EDISON
Lighting Design Manufacturing Service

PLCC Lightbar Dimming IP20 Series Datasheet

CE EAC RoHS

Product description :

- 12/24 V constant voltage strip (SELV)
- Multi-color & Multi-color Temperature Dimming Pattern.

Features and benefits :

- Extremely narrow pitch distance enables short distance to diffuser and outstanding homogeneity
- 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	L B R 1	x x	x	E 0	x	x x x	x x
X1	X2	X3	X4	X5	X6	X7	X8

X1 Item		X2 Series		X3 Emitting Color		X4 Driver		X5 Length	
6	Module	LBR1	FPC	WC	Warm White +Cool White	I	CV 12V	E0	5.0M
				MT	RGB+ Warm White + Cool White	J	CV 24V		
				MW	RGB+ Warm White				
				MN	RGB+ Neutral White				
				MC	RGB+ Cool White				

X6 Emitter		X7 Number of LEDs(M)		X8 Serial No.	
S	2835	060	60pcs	xx	-
M	5050	120	120pcs		

Technical data

Parameter	Value	Units
Beam characteristic	120	°C
Ambient temperature range	-25~ +45	°C
Tp rated	65	°C
Tc	75	°C
Type of protection	IP20	
Color Temperature	RGB	
Number of connection	5	M
Risk group(EN62778)	1	
Classification acc. to	IEC62031	
	IEC62778	
	IEC62717	
	IEC61000-4-2	

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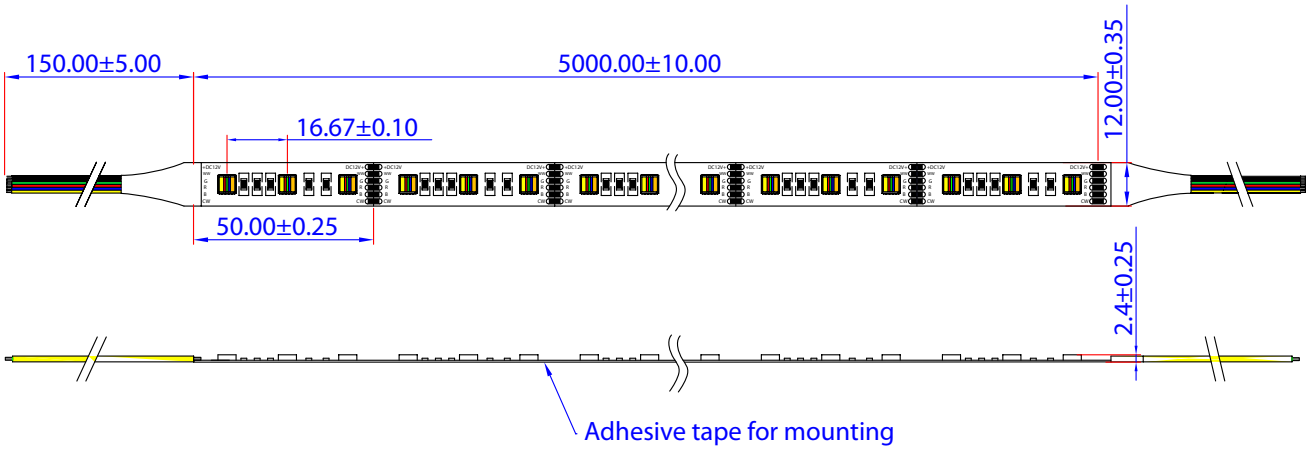
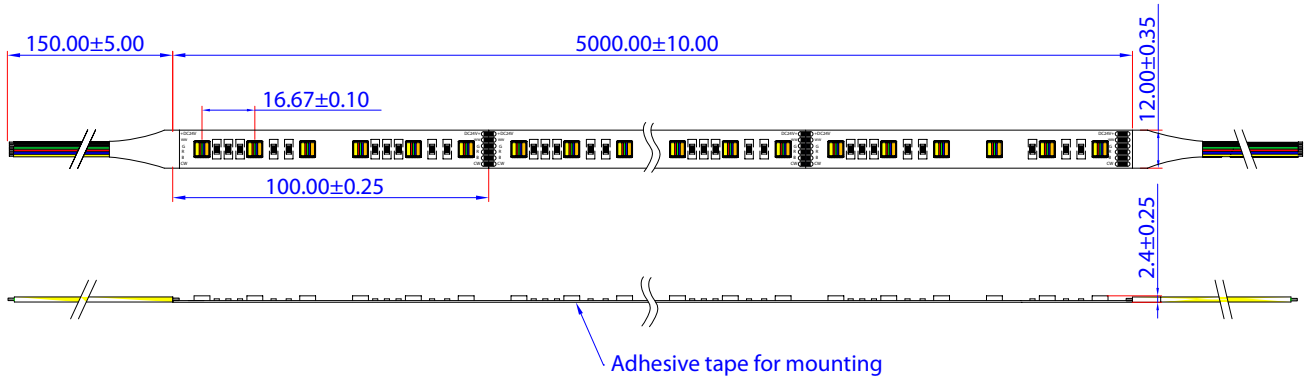
Product Dimensions

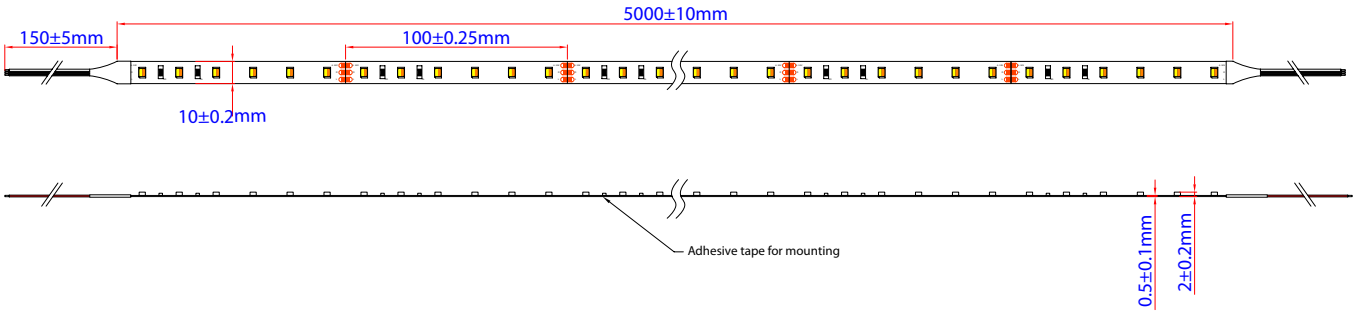
5050RGBWW-60LEDs/M Series Dimensions (CV 12V IP20)



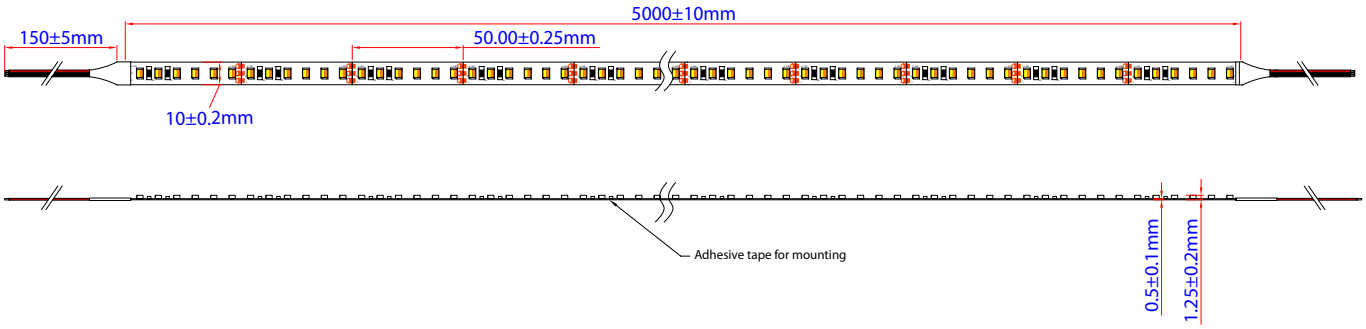
5050RGBWW-60LEDs/M Series Dimensions (CV 24V IP20)



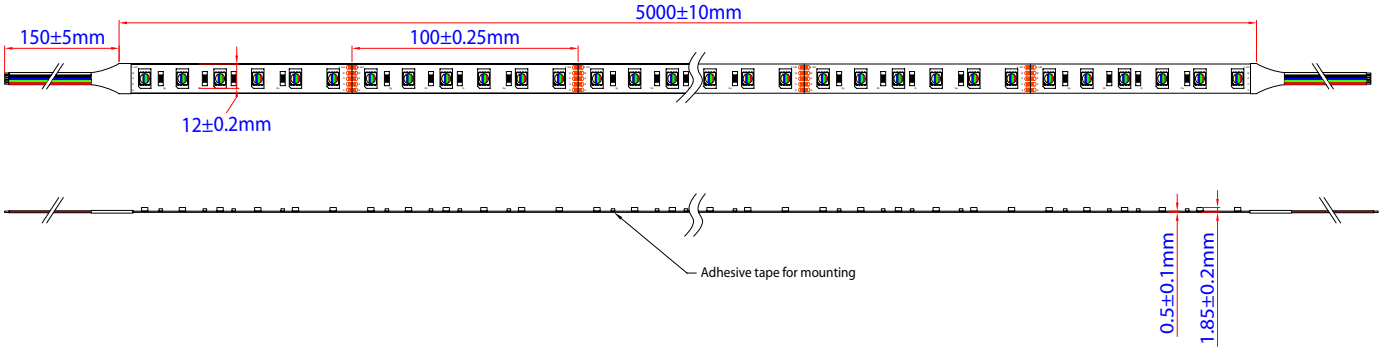
2835-60LEDs/M Series Dimensions (CV 24V IP20)



2835-120LEDs/M Series Dimensions (CV 24V IP20)



5050RGBW-60LEDs/M Series Dimensions (CV 24V IP20)



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

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Electric-Optical Characteristics

5050RGBWW-12V-60LEDS/M Series

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
6LBR1MTIE0M06011	2400k	12	270 lm/M	243 lm/M	75 lm/W	68 lm/W	3.6	>80
	R:615-625nm	12	72 lm/M	65l m/M	20 lm/W	18 lm/W	3.6	-
	G:515-525nm	12	200 lm/M	180 lm/M	55 lm/W	50 lm/W	3.6	-
	B:465-475nm	12	45 lm/M	41 lm/M	12 lm/W	11 lm/W	3.6	-
	6500K	12	330 lm/M	297 lm/M	92 lm/W	83 lm/W	3.6	>80

5050RGBWW-24V-60LEDS/M Series

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
6LBR1MTJE0M06011	2400k	24	270 lm/M	243 lm/M	75 lm/W	68 lm/W	3.6	>80
	R:615-625nm	24	72 lm/M	65 lm/M	20 lm/W	18 lm/W	3.6	-
	G:515-525nm	24	200 lm/M	180 lm/M	55 lm/W	50 lm/W	3.6	-
	B:465-475nm	24	45 lm/M	41 lm/M	12 lm/W	11 lm/W	3.6	-
	6500K	24	330 lm/M	297 lm/M	92 lm/W	83 lm/W	3.6	>80

5050RGBW-24V-60LEDS/M Series

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
6LBR1MWJE0M06001	R:620-635nm	24	90 lm/M	81 lm/M	25 lm/W	23 lm/W	3.6	-
	G:520-535nm	24	300 lm/M	270 lm/M	83 lm/W	75 lm/W	3.6	-
	B:460-475nm	24	50 lm/M	45 lm/M	14 lm/W	12.6 lm/W	3.6	-
	3000K	24	270 lm/M	243 lm/M	75 lm/W	68 lm/W	3.6	>80

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5050RGBW-24V-60LEDS/M Series

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
6LBR1MNJE0M06001	R:620-635nm	24	90 lm/M	81 lm/M	25 lm/W	23 lm/W	3.6	-
	G:520-535nm	24	300 lm/M	270 lm/M	83 lm/W	75 lm/W	3.6	-
	B:460-475nm	24	50 lm/M	45 lm/M	14 lm/W	12.6 lm/W	3.6	-
	4000K	24	290 lm/M	260 lm/M	81 lm/W	73 lm/W	3.6	>80

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
6LBR1MCJE0M06001	R:620-635nm	24	90 lm/M	81 lm/M	25 lm/W	23 lm/W	3.6	-
	G:520-535nm	24	300 lm/M	270 lm/M	83 lm/W	75 lm/W	3.6	-
	B:460-475nm	24	50 lm/M	45 lm/M	14 lm/W	12.6 lm/W	3.6	-
	5700K	24	310 lm/M	280 lm/M	86 lm/W	77 lm/W	3.6	>80

2835-24V-60LEDS/M Series

Order code	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1WCJE0S06001	5700	24	450 lm/M	405 lm/M	94 lm/W	85 lm/W	4.8	>80
	3000	24	420 lm/M	378 lm/M	88 lm/W	80 lm/W	4.8	>80
	2700	24	400 lm/M	360 lm/M	83 lm/W	75 lm/W	4.8	>80

2835-24V-120LEDS/M Series

Order code	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1WCJE0S12001	5700	24	900 lm/M	810 lm/M	94 lm/W	85 lm/W	9.6	>80
	3000	24	840 lm/M	756 lm/M	88 lm/W	80 lm/W	9.6	>80
	2700	24	795 lm/M	718 lm/M	83 lm/W	75 lm/W	9.6	>80

Notes:
1.The Maximum and minimum lumen flux are based on ±10% of the typical rate.
2.The Maximum and minimum Power are based on ±10% of the typical rate.

Standards

Energy classification

Type	CCT	Energy Classification
5050RGBWW-12V-60LED/M Series	2400/6500K	-
5050RGBWW-24V-60LED/M Series	2400/6500K	-
5050RGBW-24V-60LED/M Series	3000/4000/5700K	-
2835-24V-60LED/M Series(CCT)	2700/3000K	A+
	5700K	A+
2835-24V-120LED/M Series(CCT)	2700/3000K	A+
	5700K	A+

Thermal details

Storage and humidity

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 5050RGBWW-12v-60LED/M Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
12V	40	>25,000 h	>28,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
12V	45	>23,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
12V	55	>21,000 h	>23,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
12V	65	>18,000 h	>21,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
12V	75	>15,000 h	>17,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 5050-24v-60LED/M Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>25,000 h	>28,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>23,000 h	>24,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>21,000 h	>23,000 h	>22,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>18,000 h	>21,000 h	>20,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>15,000 h	>17,000 h	>18,000 h	>30,000 h	>30,000 h	>30,000 h

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Lumen maintenance for 5050RGBW-24v-60LED/M Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>25,000 h	>27,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>24,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>18,000 h	>22,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>17,000 h	>20,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>15,000 h	>17,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 2835-24v-60LED/M Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>25,000 h	>27,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>24,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>20,000 h	>22,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>18,000 h	>18,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>15,000 h	>17,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 2835-24v-120LED/M Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>25,000 h	>27,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>24,000 h	>26,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>20,000 h	>22,000 h	>22,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>17,000 h	>20,000 h	>20,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>15,000 h	>17,000 h	>18,000 h	>30,000 h	>30,000 h	>30,000 h

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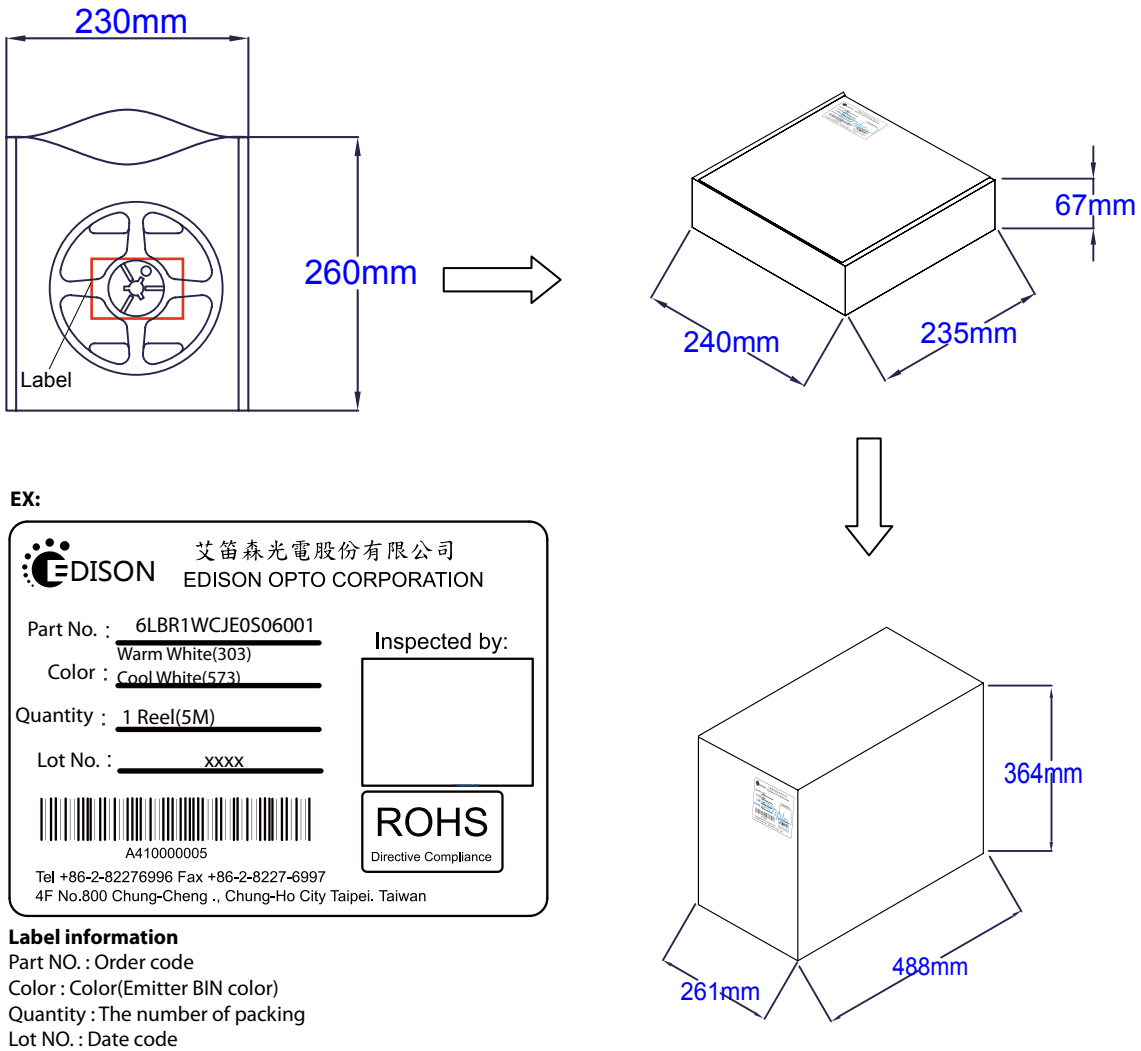
Product Packaging Information

Type	Anti-static bag size(mm)	Anti-static bags/ inner box(pcs)	Inner box/carton(pcs)	Outside Carton size(mm)	GW±5% (kg)
5050RGBWW-12V-60LED/M Series	260x230x10	4	10	488x261x364	8.4
5050RGBWW-24V-60LED/M Series	260x230x10	4	10	488x261x364	8.4
5050RGBW-24V-60LED/M Series	260x230x10	4	10	488x261x364	7.3
2835-24V-60LED/M Series	260x230x10	4	10	488x261x364	6.9
2835-24V-120LED/M Series	260x230x10	4	10	488x261x364	7.0



EX:

EDISON 艾笛森光電股份有限公司
EDISON OPTO CORPORATION

Part No. : 6LBR1WCJE0S06001
Color : Warm White(303) / Cool White(573)
Quantity : 1 Reel(5M)
Lot No. : xxxx
A410000005
Inspected by:
ROHS Directive Compliance
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 Cl, 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, mercur y 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, 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.

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Revision History

Versions	Description	Release Date
1	Establish order code information	2018/06/29
2	Add 5050RGBWW Lightbar Series	2019/01/07
3	Add 6LBR1WCJE0S12001Information	2019/02/22
4	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

www.edison-opto.com

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