

# PLCC 2835 Ultra High Luminous Efficiency IP20 Lightbar Series Datasheet



## Product description :

- 24 V constant voltage strip (SELV)
- The maximum light efficiency can reach 195LM/W

## Features and benefits :

- 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
- 3-5-year guarantee

## Typical Applications :

- Linear lighting
- Architectural Lighting



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## General Information

### Ordering Code Format

6      L B R 1      X X      X      E 0      S      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	CW      Cool White NW      Neutral White WW      Warm White	I      CV 12V J      CV 24V	E0	5.0M

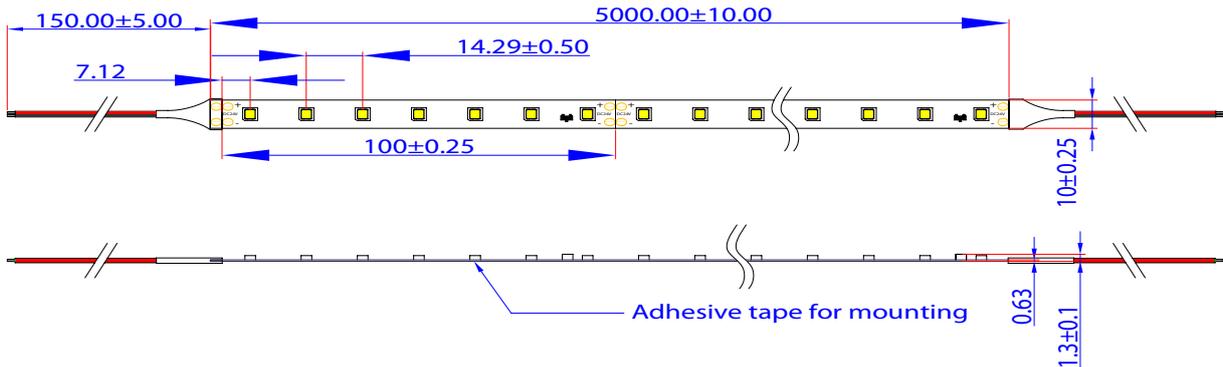
X6 Emitter	X7 Number of LEDs(M)	X8 Serial No.	
S	2835	070      70pcs 080      80pcs 140      140pcs	xx      -

## Technical data

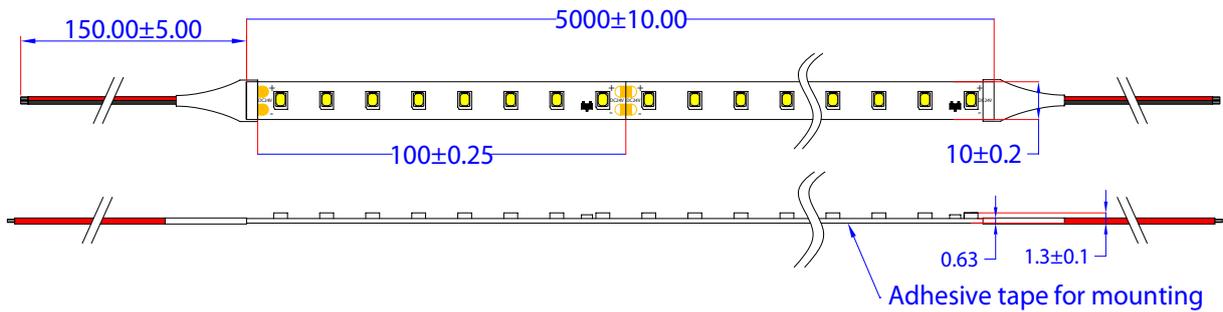
Parameter	Value	Units
Beam characteristic	120	°C
Ambient temperature range	-25~ +45	°C
Tp rated	65	°C
Tc	75	°C
Type of protection	IP20	
Color Temperature	2700	K
	3000	K
	4000	K
	5700	K
Number of connection	5	M
Risk group(EN62778)	1	
Classification acc. to	IEC62031	
	IEC62778	
	IEC62717	
	IEC61000-4-2	

## Product Dimensions

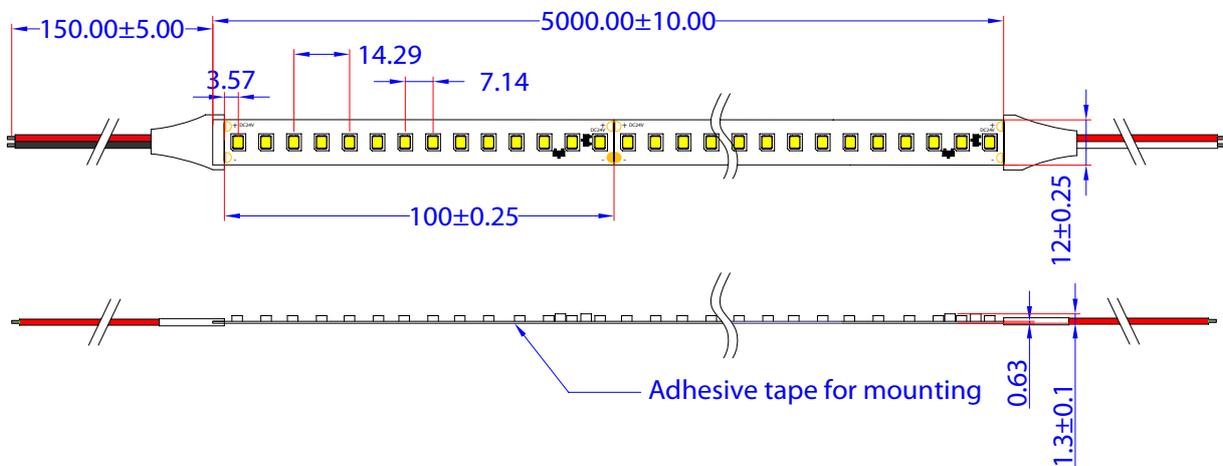
### 2835-70LEDs/M Series Dimensions (CV 24V IP20)



### 2835-80LEDs/M Series Dimensions (CV 24V IP20)



### 2835-140LEDs/M Series Dimensions (CV 24V IP20)



**Notes:**

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.20$  mm.

## Electric-Optical Characteristics

### 2835-24V-70LEDS/M

Order code	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1CWJE0S07011	5700	24	2375 lm/M	2138 lm/M	165 lm/W	149 lm/W	14.4	>80
6LBR1NWJE0S07011	4000	24	2375 lm/M	2138 lm/M	165 lm/W	149 lm/W	14.4	>80
6LBR1WWJE0S07011	3000	24	2230 lm/M	2007 lm/M	155 lm/W	140 lm/W	14.4	>80
6LBR1WWJE0S07013	2700	24	2088 lm/M	1880 lm/M	145 lm/W	131 lm/W	14.4	>80

### 2835-24V-140LEDS/M

Order code	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1CWJE0S14011	5700	24	4750 lm/M	4275 lm/M	165 lm/W	149 lm/W	28.8	>80
6LBR1NWJE0S14011	4000	24	4750 lm/M	4275 lm/M	165 lm/W	149 lm/W	28.8	>80
6LBR1WWJE0S14011	3000	24	4465 lm/M	4019 lm/M	155 lm/W	140 lm/W	28.8	>80
6LBR1WWJE0S14013	2700	24	4175 lm/M	3758 lm/M	145 lm/W	131 lm/W	28.8	>80

### 2835-24V-80LEDS/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
6LBR1CWJE0S08011	5700	24	2105 lm/M	1895 lm/M	195 lm/W	176 lm/W	10.8	>80
6LBR1NWJE0S08011	4000	24	2105 lm/M	1895 lm/M	195 lm/W	176 lm/W	10.8	>80
6LBR1WWJE0S08011	3000	24	2000 lm/M	1800 lm/M	185 lm/W	167 lm/W	10.8	>80
6LBR1WWJE0S08013	2700	24	1890 lm/M	1701 lm/M	175 lm/W	158 lm/W	10.8	>80

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

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### Energy classification

Type	CCT	Energy Classification
2835-24v-70LED/M Series	2700/3000K	A++
	4000/5700K	A++
2835-24v-80LED/M Series	2700/3000K	A++
	4000/5700K	A++
2835-24v-140LED/M Series	2700/3000K	A++
	4000/5700K	A++

## Thermal details

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### 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 2835-24v-70LED/M Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>50,000 h					
24V	45	>50,000 h					
24V	55	>42,000 h	>50,000 h				
24V	65	>23,000 h	>50,000 h	>45,000 h	>50,000 h	>50,000 h	>50,000 h
24V	75	>15,000 h	>23,000 h	>25,000 h	>50,000 h	>50,000 h	>50,000 h

### Lumen maintenance for 2835-24v-140LED/M Series

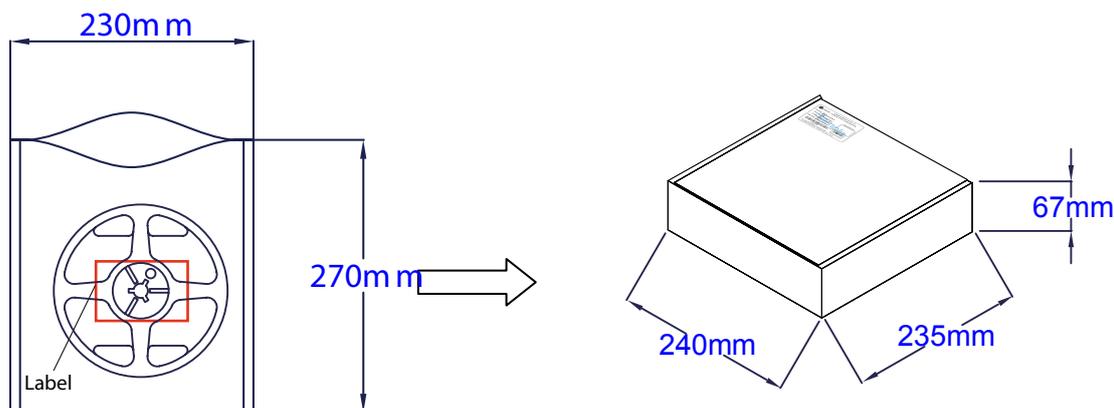
Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>50,000 h					
24V	45	>50,000 h					
24V	55	>40,000 h	>50,000 h				
24V	65	>22,000 h	>50,000 h	>42,000 h	>50,000 h	>50,000 h	>50,000 h
24V	75	>14,000 h	>22,000 h	>23,000 h	>50,000 h	>50,000 h	>50,000 h

### Lumen maintenance for 2835-24v-80LED/M Series

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>50,000 h					
24V	45	>50,000 h					
24V	55	>45,000 h	>50,000 h				
24V	65	>25,000 h	>50,000 h	>43,000 h	>50,000 h	>50,000 h	>50,000 h
24V	75	>17,000 h	>25,000 h	>24,000 h	>50,000 h	>50,000 h	>50,000 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)
2835-24V-70LED/M Series	260x230x10	4	10	488x261x364	6.8
2835-24V-140LED/M Series	260x230x10	4	10	488x261x364	6.8
2835-24V-80LED/M Series	260x230x10	4	10	488x261x364	6.8

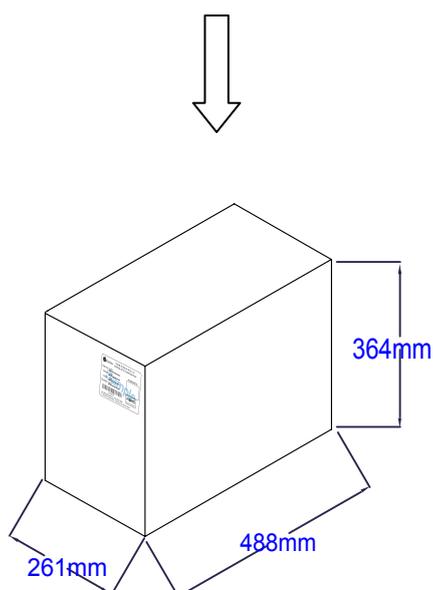


EX:

 艾笛森光電股份有限公司 EDISON OPTO CORPORATION	
Part No. : <u>6LBR1WWJE0S07011</u>	Inspected by: <div style="border: 1px solid black; width: 100px; height: 50px; margin: 5px;"></div>
Color : <u>Warm White(303)</u>	
Quantity : <u>1 Reel(5M)</u>	
Lot No. : <u>XXXX</u>	
 A410000005 Tel +86-2-82276996 Fax +86-2-8227-6997 4F No.800 Chung-Cheng ., Chung-Ho City Taipei, Taiwan	
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>ROHS</b> Directive Compliance         </div>	

### Label information

Part NO. : Order code  
 Color : Color(Emitter BIN color)  
 Quantity : The number of packing  
 Lot NO. : Date code



## Precaution for Use

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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

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The ultra high luminous efficiency 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 lightbar FPC series to provide an environmentally friendly product to the customers.

## Application Notes

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The ultra high luminous efficiency lightbar series are available in cool white , neutral white and warm white for application such as under-cabinet lighting, cove lighting and festivals, shows and exhibitions decorative lighting. Moreover, additional fine-tuned high color rendering index (CRI) version of cool white , neutral white and warm white all make 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	2019/01/04
2	Upgrade version	2019/08/30
3	Revise Features and benefits Revise the Life time	2020/01/21

## 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](http://www.edison-opto.com)

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