NEON BLAZE™ 24V
Diffused LED Lighting

Diffused, neon-like LED lighting with top-bending and side-bending options. Available in static white and colors, and suitable for wet locations (IP65).

Date

https://www.diodeled.com/neon-blaze.html

Project Notes

IP65 | 24 VDC | NEC 410.90,A-3 & 410.90.C.1,5 CLOSET RATED

FEATURES

- Fully diffused, dotless light
- Top-bending and side-bending options with multiple output levels
- IP65 for wet locations and UV stabilized for outdoor use
- Ideal for coves and other architectural details
- 5 Year limited warranty

ORDERING CODES
Order spools, and components for field assembly

OPTIONAL ORDERING CODES
Add Length, Assembly Preferences, and Finish

	Voltage	Model	CCT		Length	Channels	Finish	Mounting	Driver		Delivery
DI											
	24V	NBL1 NBL2 NBL4	27 (2700K) 30 (3000K) 35 (3500K) 42 (4200K) 63 (6300K)	BL (Blue) GL (Amber) GN (Green) PK (Pink) RD (Red)	016 (16.4 feet) 32 (32 feet)	MTCH (Neon Top Bend) SPN (Neon Top Spine) MTCH (Neon Side Bend) SPN (Neon Side Spine)	AL (Aluminum) WH (White)	BUC (Bottom U-Clip) TUC (Top U-Clip)	ELV (Electronic) VLM (Constant Voltage) MAG (MLV) LUT (Lutron)	O/O (On / Off) SWX (Switchex) PoE (Power over Ethernet)	Field Assembly Factory + Field (Hybrid) Factory Assembly

24V NEON BLAZE™ - SPECIFICATION TABLE

Models	24V-SE-NBL1	24V-SE-NBL2	24V-SE-NBL4	24V-TE-NBL1	24V-TE-NBL2	24V-TE-NBL4
Voltage	**24VDC**	**24VDC**	**24VDC**	**24VDC**	**24VDC**	**24VDC**
Wattage	**1.22W/ft.**	**2.44W/ft.**	**4.4W/ft.**	**1.22W/ft.**	**2.44W/ft.**	**4.4W/ft.**
2700K	62 Lm/ft.	134 Lm/ft.	208 Lm/ft.	86 Lm/ft.	173 Lm/ft.	248 Lm/ft.
3000K	65 Lm/ft.	146 Lm/ft.	198 Lm/ft.	102 Lm/ft.	219 Lm/ft.	317 Lm/ft.
3500K	60 Lm/ft.	120 Lm/ft.	195 Lm/ft.	89 Lm/ft.	155 Lm/ft.	228 Lm/ft.
4200K	-	120 Lm/ft.	-	-	-	-
6300K	59 Lm/ft.	116 Lm/ft.	173 Lm/ft.	88 Lm/ft.	145 Lm/ft.	225 Lm/ft.
Blue	6 Lm/ft.	12 Lm/ft.	18 Lm/ft.	18 Lm/ft.	30 Lm/ft.	37 Lm/ft.
Amber	31 Lm/ft.	61 Lm/ft.	84 Lm/ft.	70 Lm/ft.	157 Lm/ft.	184 Lm/ft.
Green	30 Lm/ft.	-	78 Lm/ft.	88 Lm/ft.	148 Lm/ft.	151 Lm/ft.
Pink	17 Lm/ft.	37 Lm/ft.	53 Lm/ft.	39 Lm/ft.	93 Lm/ft.	110 Lm/ft.
Red	11 Lm/ft.	21 Lm/ft.	34 Lm/ft.	31 Lm/ft.	61 Lm/ft.	64 Lm/ft.
Cut Points	2 in.	2 in.	2 in.	2 in.	2 in.	2 in.
Max Run (ft.)	65 ft.	32 ft.	16 ft.	65 ft.	32 ft.	16 ft.
Max Run (Class 2)	65 ft.	32 ft.	16 ft.	65 ft.	32 ft.	16 ft.
CRI	80+	80+	80+	80+	80+	80+
Dimensions	0.37 × 0.75 in. (W x H)	0.37 × 0.75 in. (W x H)	0.37 × 0.75 in. (W x H)	0.65 × 0.59 in. (W x H)	0.65 × 0.59 in. (W x H)	0.65 × 0.59 in. (W x H)
Environment	Outdoor / Wet Location (IP65)	Outdoor / Wet Location (IP65)	Outdoor / Wet Location (IP65)	Outdoor / Wet Location (IP65)	Outdoor / Wet Location (IP65)	Outdoor / Wet Location (IP65)
Ambient Temperature	-4 ~ 122°F (-20 ~ 50°C)	-4 ~ 122°F (-20 ~ 50°C)	-4 ~ 122°F (-20 ~ 50°C)	-4 ~ 122°F (-20 ~ 50°C)	-4 ~ 122°F (-20 ~ 50°C)	-4 ~ 122°F (-20 ~ 50°C)
Operating Temperature	-4 ~ 176°F (-20 ~ 80°C)	-4 ~ 176°F (-20 ~ 80°C)	-4 ~ 176°F (-20 ~ 80°C)	-4 ~ 176°F (-20 ~ 80°C)	-4 ~ 176°F (-20 ~ 80°C)	-4 ~ 176°F (-20 ~ 80°C)
Certification	UL Listed 2108	UL Listed 2108	UL Listed 2108	UL Listed 2108	UL Listed 2108	UL Listed 2108
Warranty	5 Year	5 Year	5 Year	5 Year	5 Year	5 Year

The "Lumens" label spans the CCT/color rows from 2700K through Red.

NEON BLAZE™ 24V
Diffused LED Lighting

Diffused, neon-like LED lighting with top-bending and side-bending options. Available in static white and colors, and suitable for wet locations (IP65).

Date

https://www.diodeled.com/neon-blaze.html

Project Notes

IP65 | **24 VDC** | **NEC** 410.10.A 3 & 410.10.C.1,3 **CLOSET RATED**

RECOMMENDED 24V DRIVERS

SKU	INPUT VOLTAGE / FREQUENCY	OUTPUT VOLTAGE	MAXIMUM LOAD	MINIMUM LOAD	CLASS 2	DIMMABLE	LENGTH	WIDTH	HEIGHT
OMNIDRIVE® X Dimmable Driver Versatile driver for most high-performance dimming on ELV, TRIAC, and 0-10V systems.						OMNIDRIVE® X Dimmable Driver Specification Sheet https://www.diodeled.com/custom/download/productFile/filename/omnidrive-x-specification-sheet.pdf/			
						Contains • Additional Models • Additional Features • Derating Curves • System Diagrams			
DI-ODX-24V30W-J	120-277V	24V	30W	No minimum load	Yes	Yes	6.5 in.	3.7 in.	1.57 in.
DI-ODX-24V60W-J	120-277V	24V	60W	No minimum load	Yes	Yes	7.4 in.	3.7 in.	1.57 in.
DI-ODX-24V96W-J	120-277V	24V	96W	No minimum load	Yes	Yes	8.66 in.	3.7 in.	1.57 in.
DI-ODX-24V120W-J	120-277V	24V	120W	No minimum load	No	Yes	8.66 in.	3.7 in.	1.57 in.
OMNIDRIVE® BASICS Electronic Dimmable Driver Compact electronic dimmable (ELV) driver for everyday projects.						OMNIDRIVE® BASICS Electronic Dimmable Driver Specification Sheet https://www.diodeled.com/custom/download/productFile/filename/DI-ODBELV-Specification%20Sheet.pdf/			
						Contains • Additional Models • Additional Features • Derating Curves • System Diagrams			
DI-ODBELV-24V60W-LPELV	120V AC 50/60Hz, 0.5A	24V	60W	No minimum load	Yes	Yes	5.5 in.	4.7 in.	0.96 in.
DI-ODBELV-24V60W	120V AC 50/60Hz, 0.5A	24V	60W	No minimum load	Yes	Yes	4.2 in.	1.75 in.	0.96 in.
DI-ODBELV-24V96W-LPS	120V AC 50/60Hz, 0.83A	24V	96W	No mimimum load	Yes	Yes	11.25 in.	3.75 in.	1.9 in.
VLM Series Constant Voltage Driver Compact driver for on/off, PWM dimming, and color-changing applications.						VLM Series Constant Voltage Driver Specification Sheet https://www.diodeled.com/custom/download/productFile/filename/VLM-Specification%20Sheet%20(Driver%20&%20J-Box).pdf/			
						Contains • Additional Models • Additional Features • Derating Curves • System Diagrams			
VLM60W-24-LPS3R	120 / 277VAC 47 - 63Hz	24V	60W	No Minimum Load	Yes	PWM	10.79 in.	7.34 in.	2.36 in.
VLM60W-24-LPM	120 / 277VAC 47 - 63Hz	24V	60W	No Minimum Load	Yes	PWM	8.19 in.	2.94 in.	1.31 in.
PoE (Power over Ethernet) Constant voltage platform, ready for Power over Ethernet (inquire)									

RECOMMENDED CONTROLLERS

SKU	DESCRIPTION
TOUCHDIAL™ Control Systems The TOUCHDIAL™ zone control system controls single color dimming, tunable white, and color changing LED lighting via mobile device and additional TOUCHDIAL controls.	
DI-RF-WMT-RGBW	TOUCHDIAL RGB(W) Wall Control - Single Zone
DI-RF-REC-CV-A	TOUCHDIAL Color Control System - WiFi Receiver
DI-RF-REM-RGBW-4	TOUCHDIAL Color Control System - RGB/RGBW 4-Zone Remote Controller
DI-WIFI-RF-TRMS	TOUCHDIAL Color Control System - WiFi Hub
CASAMBI® Controllers The CASAMBI controllers will remotely control your lighting through the app - downloadable for IOS & Android.	
CBU-PWM4	CASAMBI PWM4 Single Color Dimming Controller
CBU-A2D	CASAMBI A2D 2 Channel 0-10V/DALI Controller

diodeled

NEON BLAZE™ 24V
Diffused LED Lighting

Diffused, neon-like LED lighting with top-bending and side-bending options.
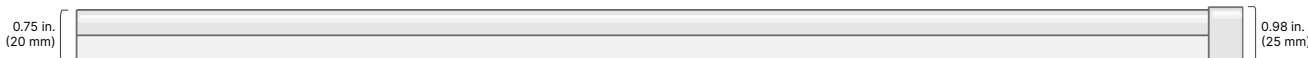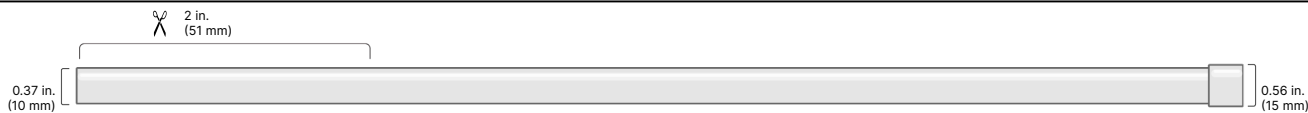Available in static white and colors, and suitable for wet locations (IP65).

Date

https://www.diodeled.com/neon-blaze.html

Project Notes

IP65 · **24 VDC** · **NEC 410.16.A 2 & 410.18.C.1.3 CLOSET RATED**

MECHANICAL DIAGRAMS

24V-SE-NBL1
24V-SE-NBL2
24V-SE-NBL4

✂ 2 in. (51 mm)

0.37 in. (10 mm)   0.56 in. (15 mm)

0.75 in. (20 mm)   0.98 in. (25 mm)

24V-TE-NBL1
24V-TE-NBL2
24V-TE-NBL4

✂ 2 in. (51 mm)

0.65 in. (17 mm)   0.8 in. (21 mm)

0.59 in. (15 mm)   0.76 in. (20 mm)
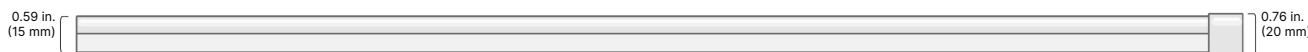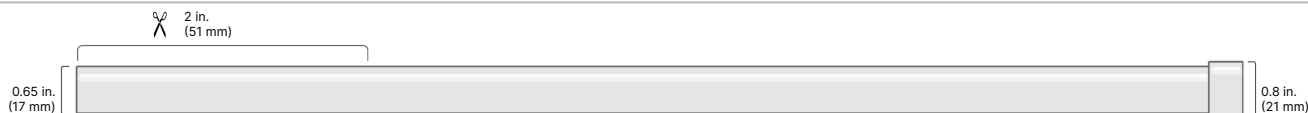
DELIVERY OPTIONS

- **Field Assembly**
  Stock items for in-field assembly. Fastest order fulfillment.

- **Factory + Field (Hybrid)**
  Finished lengths of light with leads. CHANNELS either bulk or factory finished. Some field assembly required.

- **Factory Assembly**
  Fastest installation: fixtures fully assembled in the factory.

- Lumen value measured in accordance to IES LM-80-08. LED chips have a luminous flux range with a tolerance of +/- 5%.

- Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length. Max run may exceed Class 2 limit. Actual wattage may differ from calculated wattage due to voltage drop across run.

- Do not install product in an environment outside the listed ambient temperature. Exceeding the maximum ambient temperature may damage LED chips, reduce the total lamp life, lumen output, and/or adversely impact color consistency.

- Actual efficacy value is dependent to specified LED driver (power supply). An estimated efficacy value can be calculated as follows: Lumen value divided by average power consumption per foot.

- Operating temperature is measured according to the minimum and maximum ambient temperature environment.

NEON BLAZE™ 24V
Diffused LED Lighting

Diffused, neon-like LED lighting with top-bending and side-bending options. Available in static white and colors, and suitable for wet locations (IP65).

Date

https://www.diodeled.com/neon-blaze.html
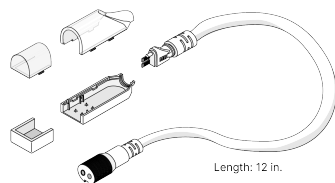
Project Notes

IP65 | 24 VDC | NEC 410.10.A.2 & 410.10.C.1.3 CLOSET RATED

SIDE BENDING ACCESSORIES

DI-SE-NB-STWC-EC
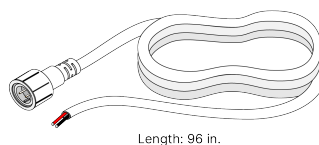NEON BLAZE Side Bending, Straight Wire Entry Connector and Frosted end cap pair

Length: 12 in.

DI-SE-NB-STBW-20
NEON BLAZE Side Bending, Straight Wire Splice Connector, 20 ft.

Length: 20 ft.
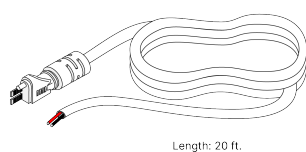
DI-NB-96M-CNCT
NEON BLAZE Top and Side Emitting Male connector, 96 in.

Length: 96 in.

DI-SE-NB-ST-FR-EC
NEON BLAZE Side Bending, Straight Wire Entry Frosted end cap pair

0.97 in.
0.57 in.
1.37 in.
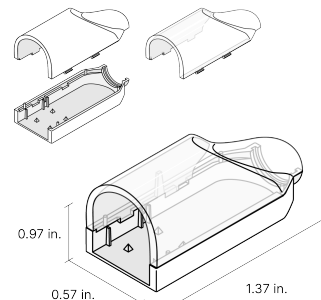
DI-SE-NB-TTT-2
NEON BLAZE Side Bending, Strip to Strip Connector Frosted, 2 Pack

0.98 in.
0.57 in.
1.37 in.
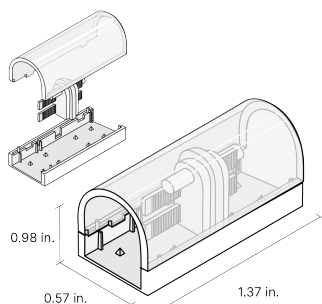
DI-SE-NB-JPR
NEON BLAZE Side Bending Jumper with Frosted top cap and end cap

Jumper Length:
3JPR - (3 in.)
6JPR - (6 in.)
12JPR - (12 in.)
24JPR - (24 in.)
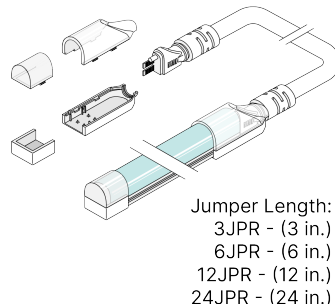
DI-SE-NB-SDWC-EC
NEON BLAZE Side Bending, Side Wire Entry Connector and Frosted end cap pair
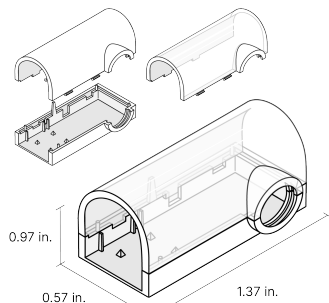
Length: 12 in.
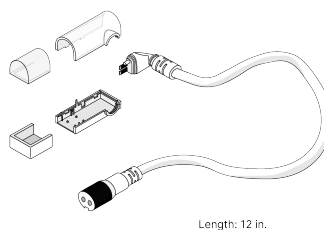
DI-SE-NB-SDWC-EC-FDC
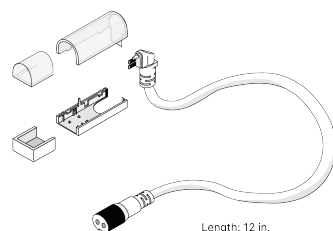NEON BLAZE Side Bending, Side wire entry connector and frosted end cap pair, Female DC Plug

Length: 12 in.
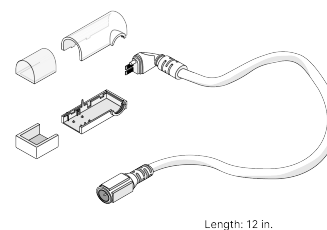
DI-SE-NB-SD-FR-EC
NEON BLAZE Side Bending, Side Wire Entry Frosted end cap pair
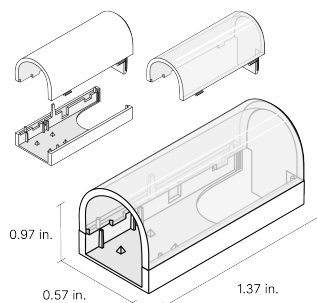
0.97 in.
0.57 in.
1.37 in.

DI-SE-NB-BWC-EC
NEON BLAZE Side Bending, Bottom Wire Entry Connector and Frosted end cap pair

Length: 12 in.

DI-SE-NB-B-FR-EC
NEON BLAZE Side Bending, Bottom Wire Entry Frosted end cap pair

0.97 in.
0.57 in.
1.37 in.

DI-SE-NB-EC-5
NEON BLAZE, Side Bending, End Cap Pair, 5 Pack
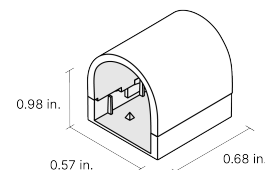
0.98 in.
0.57 in.
0.68 in.

NEON BLAZE™ 24V

Diffused LED Lighting

Diffused, neon-like LED lighting with top-bending and side-bending options. Available in static white and colors, and suitable for wet locations (IP65).
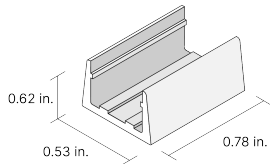
Date

https://www.diodeled.com/neon-blaze.html

Project Notes

IP65 | **24 VDC** | **NEC** 410.10.A.3 & 410.10.C.1.3 **CLOSET RATED**

SIDE BENDING ACCESSORIES

DI-SE-NB-BUC-16

NEON BLAZE Side Bending, Bottom U-clip, 16 Pack

0.62 in.
0.53 in.
0.78 in.

DI-SE-NB-TUC-16

NEON BLAZE Side Bending, Top U-clip, 16 Pack

0.86 in.
1.18 in.
0.59 in.
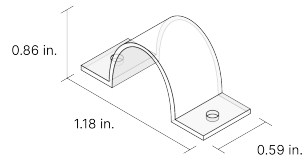
DI-SE-NB-MTCH

NEON BLAZE Side Bending, 35 in. inch channel

0.62 in.
0.53 in.
35 in.
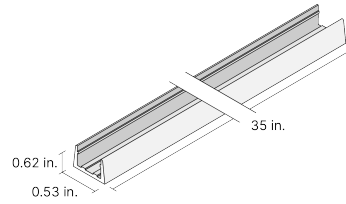
DI-SE-NB-FLCH-WH

NEON BLAZE Flexible Spine Channel, Side Bending, 1m, White
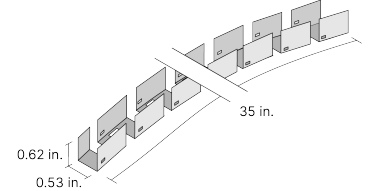
0.62 in.
0.53 in.
35 in.

NEON BLAZE™ 24V
Diffused LED Lighting

Diffused, neon-like LED lighting with top-bending and side-bending options. Available in static white and colors, and suitable for wet locations (IP65).
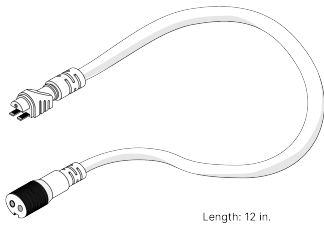
Date

Project Notes

https://www.diodeled.com/neon-blaze.html

IP65   24 VDC   NEC 410.10.A 2 & 410.10.C.1,3 CLOSET RATED
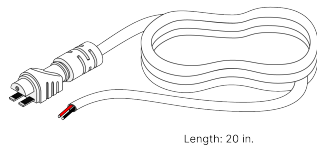
TOP BENDING ACCESSORIES

DI-TE-NB-STWC-EC
NEON BLAZE Top Bending, Straight Wire Entry Connector and Frosted end cap pair

Length: 12 in.
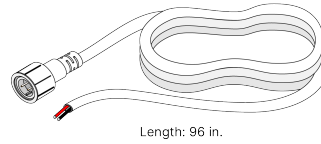
DI-TE-NB-STBW-20
NEON BLAZE Top Bending, Straight Wire Splice Connector, 20 ft.
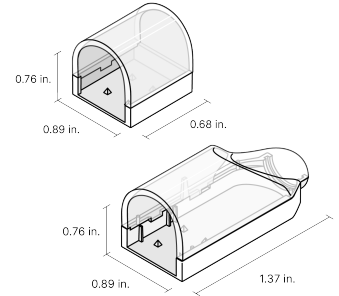
Length: 20 in.

DI-NB-96M-CNCT
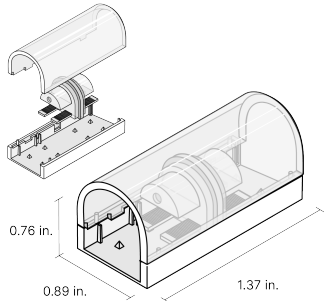NEON BLAZE Top and Side Emitting Male connector, 96 in.

Length: 96 in.

DI-TE-NB-ST-FR-EC
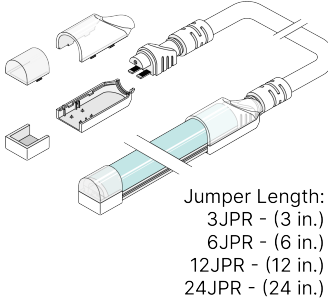NEON BLAZE Top Bending, Straight Wire Entry Frosted end cap pair

0.76 in.
0.89 in.   0.68 in.
0.76 in.
0.89 in.   1.37 in.

DI-TE-NB-TTT-2
NEON BLAZE Top Bending, Strip to Strip Connector Frosted, 2 Pack

0.76 in.
0.89 in.   1.37 in.

DI-TE-NB-JPR
NEON BLAZE Top Bending Jumper with Frosted top cap and end cap

Jumper Length:
3JPR - (3 in.)
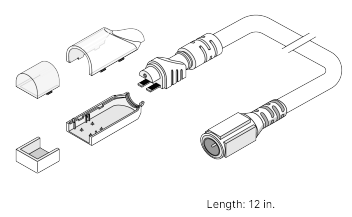6JPR - (6 in.)
12JPR - (12 in.)
24JPR - (24 in.)

DI-TE-NB-SDWC-EC
NEON BLAZE Top Bending, Side Wire Entry Connector and Frosted end cap pair
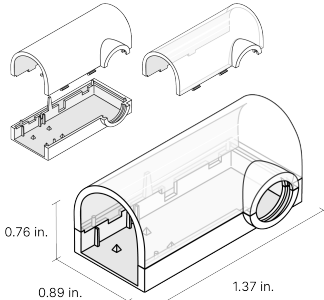
Length: 12 in.
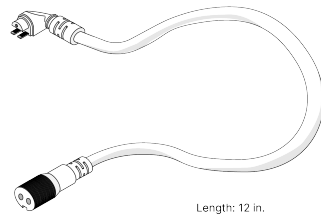
DI-TE-NB-SDWC-EC-FDC
NEON BLAZE Top Bending, Side Wire Entry Connector and Frosted end cap pair, Female DC Plug

Length: 12 in.

DI-TE-NB-SD-FR-EC
NEON BLAZE Top Bending, Side Wire Entry Frosted end cap pair

0.76 in.
0.76 in.
0.89 in.   1.37 in.

DI-TE-NB-BWC-EC
NEON BLAZE Top Bending, Bottom Wire Entry Connector and Frosted end cap pair

0.76 in.
0.89 in.   0.68 in.
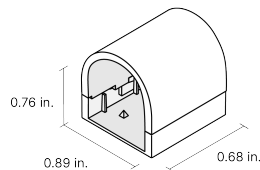
DI-TE-NB-B-FR-EC
NEON BLAZE Top Bending, Bottom Wire Entry Frosted end cap pair

0.76 in.
0.89 in.   1.37 in.
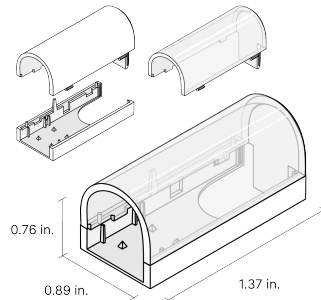
DI-TE-NB-EC-5
NEON BLAZE, Top Bending, End cap pair, 5 Pack
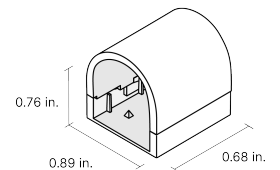
0.76 in.
0.89 in.   0.68 in.

NEON BLAZE™ 24V
Diffused LED Lighting

Diffused, neon-like LED lighting with top-bending and side-bending options. Available in static white and colors, and suitable for wet locations (IP65).

Date

Project Notes

https://www.diodeled.com/neon-blaze.html

IP65 | 24 VDC | NEC 410.10.A.3 & 410.10.C.1.3 CLOSET RATED

TOP BENDING ACCESSORIES

DI-TE-NB-BUC-16

NEON BLAZE Top Bending, Bottom U-clip, 16 Pack

0.38 in.
0.78 in.
0.98 in.

DI-TE-NB-TUC-16

NEON BLAZE Top Bending, Top U-clip, 16 Pack

0.64 in.
1.44 in.
0.62 in.

DI-TE-NB-MTCH

NEON BLAZE Top Bending, 35 in. channel

0.38 in.
0.78 in.
35 in.
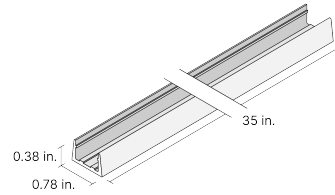
DI-TE-NB-FLCH-WH

NEON BLAZE Flexible Spine Channel, Top Bending, 1m, White

39.5 in.
0.35 in.
0.65 in.

NEON BLAZE™ 24V
Diffused LED Lighting

Diffused, neon-like LED lighting with top-bending and side-bending options.
Available in static white and colors, and suitable for wet locations (IP65).
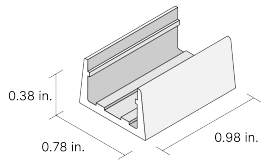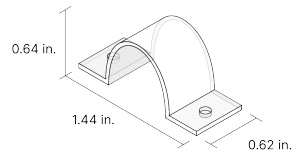
Date

https://www.diodeled.com/neon-blaze.html

Project Notes

IP65 **24 VDC** **NEC 410.16.A.3 & 410.16.C.5 CLOSET RATED**

CERTIFICATIONS

Safety

- UL Listed 2108 Low Voltage Lighting System / Low Voltage Luminaire. UL 1598 / CSA 250.0-08, UL 8750. UL 879 / CAN/CSA-C22.2 no. 207-M89. Certified for United States and Canada. File # E469769.

- UL Listed Field Cuttable.

- CE & EMC Compliant.

- Approved for storage areas of clothes closets per NEC 410.16.A.3 and 410.16.C.5.

Environment

- RoHS Compliant.

Performance

- LED chip data measured in accordance to IES LM-80-08.

- Photometric & Colorimetry data measured in accordance to IES LM-79-08, in Elemental LED's Innovation Lab.

Safety / Warnings / Disclosures

1. Install in accordance with national and local electrical code regulations.

2. This product is intended to be installed and serviced by a qualified, licensed electrician.

3. Only use copper wiring. Use wires rated for at least 176°F (80°C) and certified for use with external connection of electrical equipment.

4. Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length.

5. Tape light, attached wire leads, and additional extension cables, connectors, etc., are not rated for in-wall installation unless otherwise noted. Tape light and attached wire leads are field-cuttable.

6. Ensure applicable wire is installed between driver, fixture, and any controls in-between. When choosing wire, factor in voltage drop, amperage rating, and type (in-wall rated, wet location rated, etc.). Inadequate wire installation could overheat wires, and cause fire.

7. Do not install in environment where LED chips are exposed to direct sunlight as damage to the phosphor will occur.

8. Do not install in environment where excessive heat may exist (ex. close proximity to fireplace, etc.) See Ambient Temperature ratings

9. Do not modify product beyond instructions or warranty will be void.

10. Tape light must be handled with care. Excessive handling, bending, and pressure may damage the product, voiding the warranty.

11. Actual color may vary from what is pictured on this sheet and other print materials due to the limitations of photographic processes.

12. We reserve the right to modify and improve the design of our fixtures without prior notice. We cannot guarantee to match existing installed fixtures for subsequent orders or replacements in regards to product appearance, CCT, or lumen output.

WARRANTY

Limited Warranty

- 5 Year limited warranty

This warranty does not include the additional accessories referenced in this specification sheet. Complete warranty details for fixtures and additional accessories are available at www.diodeled.com/limited-warranty/ within the Policies section. For warranty related questions please contact product support.

Consumer's Acknowledgment

Elemental LED, Inc. stands behind its products when they are used properly and according to our specifications. By purchasing our products, the purchaser agrees and acknowledges that lighting design, configuration and installation is a complex process, wherein seemingly minor factors or changes in layout and infield adjustments can have a significant impact on an entire system. Choosing the correct components is essential. Elemental LED is able to work with the original purchaser to make an appropriate product selection to the extent of the limited information that the customer can provide, but it is virtually impossible for Elemental LED to design a system that foresees every unknown factor. For this reason, this Warranty does not cover problems caused by improper design, configuration or installation issues. Any statement from a Elemental LED employee or agent regarding a customer's bill of goods and/or purchase order is NOT an acknowledgment that the products purchased are designed and configured correctly. The purchase agrees and acknowledges that it is the customer's responsibility to adhere strictly to all information contained in the Product Specification Sheets.

There is often more than one way to design, configure and layout an LED lighting application properly to achieve the same lighting effect. Elemental LED strongly recommends that licensed professionals be used in the design and installation of lighting systems that include Elemental LED products. The specifications include important information that a designer and installer should carefully review and strictly follow. Qualified designers and certified and/or licensed installers, with access to the final installation environment, customer goals, and Elemental LED product specifications can make the requisite decisions appropriate for a successful finished lighting application.