

**ALPHATECH® X**  
Linear LED Lighting

Full Diffusion, precision light quality, and physical durability for every application. Made in USA with foreign parts.

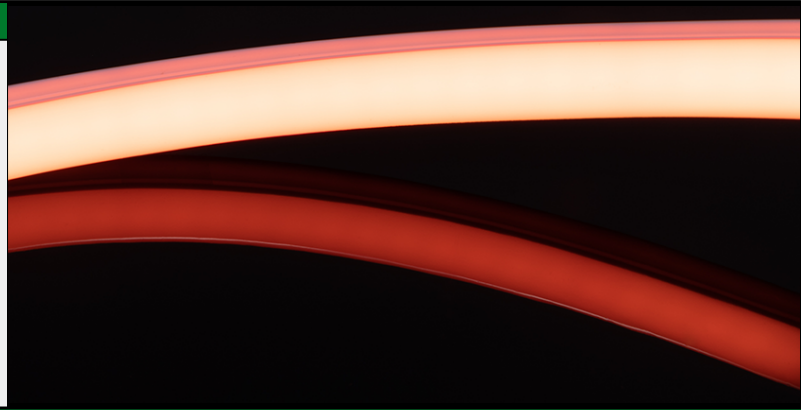
Date \_\_\_\_\_

Project Notes \_\_\_\_\_



**FEATURES**

- Top-Bending
- UV stabilized for outdoor use
- IP69 for submersible applications
- For use with saunas and steam rooms
- NSF component approved
- \*Made in the USA with foreign parts / Buy American Act compliant
- 5-year warranty
- UL676



**ORDERING CODES**

Fixtures built to order

Lucetta CI	Voltage	Model	Color	Length	Mounting
DI					
	24V	TE-ENC-100 (Top Bend)	RGBW (Color Changing)	Length (in.) (8 - 192 in.)	MTCH (Mounting Channel) RTCL (Rotating Clip) MTCL (Mounting Clip) 90CL (90° Clip) SPCH (Spine Channel)

**24V-TE-ENC-100-RGBW**

<b>Voltage</b>	<b>24V</b>
<b>Wattage</b>	<b>6.1W/ft.</b>
Red	18/ft.
Green	43/ft.
Blue	10/ft.
RGBW	122/ft.
CRI	White 2700K - 90+
Max Run	16 ft.
Dimmable	Yes
Field Cuttable	No
Diffusion Options	Premium Diffused
Bend Radius	6 in.
Environment	Outdoor / Wet Location (IP69)
Ambient Temperature	-4 - 122°F (-20 ~ 50°C)
Ambient Temperature (Deep Cold)	-40°F Min, Luminaire is required to be energized when temperature falls below -4°F
Ambient Temperature (Sauna)	180°F Max, <30% Humidity
Certification	UL 2108, UL 676 (with Mounting Channel), NSF
Warranty	5 Years, 2 Years Deep Cold



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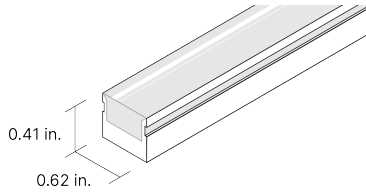
Project Notes \_\_\_\_\_



**MECHANICAL DIAGRAMS**

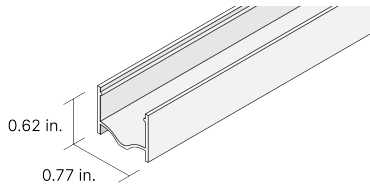
**ENCAPSULATED**

Without mounting accessories



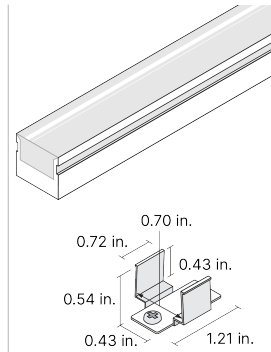
**MOUNTING CHANNEL - UL676 (MTCH)**

Straight and rigid lines of light



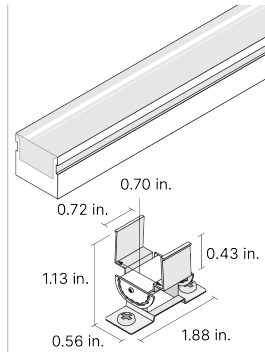
**FLAT CLIP (MTCL)**

Single mounting point



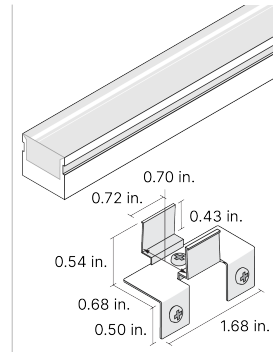
**ROTATING CLIP (RTCL)**

Single mounting point with adjustability



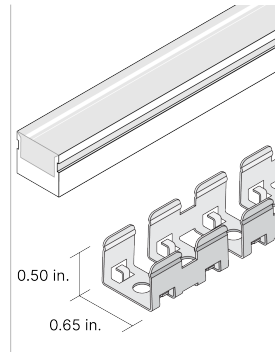
**90° CLIP (90CL)**

Single mounting point on ledge or support

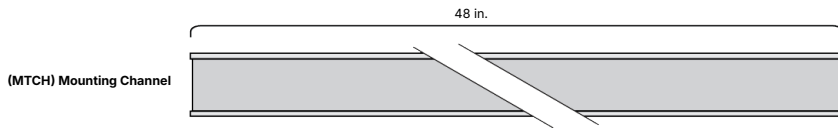


**SPINE CHANNEL (SPCH)**

Mounting along a curve for architectural accents or lighting designs

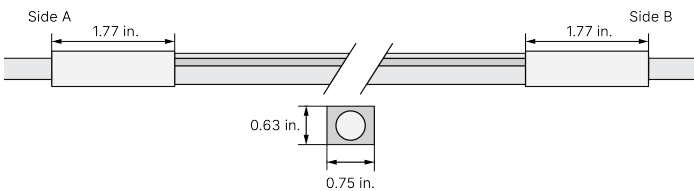


**CHANNEL LENGTHS (MTCH) / (WMS)**



**WIRE ENTRY OPTIONS**

**TOP BEND - END ENTRY**



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**RECOMMENDED COLOR CONTROLLERS**

CONTROLLER	SKU
<b>Casambi Color Controller</b> Remotely control lighting through an app.	
Casambi PWM4	CBU-PWM4
<b>DMX Color Controllers</b> Advanced color control systems.	
Nicolaudie Easy Stand Alone	DI-DMX-ESA
Nicolaudie STICK-DE3	DI-DMX-DE3
Nicolaudie STICK-GA2	DI-DMX-GA2
Nicolaudie® STICK-KE2	DI-DMX-KE2
DMX Wall Mount Controller	DI-DMX-WIFI-WMUS-3Z-WH
DMX 4 Channel Decoder	DI-1810
<b>TOUCHDIAL™ Control System</b>	
Receiver	DI-RF-REC-CV-A
Mini Remote (RGBW)	DI-RF-REM-RGBW-1
Remote (RGBW) Control	DI-RF-REM-RGBW-4
Wall Control (RGBW)	DI-RF-WMT-RGBW
WiFi Hub	DI-WIFI-RF-TRMS
<b>ATTRIBUTE® Color Controller</b>	
ATTRIBUTE® Color Controller	DI-ATT-RGBW-REM

**RECOMMENDED DRIVERS**

SKU	WATTAGE	LENGTH	WIDTH	HEIGHT
<b>VLM Series Constant Voltage LED Drivers</b>				
VLM60W-24	60W	5.1 in.	0.75 in.	0.77 in.
VLM60W-24-LPM	60W	8.19 in.	2.94 in.	1.31 in.
VLM60W-24-LPS3R	60W	10.79 in.	7.34 in.	2.36 in.
VLM100W-24	100W	5.1 in.	0.75 in.	0.77 in.
VLM100W-24-LPM	100W	8.19 in.	2.94 in.	1.31 in.
VLM100W-24-LPS3R	100W	10.79 in.	7.34 in.	2.36 in.

**DELIVERY OPTIONS**

- Factory Assembly

Fastest installation: fixtures fully assembled in the factory.

**ADDITIONAL INFORMATION**

- Sustained Compressive Load Limit: 1,000 PSI

- 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.

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**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 676 Underwater Luminaires / CAN/CSA C22.2 No. 89-1976 / UL 8750. This certification conforms to Article 680 and 682 of the National Electrical Code® for installation in swimming pools, fountains, spas, natural and artificially made bodies of water. File# E479607
- NSF Sanitation Certified: NSF/ANSI Standard 2 2018 - Food Equipment

**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 install with a Class 2 DC Constant Voltage LED driver.
4. Only use copper wiring. Use wires rated for at least 176°F (80°C) and certified for use with external connection of electrical equipment.
5. Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length.
6. Tape light, attached wire leads, and additional extension cables, connectors, etc., are not rated for in-wall installation unless otherwise noted.
7. 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.
8. Do not install in environment where LED chips are exposed to direct sunlight as damage to the phosphor will occur.
9. Do not install in environment where excessive heat may exist (ex. close proximity to fireplace, etc.) See Ambient Temperature ratings
10. Do not modify product beyond instructions or warranty will be void.
11. Tape light must be handled with care. Excessive handling, bending, and pressure may damage the product, voiding the warranty.
12. Actual color may vary from what is pictured on this sheet and other print materials due to the limitations of photographic processes.
13. 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 Years: General Lighting
- 2 Years: Deep Cold
- 1 Year: Sauna

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.dioleed.com/limited-warranty/](http://www.dioleed.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 in-field 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.