

# **Product Specification**

# Neon Flex Horizontal Bending Single Color Series (Type TB)

WW-FLS102T23XX084TB-24(WCP)-XR-SE-120-XX-TR















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#### **Product Features**

- High quality FPC
- Dilux self-encapsulated LED
- Light source lifetime:50K hours
- Horizontal bending
- High quality silicone material
- IP67 waterproof
- Min.Bending Diameter:Φ130mm
- Single-ended power supply maximum length: 25m















#### **Technology info**

Lighting Technology: LED

DLS or NDLS: NDLS

MLS or NMLS: NMLS

Type of light source: SMD 2835

Energy consumption KW/1000h/0.5M:1.9

Beam angle: 120°

Survival factor ( Annex V/EU2019-2020 ) :90%

#### **Harmonised Standards**

EMC

- EN55015:2013+A1
- EN61547:2009
- EN60598-1:2015
- EN60598-2-20:2015
- EN62493:2015
- EN62471:2008



#### **Parameters**

#### Test condition:

- Surrounding temperature:  $26^{\circ}$ C.
- Test while turning on.

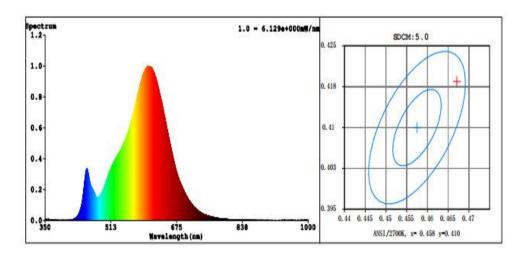
		١	leo	n Fle	X				
Neon Flex Model No.	CRI (Ra)	Rf	Rg	Typ. Power (W/M)	Max. Power (W/M)	Color	Neon Flex Color Temp.(K) Wavelength(nm)	Typ. Luminous Flux LM/M(39.3 7in)	Rated voltage
WW-FLS102T23WW084TB-24(WCP)-HR-SE-120-XX-TR						Warm White	2500K	90	DC24V
WW-FLS102T23WW084TB-24(WCP)-HR-SE-120-XX-TR						Warm White	2700K	90	DC24V
WW-FLS102T23WW084TB-24(WCP)-HR-SE-120-XX-TR	≥80	82	96	3.8	4.18	Warm White	3000K	95	DC24V
WW-FLS102T23NW084TB-24(WCP)-HR-SE-120-XX-TR						Natural White	4000K	95	DC24V
WW-FLS102T23SW084TB-24(WCP)-HR-SE-120-XX-TR						Standard White	6000K	95	DC24V
WW-FLS102T23WW084TB-24(WCP)-UR-SE-120-XX-TR						Warm White	2500K	75	DC24V
WW-FLS102T23WW084TB-24(WCP)-UR-SE-120-XX-TR						Warm White	2700K	75	DC24V
WW-FLS102T23WW084TB-24(WCP)-UR-SE-120-XX-TR	≥90	90	100	3.8	4.18	Warm White	3000K	80	DC24V
WW-FLS102T23NW084TB-24(WCP)-UR-SE-120-XX-TR						Natural White	4000K	80	DC24V
WW-FLS102T23SW084TB-24(WCP)-UR-SE-120-XX-TR						Standard White	6000K	80	DC24V

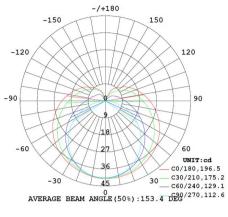
- SDCM for light source: ≤6 (alternative ≤3).
- $\bullet$  The typ. Luminous flux tolerance range is  $\pm 10\%$  (subject to the manufacturer's instrument test).



# Optical Test Diagram

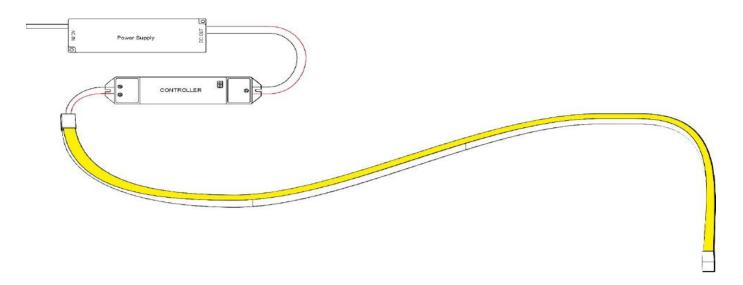
#### **Neon Flex**







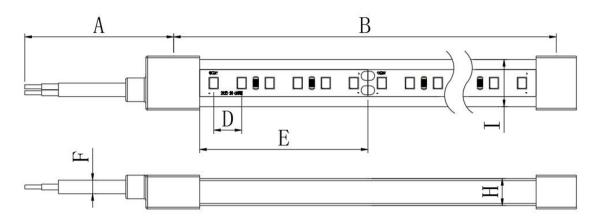
# Circuit Diagram





# Dimension Drawing

#### **Neon Flex**



A	B	<b>D</b>	E	F	H	l
Cable Length	Strip length	Distance of LEDS	Cutting unit	Cable diameter	Strip thickness	Strip width
300±10mm	25000±50mm	11.9±0.5mm	71.43±0.5mm	6±0.3mm	12±0.3mm	



# Front & end caps

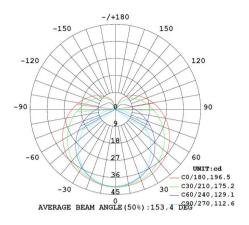
Cable Types	Model No.	lmage	Dimension	IP Rating
Double	TB12x20-TS	The state of the s	3.5mm (3.5mm ) 1.2.0m   1.2.0m	IP67
Injection	IBIEAZO-IO		3.5mm - 19.0mm - 19.0mm - 12.0mm - 12.0	IP67



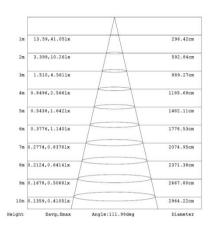


## **Optical Parameters**

#### **Distribution Curve Flux**

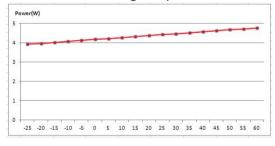


#### Illuminance

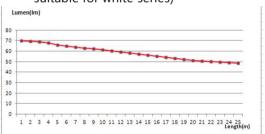


# Figures of typical characteristics

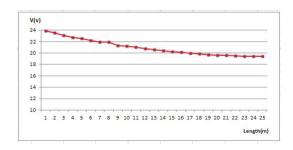
#### Relation of Working Temperature and Power



#### Relation of luminous flux and strip length (Only suitable for white series)



#### Relation of operating voltage and strip length





# Standard Accessories

Image	Part No.	Description
	WW-PC1613-0025	Installation accessories set (PC mounting clips, screws)

# Optional Accessories

lmage	Part No.	Description
	WW-AP1512-200	Aluminum Profile: L2000*W12*H15.2mm
	WW-FLS102TB-CW-TF	Cutting accessories set (Front & end cap, power cord)



# Dilux 迪亞士

# Packaging

#### Solution 1:

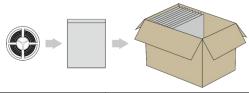
## For Product Length≤5M



Ingress		Inner carton		Outer carton		N1 18/	G.W	Outer carton
protection rating	Bag size	Size	Reel/ctn	Size	Reel/ctn	N.W		volume
	/	1	1	440*400 *260mm	12	13.44 KG ±10%	14.36KG ±10%	0.04576M <sup>3</sup>
IP65/67	1	1	/	17.32*15.748 *10.236 in	12	29.62 Lbs ±10%	31.66Lbs ±10%	1.616ft <sup>3</sup>

#### Solution 2:

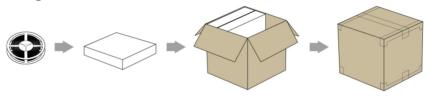
# For Product Length=5M



Ingress	Barraia	Inner carton	on Outer carton			NI W	0.14	Outer carton
protection rating	Bag size	Size	Reel/ctn	Size	Reel/ctn	N.W	G.W	volume
	470*420*0.14mm	1	1	440*400*260mm	7	7.84KG ±10%	9.31KG ±10%	0.05772m³
IP65/67	18.50*16.54*0.006 in	1	1	17.32*15.75 *10.24 in	7	15.48 Lbs ±10%	25.18 Lbs ±10%	1.616ft <sup>3</sup>

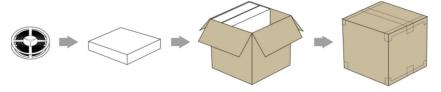
#### Solution 3:

#### For Product Length=10M



Ingress	Banalar .	Inner carton		Outer carton		A1 10/	G.W	Outer carton
protection rating	Bag size	Size	Reel/ctn	Size	Reel/ctn	N.W		volume
	330*50mm	345*330*61mm	1	362*265*350mm	4	8.96KG ±10%	11.70KG ±10%	0.05366m³
IP65/67	12.99*1.96in	13.58*12.99*2.4 in	1	14.25*10.43*13.78 in	4	19.75Lbs ±10%	25.8 Lbs ±10%	1.185ft <sup>3</sup>

#### For Product Length=25M



Ingress	Inner carton		Outer carton			0.00	Outer carton	
protection rating	Bag size	Size	Reel/ctn	Size	Reel/ctn	N.W	G.W	volume
	330*110mm	345*330*122mm	1	362*265*350mm	2	11KG ±10%	13.18KG ±10%	0.05366m³
IP65/67	12.99*4.33in	13.58*12.99*4.8 in	1	14.25*10.43*13.78 in	2	24.25 Lbs ±10%	29.06 Lbs ±10%	1.185ft <sup>3</sup>

#### Remarks:

• Please contact our sales manager for customized package (color box, blister etc.)



### **Cutting Instruction**

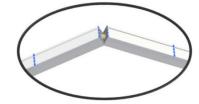
- The cutting line logo on the Neon strip marked by calculated dimension, it has a little bit deviation between internal cutting line marked on the PCB surface;
- Please follow the cutting guidance as below:

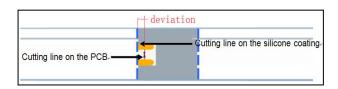
Step 1: Fine the cutting line on the silicone coating, slice the silicone coating vertically by knife along the cutting line, but do not hurt the PCB

inside.



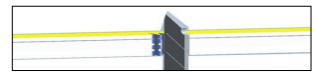
Step 2: Split the broken silicone coating and observe the deviation between "Cutting line on the PCB" and "Cutting line on the silicone coating side"





Step 3: Find the cutting line on the PCB, adjust to the exact cutting location and slice the silicone coating again.





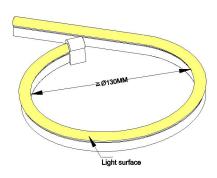
Step 4: Finally, use scissor to separate the Neon Flex along the cutting line on the PCB.



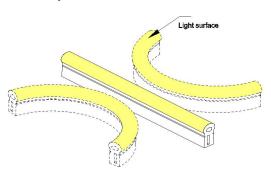


# Installation Guidance

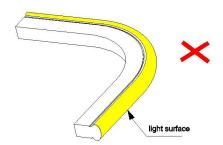
1.Do not bend smaller than allowed minimum bending diameter



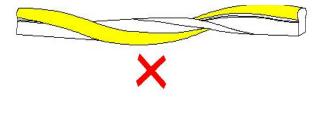
2. The neon strip can only be bent laterally (Along the FPC inside).



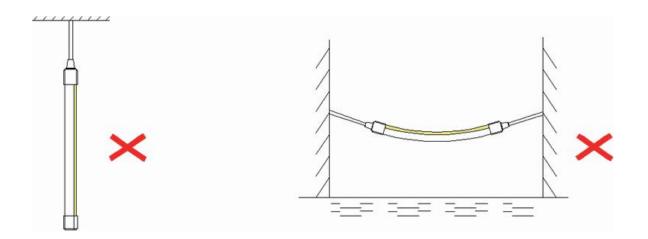
Don't bend the LED strip vertically, it will damage the circuit inside and cause product function failure.



Don't twist the LED strip, it will damage the circuit inside and cause product function failure.

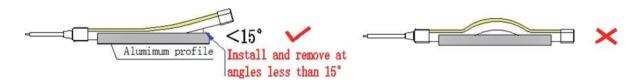


5. Do not hang or suspend the Neon strip in the air.





6. Press the neon flex into mounted aluminum profile in one direction (Angle between strip and aluminum<15 degrees).



7 、 Incorrect installation like below pictures could lead to product function failure.

















Do not tie a knot



Do not winding



Do not twist



it is working



Do not cut when Recommended the continuous working time do not exceed 12 hours daily



-40°~+65° (-40°F~+149°F)



0°C~+60°C (32°F~+140°F)



Operated by professionals



Pay attention to the application environment



IP Level will change after cutting



Do not pull



Connected to power supply every 5 meters



Power supply must be connected to ground(GND)



The minumum bending diameter > 60mm





Note the positive and negative poles



For cutting LED strip operation, it is necessary to use the standard accessories provided by Dilux (e.g. DC wire, end-cap, front-cap, adhesive, etc.), and according to the correct cutting and connecting method for the installation.



For avoiding LED get vulcanized, LED strip should be installed in the environment where does not has oil and corrosive substances. Such as these substances which contain Sulphur, Bromine, Iodine and Chlorine. Some other chemical elements which will cause Aromatic hydrocarbons releasing(such as: methylbenzene, xylene, methyl acetoacetate Ethyl acetate etc.). The environment in which includes strong acid and strong base.



During the warranty period, only defective products are acceptable to be replaced by the factory. Factory is not responsible for other expenses because of replacement, such as transportation fee, installation fee, etc..

<sup>\*\*</sup> If you do not follow the above "Cautions" to operate and result in damaging the product, the factory will not accept maintenance and return.

<sup>\*\*</sup>The right of final interpretation is owned by Dilux.

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