# PrevaLED Linear Board OP G1

Dimension (I x w x h)

-500x14.8x6mm



# **Product description**

PrevaLED linear board OP G1 is focusing on excellent performance. Good light distribution can be performed even in a very flat fixture.

### **Benefits**

- Efficacy: up to 160 lm/W including optical lens.
- Homogeneous light distribution (≥ 30mm to diffusor).
- MCPCB for better thermal dissipation

### Features

- Various length available for flexible design: 500x14.8x6mm (L x W x H)
- CCT: 3000K, 4000K, 6500K
- Luminous flux up to 840lm
- Consistent white light of 3 SDC-MCM
- CRI>80
- Good uniformity with distance from installation surface to diffusor ≥ 30mm

## Applications

- · Super flat fixture
- Office (workplace illumination, corridor)
- Retail, Shops
- Public area (corridor, stairs)



## **SPECIFICATION**

The typical values involved in this specification of all linear module are under the following conditions:

Model name	Driven currents	t <sub>p</sub> -normal
PL-LIN-OP-XXX-8XX-500	150mA(typ)/300mA(max)	45°C

#### Normal mode

Model name	Module Efficacy	Lumen Flux	Power	V <sub>f</sub>	lf	ССТ	Lifetime (L80B50 @ t <sub>₽</sub> -normal)
	(Lm/W)	(Lm)	(W)	(V)	(mA)	(K)	hours
PL-LIN-OP-850-830-500	152	798	5.25	35	150	3000	50,000
PL-LIN-OP-850-840-500	160	840	5.25	35	150	4000	50,000
PL-LIN-OP-850-865-500	160	840	5.25	35	150	6500	50,000

Due to the special conditions of the 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 which could differ from the typical data.

# **Optical parameters**

#### 2.1 CCT / Color and Color rendering parameters

Product category	Min. CCT (K)	Max. CCT (K)	Ra
PL-LIN-OP-850-830-500	2870	3220	80
PL-LIN-OP-850-840-500	3710	4260	80
PL-LIN-OP-850-865-500	6020	7040	80

Remarks:

1. Rating at  $t_c=25^{\circ}C$ 

2. Tolerance of measurements for the color rendering Ra is ±2;

3. Tolerance of measurements for the Chromaticity Coordinate is ±0.005; the tolerance of CCT should be calculated accordingly.

#### 2.2 Brightness parameters

Product	ССТ	Current	Lumen Flux(Lm) @t <sub>p</sub> -normal		
	(K)	(mA)	Min.	Max.	
PL-LIN-OP-850-830-500	3000	150	<mark>720</mark>	<mark>878</mark>	
PL-LIN-OP-850-840-500	4000	150	<mark>756</mark>	<mark>924</mark>	
PL-LIN-OP-850-865-500	6500	150	<mark>756</mark>	<mark>924</mark>	

Remarks:

- Ranking at tp-normal condition.

- Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED Module.

- The temperature of the LED module must be measured at the t<sub>c</sub>-point according to EN60598-1 in thermal stable status. Exact location of t<sub>c</sub> point please see "safety information".

- Due to the special conditions of the manufacturing processes of LED, the typical data or calculated correlations of technical parameters can only reflect statistical figures. These do not necessarily correspond to the actual parameters of each single product, which could differ from the typical data and calculated correlations or the typical characteristic line. If requested, e.g. because of technical improvements, these typ. data will be changed without any further notice.

- Tolerance of measurement of the luminous flux is ±5%.



#### 2.3 Spectrum

#### 2.4 Light distribution

Product	Distribution Graph	Beam angle range (2Xθ1/2)
PL-LIN-OP-850-830-500		
PL-LIN-OP-850-840-500		
PL-LIN-OP-850-865-500		

### **Electrical parameters**

Driving mode	Constant Current		
Supply voltage range @150mA	PL-LIN-OP-850-8X0-500	ТВС	
Power range @ 150mA	PL-LIN-OP-850-8X0-500	ТВС	
Connection wire gauge	20-22 AWG		

# **Environmental and Application Conditions**

Ambient temperature range (t <sub>a</sub> on free air)	-20°C~55°C
Operating (case) temperature range (t <sub>c</sub> )	-20°C~80°C
Storage temperature range	-30°C~85°C
Lifetime @ tp-normal (L80/B50)	50,000 hours

The modules are designed for operation with OPTOTRONIC® / Element Driver.

\*) Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the light engine. The temperature of the LED module must be measured at the te-point according to EN60598-1 in thermally settled conditions with a temperature sensor.



# **Standards / Normative Requirements**

Eye security	IEC 62471
Flammability	IEC 60598-1
Safety Requirements	EN 62031 IEC 60598-1
CE Mark	Yes

# **Product Drawing**



#### **Order Number**

Model	EAN10	S-unit	EAN40	S-unit
PL-LIN-OP-850-830-500		1		120
PL-LIN-OP-850-840-500		1		120
PL-LIN-OP-850-865-500		1		120



# **Safety Information**

\*

The modules are intended for operation only with matching OPTOTRONIC® , ICUTRONIC, ELEMENT drivers

To also ease the luminaire/installation approval, electronic control gear for LED or LED modules should carry the CE mark and be ENEC certified. In Europe the declarations of conformity must include the following standards: CE: EC 61347-2-13, EN 55015, IEC 61547 and IEC 61000-3-2 - ENEC: 61347-2-13 and IEC/EN 62384. Also check for the mark of an independent authorized certification institute. Please see the relevant brochure for more detailed information (see "Related and Further Information")

OSRAM OPTOTRONIC<sup>®</sup>, ICUTRONIC, ELMEENT electronic control gear complies to all relevant standards and guarantees safe operation.

- ★ The LED module itself and all its components may not be mechanical stressed.
- ★ 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 percented should be allowed to perform installation
  - 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.
- ★ Please ensure that the power supply with correct output parameters (driving mode, voltage, current) for LED module.
- ★ Pay attention to standard ESD precautions when installing the module.
- ★ If surge protection structure not within power supplier, a lightening protector should be needed additionally for outdoor application.
- ★ application is not recommended. tp in remark are the same point as tc.
- ★ For China market, if module applied to Class I Luminaire, the heat sink must be grounded, and the maximum in series connection should ensure the input voltage is less than 250VDC-MC. Power supply output voltage higher than 250VDC-MC is not allowed to drive the module even in Class I luminaire.
- ★ t<sub>c max</sub> value is 85-degree, higher t<sub>c</sub> application is not recommended. t<sub>c</sub> point as below:





