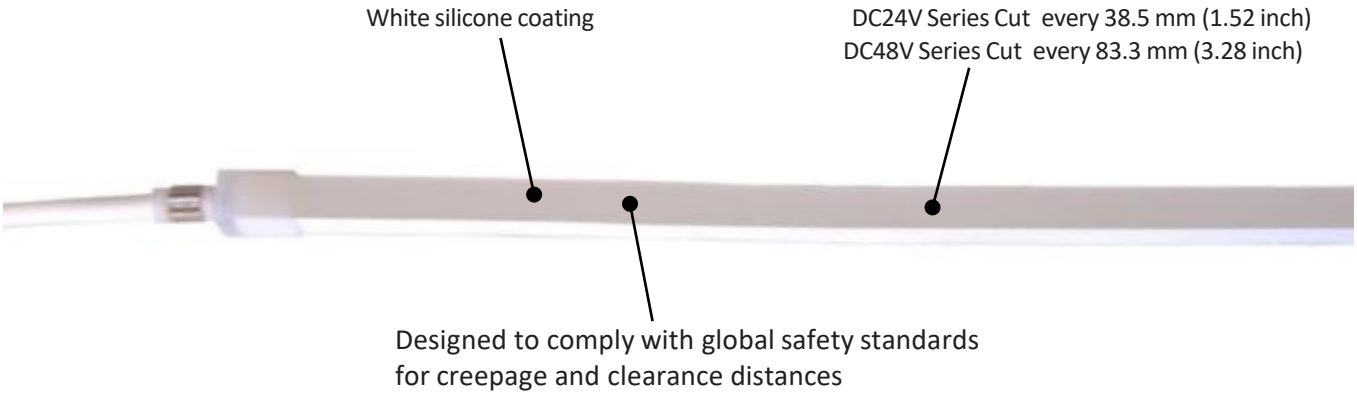
Bridgelux® 3D1212 Neon LED Strip Series

Product Data Sheet DS3506

Product Feature Map

Bridgelux 3D1212 Neon 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 Nomenclature

The part number designation for Bridgelux 3D1212 Neon Flexible is explained as follows:

1 2 3 4		6	7 8	9 10		12 13	14 15	16	17	18 19	20 21 22		24	25 26
BXST	-	P	4 8	C C	-	1 0	3 0	G	5	1 1	C 8 3	-	B	0 2

Product Family
BX=Bridgelux
ST=LED Strip

B=Bare Flex strip
N=Neon LED Strip
P=waterproof LED Strip

Working voltage
24=DC24V, 48=DC48V

PCB width and Product Size
CC=12x12mm,GG=16x16mm
08=8mm, 10=10mm

Power per meter
06=6.5-7.4W/m,10=9.5-10.4W/m
12=11.5-12.4W/m,13=12.5-13.4W/m,

Nominal CCT
CJ=2700-6500K，AJ=1800-6500K
18=1800K(A),22=2200K(B),27=2700K(C)
30=3000K(D),35=3500K(E),40=4000K(F)
50=5000K(G),57=5700K(H),65=6500K(J)

minimum CRI
E≧80,G≧90,H≧95

CCT Bin Options
3=SDCM<3,5=SDCM<5

luminous flux for a 1-meter
06=600LM/m, 11=1100LM/m,
12=1200LM/m,13=1300LM/m,

CUT Size
C39=CUT 38.5mm,
C83=CUT 83.3mm

Packaging Type
A = Industrial packaging.
B = Bridgelux Standard Packaging.
C = Custom packaging

Reel Length
01=1M/reel
05=5M/reel
10=10M/reel

Product Selection Guide

The following product configurations are available:

Table 1: Selection Guide, 3D1212 Neon LED 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] (VDC)	Typical Power (W)	IP Rating	Luminous Flux (LM/m)	PCB Width (mm)	LED Quantity (EA/m)	Cut Length (mm)
BXST-N24CC-1030G511C39-B01	3000	90	24	10	65/67	1100	8	182	38.5
BXST-N24CC-1040G511C39-B01	4000	90	24	10	65/67	1150	8	182	38.5
BXST-N24CC-1065G511C39-B01	6500	90	24	10	65/67	1150	8	182	38.5
BXST-N48CC-1030G512C83-B01	3000	90	48	10	65/67	1250	8	180	83.3
BXST-N48CC-1040G512C83-B01	4000	90	48	10	65/67	1250	8	180	83.3
BXST-N48CC-1065G512C83-B01	6500	90	48	10	65/67	1250	8	180	83.3

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 +65°C
Operating Case Temperature (T_C)	65°C
Soldering Temperature	350°C or lower for a maximum of 5 seconds
	BXST-N24CC-10xxG511C39-Bxx ; BXST-N48CC-10xxG511C39-Bxx
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 for All Lengths, T_c=25°C

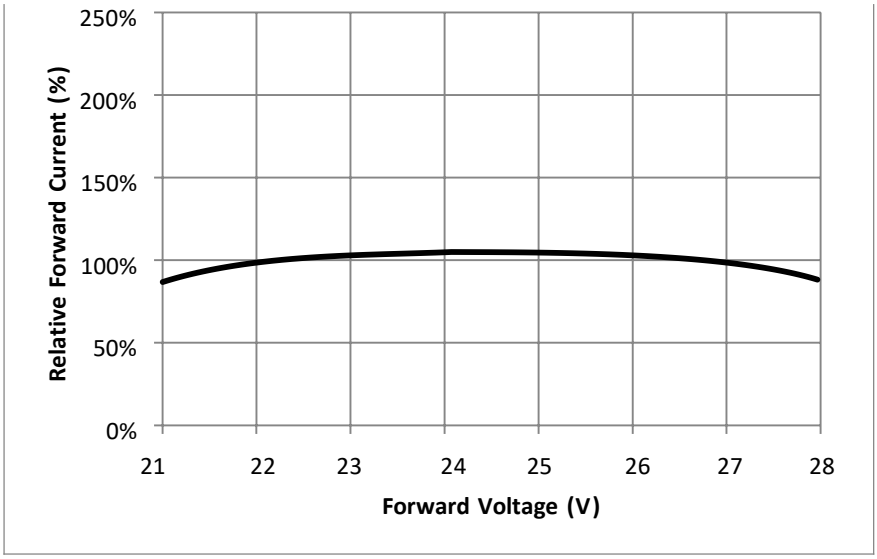
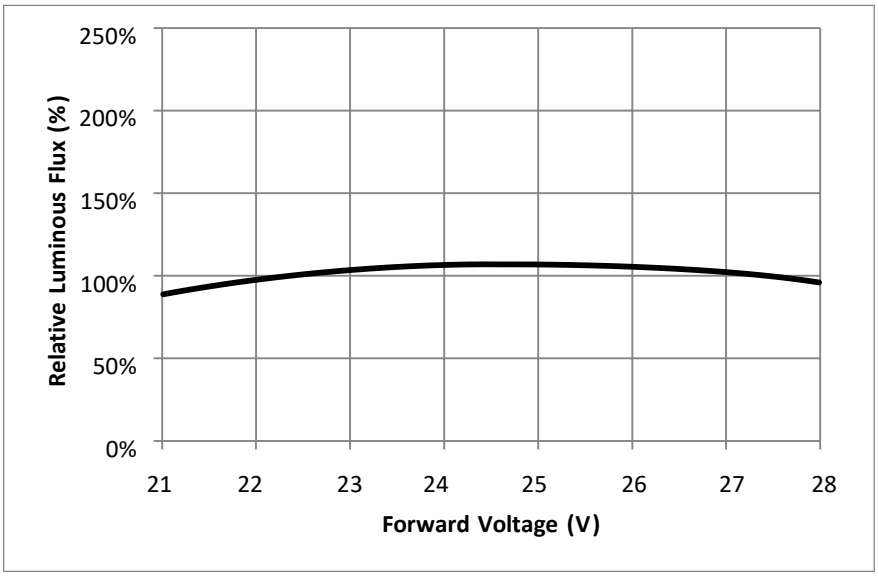


Figure 2: Relative Luminous Flux vs. Forward Voltage for All Lengths, T_c=25°C



Performance Curves

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

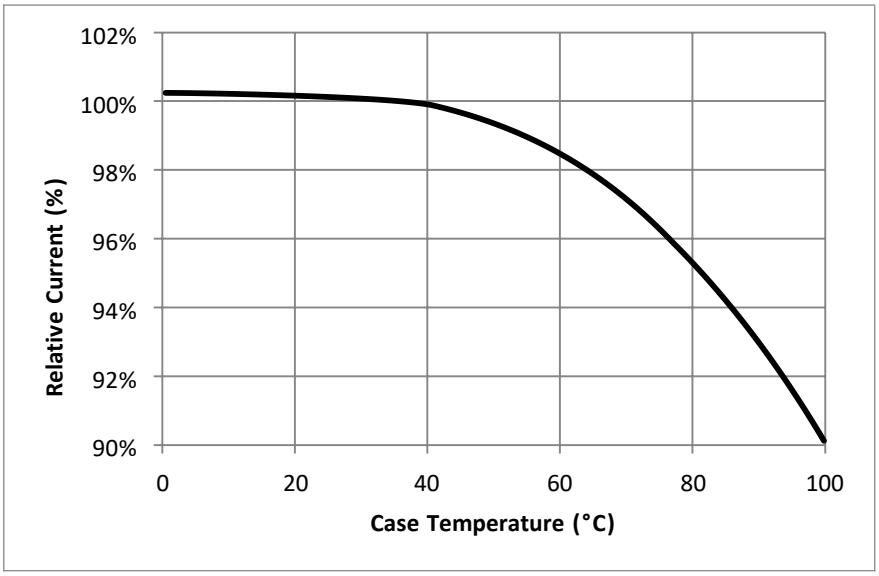
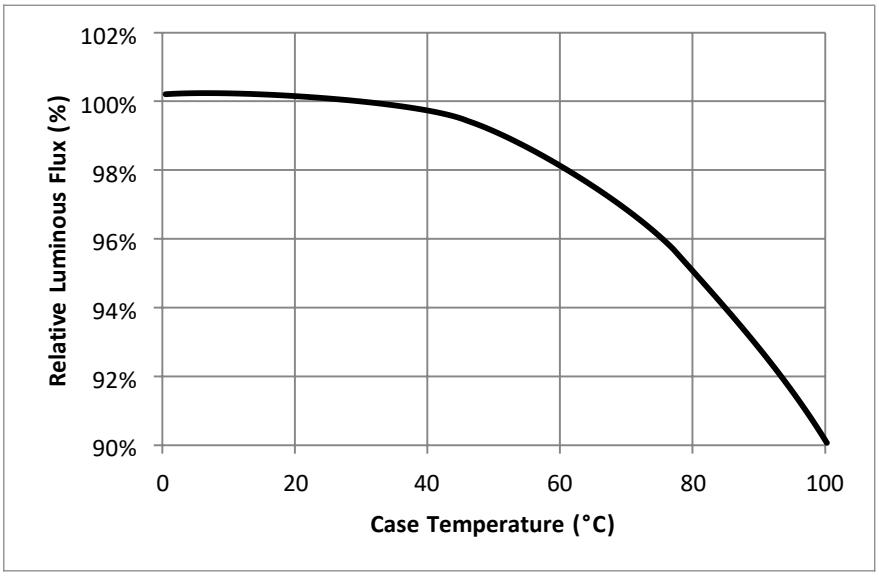
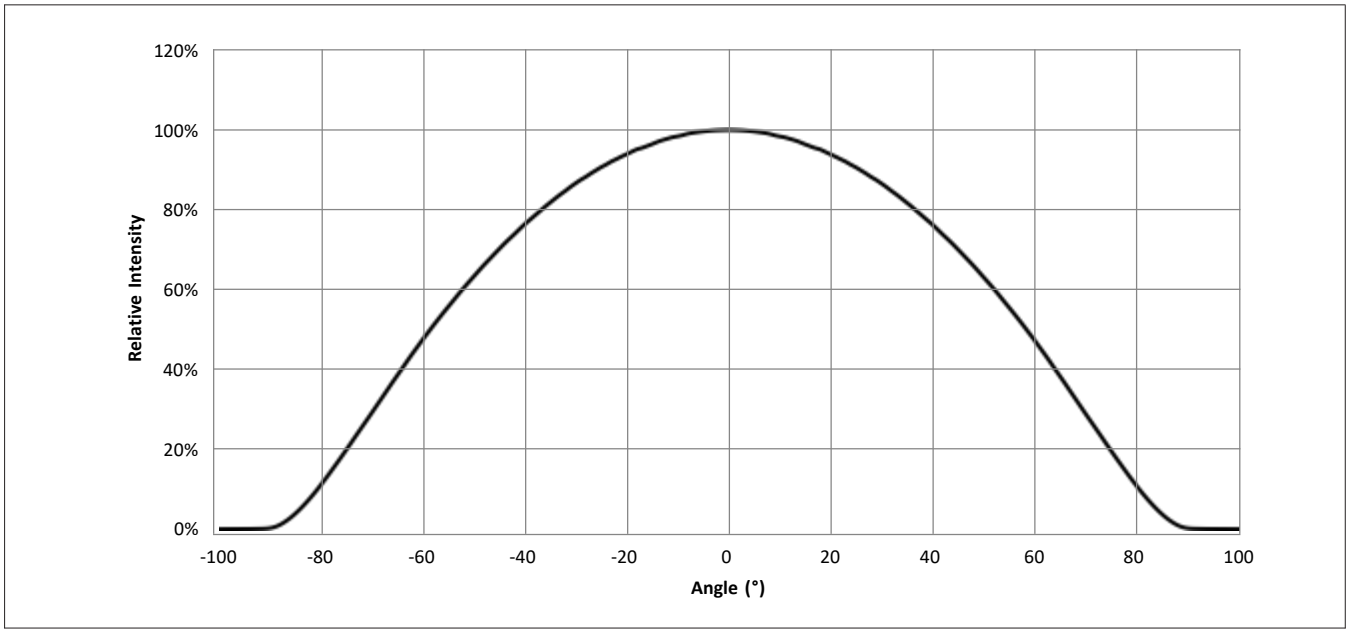


Figure 4: Relative Luminous Flux vs. Case Temperature for All Lengths, T_c=25°C



Typical Radiation Pattern

Figure 5: Typical Spatial Radiation Pattern

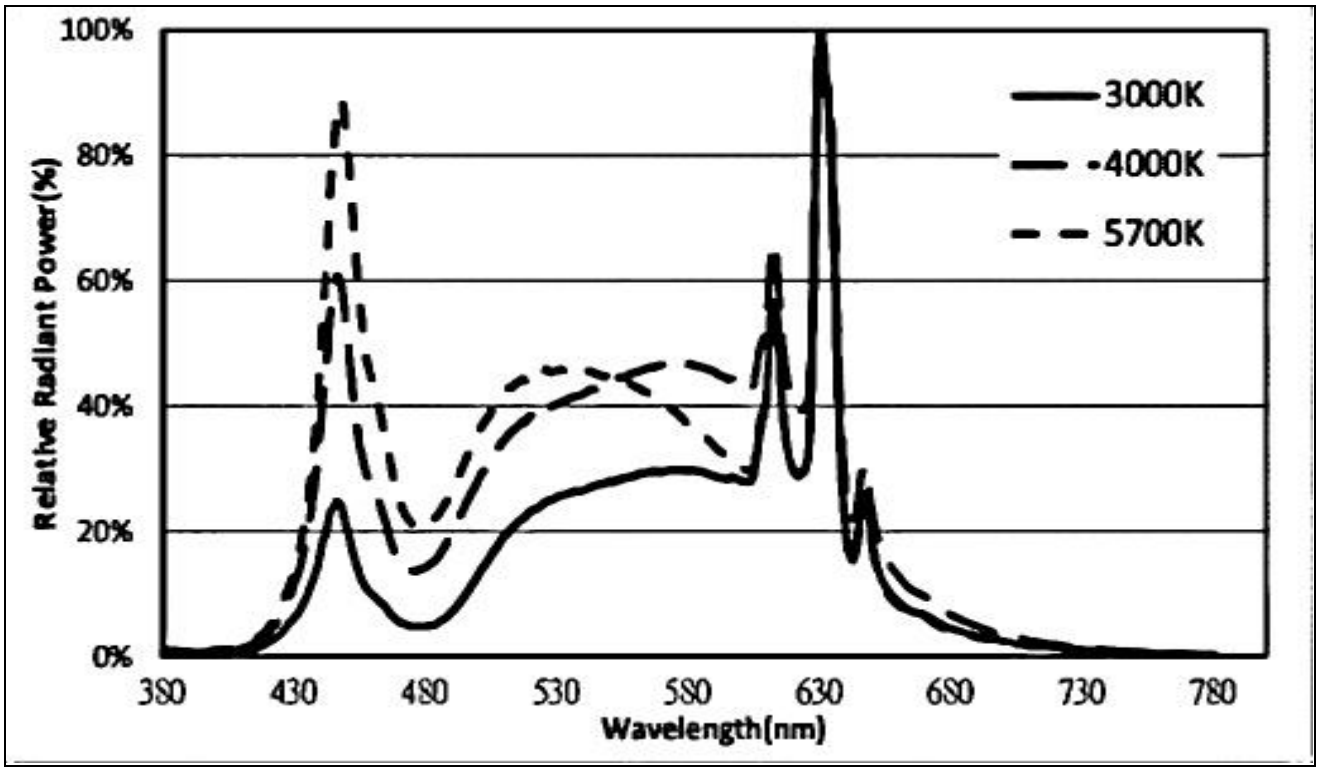


Notes for Figure 5:

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.

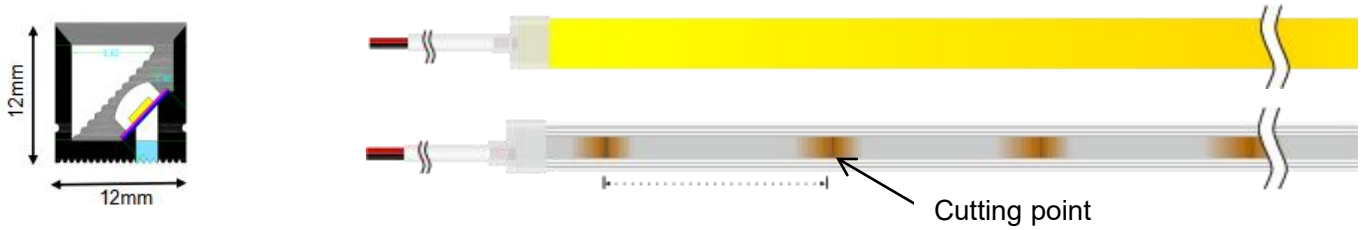
Typical Color Spectrum

Figure 6: Typical Color Spectra, 90 CRI



Mechanical Dimensions

Figure 7: Drawing Overview for 3D1212 Neon LED 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	BXST- N24CC- 10xxG511C39-Bxx	BXST- N48CC- 10xxG511C39-Bxx
Linear length per reel	5M/10M options	5M/10M options
PCB Width	8mm	8mm
LED module Overall thickness	2.5mm+/-0.3	
PCB thickness	0.10 mm	

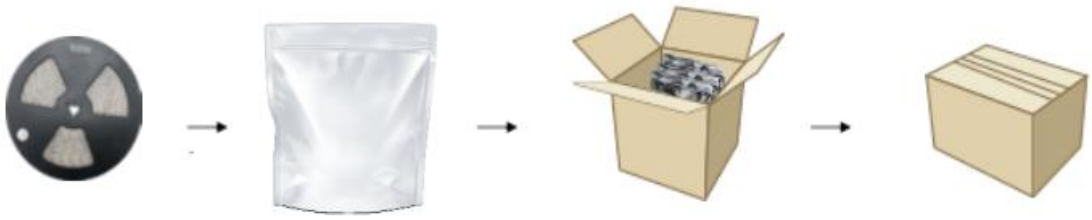
Table 4: Reel Package Option

Part Number	Strip Light Length Per Reel Package
BXST- N24CC- 10xxG511C39-B05	5 meters
BXST- N48CC- 10xxG511C39-B05	5 meters
BXST- N24CC- 10xxG511C39-B10	10 meters
BXST- N48CC- 10xxG511C39-B10	10 meters

Packaging and Labeling

Figure 8: 3D1212 Neon LED Strip Series Packaging and ACCESSORIES SPECIFICATION

Packaging



ACCESSORIES SPECIFICATION (Optional accessories)

Name	Quantity	Note
❶ End cap	4pc	
❷ Front outlet end cap	2pc	
❸ Front outlet end cap	-	*Optional
❹ Clips	10pc	
❺ Glue	2pc	
❻ Glue nozzle	2pc	
❼ Screw	10pc	

Table 5: Packaging Structure

Box Parameter	BXST-NxxCC-AxxG5xxxxx-B05	BXST-NxxCC-AxxG5xxxxx-B10
Quantity	5 reels	5 reels
Weight	8.6KG	17KG
Dimension	38cm x 38 cm x 32 cm（L*W*H）	

Figure 9: Product Labeling

Bridgelux 3D1212 Neon LED Strip Series modules contain a label on the front to help with product identification. In addition to the product identification markings, Bridgelux 3D1212 Neon LED Strip Series 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.

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 Flexible Strip 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 Flexible 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 3D1212 Neon LED Strip. Please consult Bridgelux Application Note for additional information.

CAUTION: EYE SAFETY
The Bridgelux 3D1212 Neon 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 3D1212 Neon LED Strip during operation. Allow the 3D1212 Neon LED Strip to cool for a sufficient period of time before handling. The 3D1212 Neon LED Strip may reach elevated temperatures such that could burn skin when touched.

STANDARD TEST CONDITIONS
Unless otherwise stated, 3D1212 Neon LED Strip testing is performed at the nominal drive voltage.

CAUTION

CONTACT WITH LIGHT EMITTING SURFACE (LES)

Avoid any contact with the LES. Do not touch the LES of the 3D1212 Neon LED Strip or apply stress to the LES (yellow phosphor resin area). Contact may cause damage to the 3D1212 Neon 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 3D1212 Neon LED Strip.

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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