

# INSTRUCTIONS FOR STEALTH DC RECESSED MTRTS<sup>®</sup>



## Overview and dimensions

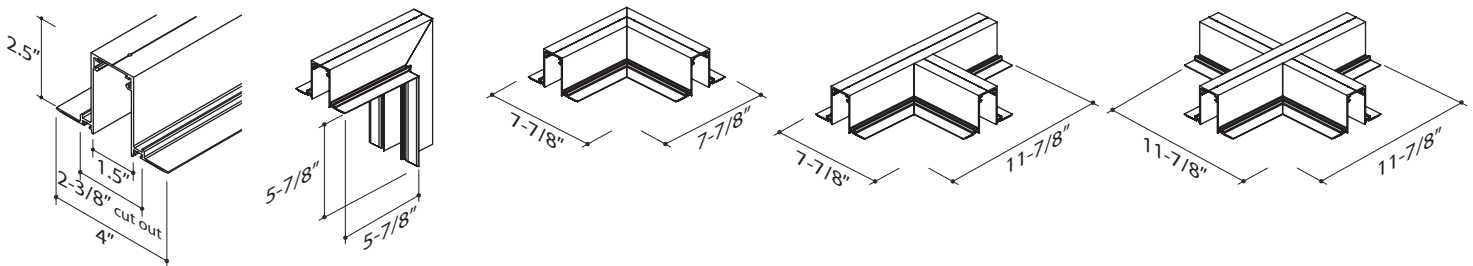
**WARNING** Risk of fire or electric shock. Only qualified, licensed electricians should install.

1. Read and review all instructions and diagrams prior to installation.
2. Disconnect power prior to installation. Turn off circuit breaker or remove fuse from fuse panel. (Turning off the light switch is insufficient to safeguard against electric shock.)
3. Electrical connections must conform to local codes and ordinances, or the National Electrical Code.
4. Wire the luminaire following the wiring diagram on the driver, or inside the box. Use UL listed wire connectors suitable for the size, type, and number of conductors. No loose strands or wires should be present. Secure wire connectors with UL listed electrical tape and wire nuts.
5. Restore electricity and test fixture.

NOTE: These safeguards and instructions are not intended to cover all possible conditions and circumstances.

**NOTE:**

1. Max wattage linkable per loop for 24VDC is 150W.
2. See MAX cable length chart for wire requirements.
3. Dimming modules are compatible to PWM dimming driver only.
4. To use drivers not on recommended list will require a compatibility test before installation.
5. Tracks can be continuously linkable without limitation and can divide into sections for separate circuits.
6. Minimum voltage per loop is 22VDC (measure at the end of the loop), under 22VDC per loop might cause abnormal function.
7. Calculating max wattage connection, save 20% buffer for linear modules, and 25% buffer for other modules.
8. Using a driver not in the recommended list may cause module flickering, unstable dimming and/or noise, even causing module failure.
9. When multiple drivers are use in the connection, make sure the connector without circuit is used to divide the loop.
10. When installing tracks, make sure to measuring the voltage without modules to see if the voltage is 24VDC, if the voltage drop is  $\leq 0.1V$ , or the voltage drop is over 0.1V, make sure the connector is secured properly, warpage is not allowed in the connection, also check the cleanliness of the copper connector, copper connector can be cleaned using alcohol.

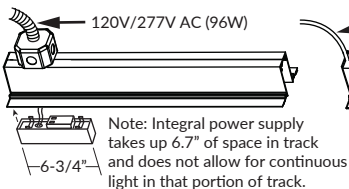


### POWER FEED METHODS (Explained)

Note that most orders will come with connectors and power feeds installed at the factory for your specific order. All tracks will be specific for "Start", "Middle", "End" and "Top Powered Supply" for middle or end.

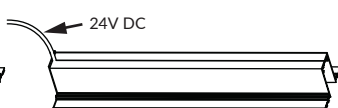
**On-Board Integral**

Initial Starter Track.  
96W 120V/277V power source.  
Allows for below ceiling access of power supply. Non-Dimmable



**End Cap Powered**

Initial Starter Track.  
Includes End Cap Power Feed for beginning of the run with a remote driver. 72" Cable length.



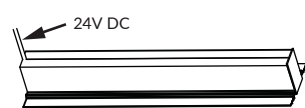
**Adjacent Track Powered**

Intermediate Track.  
Includes electrical connector to receive power from adjacent track. (Mechanical hardware to connect to previous run is included.)



**Top Powered Supply**

Starter Track.  
Includes Top Power Feed for continuing the run with an additional remote driver. (Mechanical hardware to connect to previous run is included). 72" Cable length.



See remote driver page for driver information and wire requirements for max wiring distance.

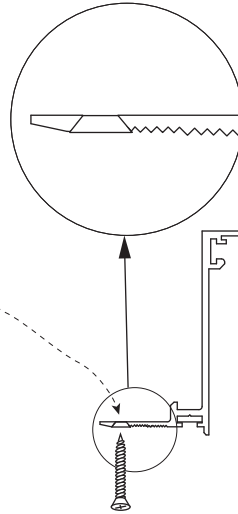
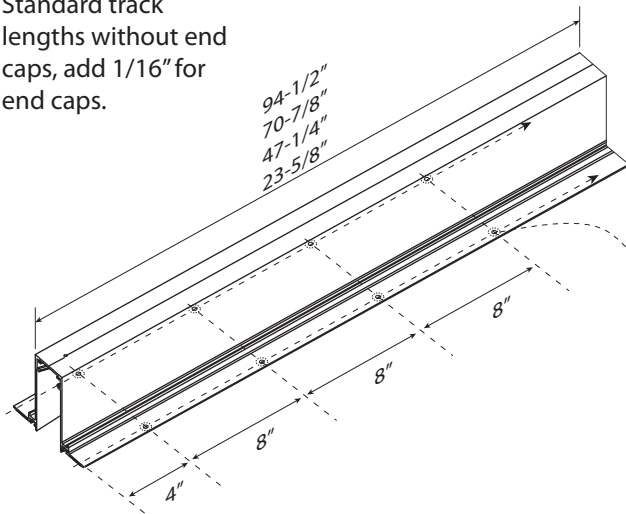
# INSTRUCTIONS FOR STEALTH DC RECESSED MTRTS

**MODULED**  
MODULAR LIGHTING BY LITON

## Prepare for mounting

**1.**

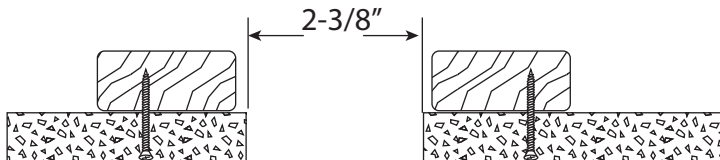
Standard track lengths without end caps, add 1/16" for end caps.



Mounting holes need to be drilled and counter sunk into mounting flange for flat head screws. Starting at approximately 4" from end and 8" between.

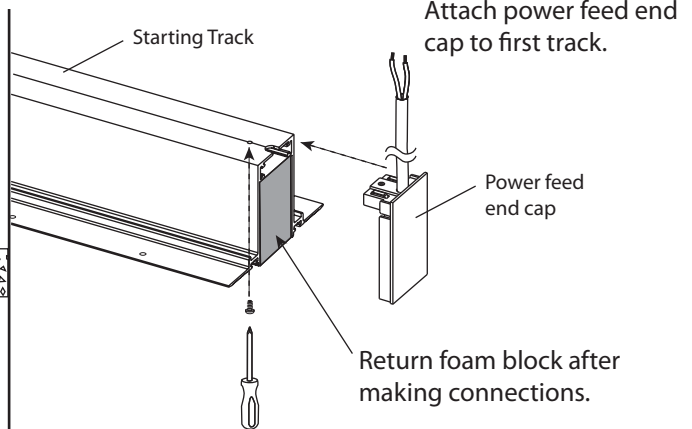
**2.**

Cut 2-3/8" wide gap in drywall to fit track.



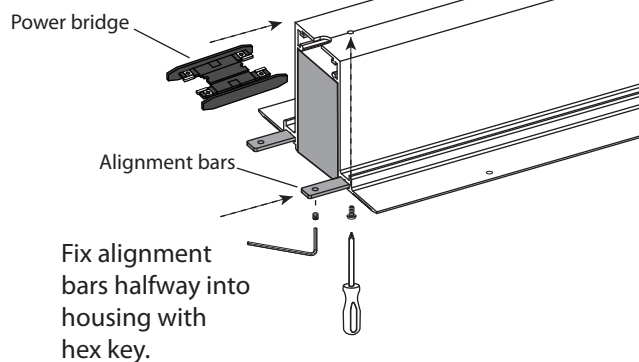
Use screws to hold backing block in place.  
(Wood backing by others)

**3.**



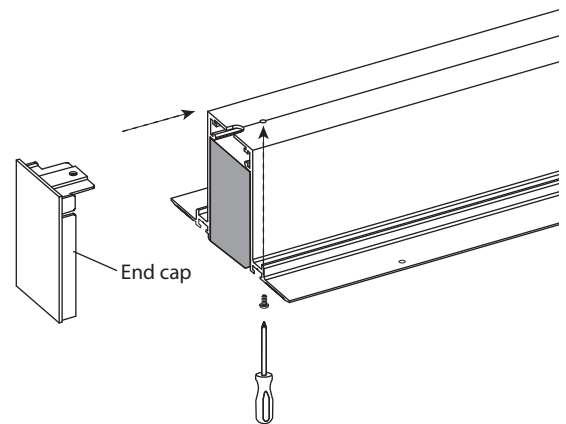
**4.**

Insert power bridge into the following "middle" or "end" track and fix with screw.



**5.**

For end of run, attach end cap to track.

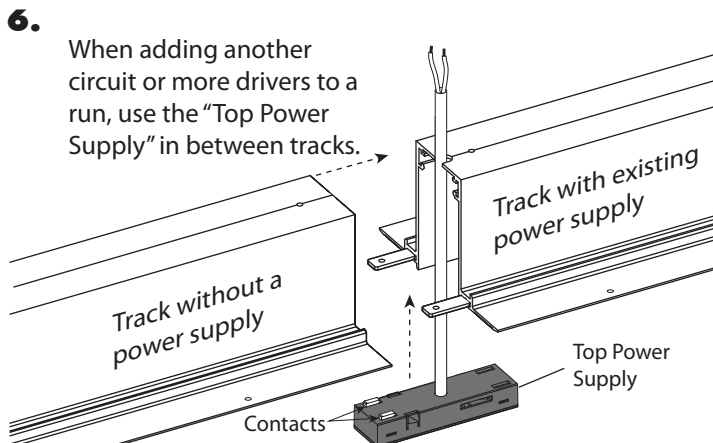


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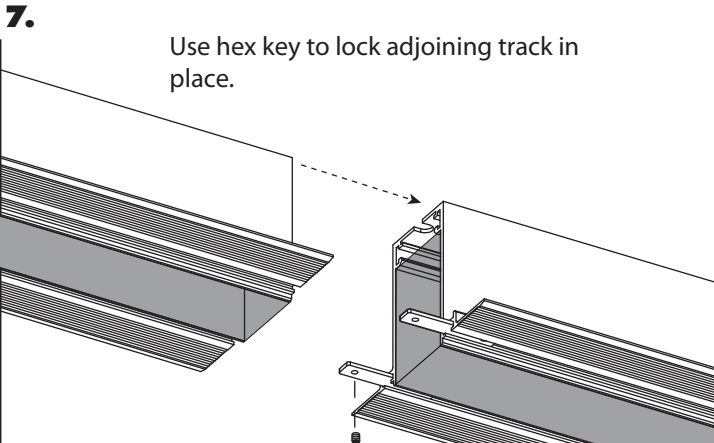
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## Installing and finishing

**6.** When adding another circuit or more drivers to a run, use the "Top Power Supply" in between tracks.

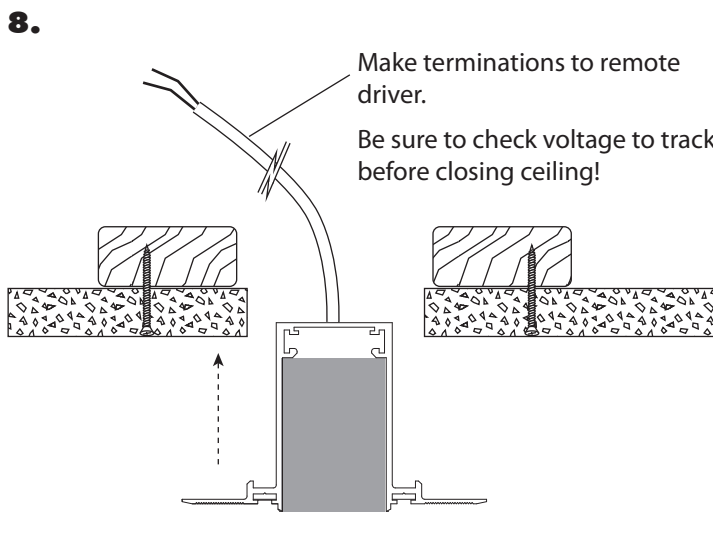


**7.** Use hex key to lock adjoining track in place.

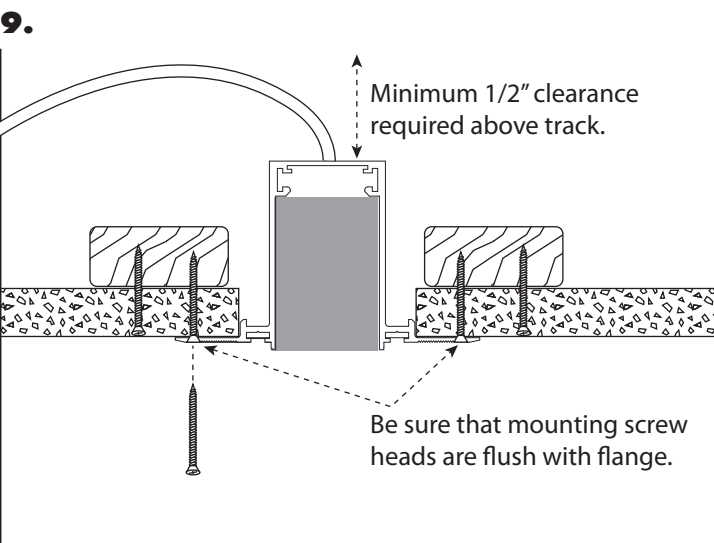


**IMPORTANT:** Note position of contacts on power feed, they must only make contact to the track without an existing circuit. Push into housing and snap into place. Turn locking screw to secure.

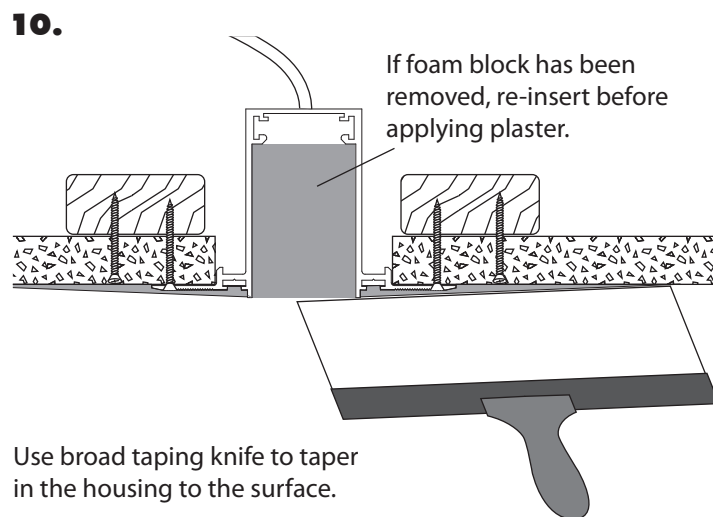
**8.** Make terminations to remote driver. Be sure to check voltage to track before closing ceiling!



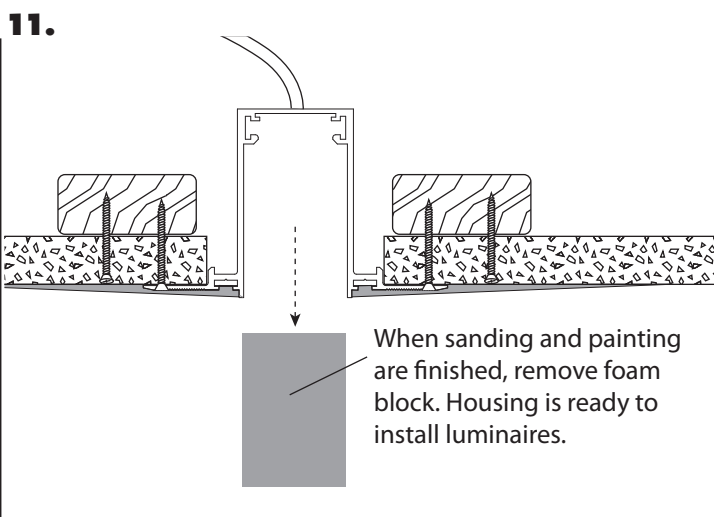
**9.** Minimum 1/2" clearance required above track. Be sure that mounting screw heads are flush with flange.



**10.** If foam block has been removed, re-insert before applying plaster. Use broad taping knife to taper in the housing to the surface.



**11.** When sanding and painting are finished, remove foam block. Housing is ready to install luminaires.

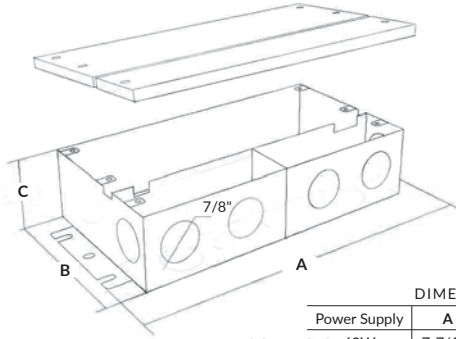


# UNIDIM™ 24V POWER SUPPLY

## 120V/277V (60W | 96W | 200W) 5-WIRE

- Built-in active Power Factor Correction (PFC) function
- Power Factor up to 0.98
- High efficiency: up to 85%
- Load: 10-100%
- Flicker-free light output
- Dry, damp, and wet location

ModuLED's 120V/277V Universal AC input (60W | 96W | 200W) 5-Wire 24V Power Supply is a constant voltage, UL, cUL listed, Class 2, Type HL, FCC rated dimmable LED driver. Features include short circuit, over loading and over temperature protection; PWM output which does not change the color index; full protection metal case for dry, damp, and wet locations; phase dimming works with forward phase/leading edge, MLV and reverse phase/trailing edge, ELV, TRIAC dimmers; 0-10V dimming is 0-10V/1-10V/Potentiometer/10V PWM 4 in 1; dimming range is 0-100%.



DIMENSIONS			
Power Supply	A	B	C
60W	7-7/16"	3-9/16"	1-9/16"
96W	8-11/16"	3-9/16"	1-9/16"
200W	10-1/4"	3-9/16"	1-3/4"



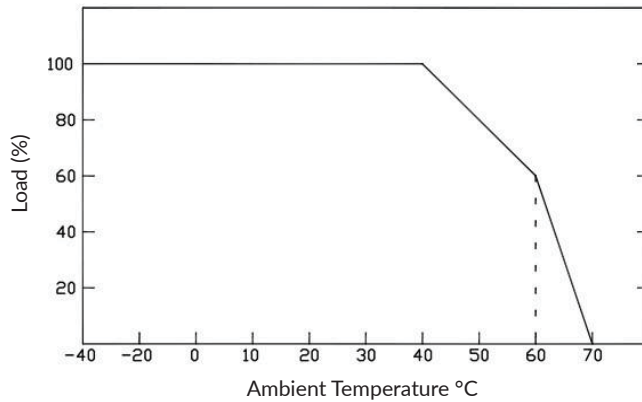
### Specification

Model	LD533V024-1227-60-DUN-JB	
Certificates	UL, cUL listed, Class 2 unit, Type HL rated, FCC	
Output	DC Voltage	24V
	Rated Current	2.5A
	Rated Power	60W   96W   200W
	Voltage Tolerance	±0.5V
	Voltage Regulation	±0.5%
	Load Regulation	±1%
Input	Voltage Range	100-277VAC
	Frequency Range	47-63Hz
	Power Factor (Typ.) @ full load	0.98 @ 120VAC, 0.95 @ 277VAC
	THD (Typ.) @ full load	<20%
	Efficiency (Typ.) @ full load	83% @ 120VAC, 84% @ 277VAC
	AC Current (Max.)	0.5A @ 100VAC
	Inrush Current (Typ.)	14A, 50%, 780us @ 120VAC; 15A, 50%, 660us @ 277VAC
	Leakage current	<0.50mA
Protection	Short Circuit	shut down o/p voltage, re-power on to recover after fault condition is removed
	Over Loading	≤120% Hiccup mode, recovers automatically after fault condition is removed
	Over temperature	100°C ±10°C shut down o/p voltage, automatically recover after cooling

Specification continues on page 2

Environment	Working TEMP.	-40 ~ +60°C (see derating curve on page 2)
	Working Humidity	20 ~ 90%RH, non-condensing
	Storage TEMP. Humidity	-40 ~ +80°C, 10 ~ 95%RH
	TEMP. coefficient	±0.03%/°C (0 ~ 50°C)
	Vibration	10 ~ 500Hz, 5G 10min./1 cycle, period for 60min. each along X, Y, Z axes
Safety & EMC	Safety standards	UL8750 + UL1310
	Withstand voltage	I/P-O/P: 1.88KVAC
	Isolation resistance	I/P-O/P: 100MΩ / 500VDC / 25°C / 70%RH
	EMC EMISSION	FCC Part 15 B
Others	Net. Weight	1.1Kg
	Size	7-7/16" L x 3-9/16" W x 1-9/16" H
	Packing	10PCS/CTN

### Derating Curve\*



\*To extend driver life, refer to the Derating Curve and derate according to the temperature.

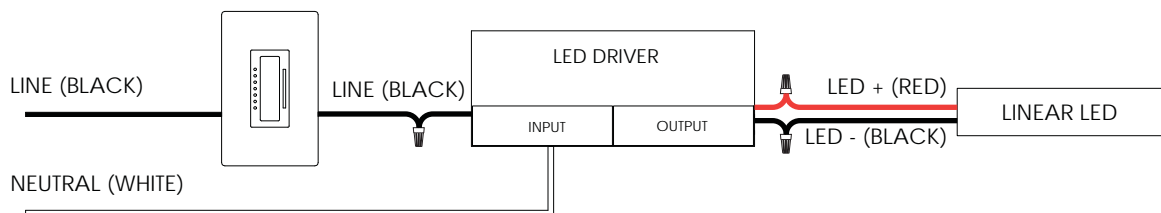
## Wiring Diagrams

- Input wire Black and White to be connected to AC Line and Neutral, Green wire go to ground.
- Output wire Red to LED Positive side (+) , Black to LED Negative side (-). High efficiency: up to 85%.
- Dimming cable DIM (+) Purple to 0/1-10V dimmer signal (+), DIM (-) Gray to 0/1-10V dimmer signal (-).
- Make sure to follow the wiring diagrams to avoid damaging the driver.

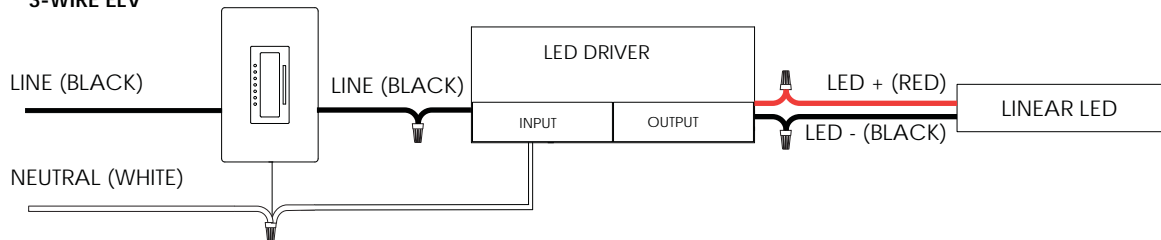
## Using TRIAC/Phase cut dimming

1. The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line by connection.
2. Work with forward phase /leading edge, MLV and reverse phase /trailing edge, ELV, TRIAC dimmers.
3. Use dimmers with a power of at least 1.5 times the output power of the driver.

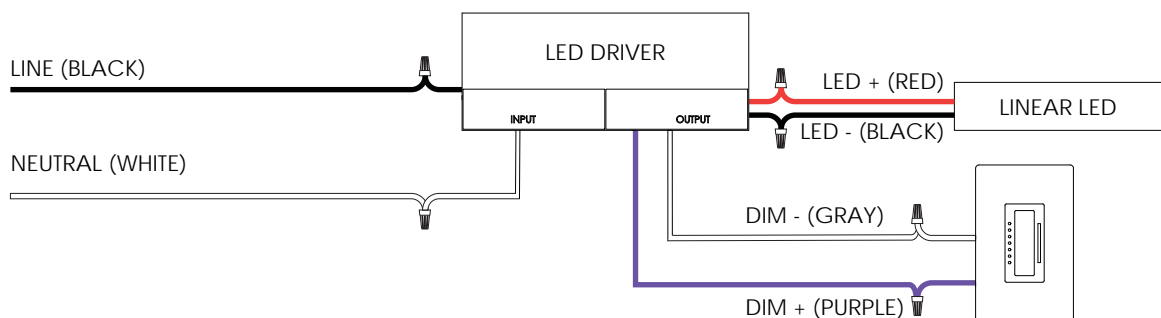
### 2-WIRE TRIAC/INCANDESCENT



### 3-WIRE ELV



### 0-10V



## Phase/Triac Dimmer Test List

Brand	Model Number (Dimmer)	Input Voltage	Dimming Range
	SCL-153PR-WH	100-130V	0-100%
	DVCL-153PR-WH	100-130V	0-100%
	DVWCL-153PH-LA	100-130V	0-100%
	CTCL-153PDH-LA	100-130V	0-100%
	TGCL-153PR-WH	100-130V	0-100%
	TGCL-153PH-WH	100-130V	0-100%
	MACL-153MH-LA	100-130V	0-100%
	MIR-600M	100-130V	0-100%
	CT-600PR-IV	100-130V	0-100%
	CT-600PR-WH	100-130V	0-100%
	CT-103PR-WH	100-130V	0-100%
	DV-600PR-BL	100-130V	0-100%
	DV-600PR-WH	100-130V	0-100%
Lutron	TG-600PR-LA	100-130V	0-100%
	TG-600PR-IV	100-130V	0-100%
	TG-600PR-WH	100-130V	0-100%
	TG-10PR-WH	100-130V	0-100%
	S-600PR-WH	100-130V	0-100%
	MRF2-6ND-120-AL	100-130V	0-100%
	MRF2-6CL-GR	100-130V	0-100%
	DZ6HD	100-130V	3-100%
	PD-6WCL	100-130V	1-100%
	SELV-300P	100-130V	1-100%
	MSCELV-600M	100-130V	0-100%
	MEF2-6ELV-120	100-130V	0-100%
	NTLV-600-277-WH	277V	0-100%
	ST-12P-277	277V	3-100%
	NTF-10-277	277V	0-100%

## Phase/Triac Dimmer Test List (Continued)

Brand	Model Number (Dimmer)	Input Voltage	Dimming Range
	VPI06-1LZ	100-130V	0-100%
	TTI06-1LZ	100-130V	0-100%
	IPL06	100-130V	0-100%
	DZ6HD	100-130V	0-100%
Leviton	6674	100-130V	0-100%
	6672	100-130V	0-100%
	TBLO3	100-130V	0-100%
	6602	100-130V	0-100%
	6683	100-130V	0-100%
	RHCL453PNICCV6	100-130V	1-100%
Legrand	WSCL450TCCCV4	100-130V	0-100%
	LSCL453PLACCV4	100-130V	0-100%
Crestron	CLW-DELVEX-P-W-S	100-130V	0-100%

## 0-10V Dimmer Compatible List

Brand	Model Number (Dimmer)	Input Voltage	Dimming Range
Eaton	DF10P-C1	120V/277V	1.6-95%
Leviton	DS7100-10Z	120V/277V	1-100%
	DVSTV-WH	120V/277V	4.5-100%
Lutron	DVTV-WH	120V/277V	8-100%
	NFTV-WH	120V/277V	1.5-85%

## MAXIMUM CABLE LENGTH FOR SINGLE RUNS

LOAD AT 24VDC		MAXIMUM CABLE LENGTH TO THE LAST MODULE IN A CABLE RUN BY WIRE SIZE						
WATTS	AMPS	#18	#16	#14	#12	#10	#8	#6
0-12	0.0-0.5	150 ft	240 ft	300 ft	300 ft	300 ft	300 ft	300 ft
12-24	0.5-1.0	75 ft	120 ft	190 ft	300 ft	300 ft	300 ft	300 ft
24-36	1.0-1.5	50 ft	80 ft	120 ft	200 ft	300 ft	300 ft	300 ft
36-48	1.5-2.0	35 ft	60 ft	95 ft	150 ft	240 ft	300 ft	300 ft
48-60	2.0-2.5	n/a	45 ft	75 ft	120 ft	190 ft	300 ft	300 ft
60-72	2.5-3.0	n/a	40 ft	60 ft	100 ft	160 ft	250 ft	300 ft
72-84	3.0-3.5	n/a	30 ft	55 ft	85 ft	130 ft	220 ft	300 ft
84-96*	3.5-4.0	n/a	n/a	45 ft	75 ft	120 ft	190 ft	300 ft

\*96 watts is the max wattage per run for Class 2 installation

