

Specification Sheet

VALENT® WARM DIM 24V LED Tape Light

High density tape light that glows warmer as it dims. Convincingly replicate the warm, familiar glow of incandescent light with the simplicity of a 2-wire LED tape light installation.

Our most popular tape light, available in a wide range of color temperatures and outputs

Data

Project Notes

tps://www.diodeled.com/valent-reg-warm-dim.ht









FEATURES

- · Simple two-wire installation with popular Diode LED drivers
- 3000-2000K and 2700-1800K dimming ranges
- 150+ and 400+ lumens per foot
- 90+ CRI
- · Compatible with 12mm Terminal Block connectors



				OPTIONAL ORDERING CODES Add Length, Assembly Preferences, and Finish											
		Voltage	Model	ССТ	Length	Channels			Finish	Mounting		Driver	Delivery		
	DI														
		24V	VL1 VL4	WD2718 (2700K-1800K) WD3018 (3000K-1800K) WD3020 (3000K-2000K)	016 (16.4 feet) 100 (100 feet)	\$1 (\$1) \$2 (\$2) \$45 (\$45) \$L (\$lim) CA (Canal)	16 (16mm Square) RC20 (20mm Round) SQ20 (20mm Square) SQ (Square) 45 (45")	45DCO (45° Deco) 90 (90° Sideview) REF (Reflector) ROD (Rod) MI1 (1-inch Mud-In)	MI2 (2-inch Mud-In) REC (Recessed) WF (Waveform)	AL (Aluminum) BL (Black) WH (White)	3M (3M Adhesive) MC (Mounting Clip) UC (U-Clip)	VC (Vertical Clip) HNG (Hanging Hardware) RC (Rotating Clip)	ELV (Electronic) VLM (Constant Voltage) O/O (On / Off) PoE (Power over Ethernet)	Field Assembly Factory + Field (Hybrid) Factory Assembly	
	24V VALENT® WARM DIM - SPECIFICATION TABLE														
	Models		24V-	VL1	24V-VL4		·								
		/oltane	24V	DC.	24VDC		·								

Models	24V-VL1	24V-VL4
Voltage	24VDC	24VDC
Wattage	1.54W/ft.	4.4W/ft.
2700K-1800K	2700K: 149 Lm/ft. 1800K: 6 Lm/ft.	2700K: 395 Lm/ft. 1800K: 14 Lm/ft.
Lumens 3000K-1800K	3000K: 155 Lm/ft. 1800K: 6 Lm/ft.	3000K: 380 Lm/ft. 1800K: 12 Lm/ft.
3000K-2000K	3000K: 155 Lm/ft. 2000K: 7 Lm/ft.	3000K: 400 Lm/ft. 2000K: 17 Lm/ft.
Cut Points	3.28 in.	3.28 in.
Max Run (ft.)	62 ft.	21 ft.
Max Run (Class 2)	62 ft.	21 ft.
CRI	90+	90+
Dimensions	0.47 × 0.05 in. (W x H)	0.47 × 0.05 in. (W x H)
TM-30 (LM-80)	>50,000 hours	>50,000 hours
Environment	Indoor / Damp Location (IP20)	Indoor / Damp Location (IP20)
Ambient Temperature	-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)
LED Chips	51/ft.	51/ft.
Chip Type	2835	2835
Certification	UL Listed 2108	UL Listed 2108
Warranty	7 Year	7 Year



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MODEL	DIAGRAM	INCLUDED ACCESSORIES	CONNECTION OPTIONS	IN CHANNEL DIFFUSION	TECHNICAL RATINGS	MOUNTING OPTIONS WITH DIMENSIONS
S1 Channel DI-CHB-S1 (S1) 48",96" Aluminum For 14mm Tape Lights or smaller	Height (H): 0.31 in. Width (W): 0.67 in. Interior Depth (ID): 0.25 in. Interior Verbut (IW): 0.58 in. Interior Width (IW): 0.58 in. INTERIOR (IW): 0.5	48 in. channel & frosted cover 2x surface mounting clips End caps: 1x open, 1x closed.	12mm Tape Light: Soldered Lead Only	Classic Frosted Lens	Beam Angle: 120° Classic Frosted Lens Light Loss: 20% CCT Shift: -40K IP Rating Shift: IP40	U-Clip: 0.32 × 0.68 in. (H x W)
S2 Channel DI-CHB-S2 (S2) 48", 96" Aluminum For 14mm Tape Lights or smaller	Height (H): 0.57 in. Width (W): 0.74 in. Interior Depth (II): 0.24 in. Interior Width (IW): 0.63 in. Interior Width (IW): 0.63 in. Interior Width (IW): 0.63 in.	48 in. Channel & Froeted Lens, 1 open end cap, 1 closed end cap, 2 mounting clips, 2 mounting screws 96 in. Channel & Froeted Lens, 2 open end cap, 2 closed end cap, 4 mounting clips, 4 mounting screws	***************************************	Classic Frosted Lens VL1, VL4: Semi-Diffused	Beam Angle: 120° Classic Frosted Lens Light Loss: 20% CCT Shift: -40K IP Rating Shift: IP40	U-Clip: 0.58 × 0.75 in. (H x W)
S45 Channel DI-CHB-S45 (S45) 48", 96" Aluminum For 14mm Tape Lights or smaller	Height (H): 0.78 in. Width (W): 0.78 in. Interior Depth (ID): 0.54 in. Interior Width (IW): 0.6 in. INTERIOR (IW): 0.6 in.	48 in. Channel & Frosted Lens, 1 open end cap, 1 closed end cap, 2 mounting clips, 2 mounting screws 96 in. Channel & Frosted Lens, 2 open end cap, 2 closed end cap, 4 mounting clips, 4 mounting screws		Classic Frosted Lens VL1, VL4: Semi-Diffused	Beam Angle: 120° Classic Frosted Lens Light Loss: 20% CCT Shift: -40K IP Rating Shift: IP40	U-Clip: 0.79 × 0.79 in. (H x W)
Slim Channel DI-CPCHB-SL (SL) 48", 96" Aluminum, White, Black For 14mm Tape Lights or smaller	Height (H): 0.38 in. Width (W): 0.82 in. Interior Depth (ID): 0.3 in. Interior Width (IW): 0.67 in. IW H	48" Aluminum, Black, & White Channels 48 in. channel & Iens 48 in. channel & Iens 28 surface mounting clips End cags: 12 spen, 12 closed 96" Aluminum, Black, & White Channels 96 in. channel & Iens 48 surface mounting clips end caps: 2x open, 2x closed	12mm Terminal Block	Architectural Frosted Lens VL1, VL4: Semi-Diffused Premium Diffusion Lens VL1, VL4: Dotless For diffusion options not listed, refer to Slim Channel Specification Sheet.	Beam Angle: 120° Architectural Clear Lens - Light Loss: 10% - CCT Shift: -20K Architectural Frosted Lens - Light Loss: 20% - CCT Shift: -35K Classic Frosted Lens - Light Loss: 20% - CCT Shift: -40K Black Lens - Light Loss: 90% - CCT Shift: -350K Premium Diffusion Lens - Light Loss: 10% - CCT Shift: -30K - CT Shift: -30K	Slim Mount: 3M Adhesive: Magnetic U-Clip: 0.54 × 0.87 in. (H x W) 0.48 × 0.82 in. (H x W) 0.59 × 0.82 in. (H x W) 0.96 × 0.82 in. (H x W)



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Canal Channel DI-CPCHB-CAN (CA) 48", 96" Aluminum, White, Black For 14mm Tape Lights or smaller	Height (H): 0.59 in. Width (W): 0.59 in. Interior Depth (ID): 0.54 in. Interior Width (IW): 0.61 in. Interior Width (IW): 0.61 in. INTERIOR IN	48" Aluminum, Black, & White Channels 48 in: channel & opal lens 48 in: channel & opal lens 2x surface mounting clips End caps: 1x open, 1x closed. 96" Aluminum, Black, & White Channels 4x surface mounting clips 4x surface mounting clips End caps: 2x open, 2x closed.	12mm Tape Light: Soldered Lead Only	Opal Lens VL1, VL4: Dotless	Beam Angle: 120° Opal Lens Light Loss: 55% CCT Shift-200K IP Rating Shift: IP40	U-Clip: 0.6 × 0.7 ln. (H × W)
16mm Square Channel DI-CPCH8-16MM (16) 48", 96" Aluminum For 14mm Tape Lights or smaller	Height (H): 0.89 in. Width (W): 0.77 in. Interior Width (IW): 0.63 in. IW W	48 in. channel & Architectural Frosted Lens 2x surface mounting clips End caps: 1x open, 1x closed. 96 in. channel & Architectural Frosted Lens 4x surface mounting clips End caps: 2x open, 2x closed.	12mm Terminal Block Compatible	Architectural Frosted Lens VL1, VL4: Dotless	Beam Angle: 120° Architectural Frosted Lens Light Loss: 20% CCT Shift: -35K Black Lens Light Loss: 90% CCT Shift: -35K Fisht: -35K CT Shift: -35K CT Shift: -35K Pating Shift: IP40	Mounting Clip: 0.89 × 0.77 in. (H x W)
20mm Round Channel DI-CPCHB-RC20 (RC20) 48", 96" Aluminum For 14mm Tape Lights or smaller	Height (H): 118 in. Width (W): 1.18 in. Interior Width (IW): 0.84 in.	48 in. channel & frosted lens 2x surface mounting clips End caps: 1x open, 1x closed. 96 in. channel & frosted lens 4x surface mounting clips End caps: 2x open, 2x closed.	12mm Terminal Block Compatible	Classic Frosted Lens VL1, VL4: Dotless	Beam Angle: 180° Classic Frosted Lens Light Loss: 20% CT Shift: -40K IP Rating Shift: IP40	U-Clip: 1.19 × 1.19 in. (H x W)
20mm Square Channel DI-CPCHB-SQC20 (SQ20) 48", 96" Aluminum For 14mm Tape Lights or smaller	Height (H): 118 in. Width (W): 1.18 in. Interior Width (W): 0.84 in.	48 in. channel & frosted lens 2x surface mounting clips End caps: 1x open, 1x closed. 96 in. channel & frosted lens 4x surface mounting clips End caps: 2x open, 2x closed.	12mm Terminal Block Compatible	Classic Frosted Lens VL1, VL4: Dotless	Beam Angle: 180° Classic Frosted Lens Light Loss: 20% CCT Shift: -30K IP Rating Shift: IP40	U-Clip: 1.19 × 1.19 in. (H x W)



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Data

Project Notes

https://www.diodeled.com/valent-reg-warm-dim.html

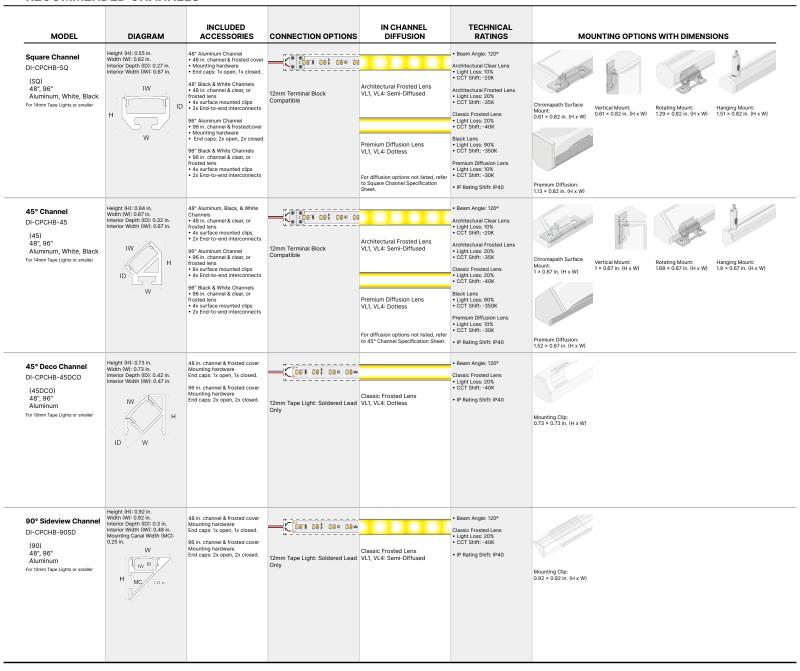














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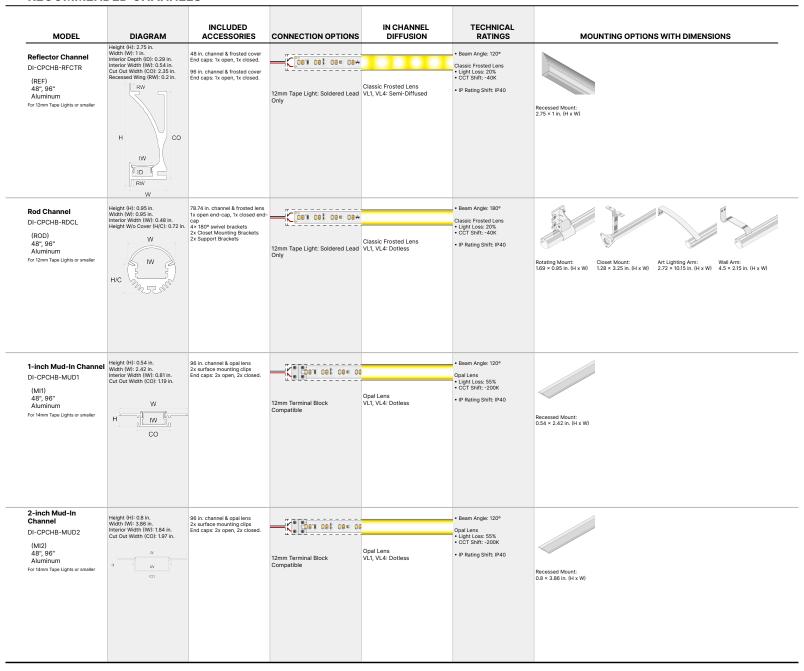














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RECOMMENDED 24V DRIVERS

SKU	INPUT VOLTAGE / FREQUENCY	OUTPUT VOLTAGE	MAXIMUM LOAD	MINIMUM LOAD	CLASS 2	DIMMABLE	LENGTH	WIDTH	HEIGHT	
OMNIDRIVE® X Dimma	able Driver				https://www.diodele	d.com/custom/download/p			r Specification Sheet ecification-sheet.pdf/	
	-performance dimming on ELV, TRIA	AC, and 0-10V						Conta		
systems.								ional Models ional 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.	
VI M Carias Canatant	Valtaga Driver				1			-	r Specification Sheet	
VLM Series Constant				https://www.diodeled.	.com/custom/download	d/productFile/filename/VLN	ne/VLM-Specification%20Sheet%20(Driver%20&%20J-Box).pdf/ Contains			
Compact driver for on/off, PV	VM dimming, and color-changing ap	plications.						ional Models	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.	
VLM100W-24-LPS3R	120 / 277VAC 47 - 63Hz	24V	100W	No Minimum Load	Yes	PWM	10.79 in.	7.34 in.	2.36 in.	
MEANWELL Constant			https://www	.diodeled.com/custom/dowr	nload/productFile/filena			-		
Drivers for on/on or PWM din	пппу аррисацопѕ.							ional Models	Derating Curves System Diagrams	
DI-CV-MW24V60W-277-LPS3R	120 ~ 277VAC 50/60Hz	24V	60W	No minimum load	Yes	Yes, with compatible PWM dimmer/controls	10.79 in.	7.34 in.	2.36 in.	
DI-CV-MW24V60W-277-LPS	120 ~ 277VAC 50/60Hz	24V	60W	No minimum load	Yes	Yes, with compatible PWM dimmer/controls	11.25 in.	3.75 in.	1.9 in.	

PoE (Power over Ethernet)

Constant voltage platform, ready for Power over Ethernet (inquire)

RECOMMENDED CONTROLLERS						
SKU	DESCRIPTION					
CASAMBI® Controllers The CASAMBI controllers will remote IOS & Android.	tely control your lighting through the app - downloadable for					
CBU-PWM4	CASAMBI PWM4 Single Color Dimming Controller					
CBU-A2D	CASAMBI A2D 2 Channel 0-10V/DALI Controller					
CBU-ASR	CASAMBI ASR 0-10V Controller					
CBU-TED	CASAMBI TED AC High Voltage Controller					
changing LED lighting via mobile de	tem controls single color dimming, tunable white, and color evice 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					





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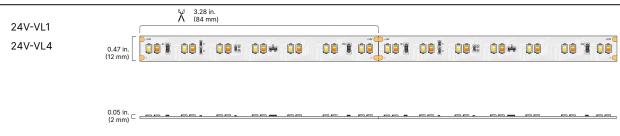








MECHANICAL DIAGRAMS



CONNECTIONS



36 in. Bare Lead 20/2 AWG UL 2464 Wire with Strain Relief



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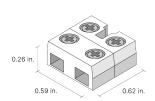




ACCESSORIES

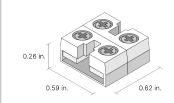
DI-TB12-CONN-TTW

12mm Tape-to-Wire Connector



DI-TB12-CONN-TTT

12mm Tape-to-Tape Connector



DELIVERY OPTIONS

· Field Assembly

Stock items for in-field assembly. Fastest order fulfillment.

• Factory + Field (Hybrid)

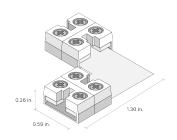
Finished lengths of light with leads. CHANNELS either bulk or factory finished. Some field assembly required

Factory Assembly

Fastest installation: fixtures fully assembled in the factory.

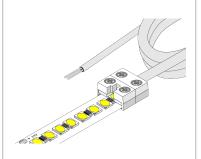
DI-TB12-90-TTT

12mm 90° Tape-to-Tape Connector



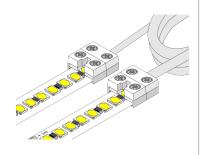
DI-TB12-60SPL-TTW

Splice Wire (Tape-to-Wire) (60 in.)



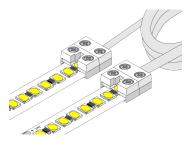
DI-TB12-6JPR-TTT

Jumper Cable (Tape-to-Tape) (6 in.)



DI-TB12-60JPR-TTT

Jumper Cable (Tape-to-Tape) (60 in.)



- 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 Listed Field Cuttable.
- Approved for storage areas of clothes closets per NEC 410.16.A.1,3 and 410.16.C.1,3,5
- CE & EMC Compliant: Verification No. GZEM141200683705V

Environment

RoHS Compliant: Verification No. CANEC1610091501

Performance

- Can be used to comply with TITLE 24 Part 6 High Efficacy Lighting LED requirements JA8-2016-2022-E
- 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

- 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
- 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.
- 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.
- 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
- Do not install indoor LED tape light products in outdoor / wet location environments. Only wet location tape light models are rated for outdoor / wet locations.
- 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.
- 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

7 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.