EDISON
Lighting Design Manufacturing Service

PLCC 2216 Lightbar Series Datasheet

CE RoHS

Product description :

- 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> 90
- Color temperature 2,700, 3,000, 4,000 and 6,000 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	L B R 1	x x	J	E 0	B	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	J	CV 24V	E0	5.0M
				NW	Neutral White				
				WW	Warm White				

X6 Emitter		X7 Number of LEDs(M)		X8 Serial No.	
B	2216	070	70pcs	xx	-
		240	240pcs		

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

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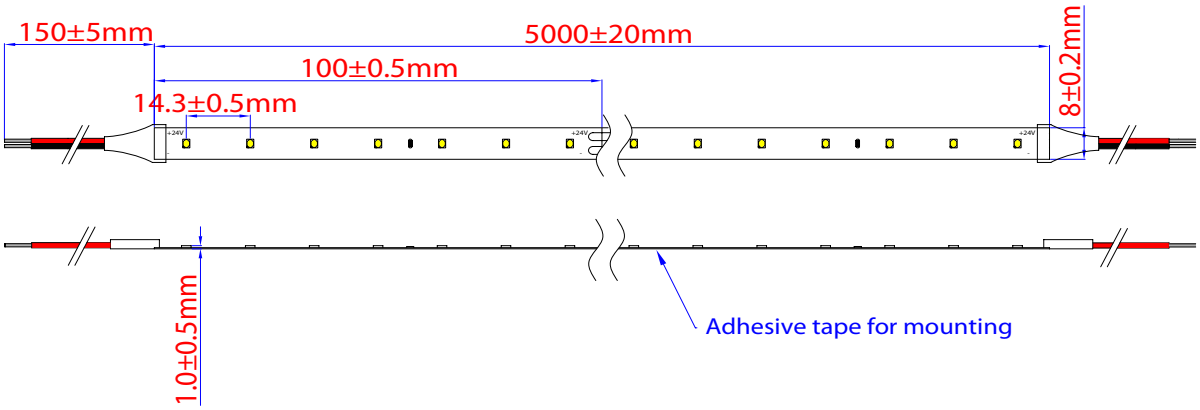
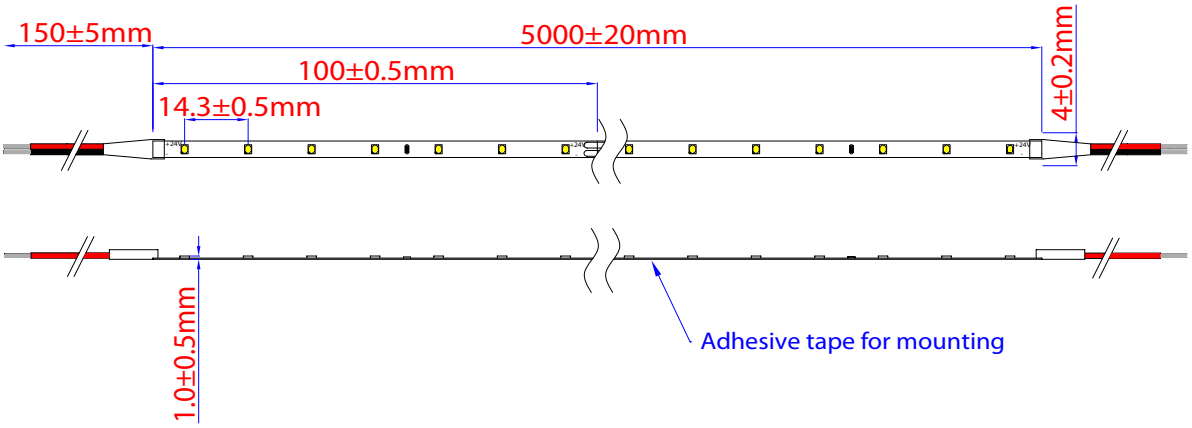
Product Dimensions

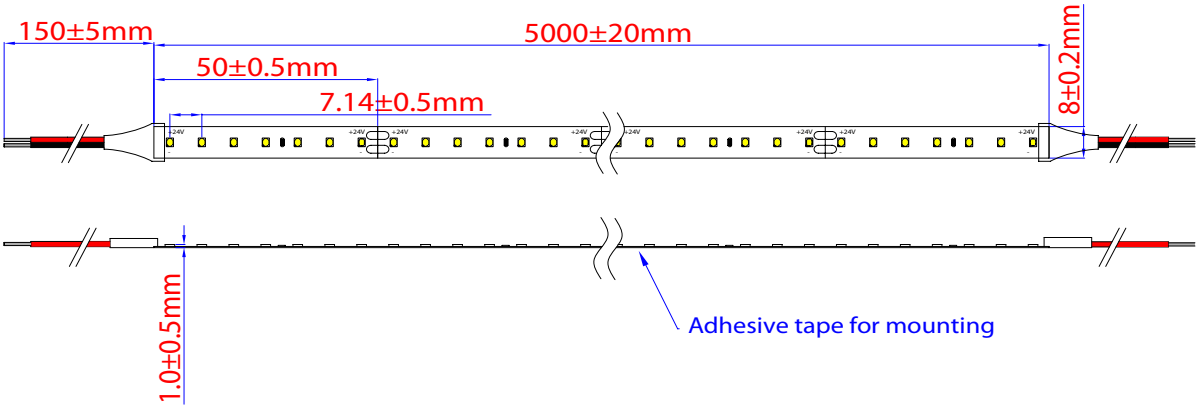
2216-70LEDs/M-8mm Series Dimensions (CV 24V IP20)



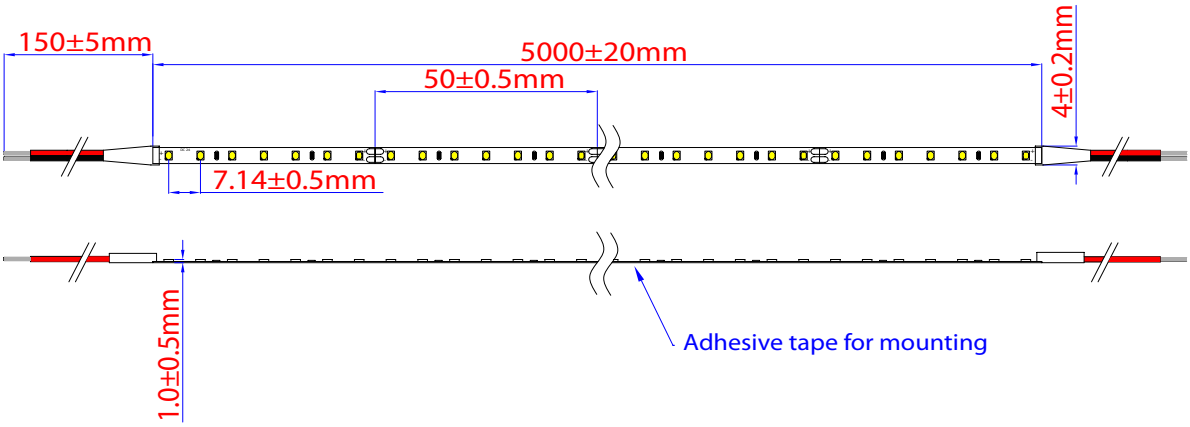
2216-70LEDs/M-4mm Series Dimensions (CV 24V IP20)



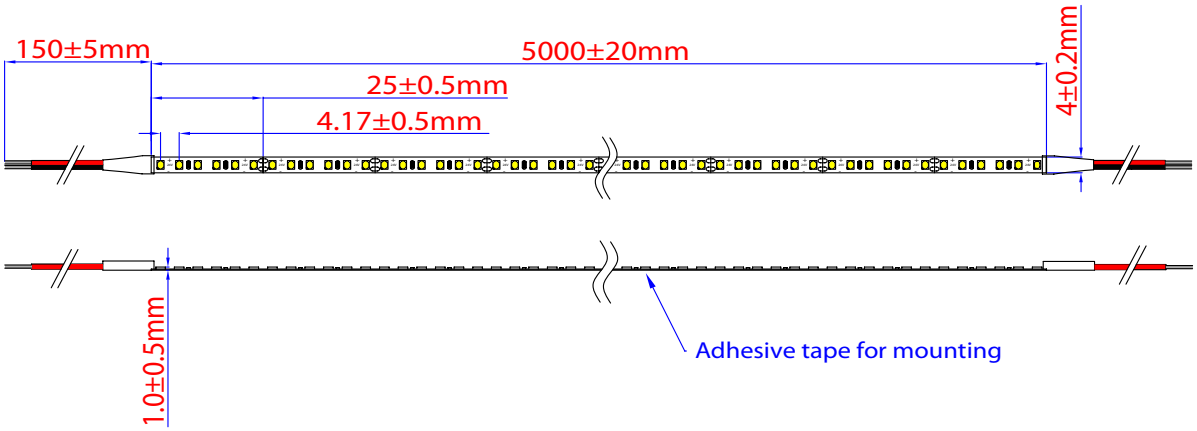
2216-140LEDs/M-8mm Series Dimensions (CV 24V IP20)



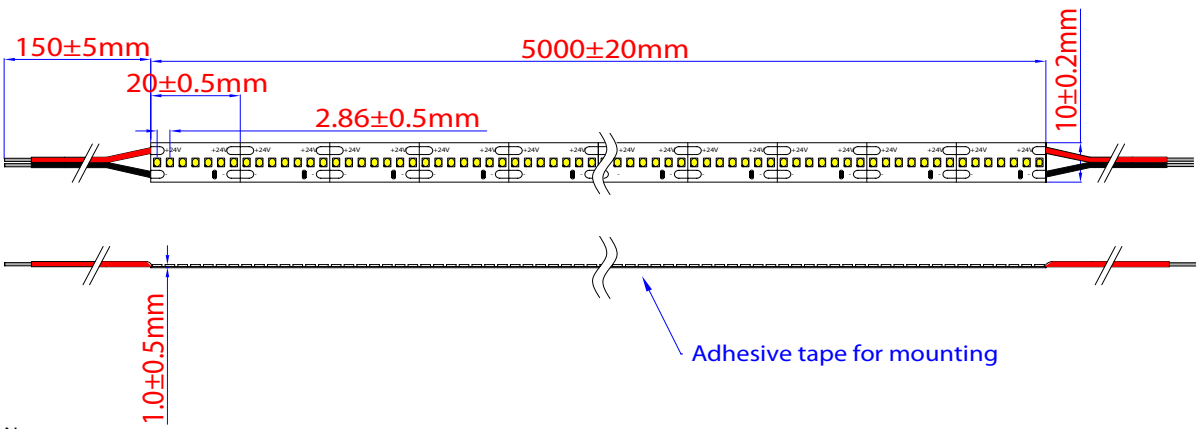
2216-140LEDs/M-4mm Series Dimensions (CV 24V IP20)



2216-240LEDs/M-4mm Series Dimensions (CV 24V IP20)



2216-350LEDs/M-10mm 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

2216-24V-70LEDS/M Series

Order code PCB Width 4mm	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1CWJE0B07003	6000	24	490 lm/M	440 lm	102 lm/W	91 lm/W	4.8	>90
6LBR1NWJE0B07003	4000	24	480 lm/M	432 lm	100 lm/W	90 lm/W	4.8	>90
6LBR1WWJE0B07003	3000	24	456 l m/M	410 lm	95 lm/W	85 lm/W	4.8	>90
	2700	24	436 lm/M	392 lm	91 lm/W	82 lm/W	4.8	>90

Order code PCB Width 8mm	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1CWJE0B07001	6000	24	490 lm/M	455 lm	102 lm/W	95 lm/W	4.8	>90
6LBR1NWJE0B07001	4000	24	480 lm/M	446 lm	100 lm/W	93 lm/W	4.8	>90
6LBR1WWJE0B07001	3000	24	456 lm/M	424 lm	95 lm/W	88 lm/W	4.8	>90
	2700	24	436 lm/M	405 lm	91 lm/W	83 lm/W	4.8	>90

2216-24V-140LEDS/M Series

Order code PCB Width 4mm	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1CWJE0B14003	6000	24	980 lm/M	882 lm/M	102 lm/W	92 lm/W	9.6	>90
6LBR1NWJE0B14003	4000	24	960 lm/M	864 lm/M	100 lm/W	90 lm/W	9.6	>90
6LBR1WWJE0B14003	3000	24	912 lm/M	820 lm/M	95 lm/W	85 lm/W	9.6	>90
	2700	24	873 lm/M	785 lm/M	90 lm/W	81 lm/W	9.6	>90

Order code PCB Width 8mm	CCT (K)	Voltage (CV)	Luminous flux TP25°C	Luminous flux TP65°C	Efficacy TP25°C	Efficacy TP65°C	Power (W/M)	Ra
6LBR1CWJE0B14001	6000	24	980 lm/M	911 lm	102 lm/W	94 lm/W	9.6	>90
6LBR1NWJE0B14001	4000	24	960 lm/M	892 lm	100 lm/W	92 lm/W	9.6	>90
6LBR1WWJE0B14001	3000	24	912 lm/M	848 lm	95 lm/W	88 lm/W	9.6	>90
	2700	24	873 lm/M	811 lm	90 lm/W	83 lm/W	9.6	>90

2216-24V-240LEDS/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
6LBR1CWJE0B24001	6000	24	1515 lm/M	1333 lm/M	79 lm/W	70 lm/W	19.2	>90
6LBR1NWJE0B24001	4000	24	1478 lm/M	1300 lm/M	77 lm/W	68 lm/W	19.2	>90
6LBR1WWJE0B24001	3000	24	1440 lm/M	1267 lm/M	75 lm/W	66 lm/W	19.2	>90
	2700	24	1382 lm/M	1216 lm/M	71 lm/W	63 lm/W	19.2	>90

2216-24V-350LEDS/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
6LBR1CWJE0B35001	6000	24	2790 lm/M	2511lm/M	97 lm/W	87 lm/W	28.8	>90
6LBR1NWJE0B35001	4000	24	2620 lm/M	2358 lm/M	90 lm/W	81 lm/W	28.8	>90
6LBR1WWJE0B35001	3000	24	2460 lm/M	2214 lm/M	85 lm/W	76 lm/W	28.8	>90
	2700	24	2380 lm/M	2142 lm/M	82 lm/W	73 lm/W	28.8	>90

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
2216-24v-70LED/M Series	2700/3000K	A+
	4000/6000K	A+
2216-24v-140LED/M Series	2700/3000K	A+
	4000/6000K	A+
2216-24v-240LED/M Series	2700/3000K	A
	4000/6000K	A
2216-24v-350LED/M Series	2700/3000K	A
	4000/6000K	A+

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 2216-24v-70LED/M Series PCB Width 4mm

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

Lumen maintenance for 2216-24v-70LED/M Series PCB Width 8mm

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>30,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>30,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>27,000 h	>28,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>26,000 h	>27,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>25,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 2216-24v-140LED/M Series PCB Width 4mm

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>21,000 h	>23,000 h	>27,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>20,000 h	>22,000 h	>25,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>18,000 h	>20,000 h	>23,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>17,000 h	>19,000 h	>21,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>15,000 h	>17,000 h	>19,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 2216-24v-140LED/M Series PCB Width 8mm

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>24,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>23,000 h	>25,000 h	>27,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>21,000 h	>23,000 h	>25,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>19,000 h	>21,000 h	>22,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>17,000 h	>19,000 h	>21,000 h	>30,000 h	>30,000 h	>30,000 h

Lumen maintenance for 2216-24v-240LED/M Series PCB Width 4mm

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>21,000 h	>23,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>20,000 h	>22,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>18,000 h	>20,000 h	>22,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>16,000 h	>17,000 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 2216-24v-350LED/M Series PCB Width 10mm

Supply Voltage	Tp temperature	L90/F10	L90/F50	L80/F10	L80/F50	L70/F10	L70/F50
24V	40	>24,000 h	>25,000 h	>27,000 h	>30,000 h	>30,000 h	>30,000 h
24V	45	>22,000 h	>24,000 h	>26,000 h	>30,000 h	>30,000 h	>30,000 h
24V	55	>20,000 h	>23,000 h	>24,000 h	>30,000 h	>30,000 h	>30,000 h
24V	65	>18,000 h	>20,000 h	>22,000 h	>30,000 h	>30,000 h	>30,000 h
24V	75	>16,000 h	>18,000 h	>20,000 h	>30,000 h	>30,000 h	>30,000 h

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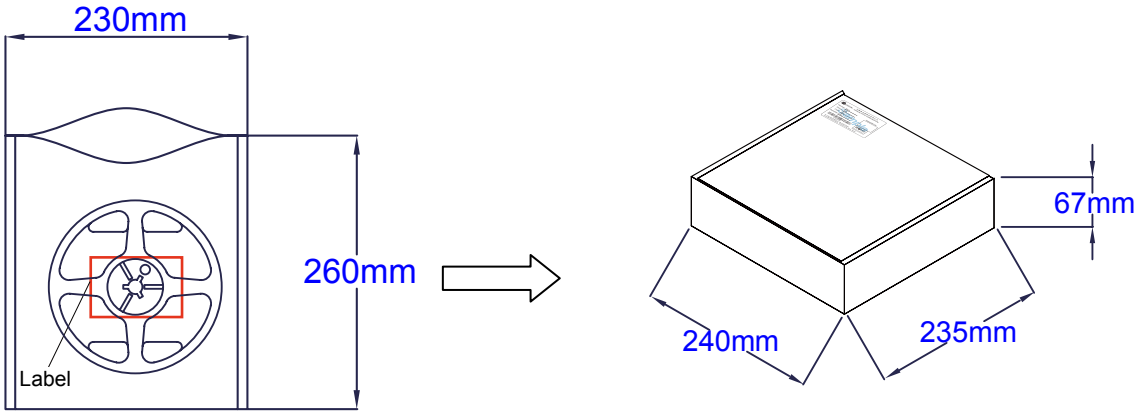
Product Packaging Information

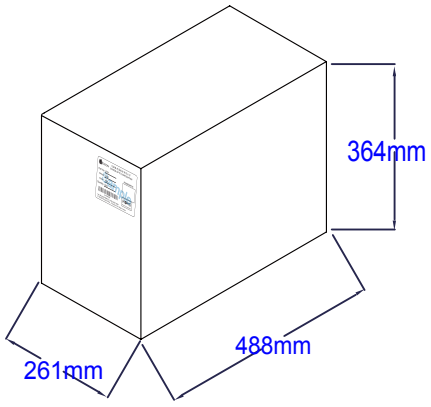
Type	Anti-static bag size(mm)	Anti-static bags/ inner box(pcs)	Inner box/carton(pcs)	Outside Carton size(mm)	GW±5% (kg)
2216-24V-70LED/M Series (PCB Width 4mm)	260x230x10	5	10	488x261x364	6.3
2216-24V-70LED/M Series (PCB Width 8mm)	260x230x10	5	10	488x261x364	6.5
2216-24V-140LED/M Series (PCB Width 4mm)	260x230x10	5	10	488x261x364	6.4
2216-24V-140LED/M Series (PCB Width 8mm)	260x230x10	5	10	488x261x364	6.6
2216-24V-240LED/M Series (PCB Width 4mm)	260x230x10	5	10	488x261x364	7.0
2216-24V-350LED/M Series (PCB Width 10mm)	260x230x10	4	10	488x261x364	7.1



EX:

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

Part No. : 6LBR1WWJE0B35001
Color : Warm White(273)
Quantity : 1 Reel(5M)
Lot No. : XXXX
Inspected by:
ROHS Directive Compliance
A410000005
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 2216 Lightbar 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 lightbar FPC series to provide an environmentally friendly product to the customers.

Application Notes

PLCC 2216 Lightbar series are available in cool 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 EdiLex strip lighting module the ideal lighting choice for vividly displaying fruit and vegetables and/or refrigeration products, presenting the true color of the products and reflecting the freshness of goods.

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Revision History

Versions	Description	Release Date
1	Establish order code information	2018/11/21
2	Revise Application Notes	2019/01/04
3	Revise Electric Optical Characteristics	2019/02/21
4	Add order code information (DC-24V-70D/M-4MM and DC-24V-140D/M-4MM)	2019/05/17
5	Upgrade version	2019/08/30
6	Revise Electric Optical Characteristics	2019/10/23

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