

PrevaLED SKY Outdoor module

Datasheet



The PrevaLED SKY is a high power LED module with integrated heat sink for optimal thermal management and tailored optical design. The modular design concept of PrevaLED SKY allows for design flexibility by varying the module quantity to achieve the best street lighting solution for difference application from Road lighting to Area lighting. The LED module is available in different color temperature (4000K and 6500K), offering very long time lifetime for minimal maintenance. PrevaLED SKY is an IP66 unit ideal for outdoor applications.

BENEFITS

- **Tailored optical design**
 - Special designed lenses optimized the light distribution across the road for different road class requirements and also difference application required Highbay, Lowbay and Area floodlight illumination.
- **IP66 protection**
 - Self contained housing with heat sink for excellent thermal management, no extra protection is needed
- **High energy efficiency**
 - Constant current driven maximizing system efficiency
- **Stackable & maintainable module**
 - Simple screw fixing module allowing multiple module configuration in luminaires
- **Long life time**
 - Optimized for extended lifetime and lumen maintenance

APPLICATIONS

- Street lighting for ME1 and ME2 road classes
- Area illumination for Highbay, Lowbay, Canopy light, Billboard light and Floodlight

SPECIFICATION

PrevaLED SKY Datasheet
Version 1.1
Date: 1 July 2015

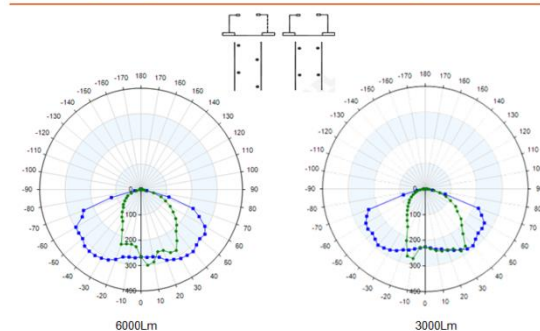
	Parameter	PrevaLED SKY			
		LP		HP	
Light Output *	Typical luminous flux @700mA	3000 lm		6000 lm	
	Luminous flux range @700mA	2590~3319 lm		5179~6637 lm	
	Optical	150° x 80° T40°S (For Single-sided / Opposite mount) 150° x 80° T40°C (For Twin-central mount) 60° x 60° 100° x 100° 100° x 60°			
	CCT	4000K	6500K	4000K	6500K
	Typical CRI (Ra)	70		70	
	Lifetime (L70/B50)	50,000 hours (T _c @ 70°C)		50,000 hours (T _c @ 80°C)	
	Electrical	Typical input voltage	34.8V DC		69.6V DC
Input voltage range		33~38.2V DC		66~76.4V DC	
Power @700mA(typical)		25W		50W	
Recommended Driver		OSRAM OPTOTRONIC OT 50/120-277/700 P5 OT 100/120-277/700 P5 OT 180/120-277/700 P5 OT 250/120-277/700 P5			
ESD Protection		contact 4kV and air 8kV			
Mechanical		Dimension	220mmL x 70mmW x 66mmH		
	Mounting	screw fixing at side brackets			
	Optics	polycarbonate lens			
	Weight	350±30g		400±30g	
Temperature	Ambient temp. range	-30 ... 50°C (T _a in free air)			
	Operating (case) temp. range ##	-30 ... 80°C (measure at T _c point) for HP -30 ... 70°C (measure at T _c point) for LP			
	Storage temp. range ##	-30 ... 85°C (measure at T _c point)			
	Standard Compliance	IP Rating	IP66		
Standard		IEC 62471; EN 60529; EN 62031;IEC 60598-1; EN 55015; EN 61547			
Flammability		IEC 60598-1			
Environment		RoHS			

* Due to the special conditions of manufacturing processes of LED, the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product. Actual lumen output can be varied due to many factors like lamp factor of LED, input current/voltage, thermal conditions, many other optical tolerance, and measurement tolerance. The data above is for reference only. Please contact Osram sales or marketing staff for advice if customers has any specific demand on particular parameters. Ranking at T_a = 25°. Tolerance of measurements for the colour rendering Ra is ±2.

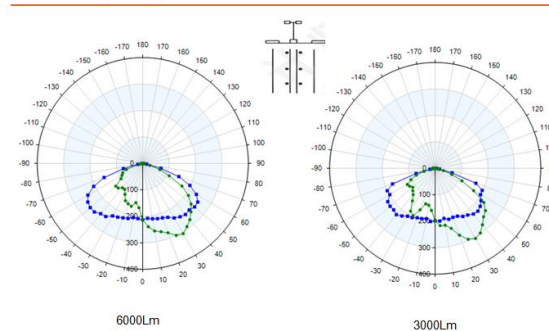
Exceeding maximum ratings for operation and storage temperature will reduce expected life time or destroy the LED module. The temperature of the LED module needs to be measured at the T_c-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

PHOTOMETRICS

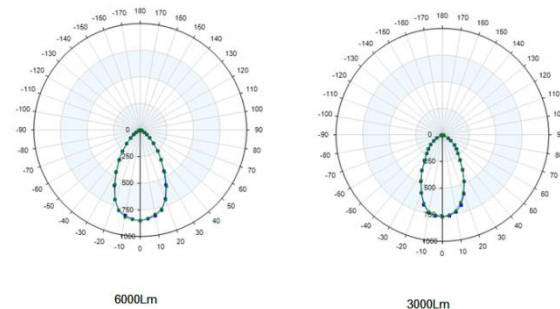
Street Lighting 150 x 80 T40 on Opposing



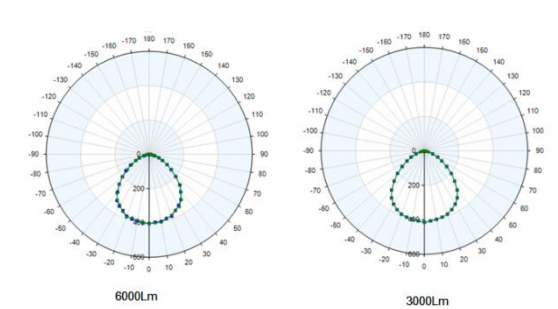
Street Lighting 150 x 80 T40 on Median



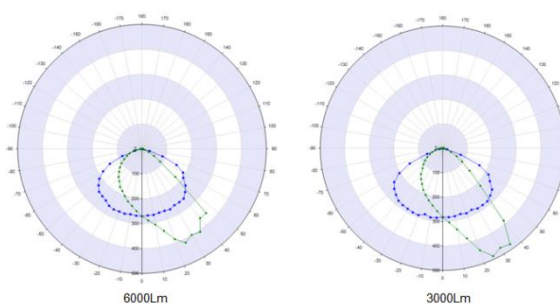
Area / Highbay 60X60



Area / Lowbay 100X100



Area / Floodlight 100X60 Asymmetric



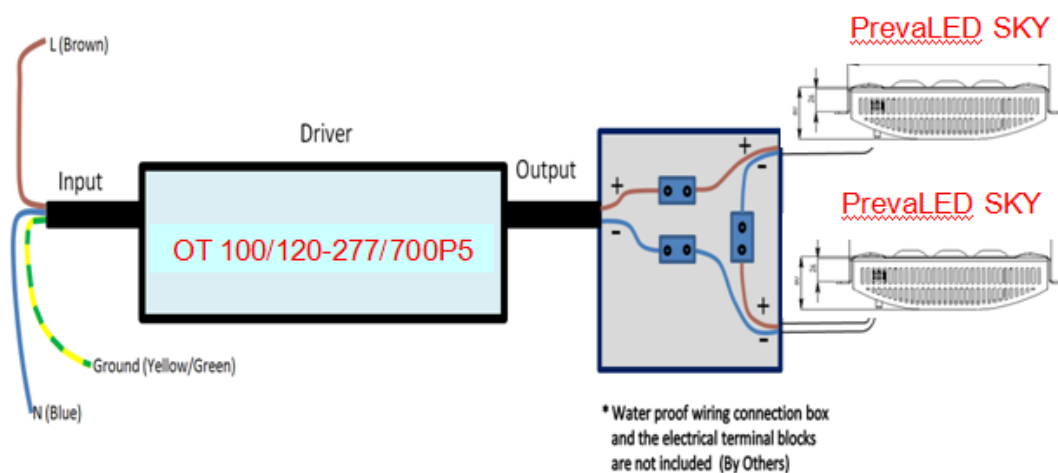
Note: The distribute curve is tested by 6500K module with brightness bin: NP.

Due to the special conditions of manufacturing processes of LED, the polar candela distribution and distance illuminance can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product. The actual data may differ from the typical data.

SALES & TECHNICAL SUPPORT

1. Application with OT 100/120-277/700 P5:

2 pcs PrevaLED Sky Modules Connect with OT 100/120-277/700 P5
(Example just for module series connection) :



2. Driver combination matrix.

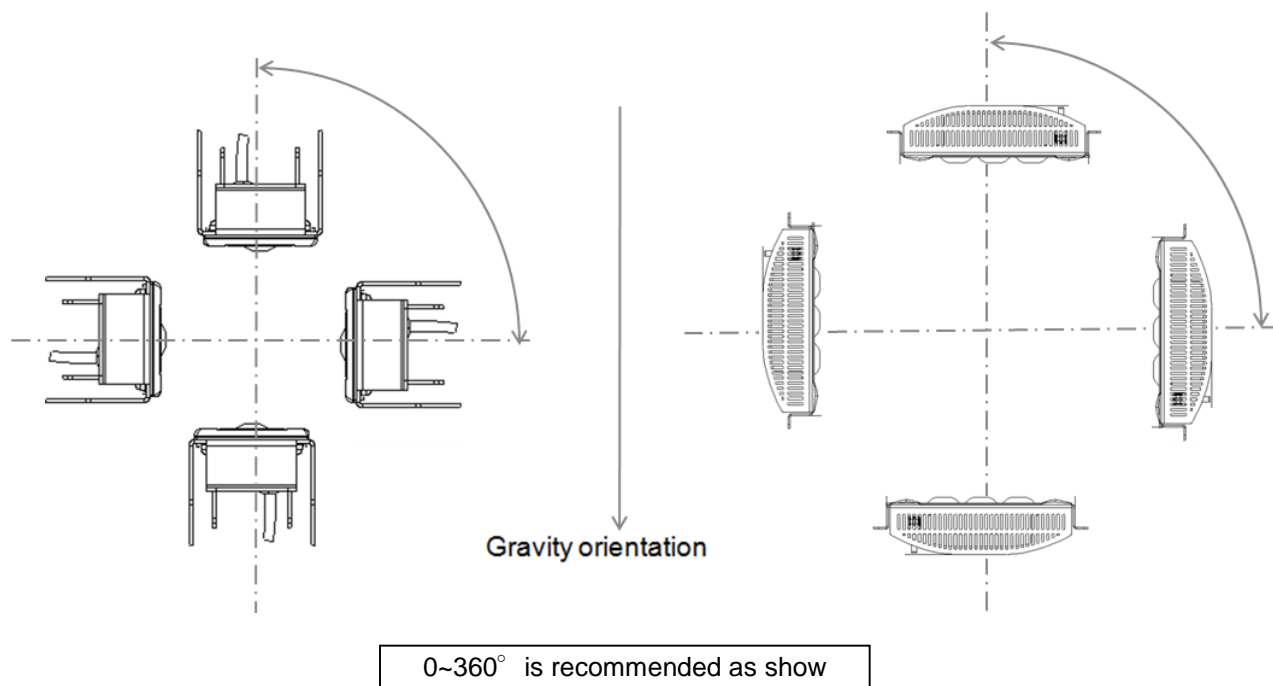
PrevaLED SKY Module

System matching with OT Outdoor On/Off 700mA IP65 Driver

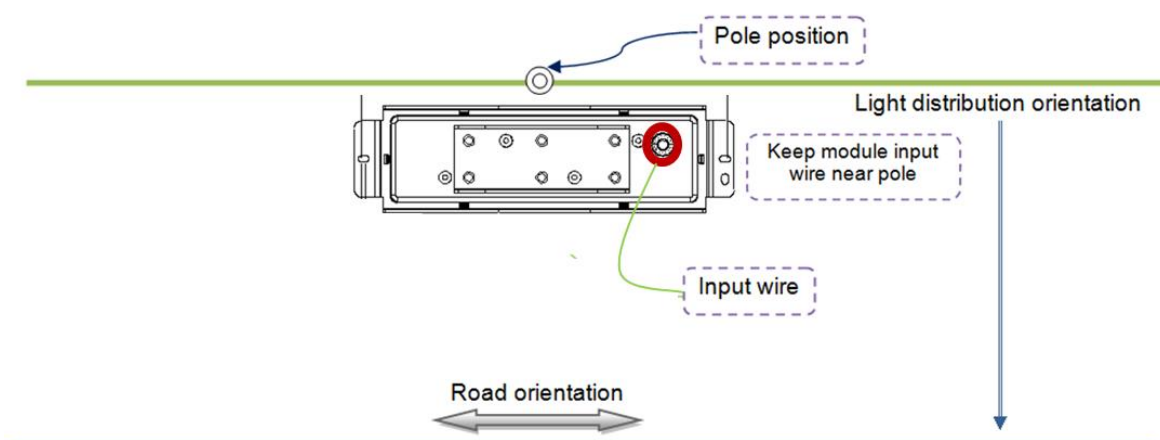
System match testing on progress.							
SKY 4 DC - 25W 3k lm	SKY 4 DC - 50W 6k ~ 9k lm	SKY 4 DC - 25W SKY 4 DC - 50W 6k ~ 9k lm	SKY 4 DC - 50W SKY 4 DC - 50W 9k ~ 12k lm	SKY 4 DC - 25W SKY 4 DC - 50W SKY 4 DC - 50W 12k ~ 15k lm	SKY 4 DC - 50W SKY 4 DC - 50W SKY 4 DC - 50W 15k ~ 18k lm	SKY 4 DC - 25W SKY 4 DC - 50W SKY 4 DC - 50W SKY 4 DC - 50W 15k ~ 25k lm	SKY 4 DC - 50W SKY 4 DC - 50W SKY 4 DC - 50W SKY 4 DC - 50W 15k ~ 25k lm
50W OT	100W OT			180W OT		250W OT	

3. Application of installation for module orientation (make sure temperature no exceed to value)

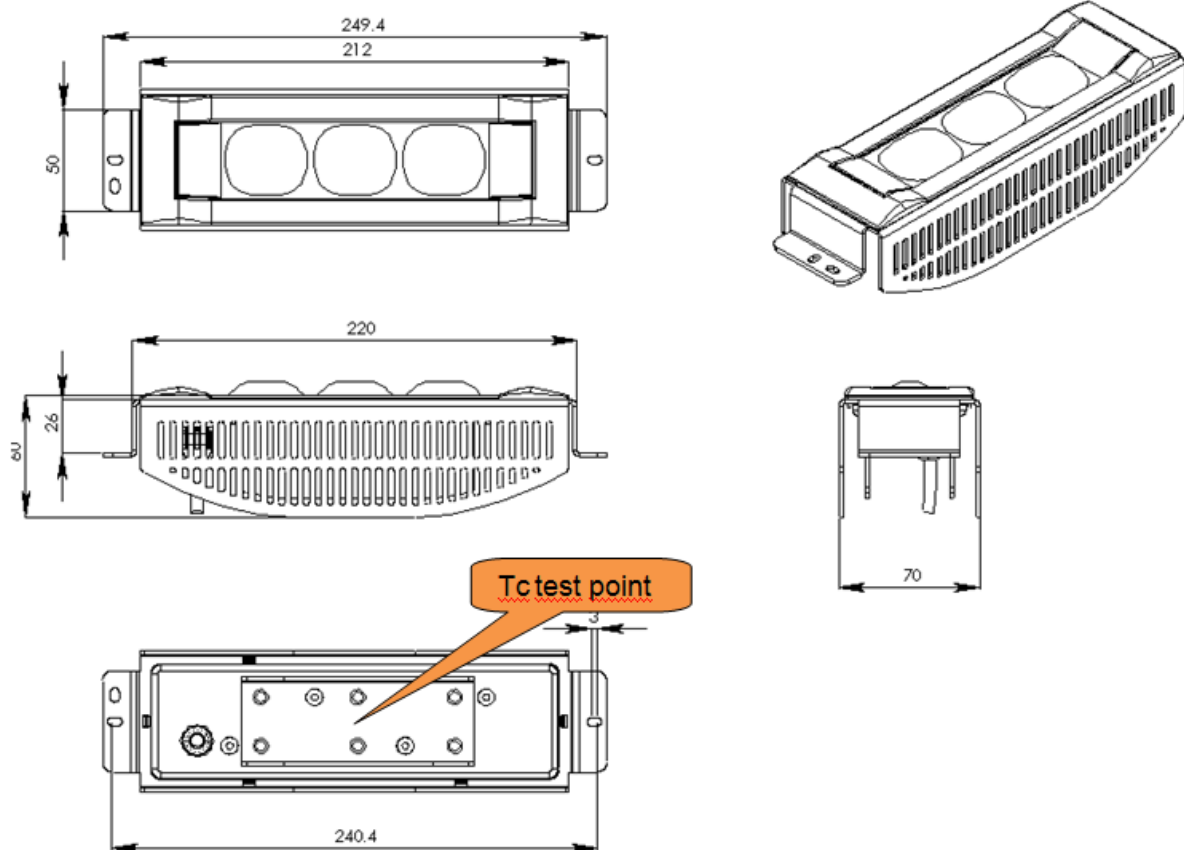
Recommend application:



4. Application of installation sketch map for optics.



DRAWINGS



ORDERING CODE

Product group	Product name	EAN-10	S-Unit	EAN-40	S-Unit
PrevaLED SKY	PL-SKY-HP 765L150X80T40C70V12X1APACOSRAM	4052899328013	1	4052899328020	12
PrevaLED SKY	PL-SKY-HP 765L150X80T40S70V12X1APACOSRAM	4052899328037	1	4052899328044	12
PrevaLED SKY	PL-SKY-HP 765 L60X60 70V 12X1 APAC OSRAM	4052899328051	1	4052899328068	12
PrevaLED SKY	PL-SKY-HP 765 L100X100 70V 12X1APACOSRAM	4052899328075	1	4052899328082	12
PrevaLED SKY	PL-SKY-HP 765 L100X60 70V 12X1 APACOSRAM	4052899328099	1	4052899328105	12
PrevaLED SKY	PL-SKY-HP 740L150X80T40C70V12X1APACOSRAM	4052899328112	1	4052899328129	12
PrevaLED SKY	PL-SKY-HP 740L150X80T40S70V12X1APACOSRAM	4052899328136	1	4052899328143	12
PrevaLED SKY	PL-SKY-HP 740 L60X60 70V 12X1 APAC OSRAM	4052899328150	1	4052899328167	12
PrevaLED SKY	PL-SKY-HP 740 L100X100 70V 12X1APACOSRAM	4052899328174	1	4052899328181	12
PrevaLED SKY	PL-SKY-HP 740 L100X60 70V 12X1 APACOSRAM	4052899328198	1	4052899328204	12
PrevaLED SKY	PL-SKY-HP 840 L150X80T40S 70V 12X1KOSRAM	4052899328112	1	4052899328426	12
PrevaLED SKY	PL-SKY-LP 765L150X80T40C35V12X1APACOSRAM	4052899328211	1	4052899328228	12
PrevaLED SKY	PL-SKY-LP 765L150X80T40S35V12X1APACOSRAM	4052899328235	1	4052899328242	12
PrevaLED SKY	PL-SKY-LP 765 L60X60 35V 12X1 APAC OSRAM	4052899328259	1	4052899328266	12
PrevaLED SKY	PL-SKY-LP 765 L100X100 35V 12X1APACOSRAM	4052899328273	1	4052899328280	12
PrevaLED SKY	PL-SKY-LP 765 L100X60 35V 12X1 APACOSRAM	4052899328297	1	4052899328303	12
PrevaLED SKY	PL-SKY-LP 740L150X80T40C35V12X1APACOSRAM	4052899328310	1	4052899328327	12
PrevaLED SKY	PL-SKY-LP 740L150X80T40S35V12X1APACOSRAM	4052899328334	1	4052899328341	12
PrevaLED SKY	PL-SKY-LP 740 L60X60 35V 12X1 APAC OSRAM	4052899328358	1	4052899328365	12
PrevaLED SKY	PL-SKY-LP 740 L100X100 35V 12X1APACOSRAM	4052899328372	1	4052899328389	12
PrevaLED SKY	PL-SKY-LP 740 L100X60 35V 12X1 APACOSRAM	4052899328396	1	4052899328402	12

SAFETY NOTE

- ★ The LED module itself and all its components may not be mechanical stressed.
- ★ The module net weight of HP version is $400 \pm 30\text{g}$, LP version is $350 \pm 30\text{g}$.
- ★ Assembly must not damage or destroy conducting paths on the circuit board.
- ★ To avoid mechanical damage to the connecting cables, the module should be attached securely to the fixture. Heavy vibration should be avoided.
- ★ Installation of LED modules with (power supplies) needs to be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installation.
- ★ Please ensure that the power supply is of adequate power to operate the total load.
- ★ PrevaLED SKY outdoor module needs to be connected with constant current DC driver which must have stable constant current ($\pm 10\%$ tolerance suggested) output.
- ★ Electrical contact is achieved with the contact cables.
- ★ The design of the housing should be according to the IP standards in the application.
- ★ Pay attention to standard ESD precautions when installing the module.
- ★ If surge protection structure not within power supplier, a lightning protector should be needed additionally for outdoor application.
- ★ The insulation designed working voltage U-out is 500V for this module.
- ★ The product was designed as built-in LED module which can only fulfil basic insulation. It should be applicable to Class I luminaires. If it is used in Class II luminaires, the final user should make sure the safety protection in final luminaires construction.
- ★ t_c value is 80 centigrade for HP type LED module, 70 centigrade for LP type LED module, higher t_c application is not recommended.

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