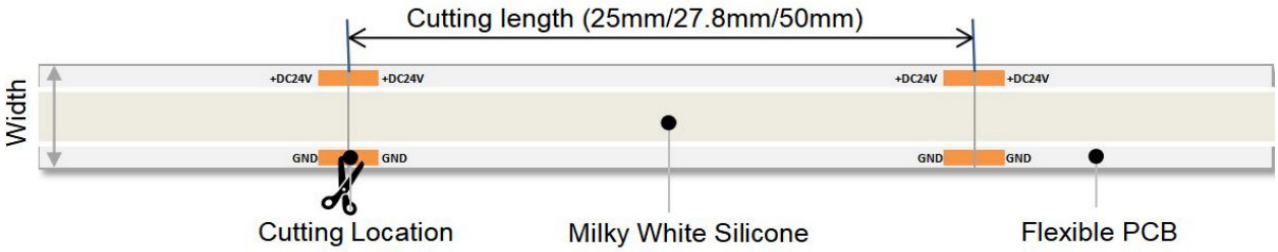
Bridgelux® WCOB Strip

Product Data Sheet DS3500

Product Feature Map

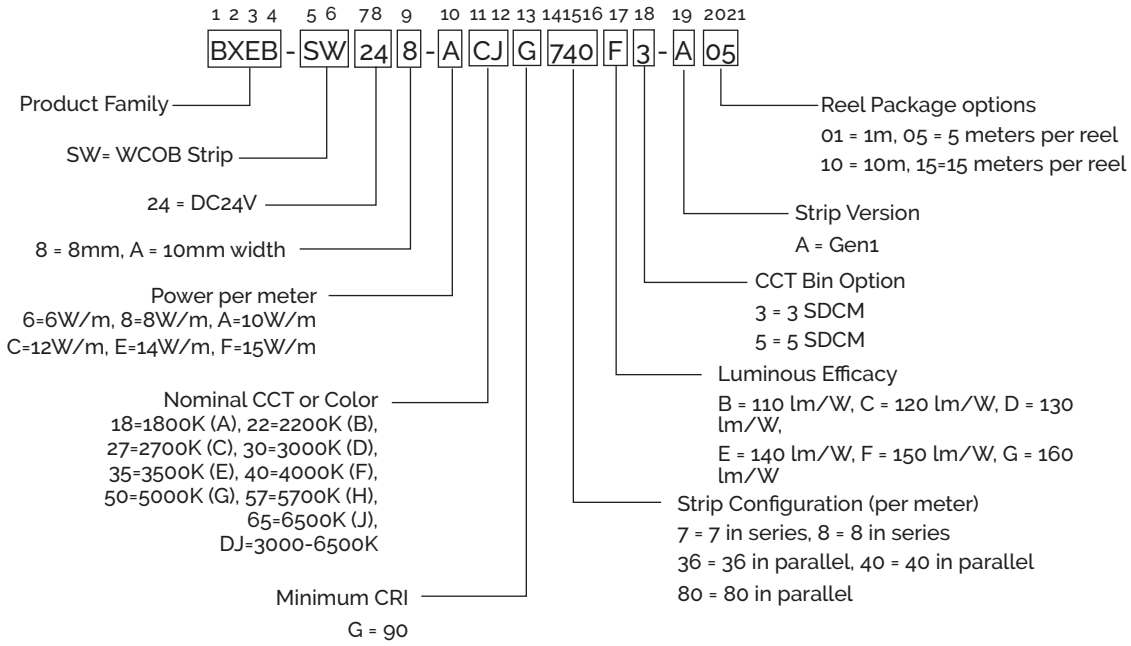
Bridgelux WCOB Strip are fully engineered devices that provide consistent thermal and optical performance on an engineered mechanical platform. The Strip products incorporate several features to simplify design integration and assembly. Please visit www.bridgelux.com for more information on the family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



Designed to comply with global safety standards for creepage and clearance distances

Product Nomenclature

The part number designation for Bridgelux WCOB Strip is explained as follows:



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˚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)
BXEB-SW248-A30G740B3-A01	3000	90	24	10	1100	110	280	25
BXEB-SW248-A40G740B3-A01	4000			10	1100	110	280	25
BXEB-SW248-A65G740C3-A01	6500			10	1200	120	280	25
BXEB-SW24A-E27G836E3-A01	2700			14	1960	140	288	27.8
BXEB-SW24A-E30G836E3-A01	3000			14	1960	140	288	27.8
BXEB-SW24A-E40G836E3-A01	4000			14	1960	140	288	27.8
BXEB-SW24A-E60G836E3-A01	6000			14	1960	140	288	27.8
BXEB-SW24A-ADJG780B3-A01	3000+6500			10	1100	110	560	25

Notes for Table 1:

1. Nominal CCT as defined by ANSI C78.377-2011.
2. Listed CRIs are minimum values and include test tolerance.
3. Products tested under pulsed condition (10ms pulse width) at nominal drive current where T_j (junction temperature) = T_c (case temperature) = 25˚C.
4. Typical performance values are provided as a reference only and are not a guarantee of performance.
5. Bridgelux maintains a ±7.5% tolerance on flux measurements

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	
	BXEB- SW24x-AxxG740Bx-Axx	BXEB- SW24x- ExxG836Ex-Axx
Maximum driving voltage (DCV)	32	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 forthe SMDs used in the modules. Contact your Bridgelux sales representativesfor LM-80 report.

Performance Curves

Figure 1: Relative Forward Current vs. Forward Voltage

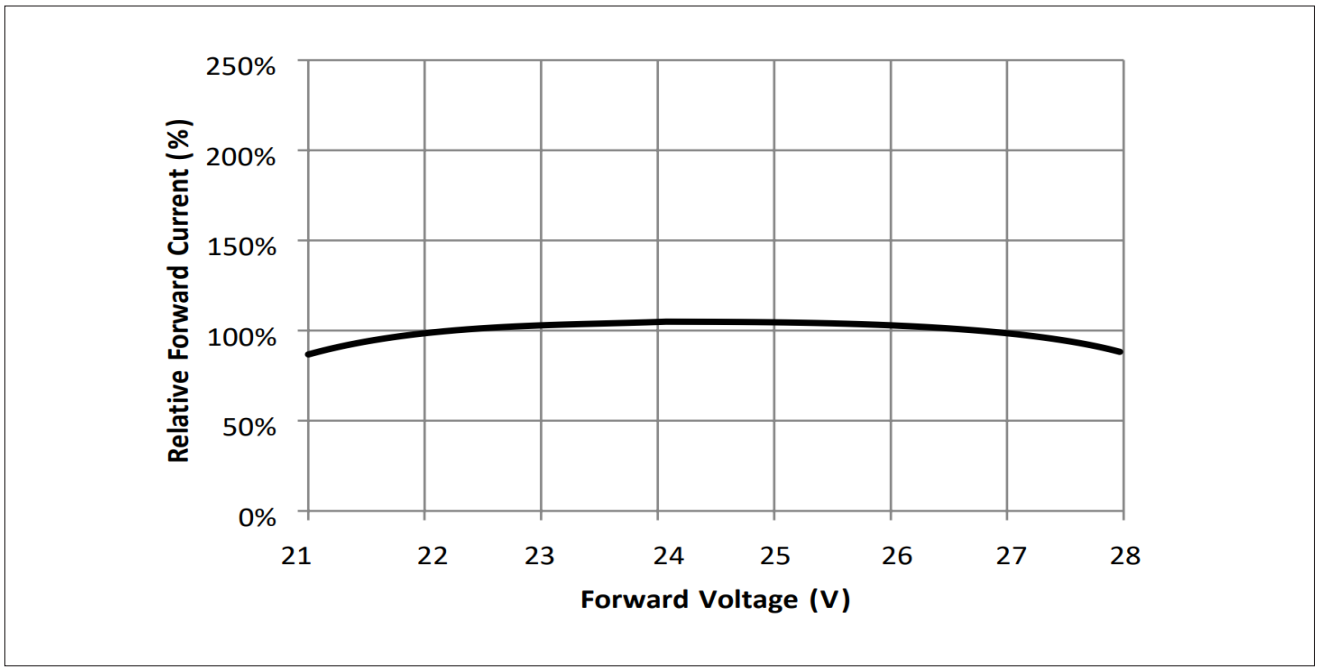
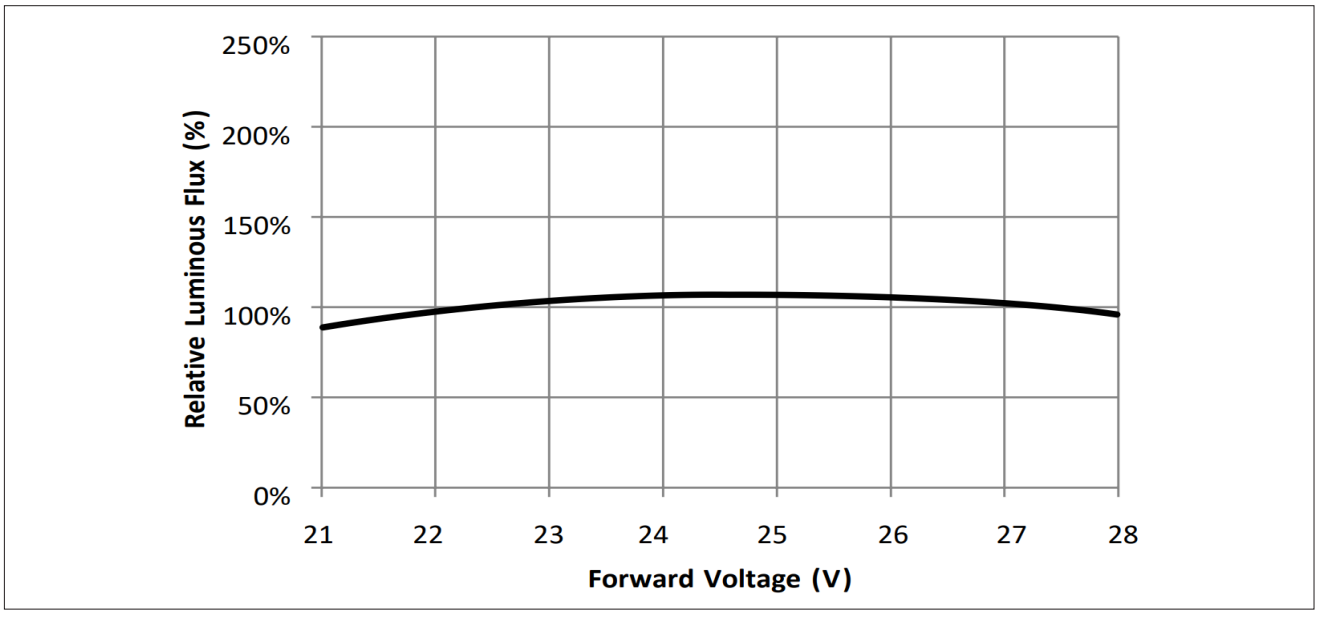


Figure 2: Relative Luminous Flux vs. Forward Voltage (T_c= 25˚C)



Performance Curves

Figure 3: Relative Current vs. Case Temperature

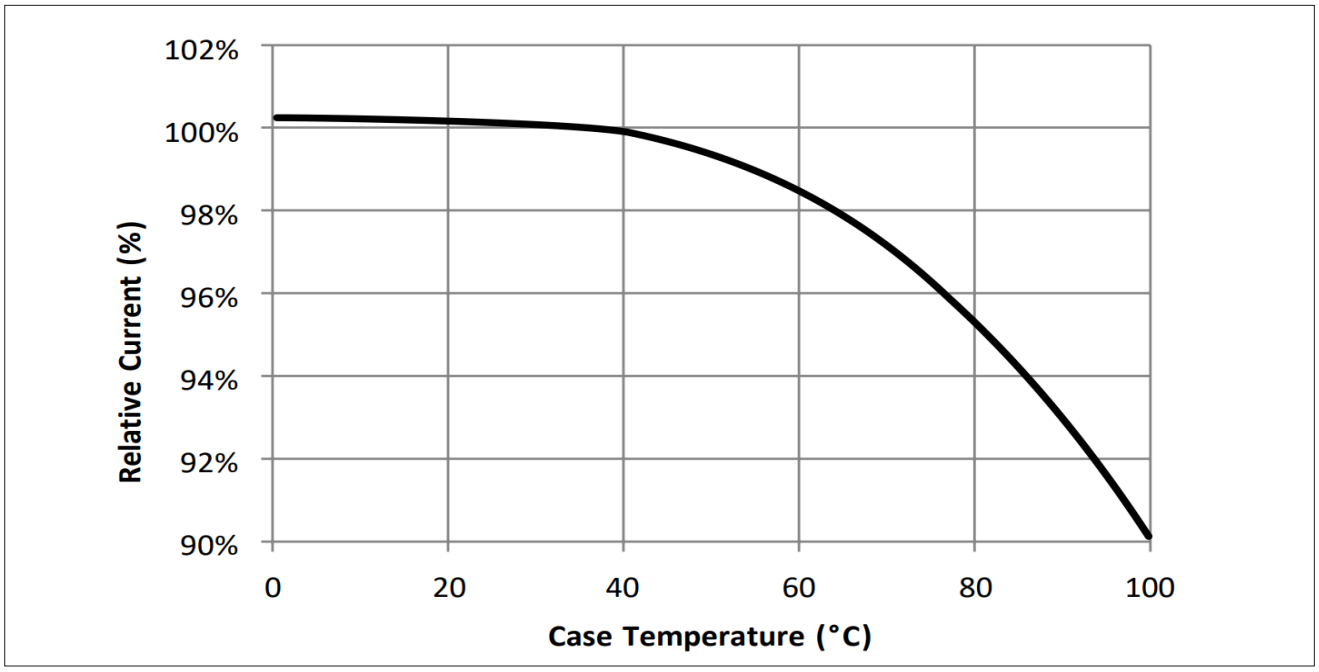
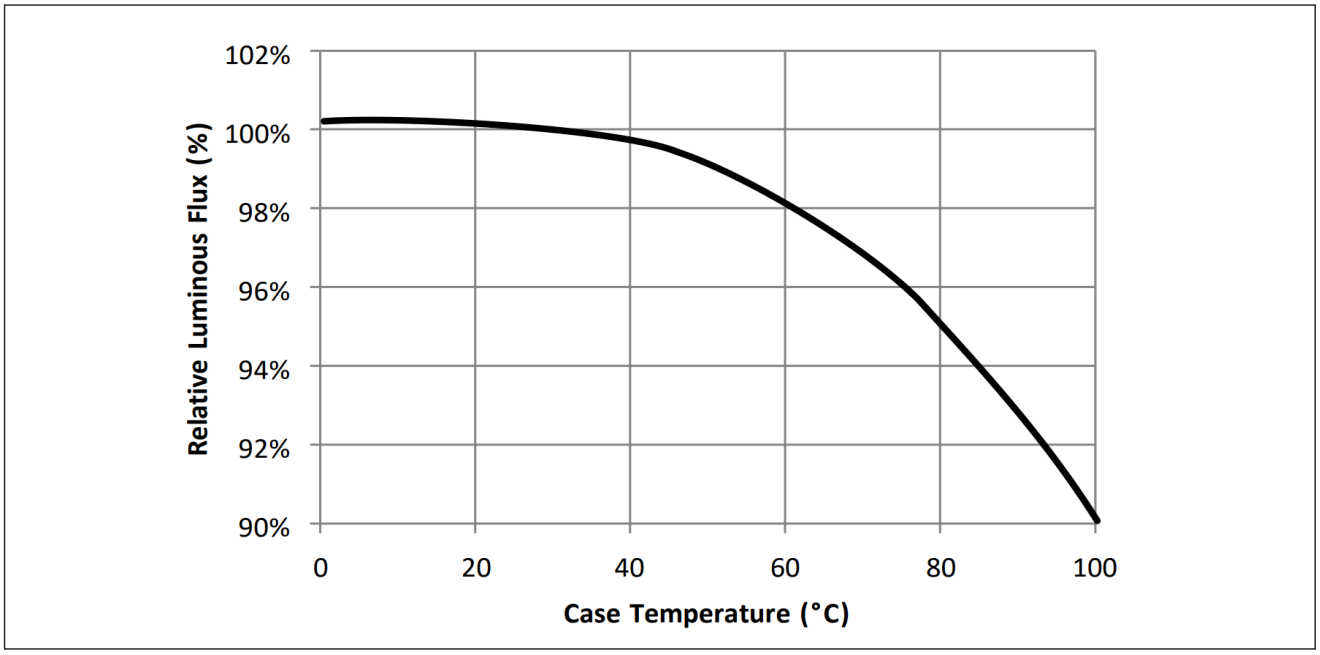


Figure 4: Relative Luminous Flux vs. Case Temperature



Notes for Table 2:

1. For IEC 62717 requirement, please consult your Bridgelux sales representative.
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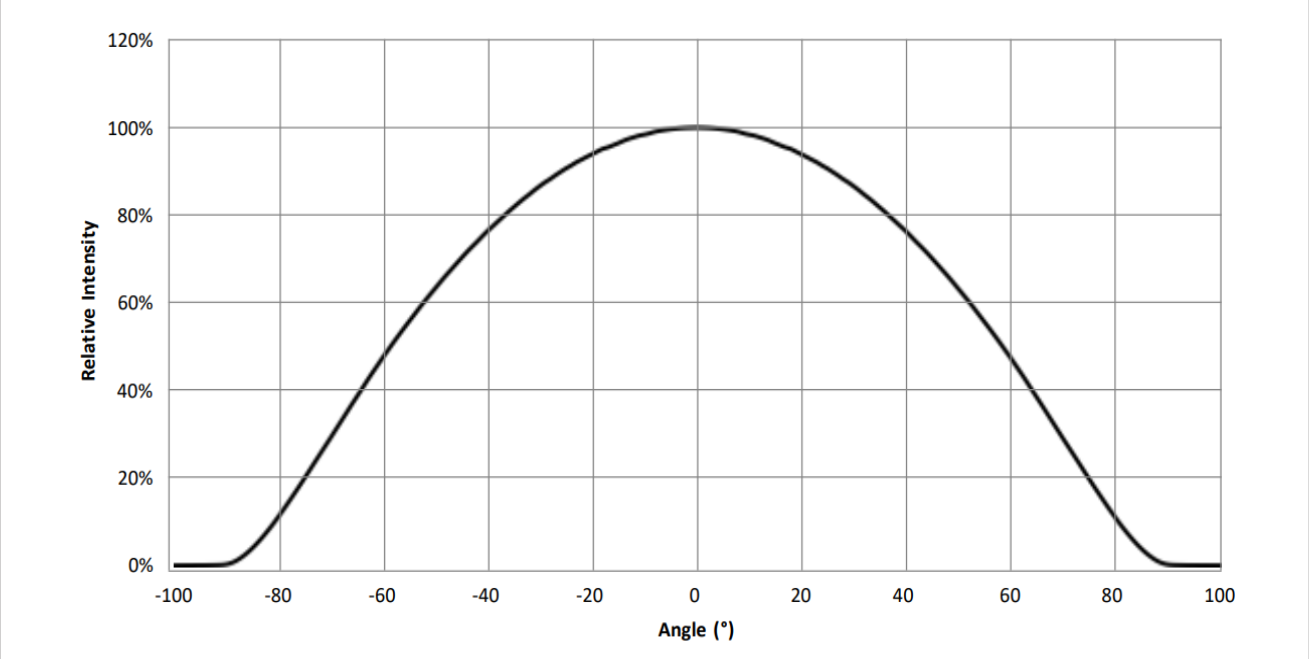
Performance Curves

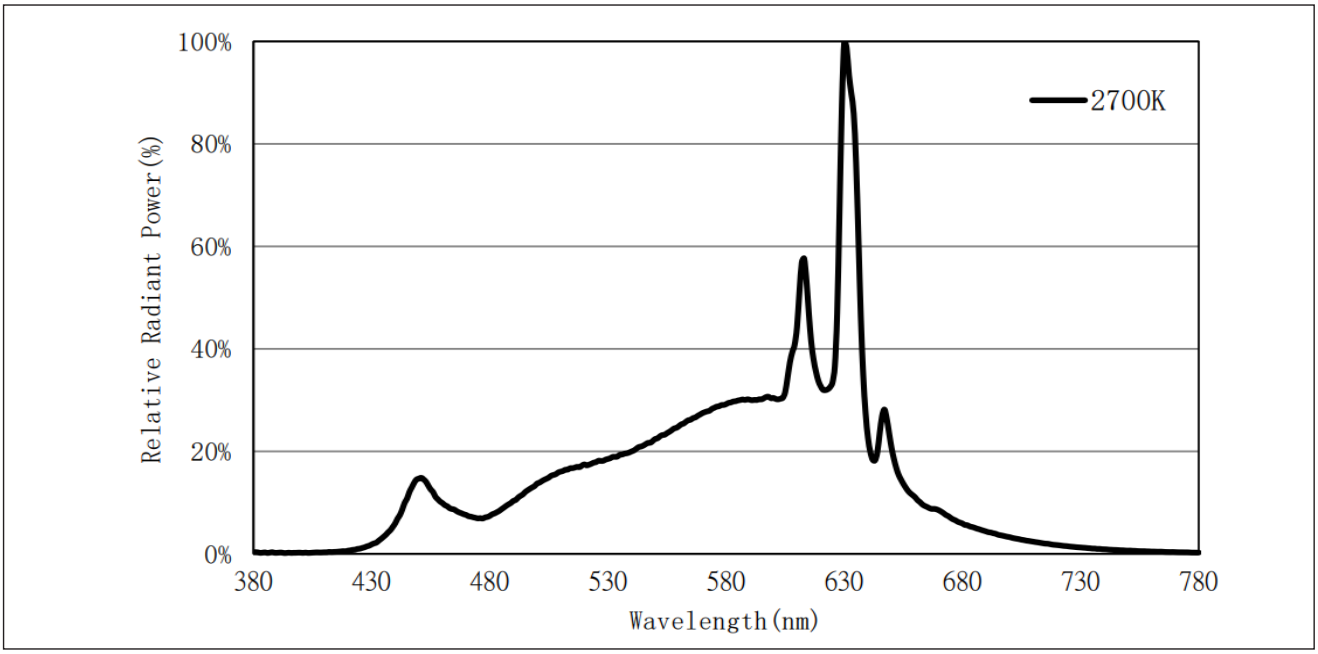
Figure 5: Typical Spatial Radiation Pattern



Note for Figure 5:

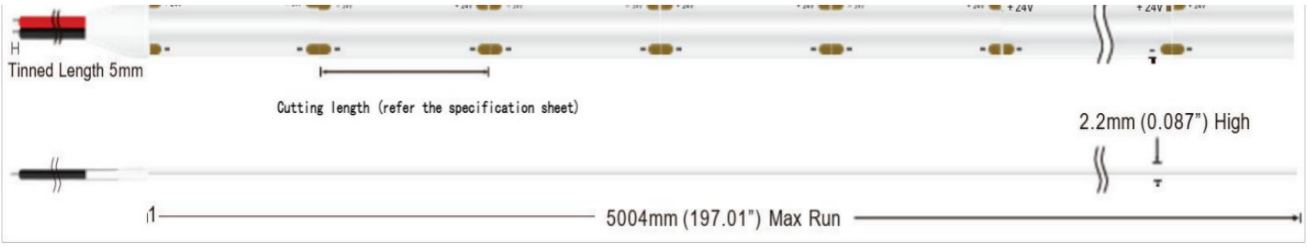
1. Typical viewing angle is 120° .
2. The viewing angle is defined as the off axis angle from the centerline where Iv is ½ of the peak value.

Figure 6: Typical Color Spectra, 90 CRI



Mechanical Dimensions

Figure 7: Drawing Overview for WCOB Strip



Note for Figure 7:

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	BXEB-SW24A-ExxG836E3-A05	BXEB-SW248-AxxG740B3-A10
Linear length per reel	5,000 mm	10,000 mm
Linear width	10 mm	8 mm
Overall thickness	2.5 mm +/-0.3	
PCB thickness	0.15 mm	

Note for Table 3:

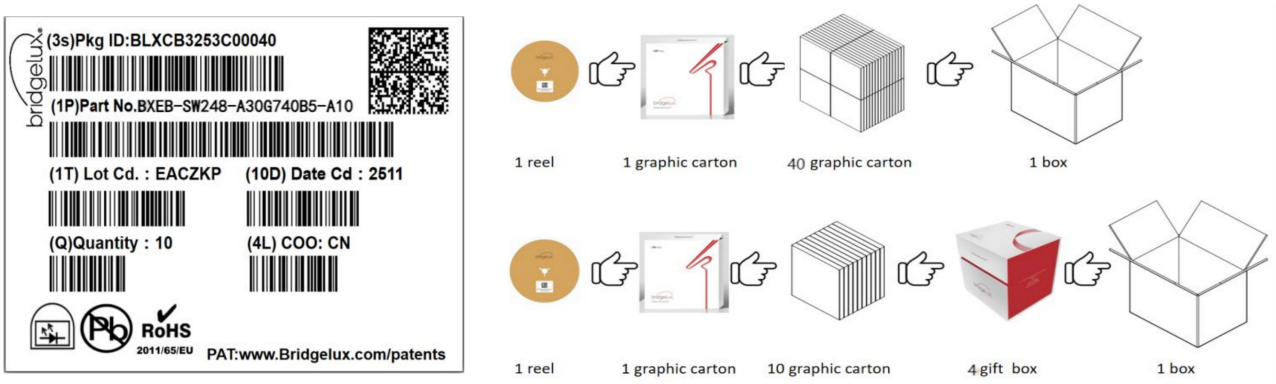
1. The table above lists the standard reel lengths.Additional lengths may be available upon request, please consult your Bridgelux sales representative.

Table 4: Reel Package Option

Part Number	Strip Length Per Reel Package
BXEB-SW248-AxxG740B3-A01	1 meter
BXEB-SW24A-ExxG836E3-A01	1 meter
BXEB-SW248-AxxG740B3-A05	5 meters
BXEB-SW24A-ExxG836E3-A05	5 meters
BXEB-SW248-AxxG740B3-A10	10 meters

Packaging and Labeling

Figure 8: Strip Series Packaging and Labeling



Note: This label & packaging diagram is for illustration only and may differ from actual product label and packaging for this product

Table 5: Packaging Structure

Box Parameter	BXEB-SW248-AxxG740B3-A05	BXEB-SW248-AxxG740B3-A10	BXEB-SW24A-AxxG836B3-A05
Quantity	40 Reels		
Dimension	35cm x 24 cm x 35 cm (L*W*H)		
Box Parameter	**BXEB-SW248-AxxG740B3-A05**	**BXEB-SW248-AxxG740B3-A10**	**BXEB-SW24A-AxxG836B3-A05**
Quantity	4 Gift Box (40 reels)		
Dimension	38 cm × 35 cm × 37 cm (L × W × H)		

Figure 9: Product Labeling

Bridgelux WCOB Strip modules contain a label on the front to help with product identification. In addition to the product identification markings, Bridgelux WCOB 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

WCOB 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 WCOB 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 WCOB 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 WCOB Strip. Please consult Bridgelux Application Note for additional information.

CAUTION: EYE SAFETY

The Bridgelux WCOB 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 WCOB Strip during operation. Allow the WCOB Strip to cool for a sufficient period of time before handling. The WCOB 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 WCOB Strip or apply stress to the LES (yellow phosphor resin area). Contact may cause damage to the WCOB 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 WCOB Strip. Use the mechanical features of the WCOB Strip housing, edges and/or mounting holes to locate and secure optical devices as needed.

Disclaimers

STANDARD TEST CONDITIONS

Unless otherwise stated, WCOB 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.

For more information about the company, please visit
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