



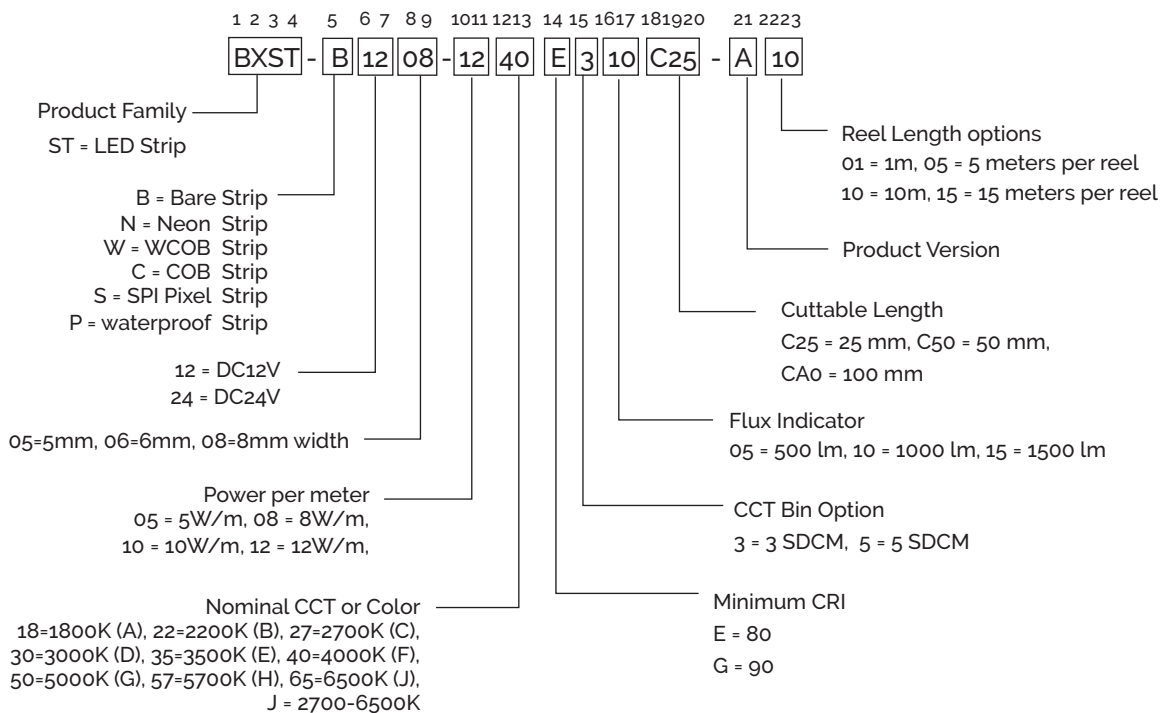
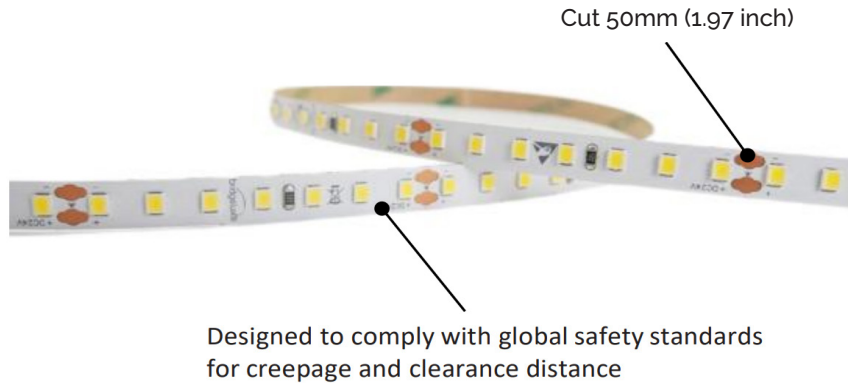
Bridgelux® ECO (Economy) LED Strip

Product Data Sheet DS3512



Product Feature Map

Bridgelux ECO (Economy) LED Strip are fully engineered devices that provide consistent thermal and optical performance on an engineered mechanical platform. The Strip products incorporate several features to simplify design integration and assembly. Please visit www.bridgelux.com for more information on the family of products.



Product Selection Guide

The following product configurations are available:

Table 1: Selection Guide, White Pulsed Measurement Data at 1 meter (3.28ft) length ($T_j = T_c = 25^\circ\text{C}$)

Part Number	Nominal CCT ¹ (K)	CRI ²	Forward Voltage ³ (V)	Typical Power (W)	Typical Flux ^{3, 4, 5} (lm)	Typical Efficacy (lm/W)	LED Quantity (EA/m)	Mini Cut Length (mm)
BXST-B1208-0527E305C50-A01	2700	80	12	5	450	90	60	50
BXST-B1208-0530E305C50-A01	3000				475	95		
BXST-B1208-0540E305C50-A01	4000				500	100		
BXST-B1208-0557E305C50-A01	5700				525	105		
BXST-B1208-1027E310C25-A01	2700			10	1000	100	120	25
BXST-B1208-1030E310C25-A01	3000				1050	105		
BXST-B1208-1040E310C25-A01	4000				1100	110		
BXST-B1208-1057E310C25-A01	5700				1150	115		
BXST-B2408-0527E305CA0-A01	2700		24	5	475	95	60	100
BXST-B2408-0530E305CA0-A01	3000				500	100		
BXST-B2408-0540E305CA0-A01	4000				525	105		
BXST-B2408-0557E305CA0-A01	5700				550	110		
BXST-B2408-1027E310C50-A01	2700			10	1050	105	120	50
BXST-B2408-1030E310C50-A01	3000				1100	110		
BXST-B2408-1040E310C50-A01	4000				1150	115		
BXST-B2408-1057E310C50-A01	5700				1200	120		
BXST-B1205-1027E310C25-A01	2700		12	5	1000	100	120	25
BXST-B1205-1030E310C25-A01	3000				1050	105		
BXST-B1205-1040E310C25-A01	4000				1100	110		
BXST-B1205-1057E310C25-A01	5700				1150	115		
BXST-B2405-1027E310C50-A01	2700		24	10	1050	105	120	50
BXST-B2405-1030E310C50-A01	3000				1100	110		
BXST-B2405-1040E310C50-A01	4000				1150	115		
BXST-B2405-1057E310C50-A01	5700				1200	120		
BXST-B2405-0527G305CA0-A01	2700	90	24	5	450	90	60	100
BXST-B2405-0530G305CA0-A01	3000				475	95		
BXST-B2405-0540G305CA0-A01	4000				500	100		
BXST-B2405-0557G305CA0-A01	5700				525	105		
BXST-B2405-1027G310C50-A01	2700			10	1000	100	120	50
BXST-B2405-1030G310C50-A01	3000				1050	105		
BXST-B2405-1040G310C50-A01	4000				1100	110		
BXST-B2405-1057G310C50-A01	5700				1150	115		

Absolute Maximum Ratings

Table 2: Maximum Ratings at 1 meter (3.28ft) length

Parameter	Maximum Rating
Storage Temperature	-40°C to +85°C
Operating Case Temperature (T _c)	65°C
Soldering Temperature	350°C or lower for a maximum of 5 seconds
Maximum driving voltage (DCV)	32

Notes for Table 2:

1. For IEC 62717 requirement, please consult your Bridgelux sales representative.
2. Lumen maintenance (L70) and lifetime predictions are valid for drive current and case temperature conditions used for LM-80 testing as included in the applicable LM-80 test report for the SMDs used in the modules. Contact your Bridgelux sales representatives for LM-80 report.

Performance Curves

Figure 1: Relative Forward Current vs. Forward Voltage ($T_c = 25^\circ\text{C}$)

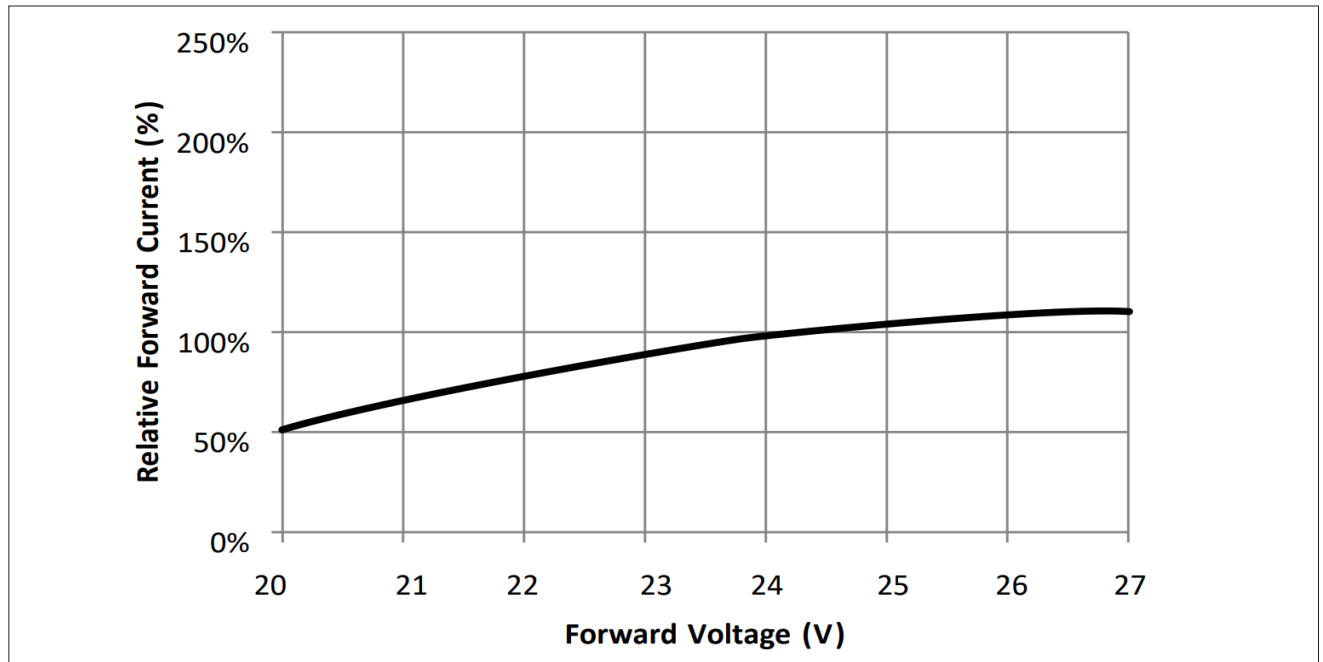
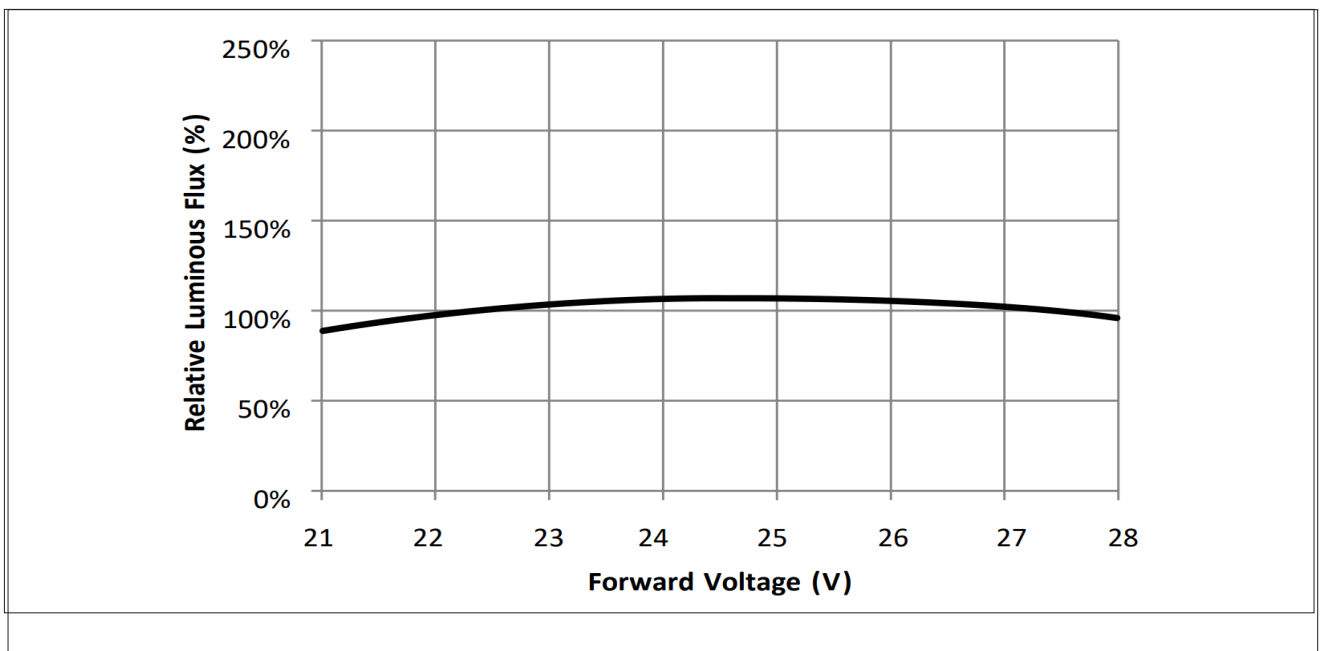
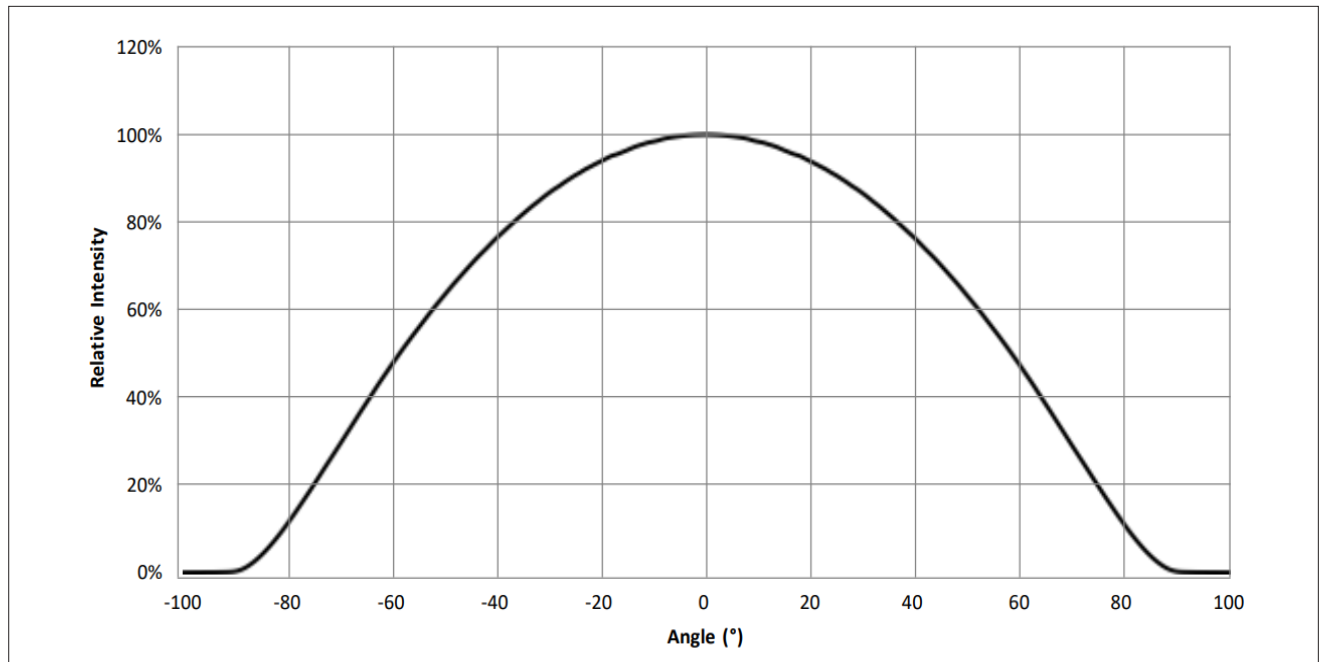


Figure 2: Relative Luminous Flux vs. Forward Voltage ($T_c = 25^\circ\text{C}$)



Performance Curves

Figure 3: Typical Spatial Radiation Pattern



Note for Figure 3:

1. Typical viewing angle is 120° .
2. The viewing angle is defined as the off axis angle from the centerline where I_v is $\frac{1}{2}$ of the peak value.

Mechanical Dimensions

Figure 4: Drawing Overview for ECO LED Strip BXST-B1208-10xxE310C25-Axx

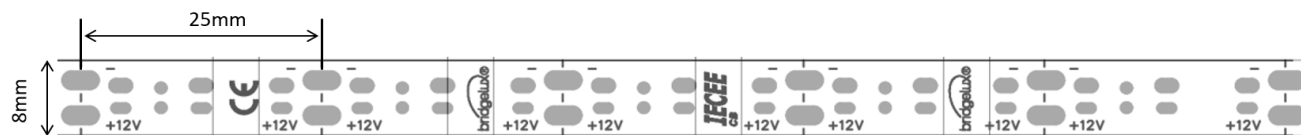


Figure 5: Drawing Overview for ECO LED Strip BXST-B1208-05xxE305C50-Axx



Figure 6: Drawing Overview for ECO LED Strip BXST-B2408-10xxE310C50-Axx

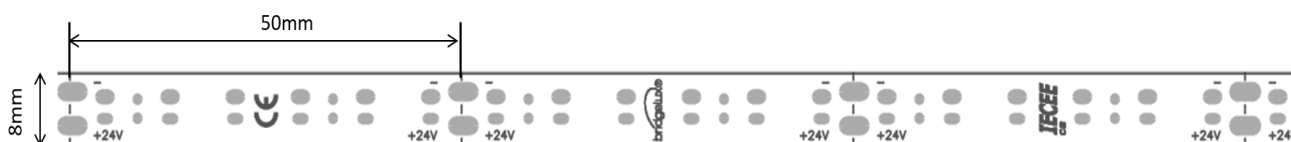


Figure 7: Drawing Overview for ECO LED Strip BXST-B2408-05xxE305CA0-Axx



Figure 8: Drawing Overview for ECO LED Strip BXST-B1205-10xxE310C25-Axx



Mechanical Dimensions

Figure 9: Drawing Overview for ECO LED Strip BXST-B2405-10xxx310C50-Axx

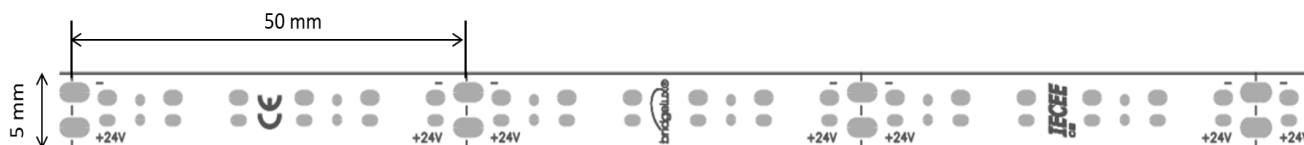
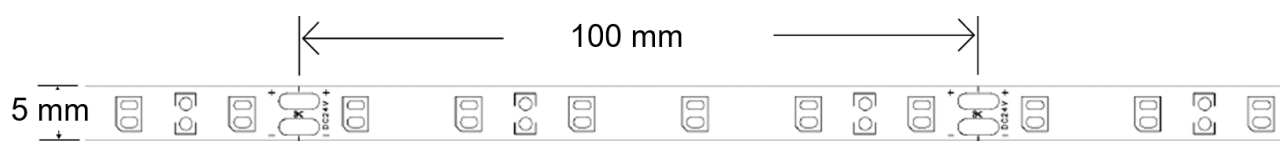


Figure 10: Drawing Overview for ECO LED Strip BXST-B2405-05xxG305CA0-Axx



Notes for Figures 4 - 10:

1. Solder pads are labeled "+" to denote positive polarity, and "-" to denote negative polarity.
2. Drawing dimensions are in millimeters.

Table 3: Strip Module Dimensions

Parameter	BXST-Bxx0x-xxxxx3xxCxx-A05	BXST-Bxx0x-xxxxx3xxCxx-A10
Linear length per reel	5,000 mm	10,000 mm
Linear width	5/6/8 mm	
Overall thickness	1.05 mm	
PCB thickness	0.25 mm	

Note for Table 3:

1. The table above lists the standard reel lengths. Additional lengths may be available upon request, please consult your Bridgelux sales representative.

Table 4: Reel Package Option

Part Number	Strip Length Per Reel Package
BXST-Bxx0x-xxxxx3xxCxx-x01	1 meter
BXST-Bxx0x-xxxxx3xxCxx-x05	5 meter
BXST-Bxx0x-xxxxx3xxCxx-x10	10 meters

Packaging and Labeling

Figure 11: Strip Series Packaging and Labeling

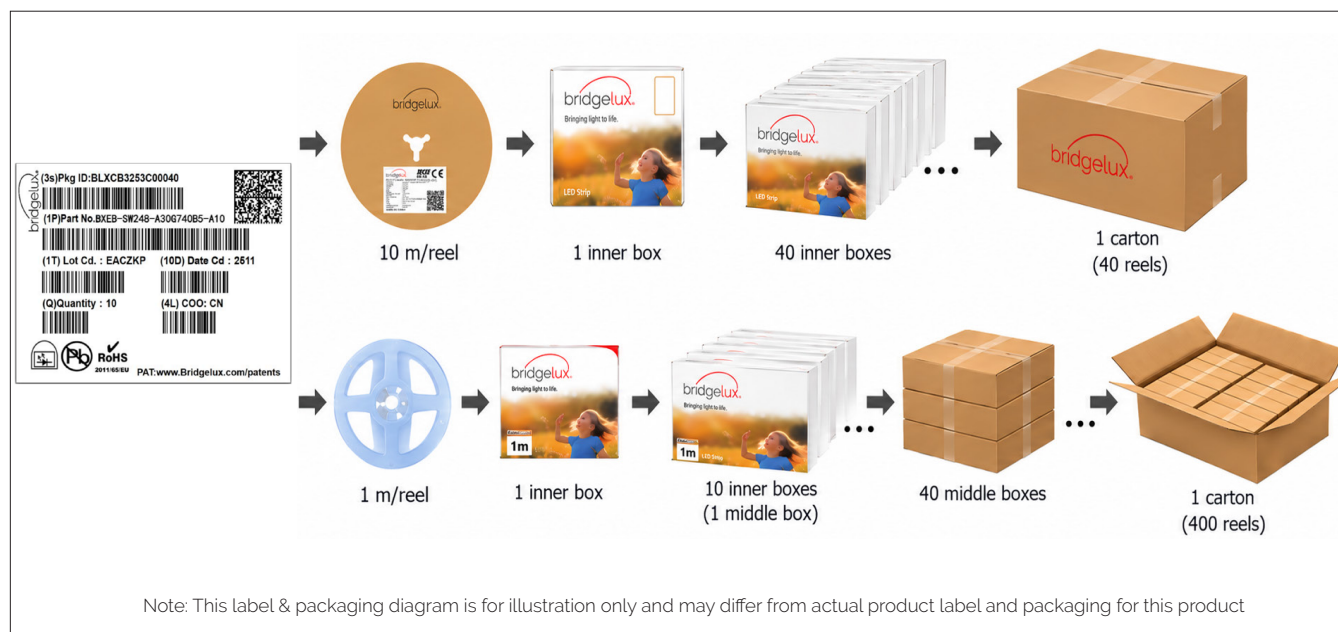


Table 5: Packaging Structure

Parameter	BXST-Bxx0x-xxxxx3xxCxx-A10 / -A05	BXST-Bxx0x-xxxxx3xxCxx-A01
Reel Quantity	40 Reels per Carton	400 Reels per Carton
Box Quantity	40 Inner Boxes per Carton	40 Middle Boxes per Carton
Carton Dimension	370 mm x 330 mm x 195 mm (L x W x H)	420 mm x 310 mm x 350 mm (L x W x H)

Figure 12: Product Labeling

Bridgelux ECO LED Strip modules contain a label on the front to help with product identification. In addition to the product identification markings, Bridgelux ECO LED Strip modules also contain markings for internal Bridgelux manufacturing use only. The image below shows which markings are for customer use and which ones are for Bridgelux internal use only. The Bridgelux internal manufacturing markings are subject to change without notice, however these will not impact the form, function or performance of the module.



Customer Use- 2D Barcode
Scannable barcode provides product part number and other Bridgelux internal production information.

Design Resources

Application Notes

ECO LED Strip are intended for use in dry, indoor applications. Bridgelux has developed a comprehensive set of application notes and design resources to assist customers in successfully designing with the product family of ECO LED Strip products. For a list of resources under development, visit www.bridgelux.com.

Optical Source Models

Optical source models and ray set files are available for all Bridgelux products. For a list of available formats, visit www.bridgelux.com.

3D CAD Models

Three dimensional CAD models depicting the product outline of all Bridgelux ECO LED Strip are available in both IGS and STEP formats. Please contact your Bridgelux sales representative for assistance.

LM80

Please contact your Bridgelux sales representative for more information.

Precautions

CAUTION: CHEMICAL EXPOSURE HAZARD

Exposure to some chemicals commonly used in luminaire manufacturing and assembly can cause damage to the ECO LED Strip. Please consult Bridgelux Application Note for additional information.

CAUTION: EYE SAFETY

The Bridgelux ECO LED Strip emits visible light, that, under certain circumstances, could be harmful to the eye. Proper safeguards must be used.

CAUTION: RISK OF BURN

Do not touch the ECO LED Strip during operation. Allow the ECO LED Strip to cool for a sufficient period of time before handling. The ECO LED Strip may reach elevated temperatures such that could burn skin when touched.

CAUTION

CONTACT WITH LIGHT EMITTING SURFACE (LES)

Avoid any contact with the LES. Do not touch the LES of the ECO LED Strip or apply stress to the LES (yellow phosphor resin area). Contact may cause damage to the ECO LED Strip.

Optics and reflectors must not be mounted in contact with the LES (yellow phosphor resin area). Optical devices may be mounted on the top surface of the ECO LED Strip. Use the mechanical features of the ECO LED Strip housing, edges and/or mounting holes to locate and secure optical devices as needed.

Disclaimers

STANDARD TEST CONDITIONS

Unless otherwise stated, ECO LED Strip testing is performed at the nominal drive current.

MINOR PRODUCT CHANGE POLICY

The rigorous qualification testing on products offered by Bridgelux provides performance assurance. Slight cosmetic changes that do not affect form, fit, or function may occur as Bridgelux continues product optimization.

About Bridgelux: Bridging Light and Life™

At Bridgelux, we help companies, industries and people experience the power and possibility of light. Since 2002, we've designed LED solutions that are high performing, energy efficient, cost effective and easy to integrate. Our focus is on light's impact on human behavior, delivering products that create better environments, experiences and returns—both experiential and financial. And our patented technology drives new platforms for commercial and industrial luminaires.

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