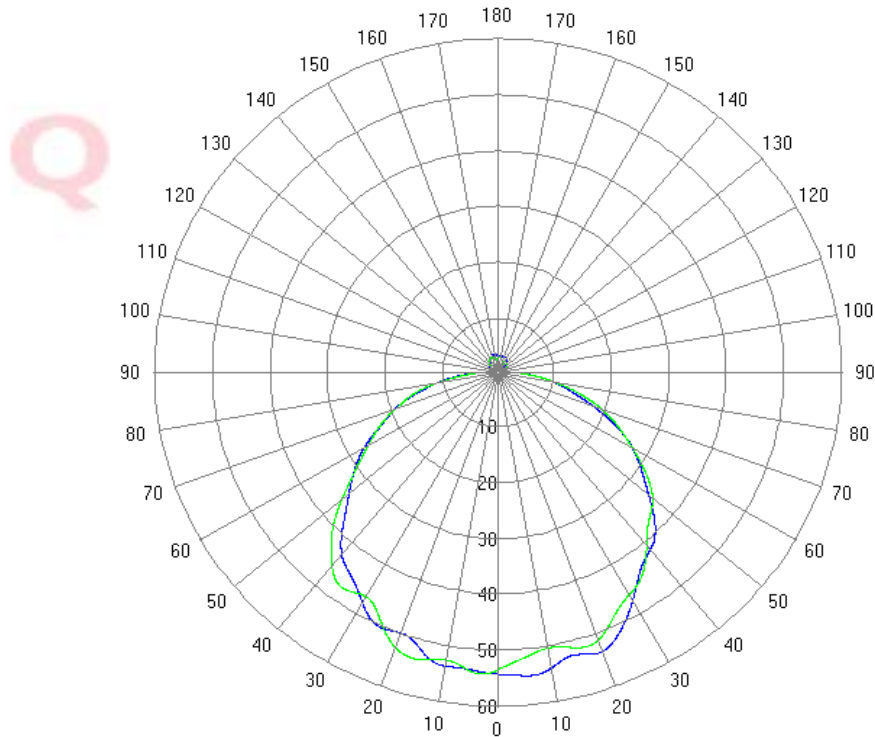
Luminous flux and CRI specs are based upon mounted package on highly reflective surface at Tj=25°C. Typical CRI is approximately 2 points higher than the minimum CRI specified, but this is not guaranteed.

QUEENDOM maintains a tolerance of ±2 on CRI and ±7.5% on flux measurements.

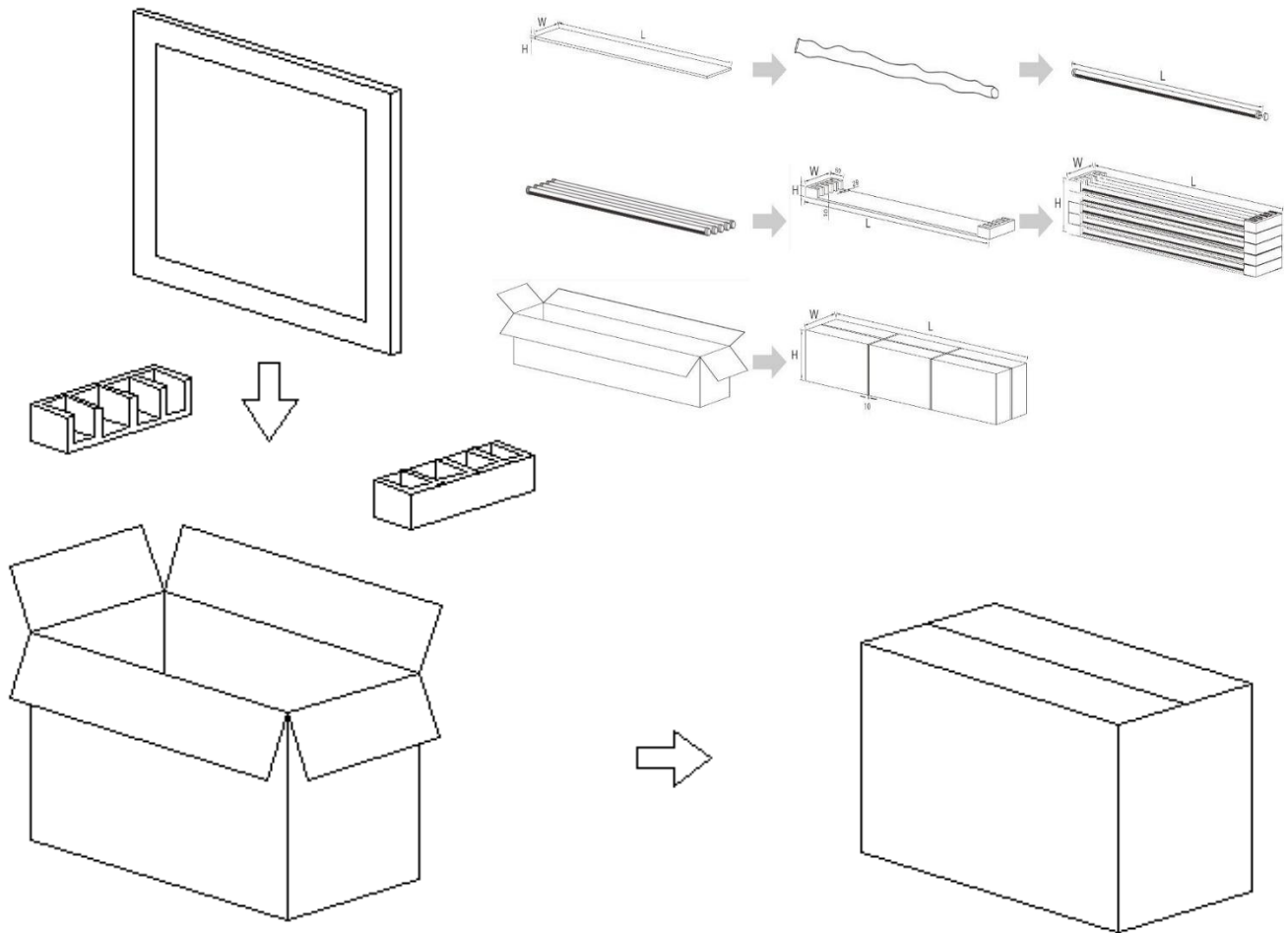
## Radiation Pattern Characteristics



Polar Candela Distribution Plot  
使用遗失光线



## Packaging



**QUEENDOM**

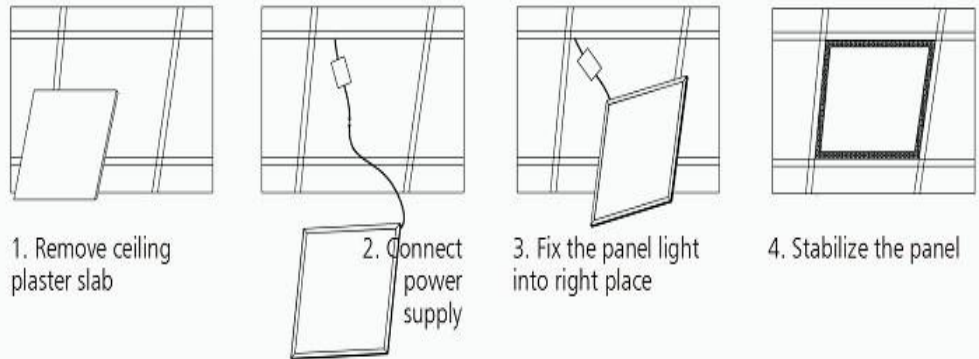
## Label identification

CPN: P/N:XXXXXXXXXX	VF:XX-XX
	IV:XX-XX
QTY:XXX	WLD:XX-XX
	BIN:XX-XX
LOT NO:XXXXXXXXXX	DATE:XX-XX-XX
	

CPN:Customer's Product Number  
P/N:Product Number  
QTY:Packing Quantity  
LOT NO:Lot Number  
VF:Forward Voltage Rank  
IV:Luminous Intensity Rank  
WLD:Dom. Wavelength Rank  
BIN:BIN Code  
DATE:Date Of Dispatch

**Installation Notes:**

**1. Recessed into ceiling**



1. Remove ceiling plaster slab

2. Connect power supply

3. Fix the panel light into right place

4. Stabilize the panel

**2. Suspending**

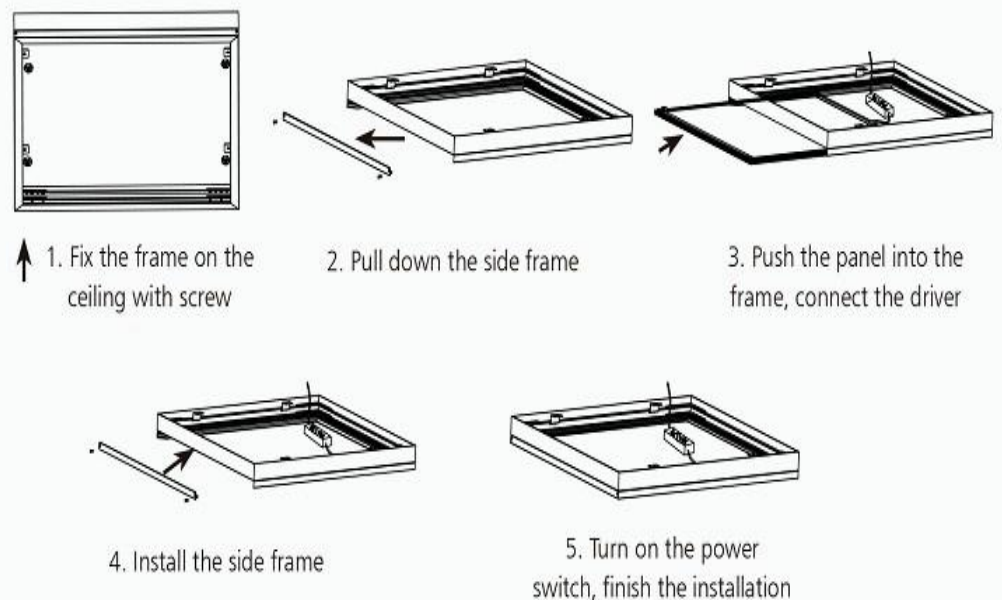


1. A. Fix the anchor into target place on the ceiling  
B. Fix the installation mount on the ceiling with plastic anchor

2. Hang the panel to ceiling with suspended installation kits

3. Adjust the length of steel wire. Connect the power supply

**3. Surface mounted**



1. Fix the frame on the ceiling with screw

2. Pull down the side frame

3. Push the panel into the frame, connect the driver

4. Install the side frame

5. Turn on the power switch, finish the installation

## Application:



### Safety Tips:

Non-professionals are not allowed to perform related operations.

1. Please check the integrity of the packaging and products before installation and use. If the product is damaged during transportation, it is prohibited to use it.
2. Avoid objects hitting or weighing the product.
3. Handle with care during transportation and installation.
4. The product must not be powered on before installation is completed. Please turn off the power before cleaning.
5. Avoid cleaning the surface of the lamp with chemicals and corrosive items.
6. Do not touch the lamp when it is lit.
7. It is normal for the lamp to heat up when it is lit.