

PLCC Lightbar FPC 5050 Series Datasheet



Product description :

- 12/24 V constant voltage strip (SELV)
- Ideal for application on aluminum extrusions but also for various decorative lighting applications such as cove lighting, facade accent lighting etc.



Features and benefits :

- Extremely narrow pitch distance enables short distance to diffuser and outstanding homogeneity
- Small color tolerance (SDCM3-5), Ra > 80
- Color temperature 2700, 3000, 4000 and 5700 K
- Self-adhesive 3M tape at the backside for simple mounting on different surfaces
- Life-time 30,000-50,000 hours
- 3-5-year guarantee



Typical Applications :

- Stairway Accent Lighting
- Home or Club Lighting
- Architectural decorative Lighting
- Arch edge Lighting



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General Information

Ordering Code Format

6
X1
L B R 1
X2
X X
X3
N
X4
X
X5
0 0 0 0 0 0 x
X6

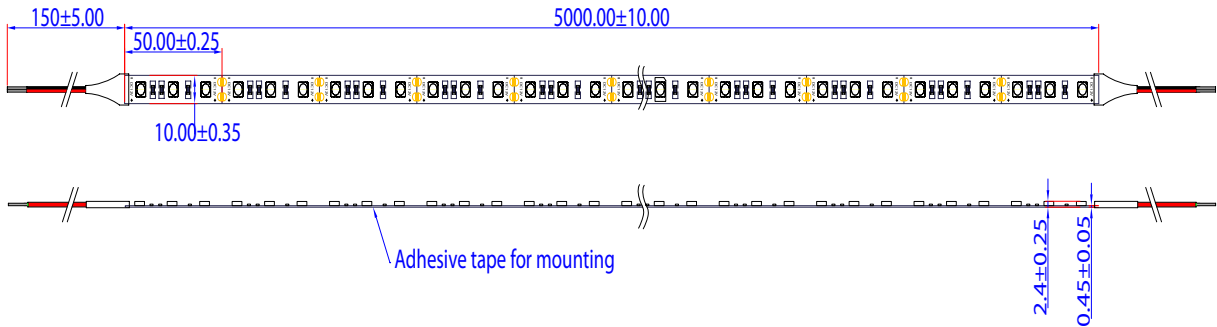
X1 Item	X2 Series		X3 Emitting Color		X4 Angle	X5 Driver		X6 Serial No.			
6	Module	LBR1	FPC	CW	Cool White	N	120	I	CV 12V	xxxxxxx	-
				NW	Neutral White			J	CV 24V		
				WW	Warm White						
				M1	RTB						
				M2	RTBW						
				M7	RTBX						

Technical data

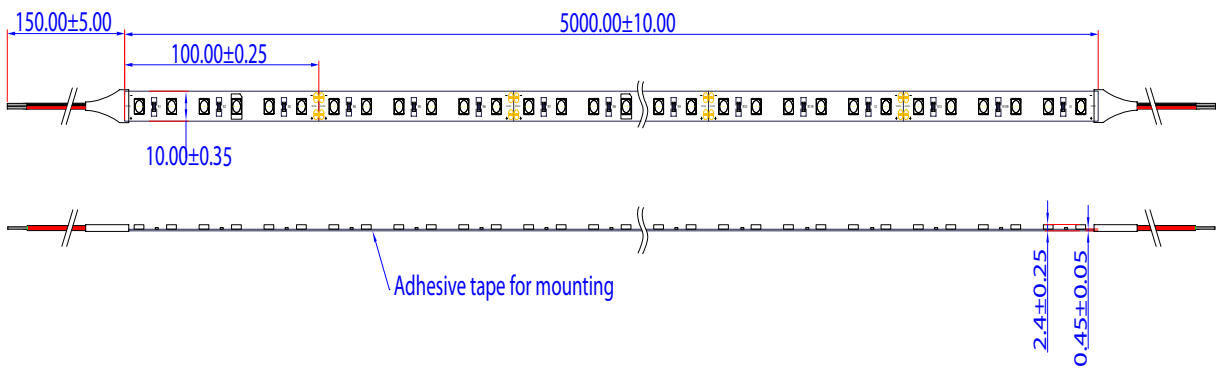
Order code	CCT	Voltage
Beam characteristic	120	°C
Ambient temperature range	-25~ +45	°C
Tp rated	65	°C
Tc	75	°C
Type of protection	IP20	
Color Temperature	2700	K
	3000	K
	4000	K
	5700	K
	RTB/RTBW/RTBX	-
Number of connection	5	M
Risk group(EN62778)	1	
Classification acc. to	IEC62031	
	IEC62778	
	IEC62717	
	IEC61000-4-2	

Product Dimensions

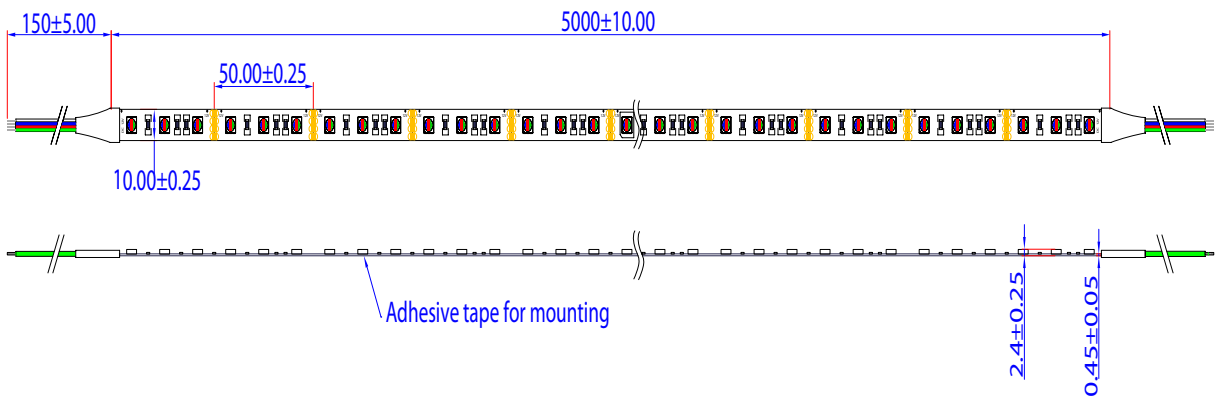
6LBR1xWNI000002 Series Dimensions (CV 12V)



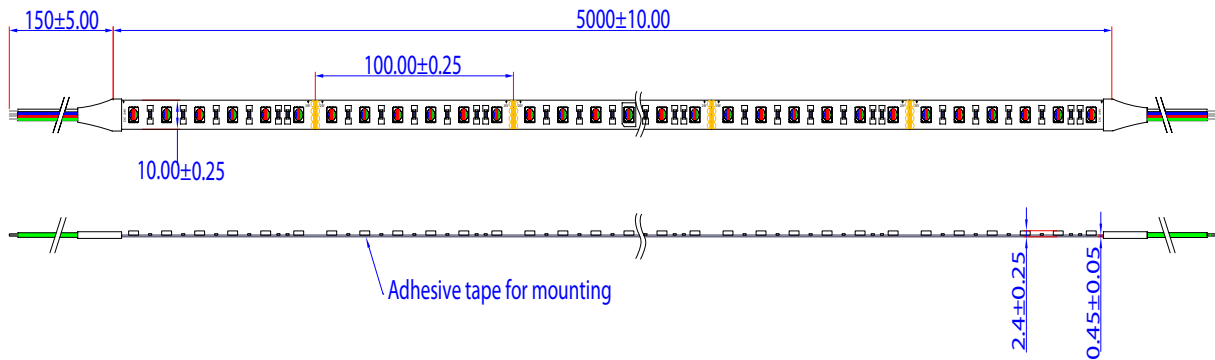
6LBR1xWNJ000000x Series Dimensions (CV 24V)



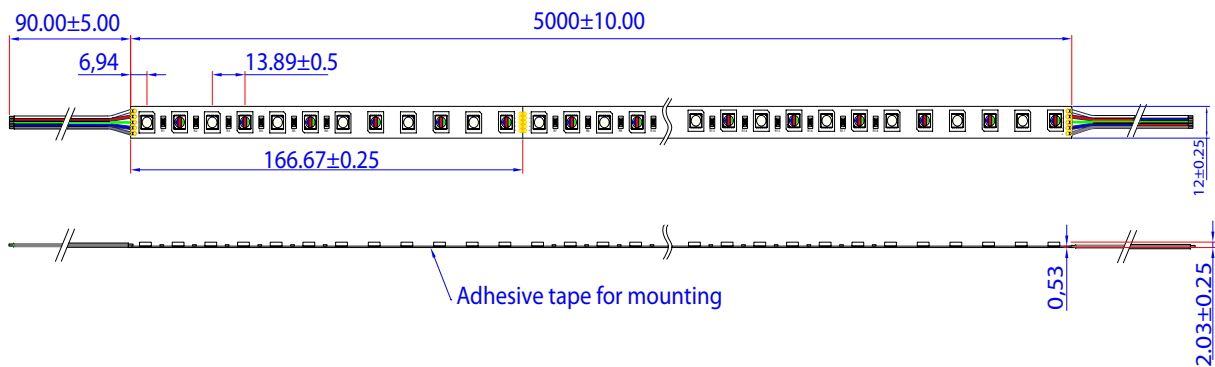
6LBR1M1NI0000001 Series Dimensions (RTB/ CV 12V)



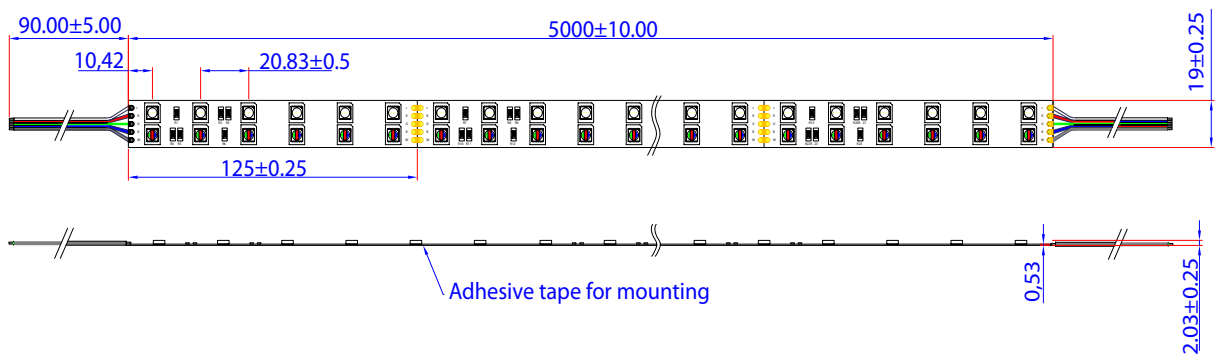
6LBR1M1NJ000001 Series Dimensions (RTB/ CV 24V)



6LBR1MxNJ0000003 Series Dimensions (Single Row RTBx/ CV 24V)



6LBR1MxNJ0000001 Series Dimensions (Double Row RTBx/ CV 24V)



Notes:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.20 mm

Electric-Optical Characteristics

6LBR1xWNI000002 Series(CV 12V)

Order code	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1CWNl0000002	5700	12	1470 lm/M	1323 lm/M	102 lm/W	92 lm/W	14.4	>80
6LBR1NWNl0000002	4000	12	1470 lm/M	1323 lm/M	102 lm/W	92 lm/W	14.4	>80
6LBR1WWNI0000002	3000	12	1370 lm/M	1233 lm/M	95 lm/W	86 lm/W	14.4	>80
	2700	12	1300 lm/M	1170 lm/M	90 lm/W	91 lm/W	14.4	>80

6LBR1xWNJ000000 X Series(CV 24V)

Order code	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1CWNJ0000002	5700	24	1470 lm/M	1323 lm/M	102 lm/W	92 lm/W	14.4	>80
6LBR1NWNJ0000002	4000	24	1470 lm/M	1323 lm/M	102 lm/W	92 lm/W	14.4	>80
6LBR1WWNJ0000004	3000	24	1370 lm/M	1233 lm/M	95 lm/W	86 lm/W	14.4	>80
	2700	24	1300 lm/M	1170 lm/M	90 lm/W	91 lm/W	14.4	>80

6LBR1M1NX0000001 Series(RTB)

Order code	CCT (K/nm)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1M1NI0000001	620-635nm	12	125 lm/M	113 lm/M	26 lm/W	23 lm/W	4.8	-
	520-535nm	12	320 lm/M	288 lm/M	67 lm/W	60 lm/W	4.8	-
	460-475nm	12	65 lm/M	59 lm/M	13.5lm/W	12 lm/W	4.8	-
6LBR1M1NJ0000001	620-635nm	24	125 lm/M	113 lm/M	26 lm/W	23 lm/W	4.8	-
	520-535nm	24	320 lm/M	288 lm/M	67 lm/W	60 lm/W	4.8	-
	460-475nm	24	65 lm/M	59 lm/M	13.5 lm/W	12 lm/W	4.8	-

6LBR1M1NX0000001 Series(RTBW/ CV 24V)

Order code	CCT (K/nm)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1M2NJ0000003 (36LED/M)	5700K	24	684 lm/M	615 lm/M	80 lm/W	72 lm/W	8.6	>80
	620-635nm	24	58 lm/M	52 lm/M	20 lm/W	18 lm/W	2.88	-
	520-535nm	24	130 lm/M	117 lm/M	45 lm/W	41 lm/W	2.88	-
	460-475nm	24	29 lm/M	26 lm/M	10 lm/W	9 lm/W	2.88	-
6LBR1M2NJ0000001 (48LED/M)	5700K	24	912 lm/M	824 lm/M	79 lm/W	71 lm/W	11.5	>80
	620-635nm	24	77 lm/M	69 lm/M	20 lm/W	18 lm/W	3.8	-
	520-535nm	24	173 lm/M	156 lm/M	46 lm/W	41 lm/W	3.8	-
	460-475nm	24	38 lm/M	34 lm/M	10 lm/W	9 lm/W	3.8	-

6LBR1M7NJ000000X Series(RTBX/ CV 24V)

Order code	CCT (K/nm)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1M7NJ0000002 (36LED/M)	3000K	24	540 lm/M	486 lm/M	63 lm/W	57 lm/W	8.6	>80
	620-635nm	24	58 lm/M	52 lm/M	20 lm/W	18 lm/W	2.88	-
	520-535nm	24	130 lm/M	117 lm/M	45 lm/W	41 lm/W	2.88	-
	460-475nm	24	29 lm/M	26 lm/M	10 lm/W	9 lm/W	2.88	-
6LBR1M7NJ0000003 (48LED/M)	3000K	24	720 lm/M	648 lm/M	63 lm/W	57 lm/W	11.5	>80
	620-635nm	24	77 lm/M	69 lm/M	20 lm/W	18 lm/W	3.8	-
	520-535nm	24	173 lm/M	156 lm/M	46 lm/W	41 lm/W	3.8	-
	460-475nm	24	38 lm/M	34 lm/M	10 lm/W	9 lm/W	3.8	-

Notes:

- 1.The Maximum and minimum lumen flux are based on $\pm 10\%$ of the typical rate.
- 2.The Maximum and minimum Power are based on $\pm 10\%$ of the typical rate.

Standards

Energy classification

Type	CCT	Energy Classification
6LBR1XWNI0000002 Series (CV 12V)	2700/3000K	A
	4000/5700K	A
6LBR1XWNJ000000 X Series (CV 24V)	2700/3000K	A
	4000/5700K	A
6LBR1XWNJ000000 X Series (CV 24V)	RTB	-
6LBR1M1NX0000001 Series (RTBW/ CV 24V)	5700K	A
	RGB	-
6LBR1M7NJ000000X Series (RTBX/ CV 24V)	2700/3000K	A
	RGB	-

Thermal details

Energy classification

Storage temperature:-35 ... +70 °C

Operation only in non condensing environment.

Humidity during processing of the module should be between 0 to 70 %

Life time

Life-time, lumen maintenance and failure rate

1. The light output of an LED Module decreases over the life-time, this is characterized with the L value.
2. L70 means that the LED module will give 70 % of its initial luminous flux. This value is always related to the number of operation hours and therefore defines the life-time of an LED module.
3. As the L value is a statistical value and the lumen maintenance may vary over the delivered LED modules value defines the amount of modules which are below the specific L value, e.g. L70B10 means 10 % of the LED modules are below 70 % of the initial luminous flux, respectively 90 % will be above 70 % of the initial value. In addition the percentage of failed modules (fatal failure) is characterized by the C value.
4. The F value is the combination of the B and C value. That means for F degradation and complete failures are considered, e.g. L70F10 means 10 % of the LED Modules may fail or below 70% of the initial luminous flux.

Lumen maintenance for 6LBR1XWNI0000002 Series(CV 12V)

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
12V	40	>23,000 h	>24,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h
12V	45	>22,000 h	>23,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h
12V	55	>19,000 h	>20,000 h	>22,000 h	>30,000 h	>30,000 h	>30,000 h
12V	65	>17,000 h	>18,000 h	>20,000 h	>30,000 h	>30,000 h	>30,000 h
12V	75	>15,000 h	>16,000 h	>18,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 6LBR1XWNI0000002 Series(CV 24V)

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>23,000 h	>24,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>22,000 h	>23,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>19,000 h	>20,000 h	>22,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>17,000 h	>18,000 h	>20,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>15,000 h	>16,000 h	>18,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 6LBR1M1NX000001 Series(RTB)

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>22,000 h	>23,000 h	>25,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>21,000 h	>22,000 h	>23,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>19,000 h	>20,000 h	>21,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>17,000 h	>18,000 h	>19,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>15,000 h	>16,000 h	>17,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 6LBR1M1NX000001 Series(RTBW/ CV 24V)

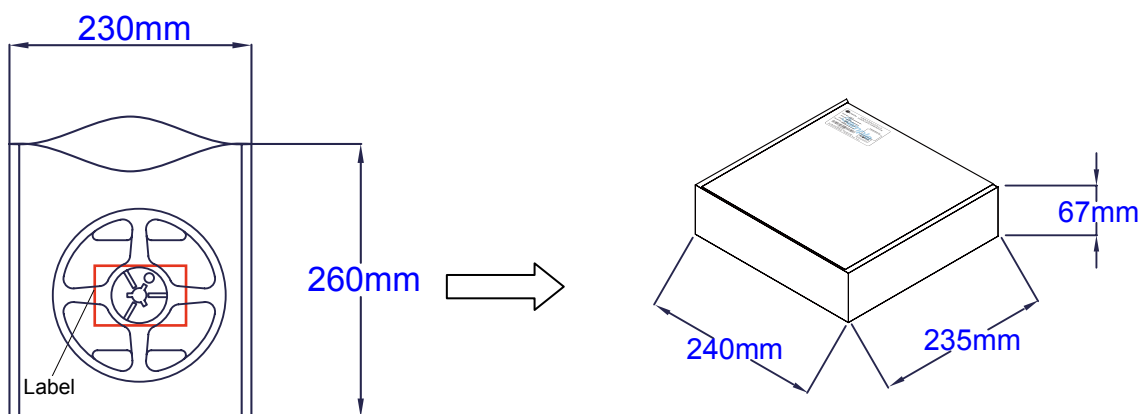
Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>22,000 h	>23,000 h	>25,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>21,000 h	>22,000 h	>23,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>19,000 h	>20,000 h	>21,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>17,000 h	>18,000 h	>19,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>15,000 h	>16,000 h	>17,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 6LBR1M7NJ000000X Series(RTBX/ CV 24V)

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>22,000 h	>23,000 h	>25,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>21,000 h	>22,000 h	>23,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>19,000 h	>20,000 h	>21,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>17,000 h	>18,000 h	>19,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>15,000 h	>16,000 h	>17,000 h	>30,000 h	>30,000 h	>30,000 h

Product Packaging Information

Type	Anti-static bag size(mm)	Anti-static bags/ inner box(pcs)	Inner box/carton(pcs)	Outside Carton size(mm)	GW±5% (kg)
6LBR1XWNI0000002 Series (CV 12V)	260x230x10	4	10	488x261x364	6.7
6LBR1XWNJ000000 X Series (CV 24V)	260x230x10	4	10	488x261x364	6.7
6LBR1M1NX0000001 Series (RTB)	260x230x10	4	10	488x261x364	7.1
6LBR1M7NJ000000X Series (RTBX/ CV 24V)	260x230x10	4	10	488x261x364	7.3
6LBR1M1NX0000001 Series (RTBW/ CV 24V)	260x230x10	3	10	488x261x364	7.7



EX:

 艾笛森光電股份有限公司 EDISON OPTO CORPORATION	
Part No. : <u>6LBR1CWNJ0000005</u>	Inspected by: <div style="border: 1px solid black; width: 100px; height: 40px;"></div>
Color : <u>Cool White(34W3FVB2)</u>	
Quantity : <u>1 Reel(5M)</u>	<div style="border: 1px solid black; padding: 5px; text-align: center;"> ROHS Directive Compliance </div>
Lot No. : <u>D1201-12110022</u>	
 A41000005 Tel +86-2-82276996 Fax +86-2-8227-6997 4F No.800 Chung-Cheng ., Chung-Ho City Taipei. Taiwan	

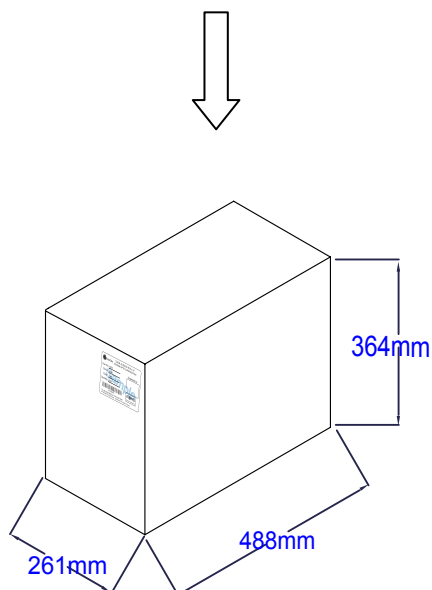
Label information

Part NO. : Order code

Color : Color(Emitter BIN color)

Quantity : The number of packing

Lot NO. : Date code



Precaution for Use

1. DO NOT use the products with materials has Sulfur.
2. DO NOT assemble in humid environment or the conditions of containing oxidizing gas such as C1, H2S, NH3, SO2, NOX, etc.
3. DO NOT add or change wires while the circuit of Module is active. Long time exposure to sunlight or UV should be avoided.
4. DO NOT press the product; even a slight pressure may damage the product. The environments such as high temperatures, high humidity or direct expose to sunlight should be avoided since the product is sensitive to these conditions.
5. Installation of LED modules (with power supplies) needs to be made with regard to all applicable and safety standards. Only qualified personnel should be allowed to perform installations.
6. Assembly must not damage or destroy conducting paths on the circuit board.
7. Please ensure that the power supply is of adequate power to operate the total load.
8. The maximum run length from any power feed should be limited to 5000 mm.

Environmental Compliance

PLCC lightbar FPC series are compliant to the Restriction of Hazardous Substances Directive or RoHS. The restricted materials including lead, mercury cadmium hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE) are not used in PLCC lightbar FPC series to provide an environmentally friendly product to the customers.

Application Notes

PLCC Lightbar series are available in red, yellow, green, blue, white, neutral white and warm white for application such as under-cabinet lighting, cove lighting and wall washing. Moreover, additional fine-tuned high color rendering index (CRI) version of white, neutral white and warm white all make PLCC Lightbar the ideal lighting choice for vividly building or decoration products, presenting the products outline.

Revision History

Versions	Description	Release Date
1	Establish order code information	2013/06/20
2	1. Update the Power value and CRI 2. Add the Label information	2013/08/01
3	Add Order Code	2014/03/04
4	Add Precaution for Use Revise Typ. Flux Value Revise CRI Value	2017/05/08
5	Upgrade version	2019/08/30

About Edison Opto

Edison Opto is a leading manufacturer of high power LED and a solution provider experienced in LDMS. LDMS is an integrated program derived from the four essential technologies in LED lighting applications- Thermal Management, Electrical Scheme, Mechanical Refinement, Optical Optimization, to provide customer with various LED components and modules. More Information about the company and our products can be found at www.edison-opto.com

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