EDISON
Lighting Design Manufacturing Service

PLCC 3528/5050 Lightbar
IP54 Series Datasheet

CE EAC RoHS

Product description :

- 12/24 V constant voltage strip (SELV)
- Waterproof Level IP54

Features and benefits :

- Small color tolerance, Ra> 80
- Color temperature 3000, 4000 and 6000 K
- Life-time 30,000-50,000 hours
- 3-5-year guarantee

Typical Applications :

- Indoor Contour/Border Lighting
- Bathroom lighting
- Automobile decorative lighting

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General Information

Ordering Code Format

6	LBU2	xx	x	E0	x	xxx	xx
X1	X2	X3	X4	X5	X6	X7	X8

X1 Item		X2 Series		X3 Emitting Color		X4 Driver		X5 Length	
6	Module	LBU2	FPC	CW	Cool White	I	CV 12V	E0	5.0M
				NW	Neutral White	J	CV 24V		
				WW	Warm White				
				M1	RGB				

X6 Emitter		X7 Number of LEDs (M)		X8 Serial No.	
M	5050	060	60pcs	xx	-
J	3528				

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	IP54	
Color Temperature	3000	K
	4000	K
	6000	K
Number of connection	5	M
Risk group(EN62778)	1	
Classification acc. to	IEC62031	
	IEC62778	
	IEC62717	
	IEC61000-4-2	

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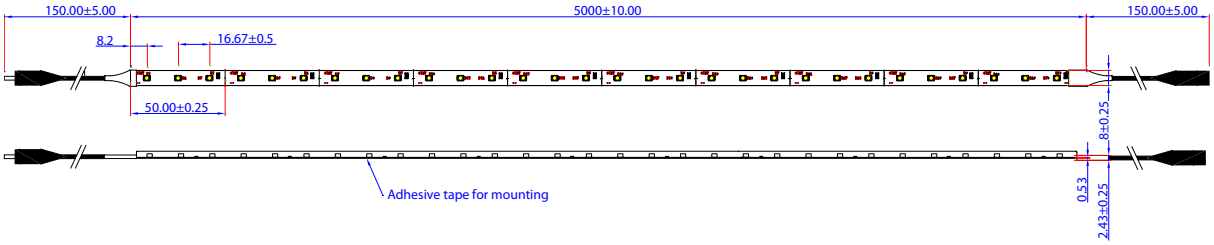
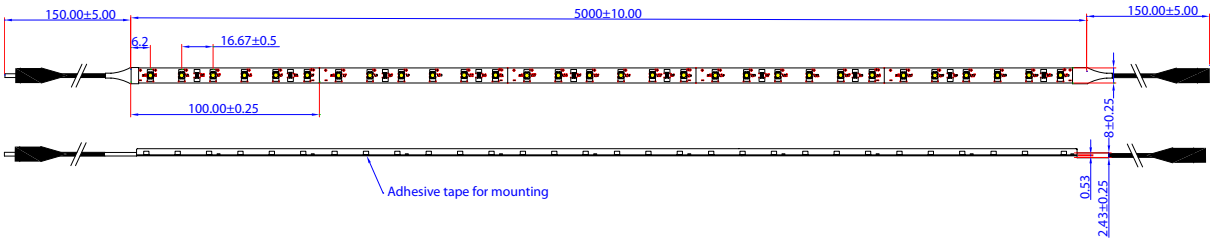
Mechanical Dimensions

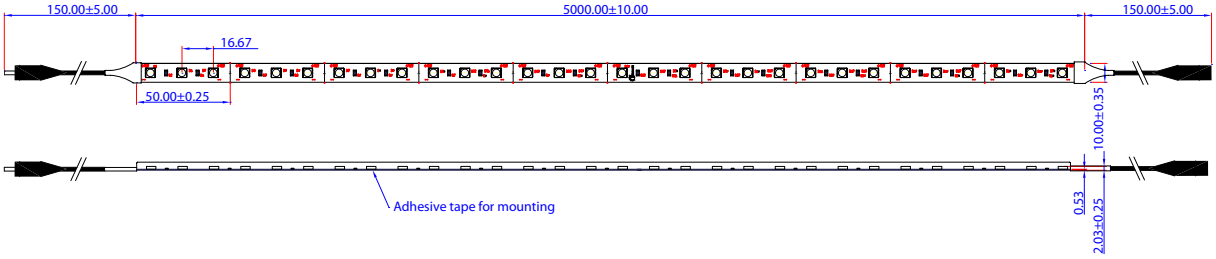
3528 60D/M IP54 CV12V Series



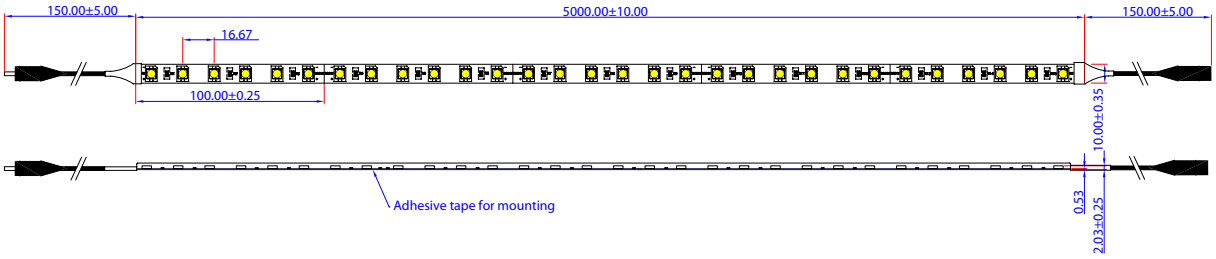
3528 60D/M IP54 CV24V Series



5050 60D/M IP54 CV12V Series



5050 60D/M IP54 CV24V Series



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

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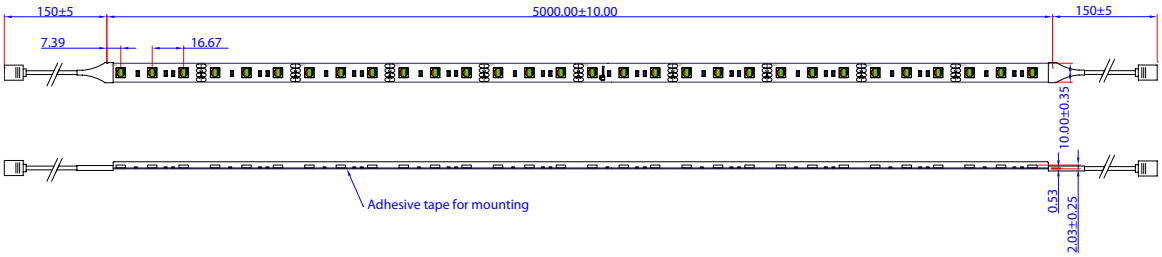
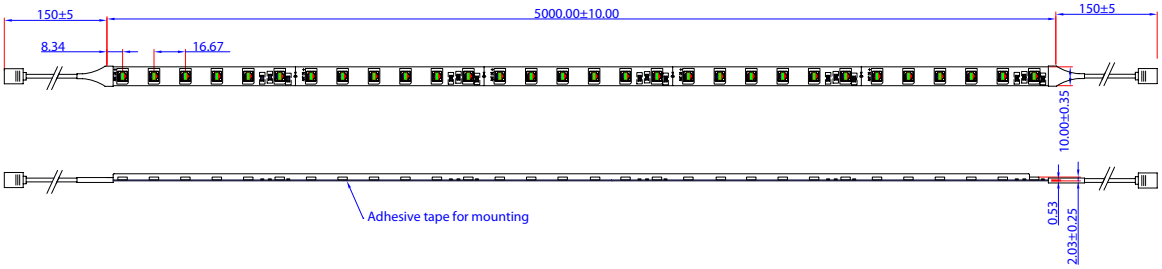
5050 RGB 60D/M IP54 CV12V Series



5050 RGB 60D/M IP54 CV24V Series



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

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Electric-Optical Characteristics

3528 60D/M IP54 CV12V 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
6LBU2CWIE0J06002	6000	12	390 lm/M	350 lm/M	81lm/W	73 lm/W	4.8	>80
6LBU2NWIE0J06002	4000	12	380 lm/M	342 lm/M	79 lm/W	71 lm/W	4.8	>80
6LBU2WWIE0J06002	3000	12	340 lm/M	306 lm/M	71lm/W	64 lm/W	4.8	>80

3528 60D/M IP54 CV24V 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
6LBU2CWJE0J06002	6000	24	390 lm/M	350 lm/M	81 lm/W	73 lm/W	4.8	>80
6LBU2NWJE0J06002	4000	24	380 lm/M	342 lm/M	79 lm/W	71 lm/W	4.8	>80
6LBU2WWJE0J06002	3000	24	340 lm/M	306 lm/M	71 lm/W	64 lm/W	4.8	>80

5050 60D/M IP54 CV12V 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
6LBU2CWIE0M06002	6000	12	1295 lm/M	11651 lm/M	90 lm/W	81 lm/W	14.4	>80
6LBU2NWIE0M06002	4000	12	1295 lm/M	11651 lm/M	90 lm/W	81 lm/W	14.4	>80
6LBU2WWIE0M06002	3000	12	1165 lm/M	1048 lm/M	81 lm/W	73 lm/W	14.4	>80

5050 60D/M IP54 CV24V 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
6LBU2CWJE0M06002	6000	24	1295 lm/M	11651 lm/M	90 lm/W	81 lm/W	14.4	>80
6LBU2NWJE0M06002	4000	24	1295 lm/M	11651 lm/M	90 lm/W	81 lm/W	14.4	>80
6LBU2WWJE0M06002	3000	24	1165 lm/M	1048 lm/M	81 lm/W	73 lm/W	14.4	>80

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5050 RGB 60D/M IP54 CV12V 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
	Red:620-635	12	118 lm/M	106 lm/M	25 lm/W	23 lm/W	4.8	-
6LBU2M1IE0M06002	Green:520-535	12	300 lm/M	270 lm/M	63 lm/W	57 lm/W	4.8	-
	Blue:460-475	12	60 lm/M	54 lm/M	13 lm/W	12 lm/W	4.8	-

5050 RGB 60D/M IP54 CV24V 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
	Red:620-635	24	118 lm/M	106 lm/M	25 lm/W	23 lm/W	4.8	-
6LBU2M1JE0M06002	Green:520-535	24	300 lm/M	270 lm/M	63 lm/W	57 lm/W	4.8	-
	Blue:460-475	24	60 lm/M	54 lm/M	13 lm/W	12 lm/W	4.8	-

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.
3. CCT are based on ±10% of the typical rate.

Standards

Energy classification

Type	CCT	Energy Classification
3528 60D/M IP54 CV12V Series 3528 60D/M IP54 CV24V Series	3000K	A+
	4000/6000K	A+
5050 60D/M IP54 CV12V Series 5050 60D/M IP54 CV24V Series	3000K	A+
	4000/6000K	A+
5050RGB 60D/M IP54 CV12V Series 5050RGB 60D/M IP54 CV24V Series	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 3528-60D/M IP54 CV12 Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
12V	40	>25,000 h	>26,000 h	>28,000 h	>30,000 h	>30,000 h	>30,000 h
12V	45	>24,000 h	>25,000 h	>26,000 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 3528-60D/M IP54 CV24 Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>25,000 h	>26,000 h	>28,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>24,000 h	>25,000 h	>26,000 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

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Lumen maintenance for 5050 -60D/M IP54 CV12 Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
12V	40	>25,000 h	>26,000 h	>28,000 h	>30,000 h	>30,000 h	>30,000 h
12V	45	>24,000 h	>25,000 h	>26,000 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 5050 -60D/M IP54 CV24 Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>25,000 h	>26,000 h	>28,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>24,000 h	>25,000 h	>26,000 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 5050 RGB-60D/M IP54 CV12 Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
12V	40	>27,000 h	>28,000 h	>29,000 h	>30,000 h	>30,000 h	>30,000 h
12V	45	>26,000 h	>27,000 h	>28,000 h	>30,000 h	>30,000 h	>30,000 h
12V	55	>24,000 h	>26,000 h	>27,000 h	>30,000 h	>30,000 h	>30,000 h
12V	65	>22,000 h	>24,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h
12V	75	>20,000 h	>22,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h

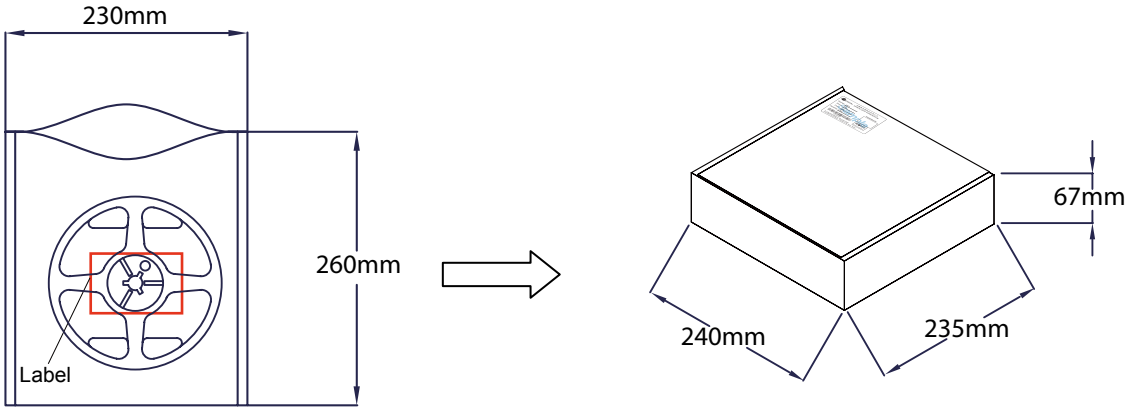
Lumen maintenance for 5050 RGB-60D/M IP54 CV24 Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>27,000 h	>28,000 h	>29,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>26,000 h	>27,000 h	>28,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>24,000 h	>26,000 h	>27,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>22,000 h	>24,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>20,000 h	>22,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h

Lighting Design Manufacturing Service

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)
3528-60D/M IP54 CV12 Series	260x230x10	4	10	488x261x364	9.5
3528-60D/M IP54 CV24 Series	260x230x10	4	10	488x261x364	9.5
5050 -60D/M IP54 CV12 Series	260x230x10	4	10	488x261x364	10.3
5050 -60D/M IP54 CV24 Series	260x230x10	4	10	488x261x364	10.3
5050 RGB-60D/M IP54 CV12 Series	260x230x10	4	10	488x261x364	10.3
5050 RGB-60D/M IP54 CV12 Series	260x230x10	4	10	488x261x364	10.3



EX:

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

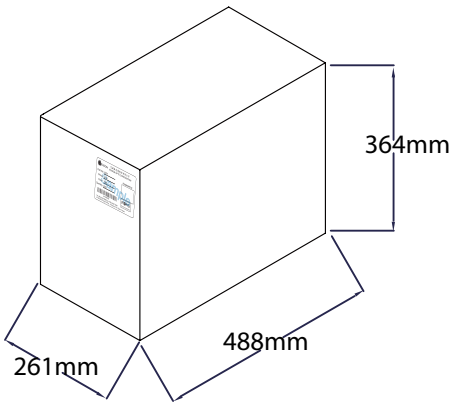
Part No. : 6LBU2CWIE0J06002
Color : Cool White(W3F)
Quantity : 1 Reel(5M)
Lot No. : D1201-12110022

Inspected by:

A410000005

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 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.

Lighting Design Manufacturing Service

Revision History

Versions	Description	Release Date
1	Establish order code information	2019/08/29

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

For general assistance please contact:
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For technical assistance please contact:
LED.Detective@edison-opto.com.tw