

OMNIDRIVE® X 12V / 24V Dimmable Driver

Versatile driver for most high-performance dimming on ELV, TRIAC, and 0-10V systems.
Dims to dark depending on installation.

Date <https://www.diodeled.com/omnidrive-reg-x-electronic-and-0-10v-dimmable-driver.html>

Project Notes



12/24
VDC

TITLE
24

FEATURES

- ELV, Triac, and 0-10V dimming in one unit
- 0.1% Performance Dimming, Dim to Dark
- 110-277VAC universal input
- No minimum load
- UL listed and JA8 compliant
- Optional Indoor/Outdoor NEMA3R Junction Box
- 5 Year limited warranty



12V DRIVER ORDERING CODES

Driver and optional Junction Box

Diode LED	Model	Voltage/Wattage	Junction Box
DI			
	ODX	Junction Box Required 12V100W-J (12 Volt / 100 Watt w/ Junction Box) 12V120W-J (12 Volt / 120 Watt w/ Junction Box) 12V200W-J (12 Volt / 200 Watt w/ Junction Box)	
		Junction Box Optional 12V30W (12 Volt / 30 Watt) 12V60W (12 Volt / 60 Watt)	-J (Junction Box) -J (Junction Box)

RECOMMENDED DIMMERS

Inquire for Dimmers not listed

- CRESTRON: Cameo - CLW-DIMEX-P
- CRESTRON: Cameo - CLW-DLEVEV
- LEGRAND: Paddle - ADPD453LW2
- LEVITON: Decora - DSE06-10Z
- LEVITON: Decora Smart - DW6HD-1BZ
- LEVITON: Illumitec - IP10-LFZ
- LUTRON: Ariadni - AYCL-153P
- LUTRON: Ariadni - AYLV-600P
- LUTRON: Caseta - PD-10NXD
- LUTRON: Caseta - PD-5NE
- LUTRON: Caseta - PD-6WCL
- LUTRON: Diva - 0-10V DVTW
- LUTRON: Diva - DV600P
- LUTRON: Diva - DVCL-153-P
- LUTRON: Diva - DVELV-300P
- LUTRON: Homeworks - HWD 6ND WH
- LUTRON: Homeworks QS - HQRD 6ND
- LUTRON: Maestro - MA-PRO
- LUTRON: Maestro - MACL-153M
- LUTRON: Maestro - MAELV-600
- LUTRON: Maestro - MRF2-6ND-120
- LUTRON: Nova T - NFTV
- LUTRON: Nova T - NTLV-603P
- LUTRON: Nova T* CL - NTCL 250

12V OMNIDRIVE® X - SPECIFICATION TABLE

With Junction Box	ODX-12V30W	ODX-12V60W	ODX-12V100W-J	ODX-12V120W-J	ODX-12V200W-J
Input Voltage / Frequency	120-277VAC	120-277VAC	120-277VAC	120-277VAC	120-277VAC
Maximum Load	30W	60W	100W	120W	200W
Output Voltage	12VDC	12VDC	12VDC	12VDC	12VDC
Efficiency	0.95	0.95	0.95	0.95	0.95
Class 2	Yes	Yes	No	No	No
Ambient Temperature	-40 ~ +140°F (-40 ~ +60°C)	-22 ~ 194°F (-30 ~ +90°C)	-22 ~ 194°F (-30 ~ +90°C)	-22 ~ 194°F (-30 ~ +90°C)	-22 ~ 194°F (-30 ~ +90°C)
Operating Temperature	-22 ~ 158°F (-30 ~ +70°C)	-22 ~ 158°F (-30 ~ +70°C)	-22 ~ 158°F (-30 ~ +70°C)	-22 ~ 158°F (-30 ~ +70°C)	-22 ~ 158°F (-30 ~ +70°C)
Minimum Load	No minimum load	No minimum load	No minimum load	No minimum load	No minimum load
Dimmable	Yes	Yes	Yes	Yes	Yes
Input Connection Type	Terminal	Terminal	Wire	Wire	Wire
Output Connection Type	Terminal	Terminal	Wire	Wire	Wire
Circuit Breakers	Shut down, recovers automatically after fault condition is removed	Shut down, recovers automatically after fault condition is removed	Shut down, recovers automatically after fault condition is removed	Shut down, recovers automatically after fault condition is removed	Shut down, recovers automatically after fault condition is removed
Environment	Indoor / Damp Location (IP20)	Indoor / Damp Location (IP20)	Outdoor / Wet Location	Outdoor / Wet Location	Outdoor / Wet Location
Working Humidity	20 - 95%RH, non-condensing	20 - 95%RH, non-condensing	20 - 95%RH, non-condensing	20 - 95%RH, non-condensing	20 - 95%RH, non-condensing
Dimensions	6.1 × 2.1 × 0.8 in. (L x W x H)	7 × 2.4 × 1 in. (L x W x H)	8.66 × 3.7 × 1.36 in. (L x W x H)	8.66 × 3.7 × 1.36 in. (L x W x H)	10.24 × 4.92 × 1.95 in. (L x W x H)
Certification	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P
Warranty	5 Year	5 Year	5 Year	5 Year	5 Year
Without Junction Box	ODX-12V30W	ODX-12V60W			
Dimensions	6.1 × 2.1 × 0.8 in. (L x W x H)	7 × 2.4 × 1 in. (L x W x H)			
Environment	Indoor / Damp Location (IP20)	Indoor / Damp Location (IP20)			

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- Optional Indoor/Outdoor NEMA3R Junction Box
- 5 Year limited warranty



24V DRIVER ORDERING CODES

Driver and optional Junction Box

Diode LED	Model	Voltage/Wattage	Junction Box
DI			
	ODX	Junction Box Required 24V120W-J (24 Volt / 120 Watt w/ Junction Box) 24V200W-J (24 Volt / 200 Watt w/ Junction Box)	
		Junction Box Optional 24V30W (24 Volt / 30 Watt) 24V60W (24 Volt / 60 Watt) 24V96W (24 Volt / 96 Watt)	-J (Junction Box) -J (Junction Box)

RECOMMENDED DIMMERS

Inquire for Dimmers not listed

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- CRESTRON: Cameo - CLW-DLEVE X
- LEGRAND: Paddle - ADPD453LW2
- LEVITON: Decora - DSE06-10Z
- LEVITON: Decora Smart - DW6HD-1BZ
- LEVITON: Illumitech - IP10-LFZ
- LUTRON: Ariadni - AYCL-153P
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- LUTRON: Nova - NFTV
- LUTRON: Nova - NTLV-603P
- LUTRON: Nova T* CL - NTCL 250

24V OMNIDRIVE® X - SPECIFICATION TABLE

With Junction Box	ODX-24V30W-J	ODX-24V60W-J	ODX-24V96W-J	ODX-24V120W-J	ODX-24V200W-J
Input Voltage / Frequency	120-277VAC	120-277VAC	120-277VAC	120-277VAC	120-277VAC
Maximum Load	30W	60W	96W	120W	200W
Output Voltage	24VDC	24VDC	24VDC	24VDC	24VDC
Efficiency	0.95	0.95	0.95	0.95	0.95
Class 2	Yes	Yes	Yes	No	No
Ambient Temperature	-40 ~ +140°F (-40 ~ +60°C)	-22 ~ 194°F (-30 ~ +90°C)	-22 ~ 194°F (-30 ~ +90°C)	-22 ~ 194°F (-30 ~ +90°C)	-22 ~ 194°F (-30 ~ +90°C)
Operating Temperature	-22 ~ 158°F (-30 ~ +70°C)	-22 ~ 158°F (-30 ~ +70°C)	-22 ~ 158°F (-30 ~ +70°C)	-22 ~ 158°F (-30 ~ +70°C)	-22 ~ 158°F (-30 ~ +70°C)
Minimum Load	No minimum load	No minimum load	No minimum load	No minimum load	No minimum load
Dimmable	Yes	Yes	Yes	Yes	Yes
Input Connection Type	Terminal	Terminal	Wire	Wire	Wire
Output Connection Type	Terminal	Terminal	Wire	Wire	Wire
Circuit Breakers	Shut down, recovers automatically after fault condition is removed	Shut down, recovers automatically after fault condition is removed	Shut down, recovers automatically after fault condition is removed	Shut down, recovers automatically after fault condition is removed	Shut down, recovers automatically after fault condition is removed
Environment	Outdoor / Wet Location	Outdoor / Wet Location	Outdoor / Wet Location	Outdoor / Wet Location	Outdoor / Wet Location
Working Humidity	20 - 95%RH, non-condensing	20 - 95%RH, non-condensing	20 - 95%RH, non-condensing	20 - 95%RH, non-condensing	20 - 95%RH, non-condensing
Dimensions	6.5 × 3.7 × 1.36 in. (L x W x H)	7.4 × 3.7 × 1.36 in. (L x W x H)	8.66 × 3.7 × 1.36 in. (L x W x H)	8.66 × 3.7 × 1.36 in. (L x W x H)	10.24 × 4.92 × 1.95 in. (L x W x H)
Certification	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P	cULus (US & Canada) Listed, UL # E499308. ANSI/UL 1310 Power Unit. CAN/CSA-C22.2 No.250.13. Class P
Warranty	5 Year	5 Year	5 Year	5 Year	5 Year
Without Junction Box	ODX-24V30W	ODX-24V30W	ODX-24V96W		
Dimensions	6.1 × 2.1 × 0.8 in. (L x W x H)	6.1 × 2.1 × 0.8 in. (L x W x H)	9 × 2.7 × 1.7 in. (L x W x H)		
Environment	Indoor / Damp Location (IP20)	Indoor / Damp Location (IP20)	Outdoor / Wet Location (IP65)		

OMNIDRIVE® X 12V / 24V

Dimmable Driver

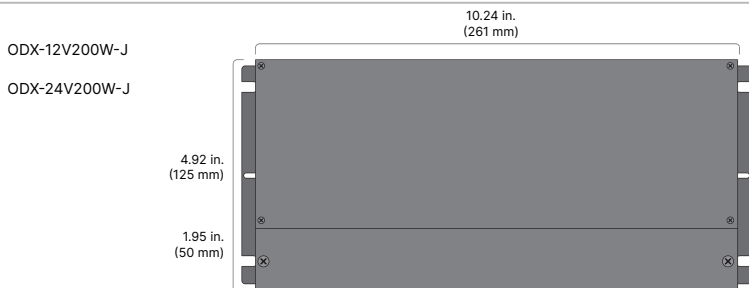
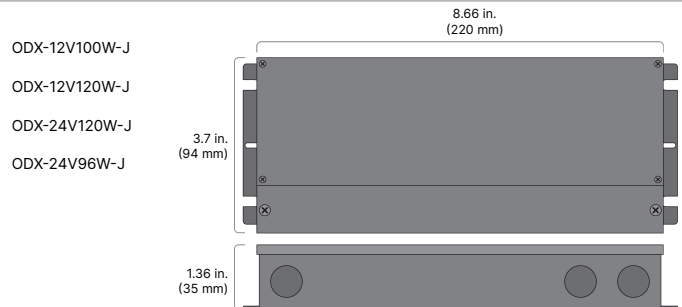
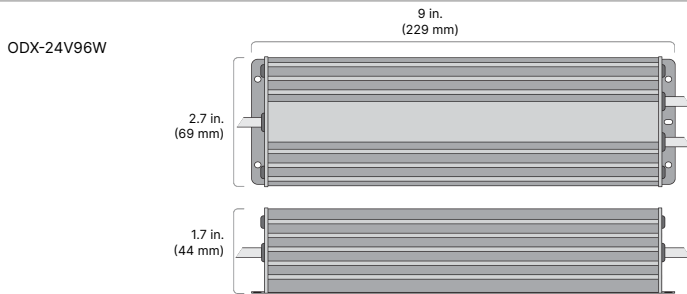
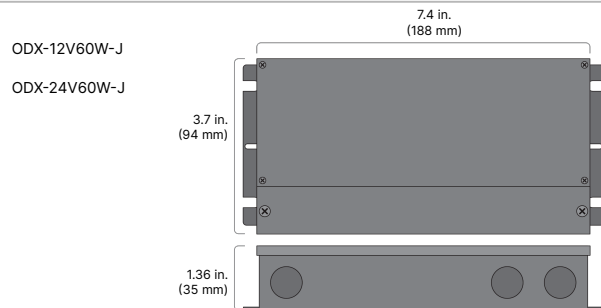
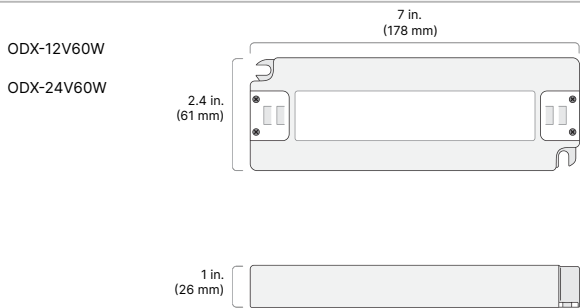
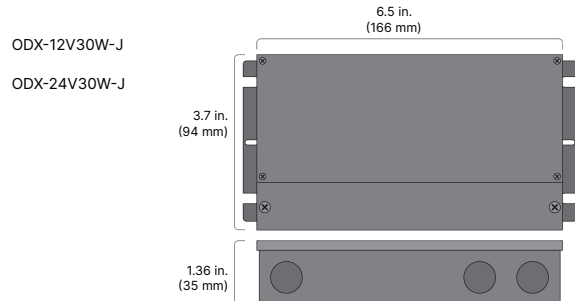
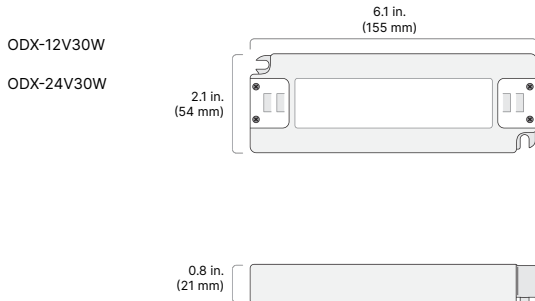
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Project Notes



MECHANICAL DIAGRAMS



OMNIDRIVE® X 12V / 24V

Dimmable Driver

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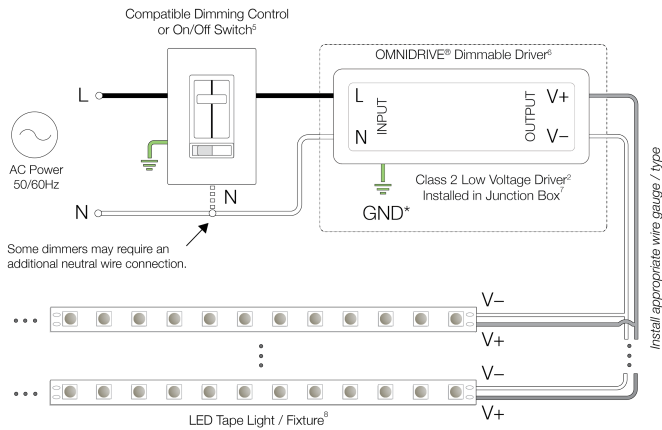
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Project Notes

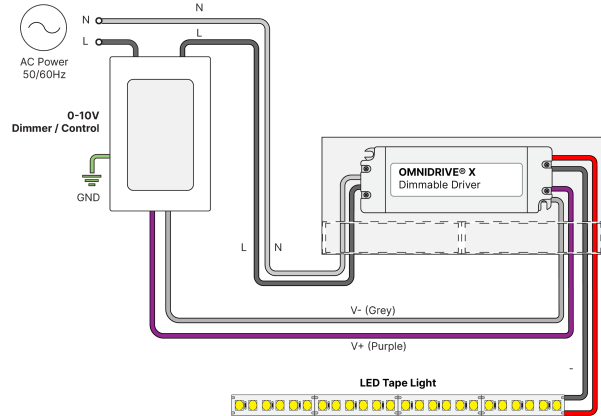


SYSTEM DIAGRAMS

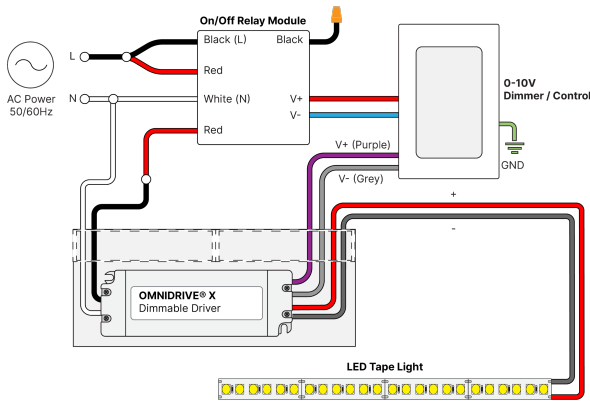
ELECTRONIC



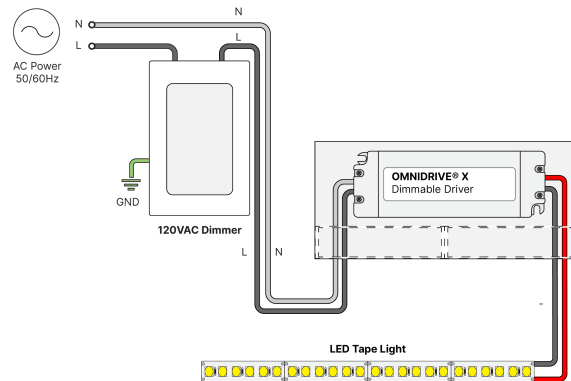
0-10V (No Relay)



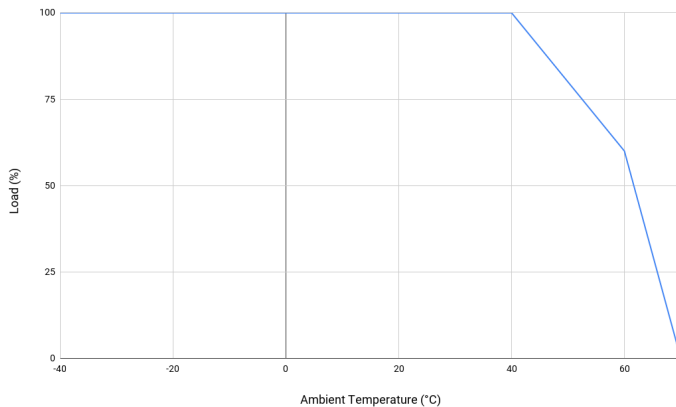
0-10V (With Relay)



STANDARD DIMMER



DERATION CURVE



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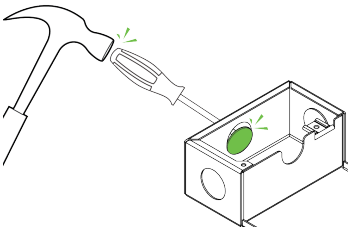
Project Notes



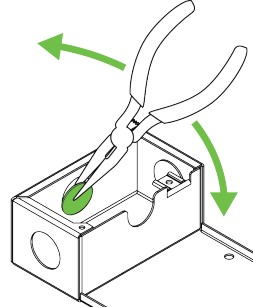
INSTALLATION

1. PUNCH OUT KNOCKOUTS FOR CONDUIT ACCESS

A. Use punch and hammer to loosen K/O.

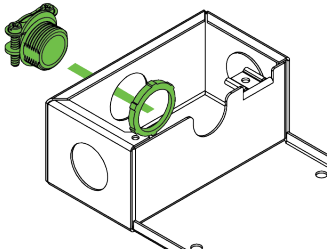


B. Grip K/O with pliers. Bend back and forth until broken off.



2. ATTACH CABLE STRAIN RELIEF

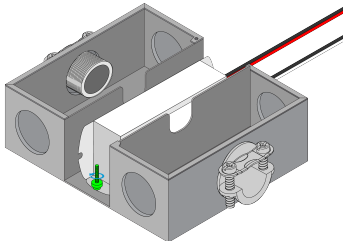
Attach included 3/8" NM (Non-Metallic) Cable Strain Relief or other fitting for conduit access.



- Additional fittings for BX cable, flexible conduit and rigid conduit must be purchased at local hardware store.
- J-Box actual KO diameter is 0.87" and fits 3/8" fittings.

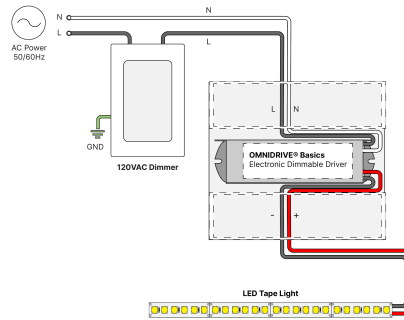
3. FASTEN POWER SUPPLY TO J-BOX

Finger tighten with included screw.



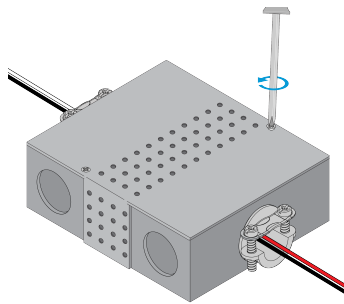
4. SYSTEM DIAGRAM

Standard Dimmer System Diagram.



5. FINISH ASSEMBLY

Secure Junction Box Cover using phillips-head screwdriver.



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Project Notes



CERTIFICATIONS

Safety

- cULus (US & Canada) Listed, UL # E499308. ANSI/UL 8750. CAN/CSA-C22.2 No.250.13. Class P
- Title 24 JA8/JA10 Compliant

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.
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.
5. Do not install in environment where excessive heat may exist (ex. close proximity to fireplace, etc.) See Ambient Temperature ratings.
6. 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.
7. Do not modify product beyond instructions or warranty will be void.
8. Actual color may vary from what is pictured on this sheet and other print materials due to the limitations of photographic processes.
9. 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.
- 10.

WARRANTY

Limited Warranty

- 5 Years

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.

- 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.