



Lighting Design Manufacturing Service

Table of Contents

General Information.....	3
Introduction.....	3
Product Nomenclature	3
Package Dimensions.....	4
LBRx-J480/24V Series Dimensions	4
LBRx-J300/12V Series Dimensions.....	4
LBRx-M300/12V Series Dimensions.....	5
LBRRTB-M300/12V Series Dimensions	5
Absolute Maximum Ratings	6
Electro-Optical Characteristics (T _J =25°C).....	7
LBRx-J480/24V Series.....	7
LBRx-J300/12V Series.....	8
LBRx-M300/12V Series	9
LBRRTB-M300/12V Series.....	10
Environmental Compliance	11
Application Notes.....	11
Package Dimension.....	12
Revision History	13
About Edison Opto	13



Lighting Design Manufacturing Service

General Information

Introduction

LCC Lightbar FPC R is a strip of lighting module available in varying colors. Its flexible circuit board not only enables novel design thinking with bendable light source, but also offers a wide range of applications with dividable lighting segments.

Product Nomenclature

Table 1. Product nomenclature

LB R W - J 300 / 12V
 X1 X2 X3 X4 X5 X6

X1 LED Item		X2 Serial No.		X3 Emitting Color		X4 Circuit Type		X5 LED Quantity	
Code	Type	Code	Type	Code	Type	Code	Type	Code	Type
LB	Lightbar	R	--	W	Cool White	J	3528	300	300 pcs
				H	Neutral White	M	5050	480	480 pcs
				X	Warm White				
				R	Red				
				A	Amber(615nm)				
				Y	Yellow(590nm)				
				G	True Green				
				B	Blue				
				RTB	RGB 3chips				

X6 Serial No.	
Code	Type
12V	--
24V	--

Product Dimensions

• LBRx-J480/24V Series Dimensions

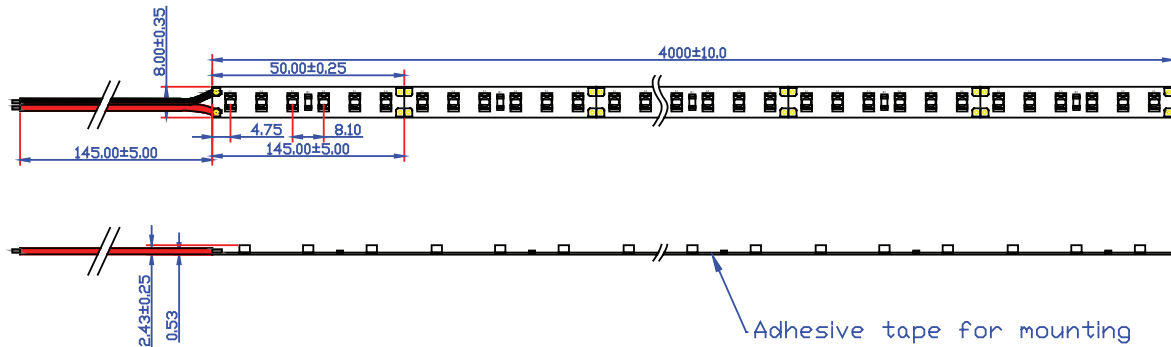


Figure 1 . LBRx-J480/24V series dimensions.

Notes:

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

• LBRx-J300/12V Series Dimensions

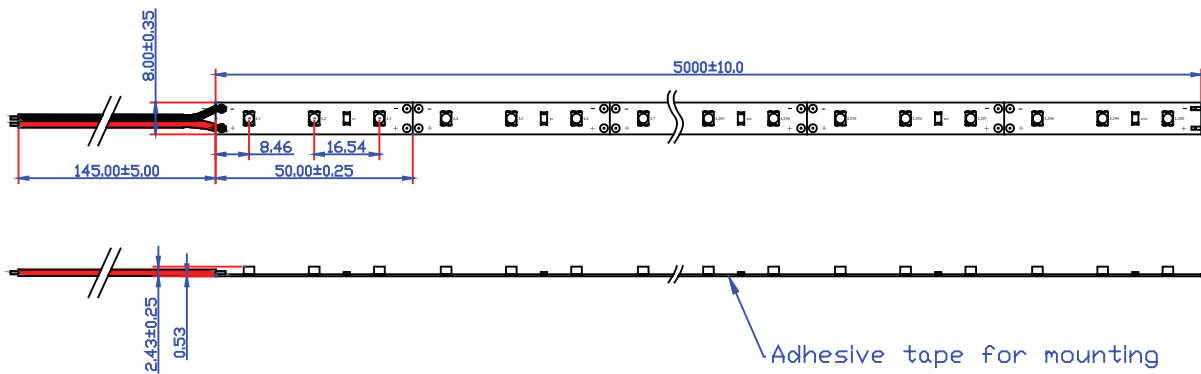


Figure 2 . LBRx-J300/12V series dimensions.

Notes:

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

•LBRx-M300/12V Series Dimensions

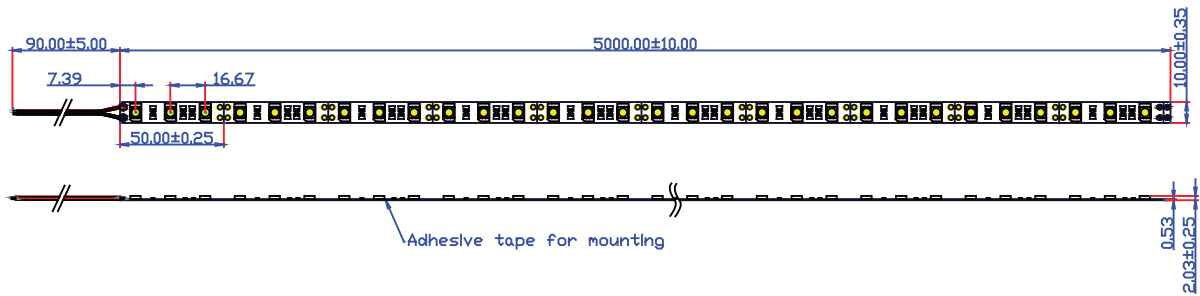


Figure 3. LBRx-M300/12V series dimensions

Notes:

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

• LBRRTB-M300/12V Series Dimensions

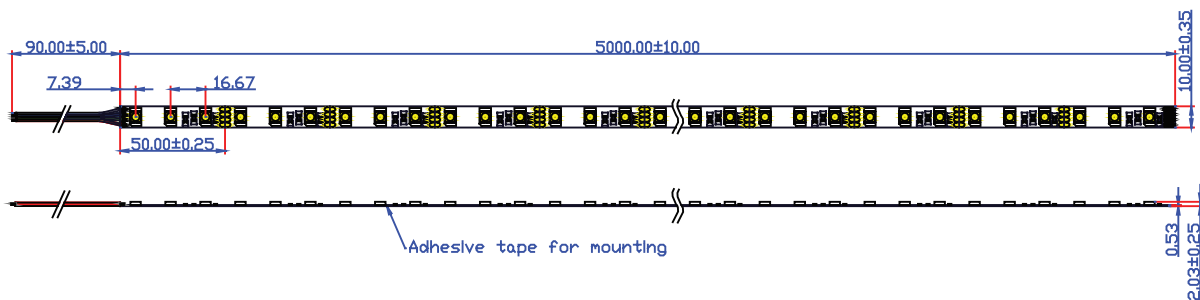


Figure 4. LBRRTB-M300/12V series dimensions

Notes:

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

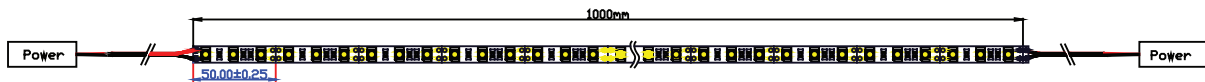
Absolute Maximum Ratings

Table 2. Absolute maximum ratings for PLCC lightbar FPC series.

Parameter	Symbol	Rating	Units
LED junction Temperature	T_j	125	°C
Operating Temperature	T_{opr}	-20 ~ +85	°C
Storage Temperature	T_{stg}	-20 ~ +85	°C
Number of FPC Connection	--	5	M

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.
3. Strongly recommended one power connection one set FP, If over two set FPC recommended connection two power in front FPC and end FPC (Drawing).



Electro-Optical Characteristics (T_j=25°C)

• LBRx-J480/24V Series

Table 3. LBRx-J480/24V series electric-optical characteristics

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Forward Current (mA)	Radiance Angle	CCT(K)
LBRW-J480/24V	Cool White	480	24	24~33.6	1200~1600	120°	6000K
LBRH-J480/24V	Neutral White	480	24	24~33.6	1200~1600	120°	4100K
LBRX-J480/24V	Warm White	480	24	24~33.6	1200~1600	120°	3050K
LBRR-J480/24V	Red	480	24	24~33.6	1200~1600	120°	620~630nm
LBRG-J480/24V	Green	480	24	24~33.6	1200~1600	120°	520~535nm
LBRB-J480/24V	Blue	480	24	24~33.6	1200~1600	120°	465~475nm
LBRA-J480/24V	Amber	480	24	24~33.6	1200~1600	120°	610~620nm
LBRY-J480/24V	Yellow	480	24	24~33.6	1200~1600	120°	585~595nm

Notes:

1. CCT is measured with an accuracy of $\pm 10\%$
2. Forward Current is measured with an accuracy of $\pm 10\%$

• Luminous Intensity Characteristics

The following table describes luminous intensity of PLCC 3528 series

Table 4. Emmitter luminous intensity characteristic is at I_f = 20mA

Part No.	Color	Emitter Luminous intensity Typ. (mcd)	Emitter Luminous Flux Typ. (lm)
LBRW-J480/24V	Cool White	2400	7
LBRH-J480/24V	Neutral White	2300	6.5
LBRX-J480/24V	Warm White	2100	6
LBRR-J480/24V	Red	500	1.6
LBRG-J480/24V	Green	1200	3.6
LBRB-J480/24V	Blue	300	0.8
LBRA-J480/24V	Amber	500	1.6
LBRY-J480/24V	Yellow	500	1.6

Note:

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

• **LBRx-J300/12V Series**

Table 5. LBRx-J300/12V series electric-optical characteristics

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Forward Current (mA)	Radiance Angle	CCT(K)
LBRW-J300/12V	Cool White	300	12	14.4~19.2	1200~1700	120°	6000K
LBRH-J300/12V	Neutral White	300	12	14.4~19.2	1200~1700	120°	4100K
LBRX-J300/12V	Warm White	300	12	14.4~19.2	1200~1700	120°	3050K
LBRR-J300/12V	Red	300	12	14.4~19.2	1200~1700	120°	620~630nm
LBRG-J300/12V	Green	300	12	14.4~19.2	1200~1700	120°	520~535nm
LBRB-J300/12V	Blue	300	12	14.4~19.2	1200~1700	120°	465~475nm
LBRA-J300/12V	Amber	300	12	14.4~19.2	1200~1700	120°	610~620nm
LBRY-J300/12V	Yellow	300	12	14.4~19.2	1200~1700	120°	585~595nm

Notes :

1. CCT is measured with an accuracy of $\pm 10\%$
2. Forward Current is measured with an accuracy of $\pm 10\%$

• **Luminous Intensity Characteristics**

The following table describes luminous intensity of PLCC 3528 series

Table 6. Emmitter luminous intensity characteristics at $I_f = 20\text{mA}$

Part No.	Color	Emitter Luminous intensity Typ. (mcd)	Emitter Luminous Flux Typ. (lm)
LBRW-J300/12V	Cool White	2400	7
LBRH-J300/12V	Neutral White	2300	6.5
LBRX-J300/12V	Warm White	2100	6
LBRR-J300/12V	Red	500	1.6
LBRG-J300/12V	Green	1200	3.6
LBRB-J300/12V	Blue	300	0.8
LBRA-J300/12V	Amber	500	1.6
LBRY-J300/12V	Yellow	500	1.6

Note:

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

• **LBRRTB-M300/12V Series**

Table 7. LBRRTB-M300/12V series electric-optical characteristics.

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Forward Current (mA)	Radiance Angle	CCT(K)
LBRW-M300/12V	Cool White	300	12	25.2~36	2100~3000	120°	6000K
LBRH-M300/12V	Neutral White	300	12	25.2~36	2100~3000	120°	4100K
LBRX-M300/12V	Warm White	300	12	25.2~36	2100~3000	120°	3050K
LBRR-M300/12V	Red	300	12	25.2~36	2100~3000	120°	620~630nm
LBRG-M300/12V	Green	300	12	25.2~36	2100~3000	120°	520~535nm
LBRB-M300/12V	Blue	300	12	25.2~36	2100~3000	120°	465~475nm
LBRA-M300/12V	Amber	300	12	25.2~36	2100~3000	120°	610~620nm
LBRY-M300/12V	Yellow	300	12	25.2~36	2100~3000	120°	585~595nm

Notes:

1. CCT is measured with an accuracy of $\pm 10\%$
2. Forward Current is measured with an accuracy of $\pm 10\%$

• **Luminous Intensity Characteristics**

The following table describes luminous intensity of PLCC 5050 series

Table 8. Emmitter luminous intensity characteristics at $I_f = 60\text{mA}$

Part No.	Color	Emitter Luminous intensity Typ. (mcd)	Emitter Luminous Flux Typ. (lm)
LBRW-M300/12V	Cool White	6300	19
LBRH-M300/12V	Neutral White	5600	17
LBRX-M300/12V	Warm White	5000	15
LBRR-M300/12V	Red	1600	4.8
LBRG-M300/12V	Green	3500	10.9
LBRB-M300/12V	Blue	900	2.9
LBRA-M300/12V	Amber	1600	4.8
LBRY-M300/12V	Yellow	1600	4.8

Note:

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

• **LBRRTB-M300/12V Series**

Table 9. LBRRTB-M300/12V series electric-optical characteristics.

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Forward Current (mA)	Radiance Angle	λd (nm)
LBRRTB-M300/12V	Red	300	12	14.4~20.4	1200~1700	120°	620~630nm
	Green	300	12	14.4~20.4	1200~1700	120°	520~535nm
	Blue	300	12	14.4~20.4	1200~1700	120°	465~475nm

Note:

1. Forward Current is measured with an accuracy of $\pm 10\%$

• **Luminous Intensity Characteristics**

The following table describes luminous intensity of PLCC 5050 series

Table 10. Emmitter luminous intensity characteristics at $I_f = 20mA$ for each color

Part No.	Color	Emitter Luminous intensity Typ. (mcd)	Emitter Luminous Flux Typ. (lm)
LBRRTB-M300/12V	Red	500	1.6
	Green	1200	3.6
	Blue	300	0.8

Note:

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



Lighting Design Manufacturing Service

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.

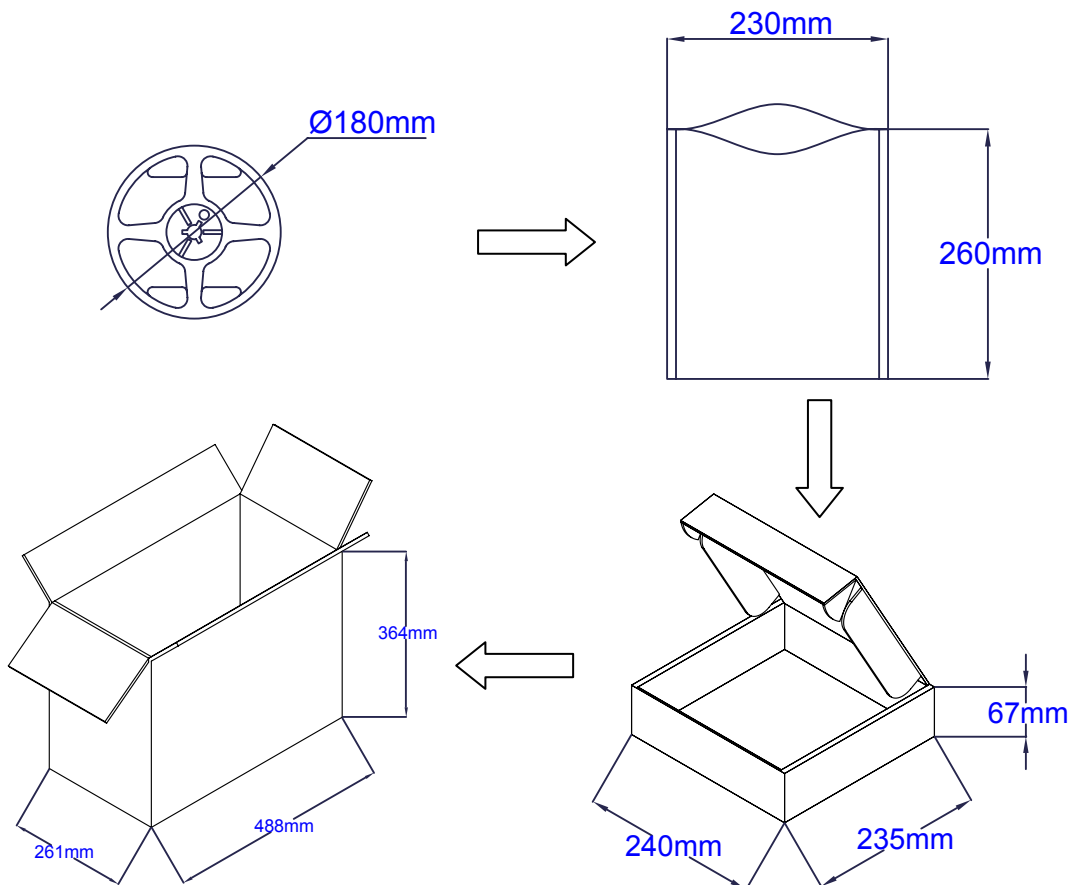
Application Notes

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

Package Dimension

Table 11. PLCC lightbar FPC material Description

Part No. / Package Type	LBRx-Jxxx/xxV	LBRx-Mxxx/xxV	Dimension
Antistatic bag	1 Reel	1 Reel	260mm x 230mm
Inside box	5 Antistatic bags	4 Antistatic bags	240mm x 235mm x 67mm
Outside box	10 Inside boxes	10 Inside boxes	488mm x 364mm x 261mm





Lighting Design Manufacturing Service

Revision History

Table 12. Revision history of PLCC Lightbar FPC R Series Datasheet

Version	Description	Release Date
1	1.Establish a datasheet	2012/01/11

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

Copyright©2011 Edison Opto. All rights reserved. No part of publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photo copy, recording or any other information storage and retrieval system, without prior permission in writing from the publisher. The information in this publication are subject to change without notice.

www.edison-opto.com

For general assistance please contact:
service@edison-opto.com.tw

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