INDOOR LED DRIVER PHASE/TRIAC DIMMABLE - OPTIONS 12V OR 24V DC OUTPUT

5W

25W & 50W

DESCRIPTION:

Triac Dimmable Indoor LED Drivers provide smooth dimming control for LED lighting systems. Available with 12V or 24V DC output, they come in various power options, such as 5W, 25W, and 50W. These drivers are compatible with Forward Phase, Magnetic Low Voltage (MLV), and TRIAC dimmers, making them versatile for both residential and commercial settings. These drivers ensure stable, flicker-free performance, ideal for dry and damp locations.

TECHNICAL FEATURES:

5W:

- Output Voltage: Constant voltage with slight adjustability
- AC Input: 100-130VAC
- Power Factor: Up to 0.6
- High Efficiency: Up to 72%
- Dimming Range: 0-100%
- Load Range: 5-100%
- Protection: Short circuit, overload, over-temperature
- PWM Output: Does not change the color index
- Housing: Full protection plastic housing, suitable for dry and damp locations
- Cooling: Free air convection
- Dimming Compatibility: Forward Phase, Magnetic Low Voltage (MLV), Triac dimmers
- Flicker-Free: Provides flicker-free dimming

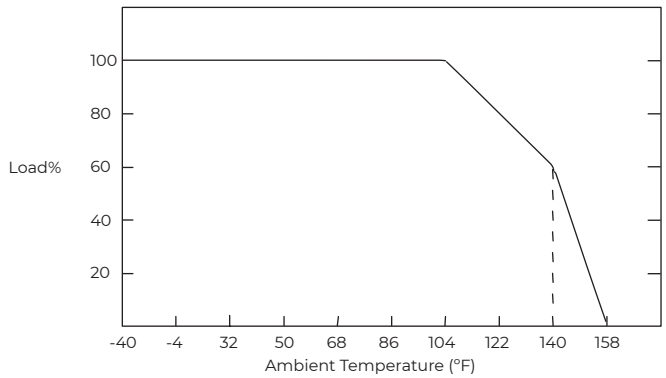
25W AND 50W:

- Output: Constant voltage
- Universal AC input: 100-130VAC
- High Efficiency: Up to 82% (25W), Up to 84% (50W)
- Protection: Short circuit, overload, over-current, over-temperature
- Housing: Full protection plastic housing, suitable for dry and damp locations, IP20
- Cooling: Free air convection
- Dimming Compatibility: Forward Phase, Magnetic Low Voltage (MLV), Triac dimmers
- Strong compatibility, flicker-free dimming

APPLICATIONS:

- Residential Lighting
- Commercial Lighting
- Architectural Lighting
- LED Lighting
- Signage Lighting
- Display lighting

DERATING CURVE:

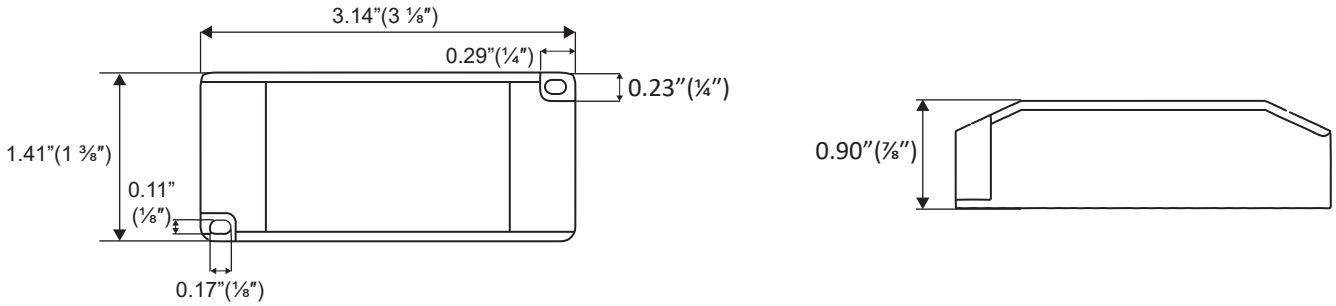


TECHNICAL SPECIFICATIONS:

Output	Wattage	5W	25W		50W	
	Size	3.14" x 1.41" x 0.90	6.10" x 2.12" x 0.78"		7" x 2.40" x 0.94"	
	DC Voltage	12V	12V	24V	12V	24V
	Voltage Tolerance	±0.5V				
	Rated Current	0.42A	2.08A	1.04A	4.17A	2.08A
	Voltage Regulation	±0.5%	--			
	Load Regulation	±0.5%	--			
Input	Voltage Range	100-130VAC				
	Frequency Range	47~63Hz				
	Power Factor (Typ.) @ full load	0.6@120VAC	0.65			
	Efficiency (Typ.) @ full load	72%	80%	82%	81%	84%
	AC Current(Max.)	0.12A@100VAC	0.9A		1.6A	
	Leakage current	<0.50mA	<0.50mA/120VAC			
	Inrush Current (Typ.)	4.88A 50% 520uS	--			
Protection	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed				
	Over Loading	≤120% Hiccup mode, recovers automatically after fault condition is removed	≤120%			
	Over Current	--	≤1.2*I out			
	Over Temperature	--	212°F±50°F, Shut down o/p voltage, recover automatically after temperature goes down.			
Environment	Working TEMP.	-40°F ~ 140°F				
	Working Humidity	20~90%RH, non-condensing				
	Storage TEMP. Humidity	-40°F ~ +176°F ,10 ~ 95%RH				
	TEMP .coefficient	±0.03% (32°F ~ 122°F)				
	Vibration	10~500Hz, 2G 10min./ 1 cycle,period for 60min. each along X,Y,Z axes	10~500Hz, 2G 12min./ 1 cycle, period for 72min. each along X,Y,Z axes			
Safety and EMC	Safety Standards	UL8750+UL1310	UL8750+UL1310 Class 2 unit			
	Withstand Voltage	I/P-O/P:1.88KVAC	I/P-O/P:1500VAC			
	Isolation Resistance	I/P-O/P:100MΩ/500VDC/77°F/70%RH				
	EMC EMISSION	FCC Part 15 B				
Notes	1. Unless otherwise specified, all parameters are measured at 120VAC input, rated load, and an ambient temperature of 77°F. 2. To prolong the driver's lifespan, reduce the load when operating at lower input voltages. 3. The loading range for the 25W and 50W drivers should be between 5% and 100%.					

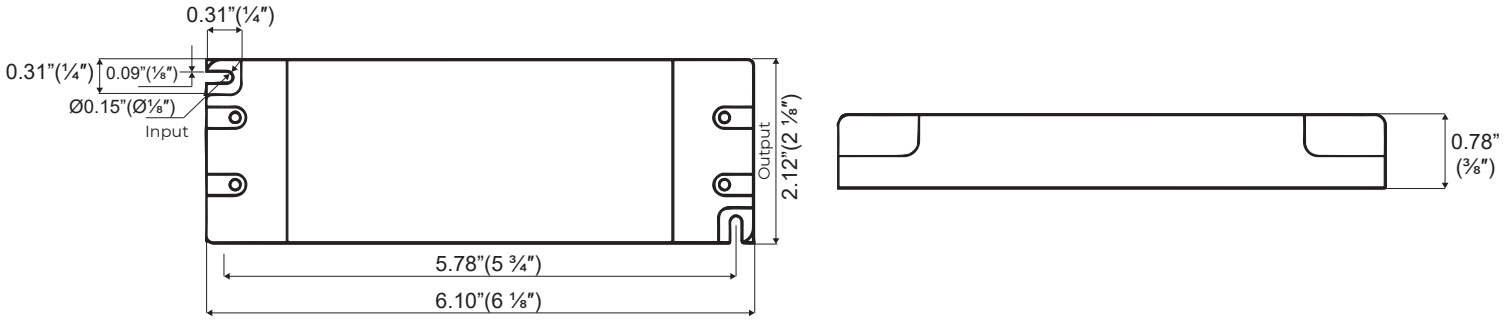
DIMENSION:

5W



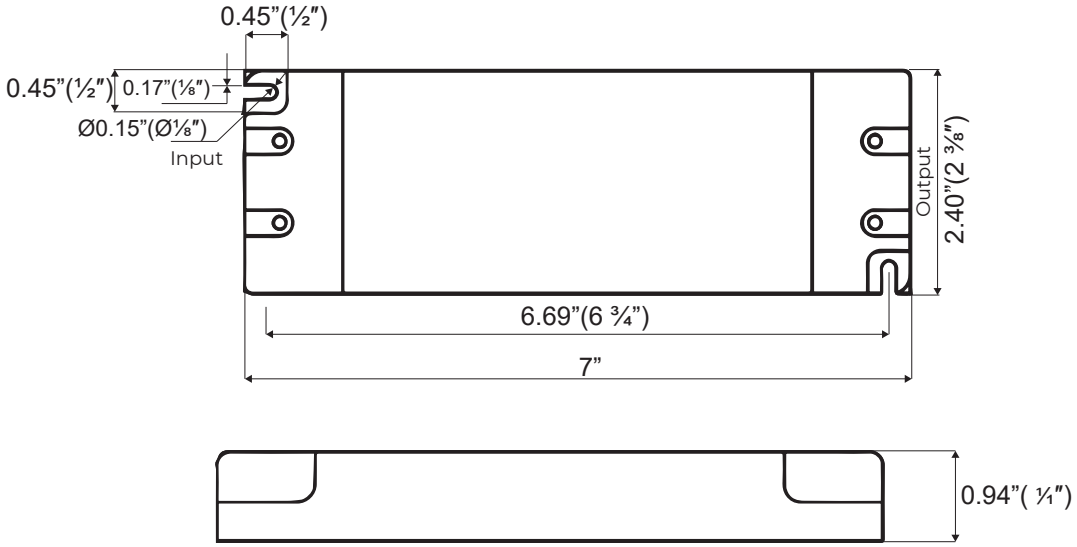
1. Input Terminals: Connect "Black" to AC Live (L) and "White" to AC Neutral (N).
2. Output Terminals: Connect "Red" to the LED Positive (+) side and "Black" to the LED Negative (-) side.

25W



1. Input: Connect the input wires to AC terminals (L) and (N).
2. Output: Connect (LED+) to the positive terminal and (LED-) to the negative terminal.

50W



1. Connect the input wires to AC terminals (L) and (N).
2. Output: Connect (LED+) to the positive terminal and (LED-) to the negative terminal.

DIMMING OPERATION:

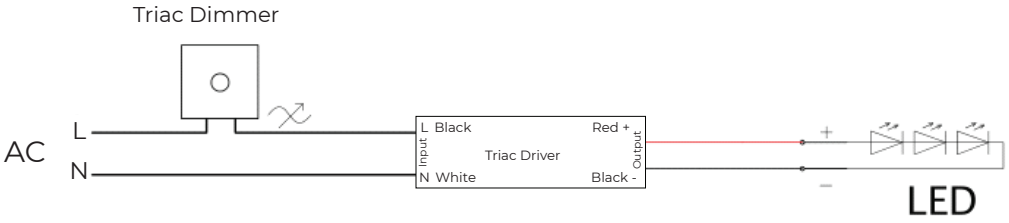
5W:

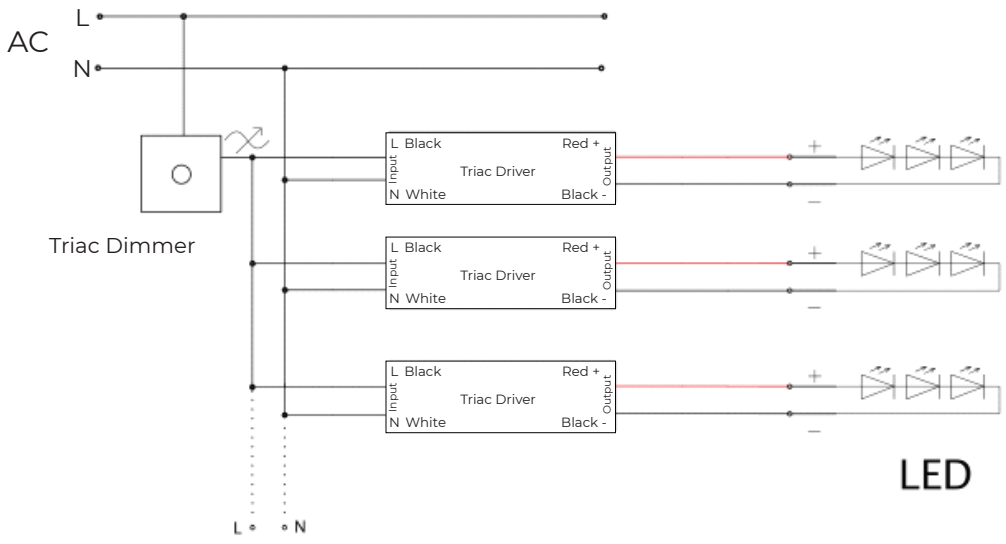
- The Pulse-Width Modulation (PWM) of the output voltage can be adjusted through the input terminal of the AC phase line (L) by connecting a phase/triac dimmer.
- Typically compatible with Forward Phase, Leading Edge, Magnetic Low Voltage (MLV), and Triac dimmers.
- Use dimmers with a power rating at least 1.5 times the output power of the driver.

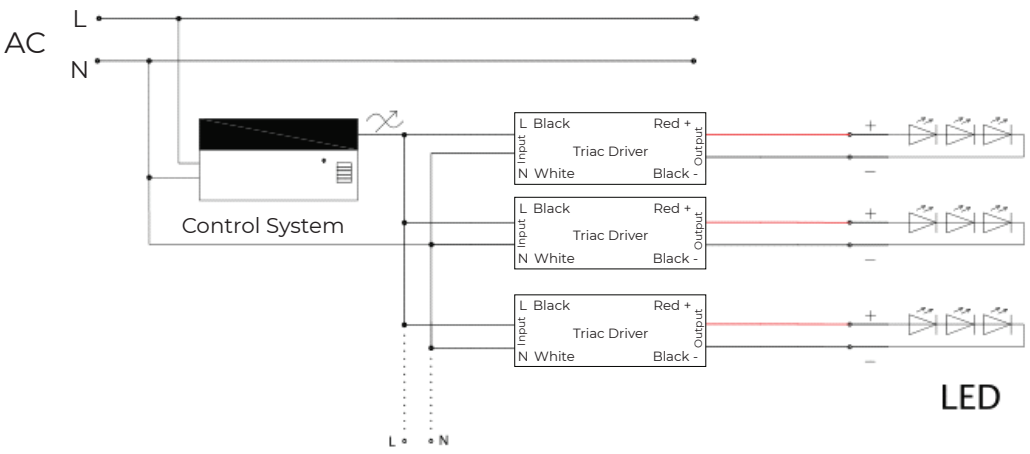
25W AND 50W:

- The Pulse-Width Modulation (PWM) of the output voltage can be adjusted through the input terminal of the AC phase line (L) by connecting a triac dimmer.
- Typically compatible with Leading Edge/Forward Phase Triac dimmers. Can be customized to match Trailing Edge/Reverse Phase Triac dimmers if needed.
- Use dimmers with a power rating at least 2.5 times the output power of the driver.
- Compatible with Forward Phase, Magnetic Low Voltage (MLV), and Triac dimmers.

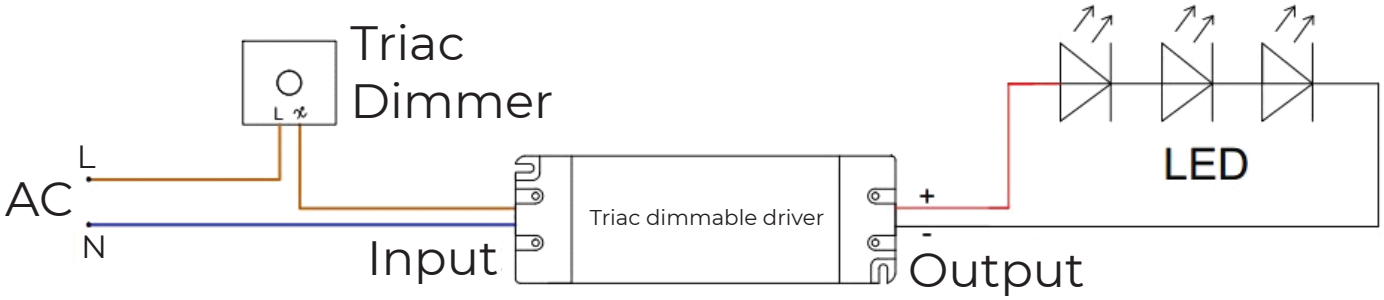
CONNECTING DIAGRAM-5W:

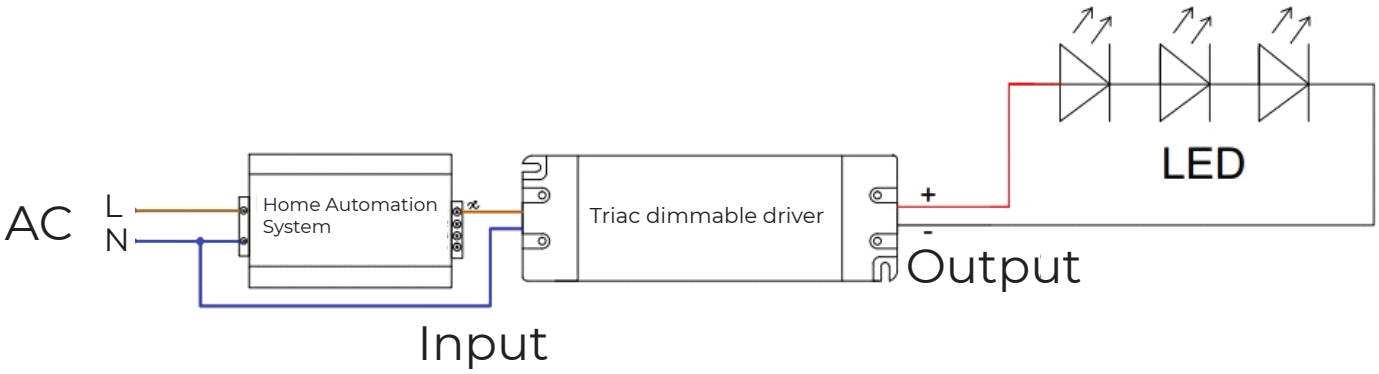




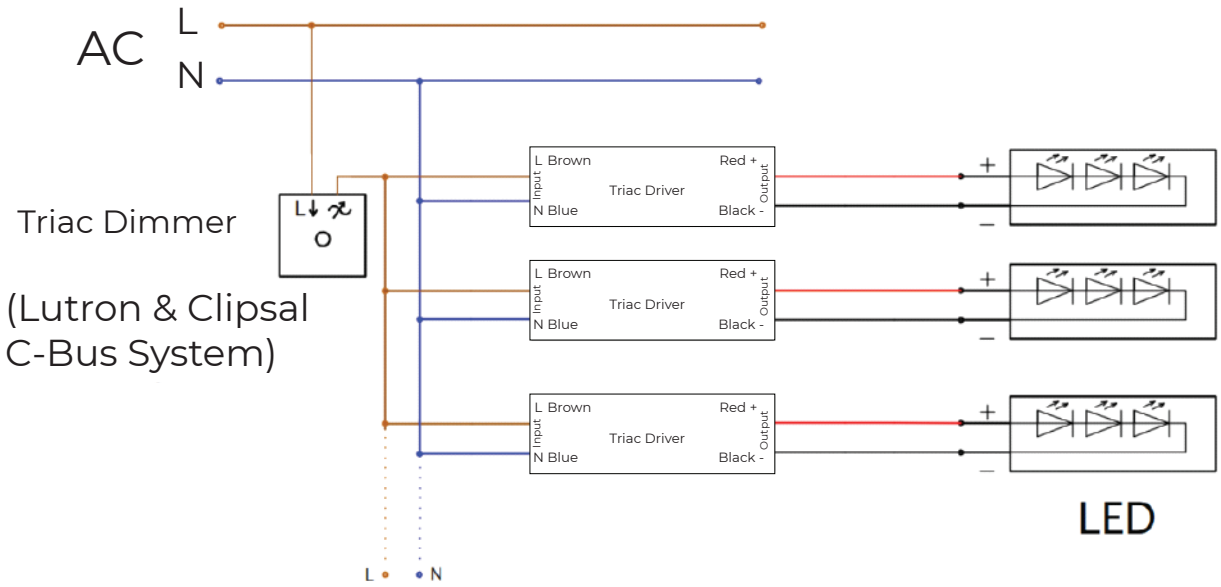


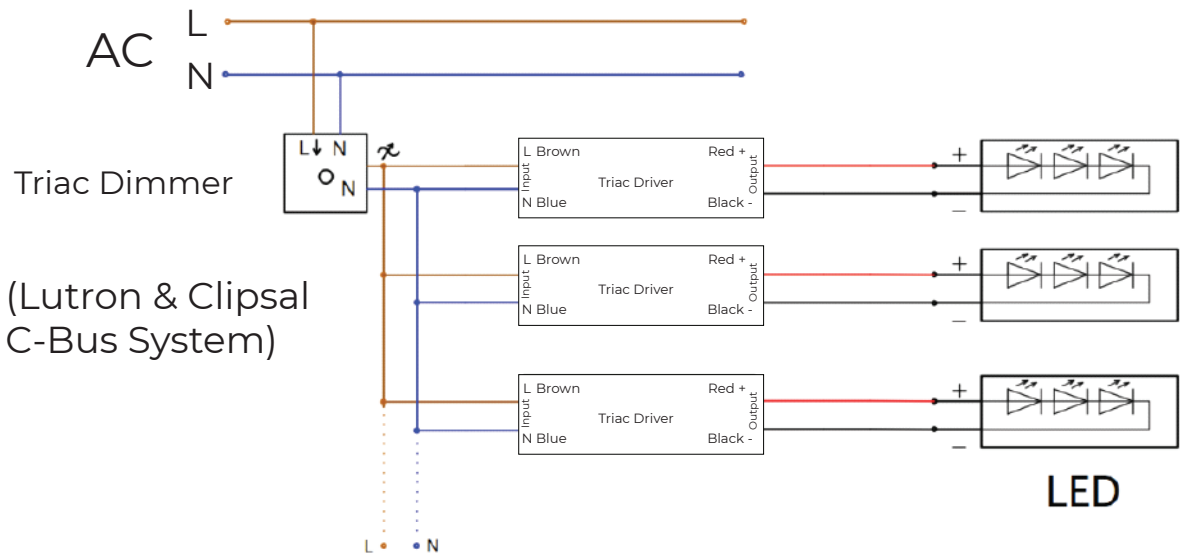
SINGLE DRIVERS CONNECTING DIAGRAM-25W & 50W:

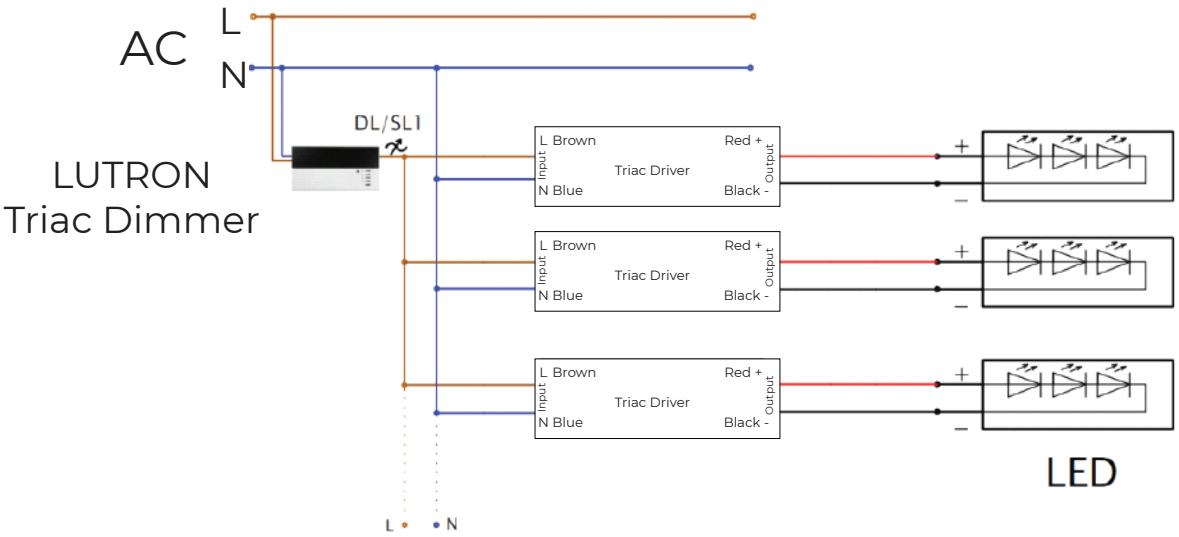




MULTIPLE DRIVERS CONNECTING DIAGRAM-25W & 50W:







WARNING:

- Avoid reversing polarity.
- Risk of Electric Shock: When used outdoors, install only on a circuit protected by a Class A GFCI.
- Risk of Fire: Installation requires special wiring methods to run wiring through a building structure. Consult a qualified electrician.
- Risk of Electric Shock: Mount the unit at least 1 foot above the ground surface.

INSTRUCTIONS:

- Installation should be performed by a qualified professional.
- Ensure adequate ventilation around the driver for proper heat dissipation.
- Verify correct wiring before testing to prevent damage to the light and power supply.