Bridgelux® F90™ Soft Strip Series

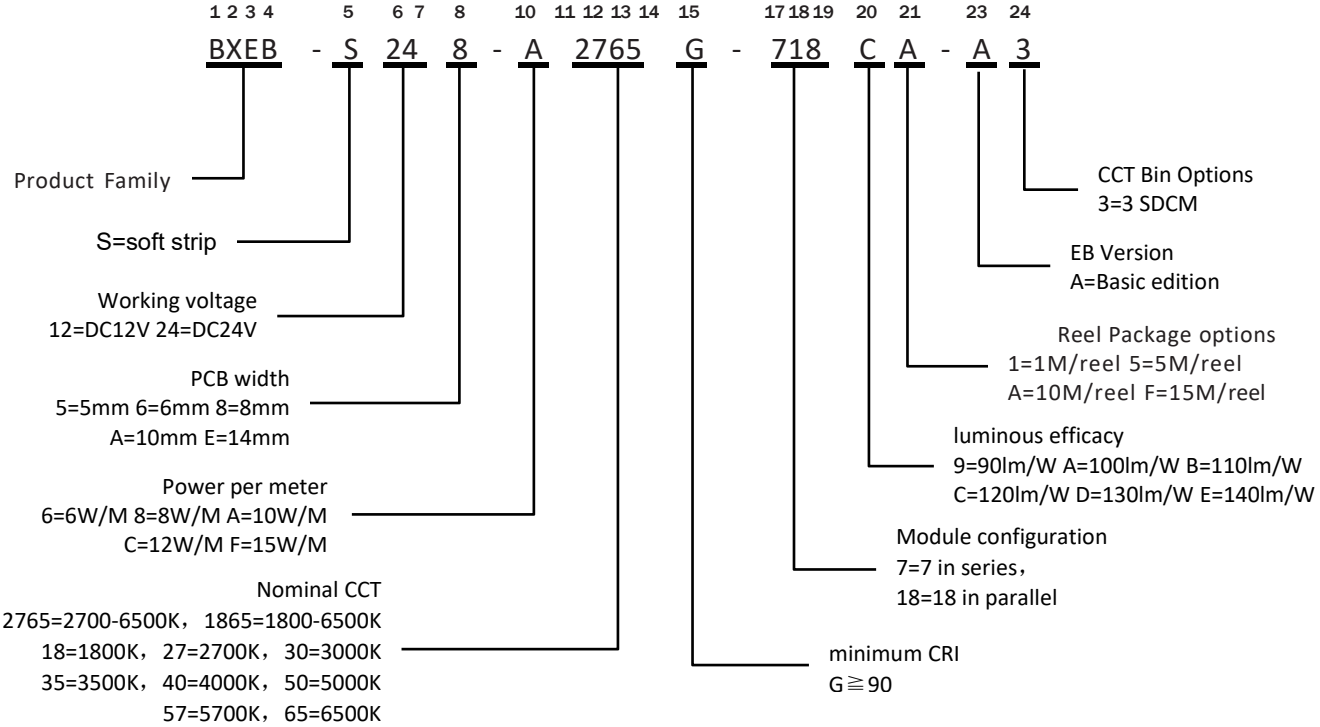
Product Data Sheet DS587

Product Feature Map

Bridgelux F90™ Soft Strip Series 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 contact agents for more information on the F90 Series family of products.

Product Nomenclature

The part number designation for Bridgelux F90™ Soft Strip is explained as follows:



Product Selection Guide

The following product configurations are available:

Table 1: Selection Guide, F90™ Soft Strip 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] (DCV)	Typical Power (W)	Typical Flux[3,4] (lm)	Typical Efficacy (lm/W)	LED Quantity (EA/M)	Cut Length (mm)
BXEB-S245-A27G-718E1-A3	2700	>90	24	10	1400	140	126	55.5
BXEB-S245-A30G-718E1-A3	3000	>90	24	10	1400	140	126	55.5
BXEB-S245-A35G-718E1-A3	3500	>90	24	10	1400	140	126	55.5
BXEB-S245-A40G-718E1-A3	4000	>90	24	10	1400	140	126	55.5
BXEB-S245-A50G-718D1-A3	5000	>90	24	10	1370	137	126	55.5
BXEB-S245-A65G-718D1-A3	6500	>90	24	10	1350	135	126	55.5
BXEB-S248-A27G-718E1-A3	2700	>90	24	10	1400	140	126	55.5
BXEB-S248-A30G-718E1-A3	3000	>90	24	10	1400	140	126	55.5
BXEB-S248-A35G-718E1-A3	3500	>90	24	10	1400	140	126	55.5
BXEB-S248-A40G-718E1-A3	4000	>90	24	10	1400	140	126	55.5
BXEB-S248-A50G-718D1-A3	5000	>90	24	10	1370	137	126	55.5
BXEB-S248-A57G-718D1-A3	5700	>90	24	10	1350	135	126	55.5
BXEB-S248-A65G-718D1-A3	6500	>90	24	10	1350	135	126	55.5
BXEB-S246-A2765G-632C1-A3	2700-6500	>90	24	10	1200	120	192	62.5
BXEB-S248-A2765G-632C1-A3	2700-6500	>90	24	10	1200	120	192	62.5
BXEB-S248-F27G-620B1-A3	2700	>90	24	15	1650	110	120	50
BXEB-S248-F30G-620B1-A3	3000	>90	24	15	1650	110	120	50
BXEB-S248-F35G-620B1-A3	3500	>90	24	15	1650	110	120	50
BXEB-S248-F40G-620B1-A3	4000	>90	24	15	1650	110	120	50
BXEB-S248-F50G-620A1-A3	5000	>90	24	15	1575	105	120	50
BXEB-S248-F57G-620A1-A3	5700	>90	24	15	1575	105	120	50
BXEB-S248-F65G-620A1-A3	6500	>90	24	15	1575	105	120	50
BXEB-S248-F2765G-628A1-A3	2700-6500	>90	24	15	1500	100	168	71.4

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)	85°C	
Soldering Temperature	350°C or lower for a maximum of 5 seconds	
	BXEB-S248-AxxG-718E1-A3 BXEB-S248-AxxxxG-632C1-A3	BXEB-S248-FxxG-620B1-A3 BXEB-S248-FxxxxG-628A1-A3
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 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 for All Lengths, T_c=25°C

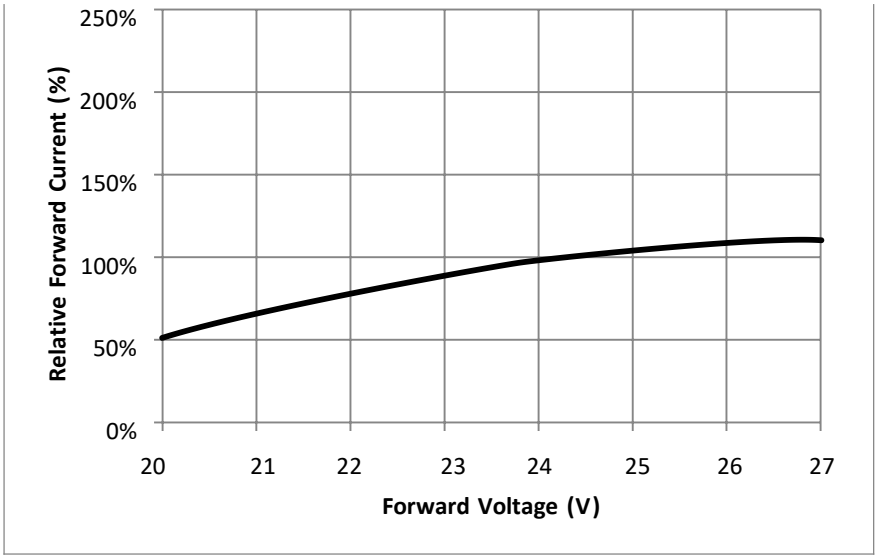
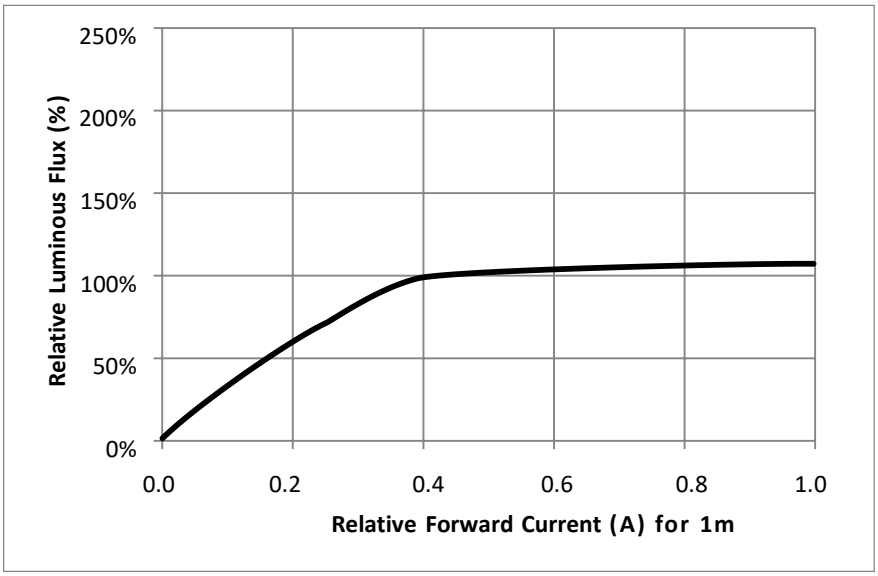


Figure 2: Relative Luminous Flux vs. Relative Forward Current for All Lengths, T_c=25°C



Performance Curves

Figure 3: Relative Voltage vs. Case Temperature for All Lengths, T_c=25°C

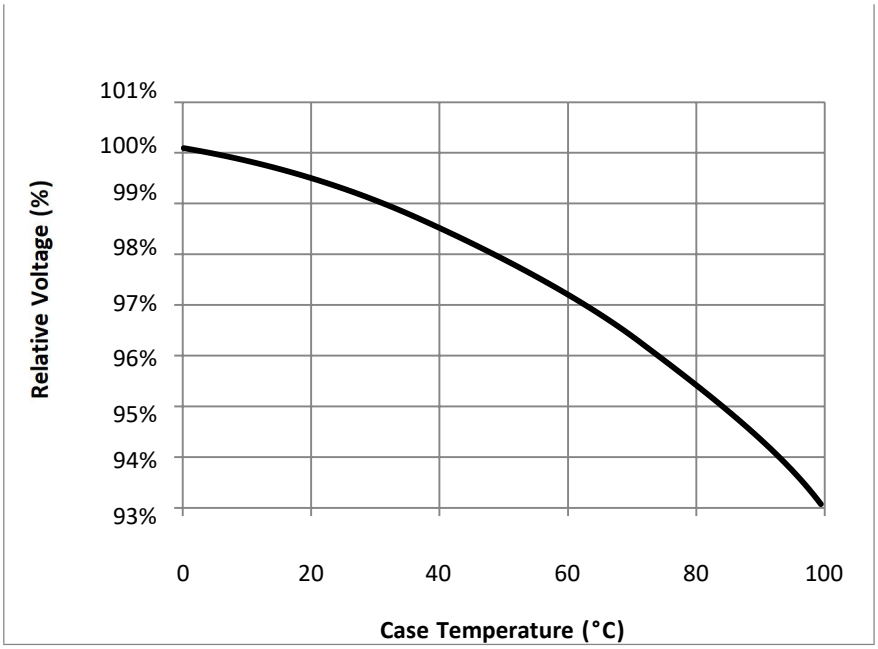
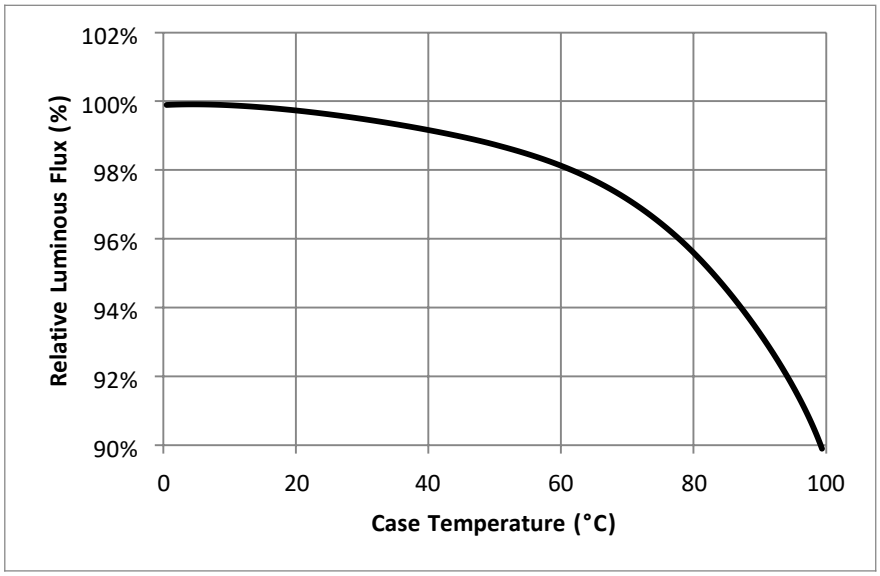
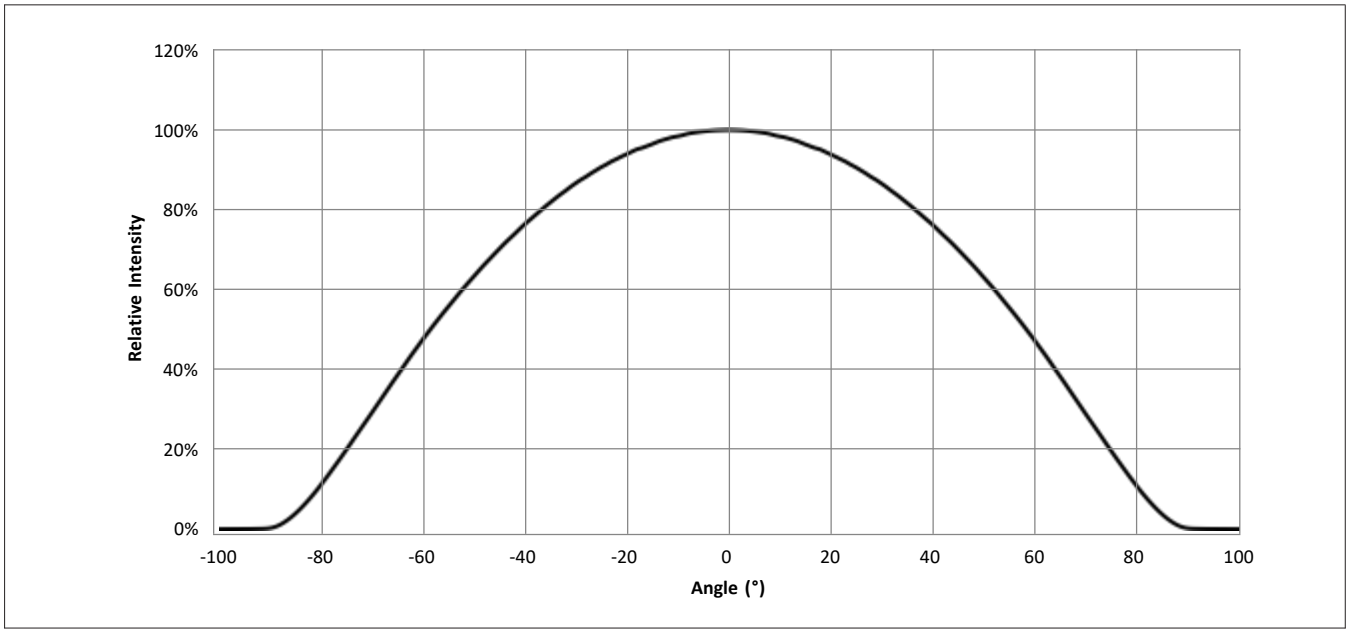


Figure 4: Relative Luminous Flux vs. Case Temperature for All Lengths, T_c=25°C



Typical Radiation Pattern

Figure 5: Typical Spatial Radiation Pattern

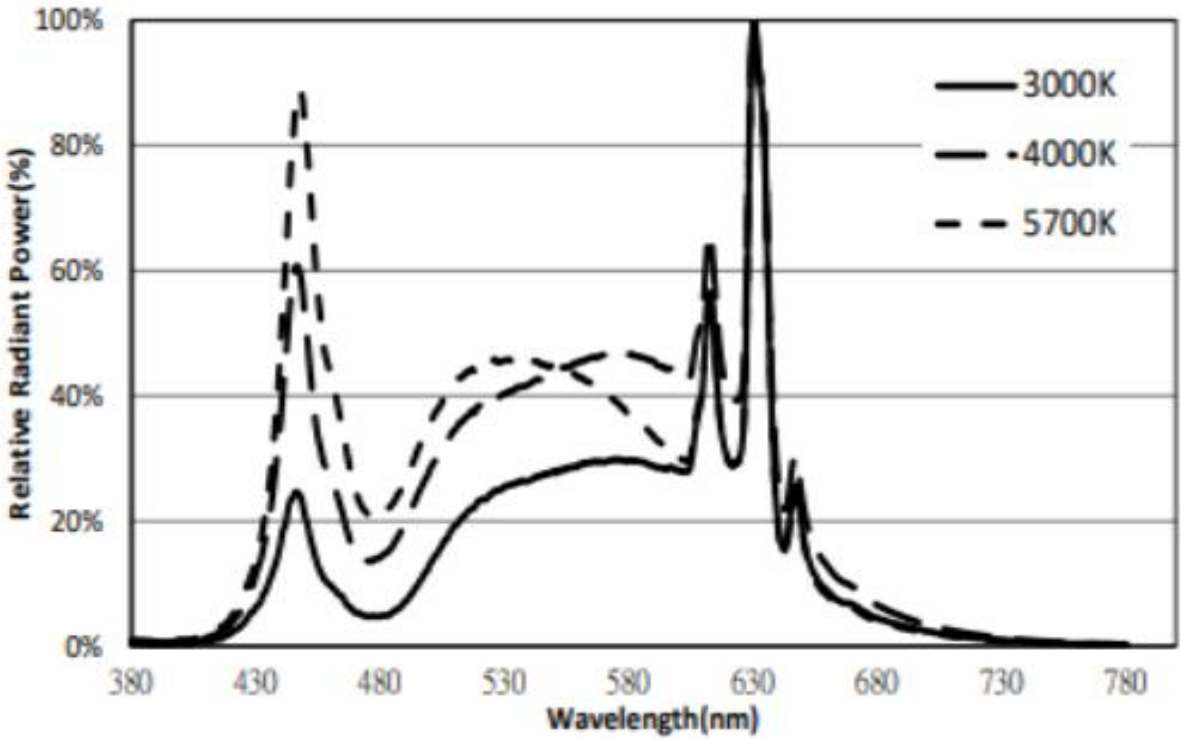


Notes for Figure 5:

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

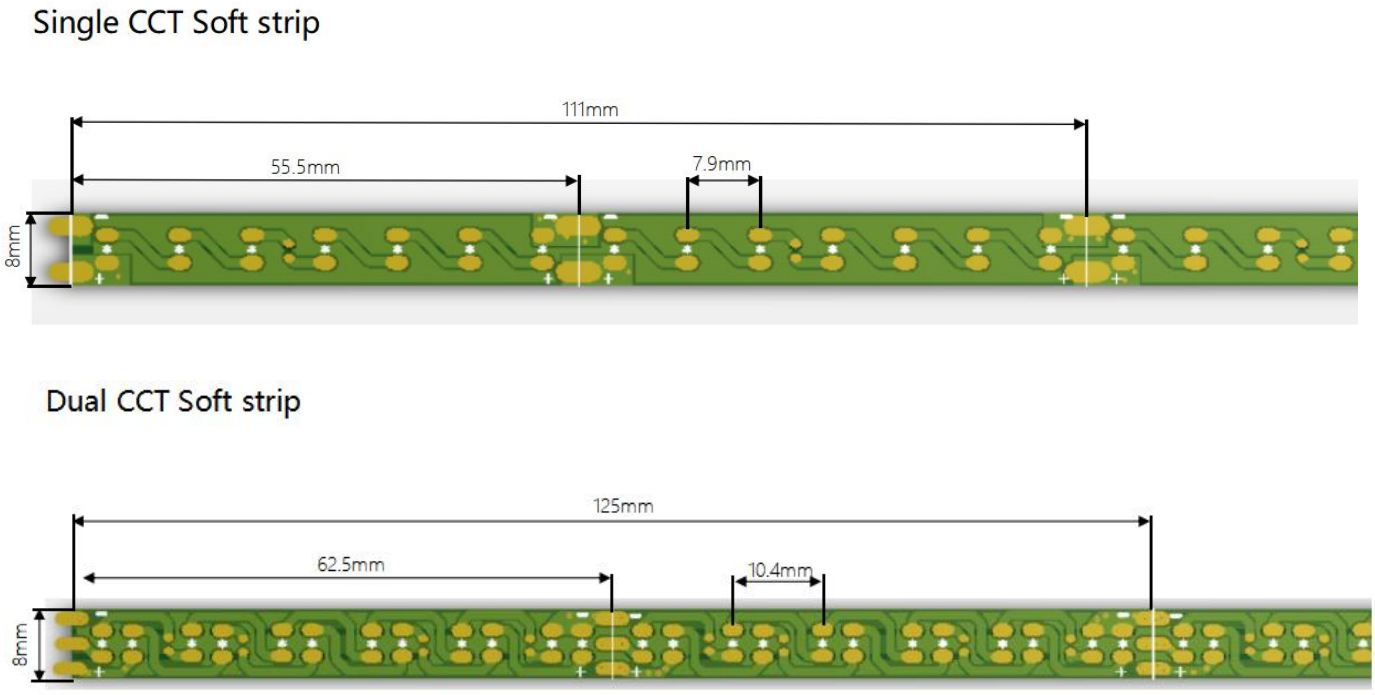
Typical Color Spectrum

Figure 6: **Typical Color Spectra, 90 CRI**



Mechanical Dimensions

Figure 7: Drawing Overview for F90™ Soft Strip Light



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

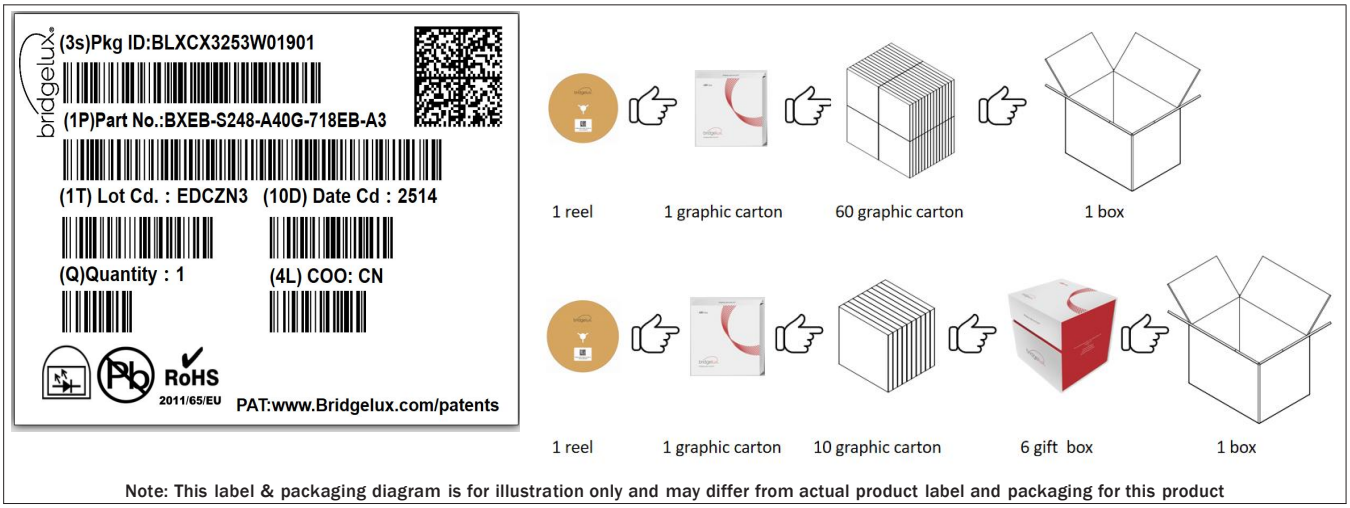
Parameter	BXEB-S248-xxxxxG-xxxx**A**-A3	BXEB-S248-xxxxxG-xxxx**B**-A3
Linear length per reel	5,000mm options	10,000mm options
Linear width	5/6/8 mm	
Overall thickness	1.35 mm	
PCB thickness	0.55 mm	

Table 4: Reel Package Option

Part Number	Strip Light Length Per Reel Package
BXEB-S248-xxxG-xxxx**1**-A3	1 meter
BXEB-S248-xxxxxG-xxxx**1**-A3	1 meter
BXEB-S248-xxxG-xxxx**A**-A3	5 meters
BXEB-S248-xxxxxG-xxxx**A**-A3	5 meters
BXEB-S248-xxxG-xxxx**B**-A3	10 meters
BXEB-S248-xxxxxG-xxxx**B**-A3	10 meters

Packaging and Labeling

Figure 8: F90™ Soft 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-S248-AxxG-718Ex-A3	BXEB-S248-AxxxxG-632Cx-A3	BXEB-S248-FxxxxG-620Bx-A3	BXEB-S248-FxxxxG-628Ax-A3
Quantity	60			
Dimension	43cm x 35cm x 19cm（L*W*H）			
Gift Box Parameter	BXEB-S248-AxxG-718Ex-A3	BXEB-S248-AxxxxG-632Cx-A3	BXEB-S248-FxxxxG-620Bx-A3	BXEB-S248-FxxxxG-628Ax-A3
Quantity	60			
Dimension	51cm x 39cm x 20cm（L*W*H）			

Figure 9: Product Labeling

Bridgelux F90™ Series Soft Strip modules contain a label on the front to help with product identification. In addition to the product identification markings, Bridgelux F90™ Series Soft 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, fit or performance of the module.

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

Design Resources

Application Notes
Bridgelux has developed a comprehensive set of application notes and design resources to assist customers in successfully designing with the EB Series product family. For a list of resources under development, visit www.bridgelux.com.

Optical Source Model
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 Vesta Series RGBW 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 F90™ Soft Strip. Please consult Bridgelux Application Note for additional information.

CAUTION: EYE SAFETY
The Bridgelux F90™ Soft 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 F90™ Soft Strip during operation. Allow the F90™ Soft Strip to cool for a sufficient period of time before handling. The F90™ Soft 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 F90™ Soft Strip or apply stress to the LES (yellow phosphor resin area). Contact may cause damage to the F90™ Soft 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 F90™ Soft Strip.

Use the mechanical features of the F90™ Soft Strip housing, edges and/or mounting holes to locate and secure optical devices as needed.

Disclaimers

STANDARD TEST CONDITIONS
Unless otherwise stated, F90™ Soft Strip testing is per- formed at the nominal drive voltage.

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 bridgelux.com
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youtube.com/user/Bridgelux
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46410 Fremont Blvd
Fremont, CA
94538 USA Tel
(925) 583-8400
www.bridgelux.com

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