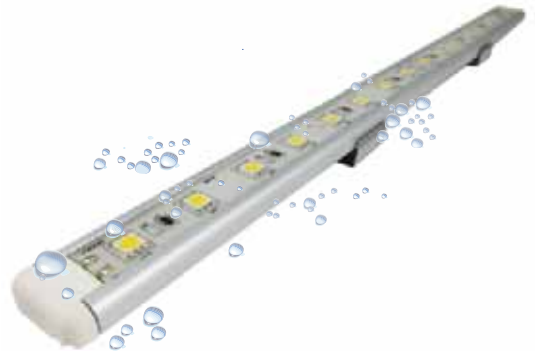


PLCC Lightbar with Heatsink (IP67) Series Datasheet



Features :

- High Brightness SMD LED
- Low Power Requirement & Energy Efficient
- Easily customized for length with several options

Typical Applications :

- Tube Light Source
- Auditorium Walkway Lighting
- Stairway Accent Lighting
- Cabinet Lighting

Specifications :

- Color : 

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Lighting Design Manufacturing Service

General Information

Introduction

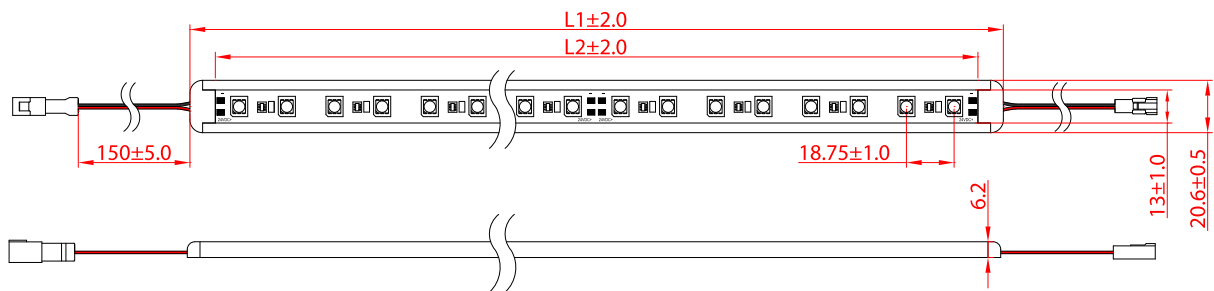
With the newly introduced PLCC Lightbar from Edison Opto, users can now fashion their own choices of lighting without the excess limitation of a lighting fixture. The PLCC Lightbar features multi-chips packaged 5050 PLCC SMDs on an extruded heat-sink 20mm (0.8") wide and length up to 120cm (47.2"). The plastic caps at both ends of the heat-sink combine with the slim linear are designed specifically to allow easy screw-tight installation at compact spaces where traditional light source cannot fit in. And the waterproof rating can reach IP67.

Product Nomenclature

<u>6</u>		<u>L B M 1</u>		<u>x x</u>		<u>N</u>		<u>J</u>		<u>0 0 0 0 0 0 x</u>	
X1		X2		X3		X4		X5		X6	
X1		X2		X3		X4		X5		X6	
Item		Series		Emitting Color		Angle		Driver		Serial No.	
6	Module	LBM1	Lighrbar	CW	Cool White	N	120	J	CV 24V	xxxxxxx	--
				NW	Neutral White						
				WW	Warm White						
				M1	RTB						

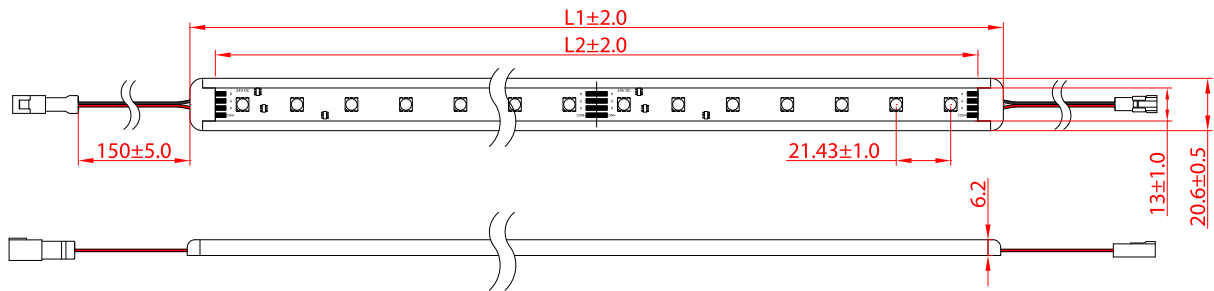
Mechanical Dimensions

6LBM1xWNJ000000x series dimensions



Order Code	L1	L2
6LBM1xWNJ000000xx	320	310
	470	460
	620	610
	920	910
	1220	1210

6LBM1M1NJ000000x series dimensions



Order Code	L1	L2
6LBM1xWNJ000000xx	320	310
	470	460
	620	610
	920	910
	1220	1210

Note : All dimensions are in millimeters.

Absolute Maximum Ratings

Parameter	Symbol	Rating	Units
LED Junction Temperature	T_j	125	°C
Operating Temperature	T_{opr}	-30 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +85	°C

Notes:

1. Proper current derating must be observed to maintain junction temperature below the maximum at all time.
2. LEDs are not designed to be driven in reverse bias.

Electro-Optical Characteristics ($T_a=25^{\circ}\text{C}$)

6LBM1xWNJ000000x Series

Order Code	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Current (mA)	Radiance Angle	CCT (K)	Lumen Flux (lm)	CRI	Length (mm)
6LBM1CWNJ0000013	Cool White	16	24	3.84	160	120°	9500K	190	70	320
6LBM1NWNJ0000009	Neutral White	16	24	3.84	160	120°	4500K	165	75	320
6LBM1WWNJ0000016	Warm White	16	24	3.84	160	120°	3500K	140	80	320
6LBM1CWNJ0000014	Cool White	24	24	5.76	240	120°	9500K	285	70	470
6LBM1NWNJ0000010	Neutral White	24	24	5.76	240	120°	4500K	250	75	470
6LBM1WWNJ0000017	Warm White	24	24	5.76	240	120°	3500K	210	80	470
6LBM1CWNJ0000015	Cool White	32	24	7.68	320	120°	9500K	380	70	620
6LBM1NWNJ0000011	Neutral White	32	24	7.68	320	120°	4500K	335	75	620
6LBM1WWNJ0000018	Warm White	32	24	7.68	320	120°	3500K	285	80	620
6LBM1CWNJ0000016	Cool White	48	24	11.52	480	120°	9500K	570	70	920
6LBM1NWNJ0000012	Neutral White	48	24	11.52	480	120°	4500K	500	75	920
6LBM1WWNJ0000019	Warm White	48	24	11.52	480	120°	3500K	430	80	920
6LBM1CWNJ0000017	Cool White	64	24	15.36	640	120°	9500K	760	70	1220
6LBM1NWNJ0000013	Neutral White	64	24	15.36	640	120°	4500K	665	75	1220
6LBM1WWNJ0000020	Warm White	64	24	15.36	640	120°	3500K	575	80	1220

Note :

Flux is measured with an accuracy of $\pm 10\%$.

6LBM1M1NJ000000x Series

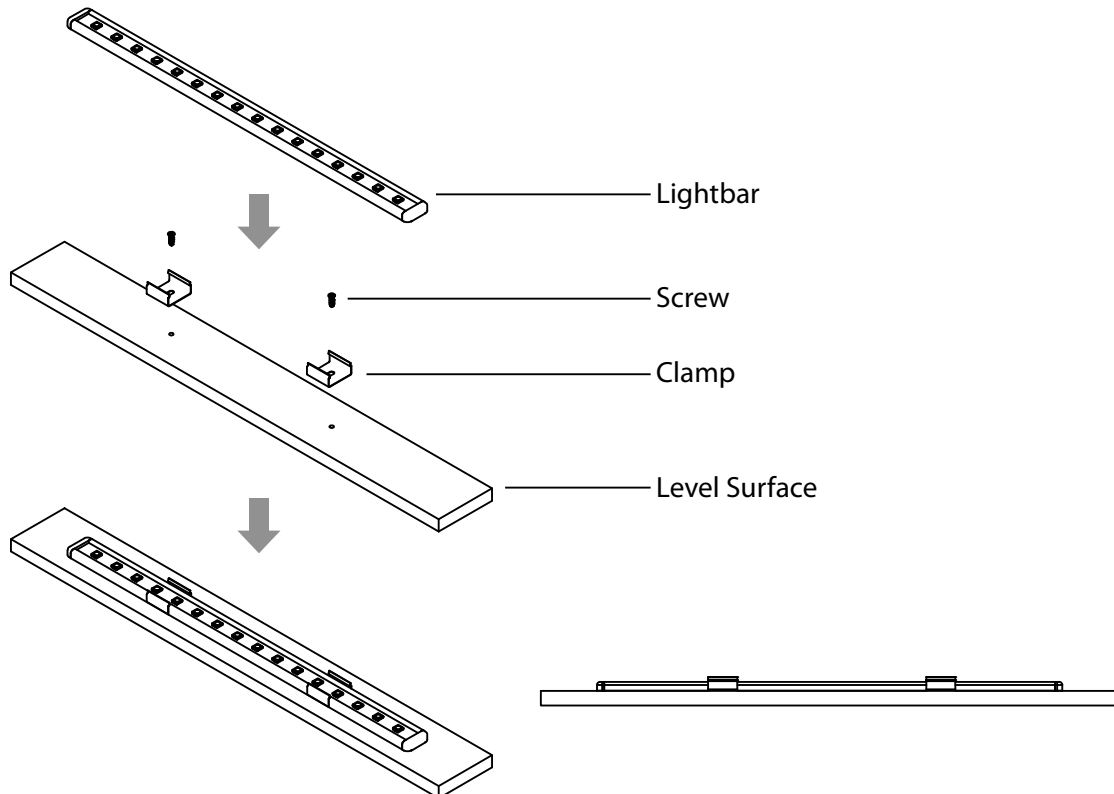
Order Code	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Current (mA)	Radiance Angle	λ_d (nm)	Lumen Flux(lm)	Length (mm)
6LBM1M1NJ0000011	Red	14	24	0.96	40	120°	620~630	15	320
	True Green						520~535	35	
	Blue						465~475	7	
6LBM1M1NJ0000012	Red	21	24	1.44	60	120°	620~630	23	470
	True Green						520~535	50	
	Blue						465~475	12	
6LBM1M1NJ0000013	Red	28	24	1.92	80	120°	620~630	30	620
	True Green						520~535	70	
	Blue						465~475	15	
6LBM1M1NJ0000014	Red	42	24	2.88	120	120°	620~630	46	920
	True Green						520~535	100	
	Blue						465~475	24	
6LBM1M1NJ0000015	Red	56	24	3.84	160	120°	620~630	61	1220
	True Green						520~535	136	
	Blue						465~475	30	

Note :

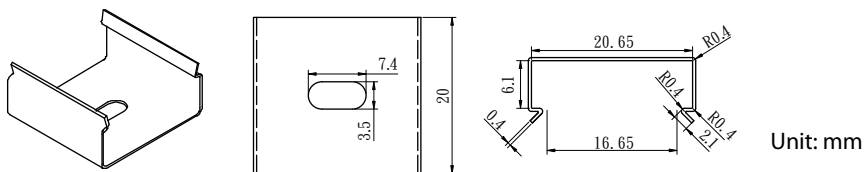
Flux is measured with an accuracy of $\pm 10\%$.

Assembly Instructions

1. Use M3 screw to secure the clamp on a level surface.
2. Push-lock the lightbar.



Clamp Dimensions



Note:
Every lightbar comes with a set of accessories including two clamps and two M3 screws.

Installation Guide

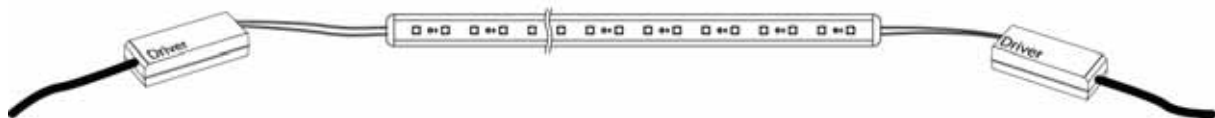
1. For extended utilize, please join the lightbar male port to the other lightbar's female port with connector.
2. The recommended maximum quantity and operating current is showing as below:

Recommended quantity

Item	Part Number	Number of LEDs	Input Voltage (V DC)
30cm	6LBM1xWNJ000000x series (320mm)	12	2A
	6LBM1M1NJ0000011 (315~325mm)		
45cm	6LBM1xWNJ000000x series (470mm)	8	
	6LBM1M1NJ0000012 (465~475mm)		
60cm	6LBM1xWNJ000000x series (620mm)	6	
	6LBM1M1NJ0000013 (615~625mm)		
90cm	6LBM1xWNJ000000x series (920mm)	4	
	6LBM1M1NJ0000014 (915~925mm)		
120cm	6LBM1xWNJ000000x series (1220mm)	3	
	6LBM1M1NJ0000015 (1215~1225mm)		

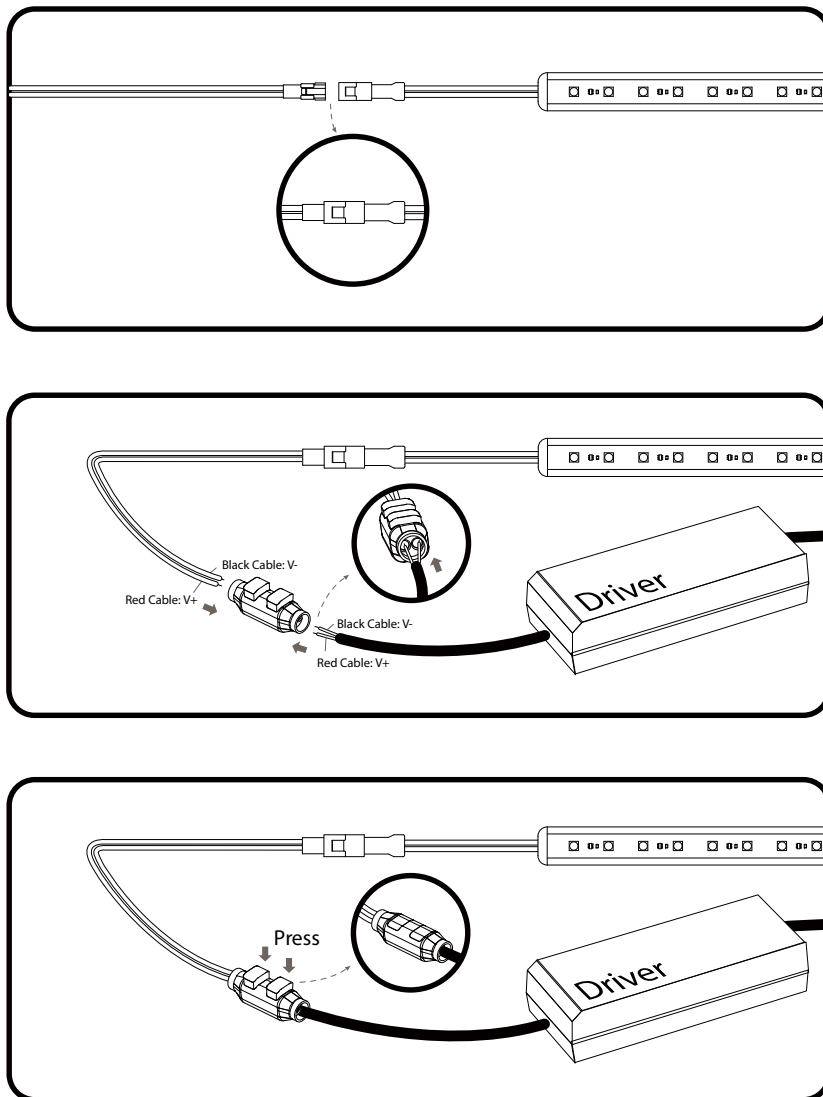
Note:

We recommend to apply drivers both on the front and the end if over recommended quantity or current.

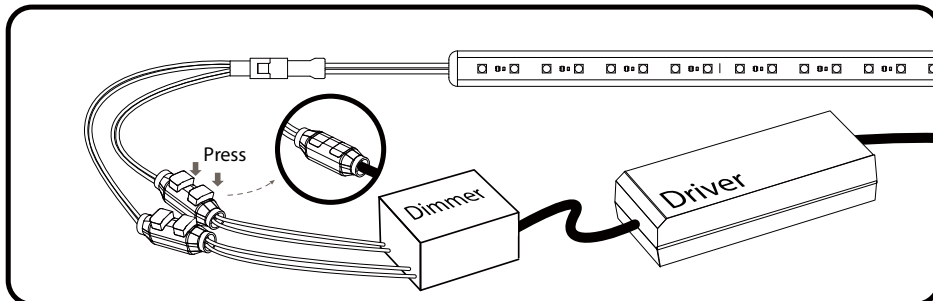
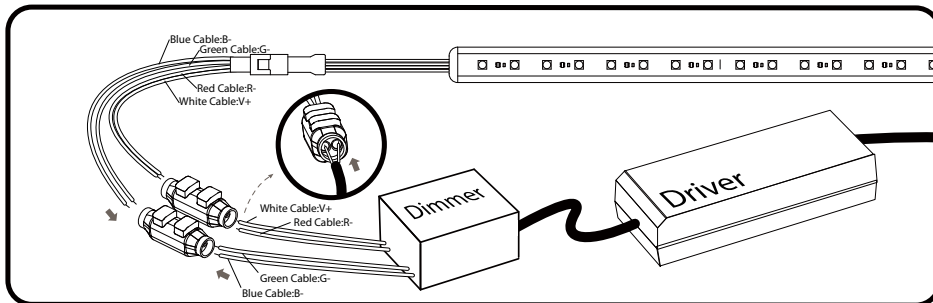
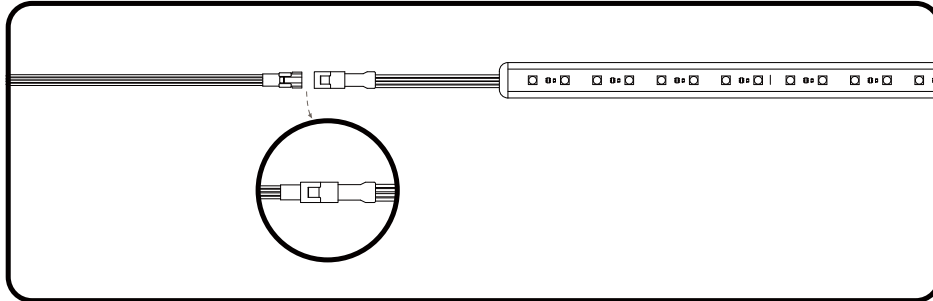


Drivers connection diagram

Recommended assembly methods



Single color series of assembly methods



RGB series of assembly methods

Step1

Make a connection between the male and female side of the wire. Please notice that the colors of the wires are different. Be sure the same color is connected at the same side.

Step2

Use the recommended connector to link a light bar and a driver. Put the cables of the wire and driver into each side of the connector. Make sure the red cable of the wire is linked to the positive terminal of the driver (also in red), and vice versa.

Step3

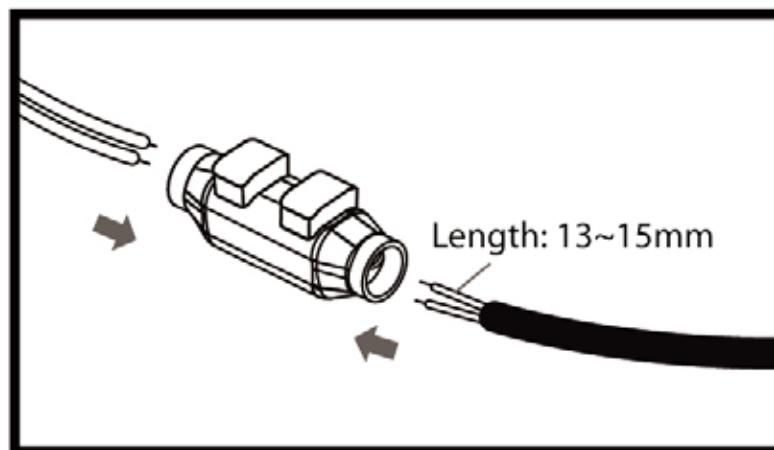
Once the cables are inside of the connector, press down the bottom of the connector and make sure the cables are tight fixed.

Cable preparation

Before use make sure the applicable cable is clean and free of superficial pollution like dust or other substances that can compromise the insulation level. When stripping the cable jacket make sure it is a straight clean cut and prevent at all times that the insulation of the wires within the cable are damaged or cut in. The stripped jacket end shall be cut under a maximum angle of 10°. Proper cutting tooling shall be used to avoid spacing deformation and burrs.

Notes:

- 1.To prevent the defect of water resistance, the bare wire is recommended to be cut off or be kept less than 2 millimeter
- 2.The Connector do not reuse.



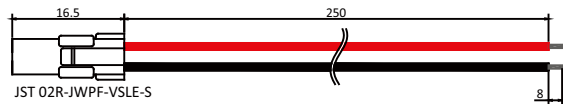
Wires terminated correctly



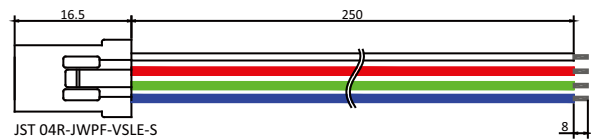
Wires terminated correctly

Accessory

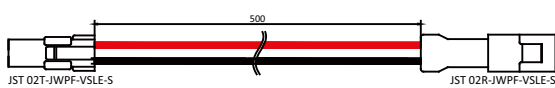
Wire



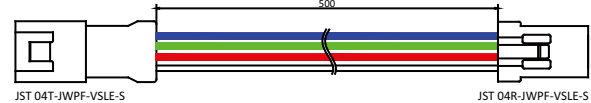
13WR10000018 (250mm, IP65, male)



13WR10000019 (250mm, IP65, male)



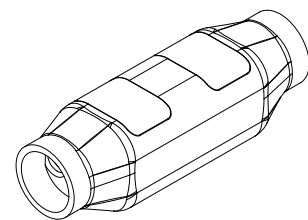
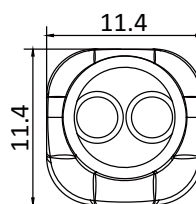
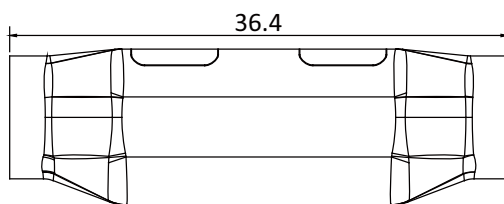
13WR10000014 (500mm, IP65, male/female)



13WR10000015 (500mm, IP65, male/female)

Connector

For combine the Lightbar with the Driver



13CNP2000001 Connector (IP65)

Notes:

1. All dimensions are in millimeters.
2. Tolerance is ± 1.0 mm.
3. The driver's red wire which is a positive terminal goes to Connector the same side of connector's positive terminal.

Driver

Proposal with the product :	
MEAN WELL	CLG-60-24 (24V, 2.5A, IP65)
	CLG-100-24 (24V, 4A, IP65)



Notes:

Please select the driver with an appropriate total output power which is corresponded to the connected lightbar. Total connected current is recommended less than 2 Ampere.



Lighting Design Manufacturing Service

Environmental Compliance

PLCC lightbar with heatsink 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 with heatsink 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 displaying fruit and vegetables and/or refrigeration products, presenting the true color of the products and reflecting the freshness of goods.

The lightbar can not be used in swimming pool, sea water or chemical pollution environment.





Lighting Design Manufacturing Service

Revision History

Version	Description	Release Date
1	Establish a datasheet	2014/03/28
2	1. Revise order code 2. Add installation guide 3. Add Cable preparation 4. Add Accessory 5. Update the photo of front page	2014/05/08
3	Revise Lumen Flux (lm)	2014/06/16

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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