

Cree® LMD800 LED Module Driver



PRODUCT DESCRIPTION

Cree® LED modules provide lighting designers and manufacturers with simple, easy-to-adopt LED lighting solutions that reduce luminaire development time and speed time-to-market. The Cree® LMD800 LED module driver is specifically designed to work with the Cree LMH2 8000-lumen light source to jump-start the design process for recessed downlights, wall sconces or pendant lights in demanding end markets such as retail, museums, hospitality and restaurants.

FEATURES

- Input voltage: 120-277 V
- 0/1-10 V dimming support
- Optimized for Cree LMH2 8000-lm light sources
- Enables California Title 24 compliance

TABLE OF CONTENTS

Order Code.....	2
Characteristics - LMD800 120- to 277-V 0/1-10 V Dimming Driver	2
Dimming	2
Mechanical Dimensions	2
Wiring Diagrams.....	4
Thermal Design.....	5
Emergency Battery Operation	5
Safety and Regulatory Notes.....	5
Packaging.....	6

ORDER CODE

Nominal Input Voltage (VAC)	Frequency (Hz)	Typical Output Current (mA)	Dimming	Order Code
120-277	50/60	2000	0/1-10 V	LMD800-0120-C2A0-7030000

CHARACTERISTICS - LMD800 120- TO 277-V 0/1-10 V DIMMING DRIVER

Order Code: LMD800-0120-C2A0-7030000

Characteristics	Unit	Minimum	Typical	Maximum
Input voltage range	VAC	108		305
Input power	W		105	130
Output current	mA		2000	
Output voltage	V	28		54
Driver efficiency (@ 55 °C) - with LMH2 8000-lm light source	%		90	
Power factor - with LMH2 8000-lm light source			0.95	
Dimming current @ 120 V	mA			.05
Dimming current @ 277 V	mA			.05
LED driver case temperature	°C	-40		75

- 3-D models (.STEP files) for the LMD800 LED module driver are available on the Cree website by selecting the Documentation tab on the [LMH2 product page](#).

DIMMING

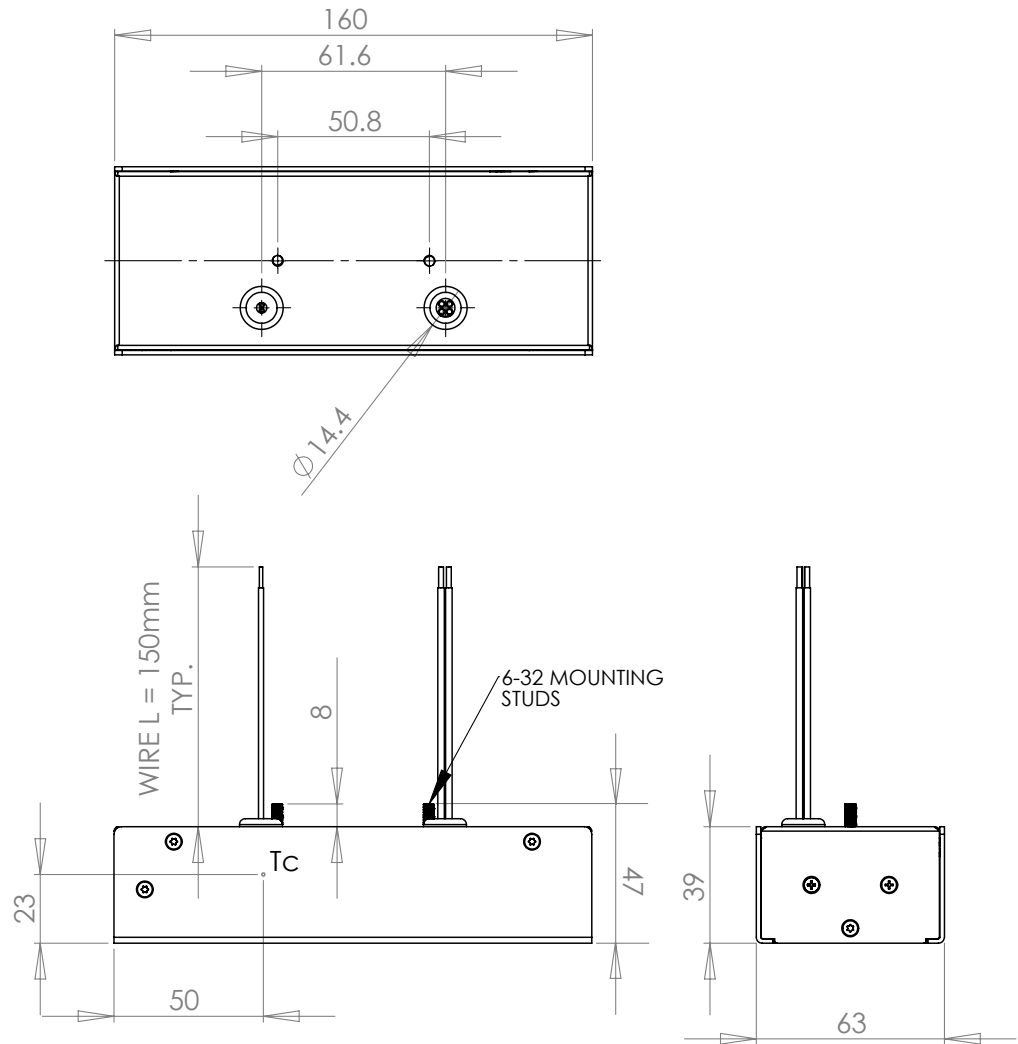
The LMH2 8000-lm light source can use the LMD800 LED module driver with 0/1-10 V dimming.

Driver	Input Voltage	Dimming	Lowest Light Level
LMD800-0120-C2A0-7030000	120-277 V	0/1-10 V	1%

MECHANICAL DIMENSIONS
Physical Characteristics of the LMD800 Driver

Physical Characteristic	LMD800 120- to 277-V Driver
Weight (g)	440
Maximum height (mm)	47
Maximum length (mm)	160
Maximum width (mm)	63

LMD800 120- to 277-V Driver¹



¹ Dimensions for all the diagrams are in mm and are for reference only. For exact dimensions and tolerances, refer to the 3-D models (.STEP files) for the LMD800 driver available by selecting the Documentation tab on the [LMH2 product page](#).

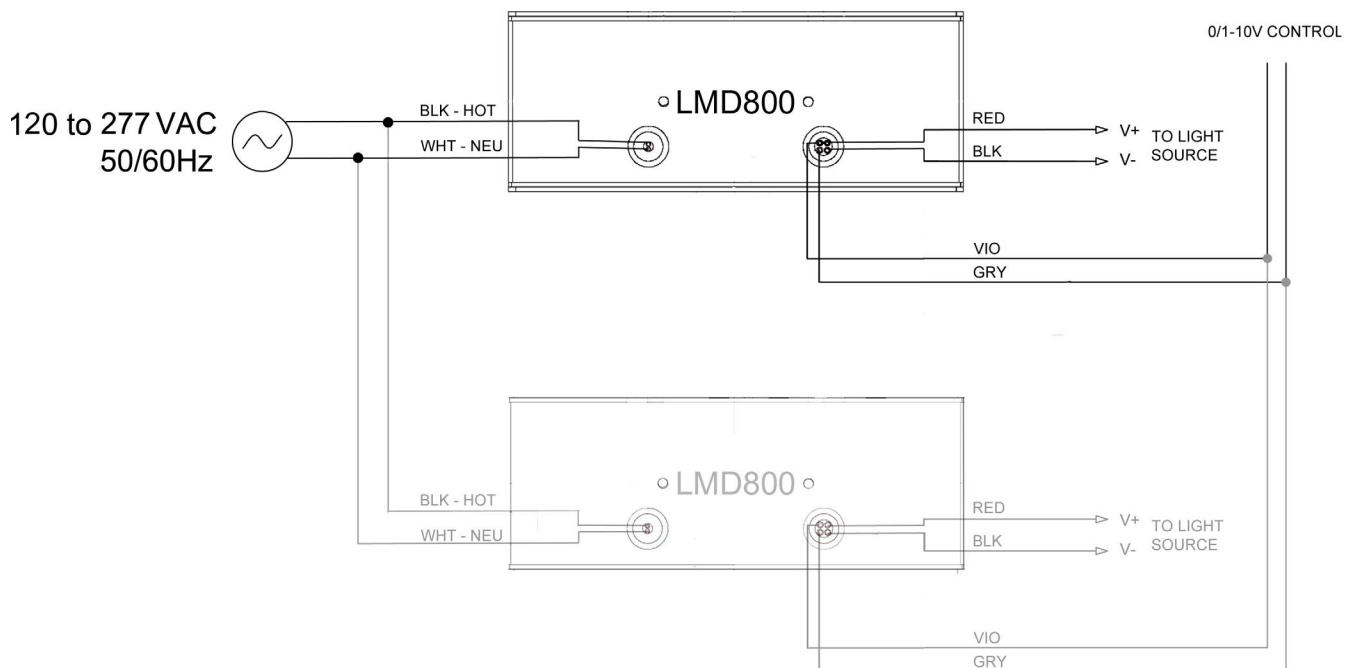
WIRING DIAGRAMS

Electrical Connection

LMH2 LED module operation is accomplished by connecting the AC mains to the two (2) lead wires (line and neutral) from the driver and connecting the driver output wires to the input leads on the Cree LMH2 light source, as indicated in the following wiring diagram.

The LED module driver lead wires are 150 mm long, 18 AWG with the ends stripped 10 mm.

LMD800 120- to 277-V Driver



Wiring Strain Relief

LMD800 LED module drivers must not be suspended directly by the leads. Though the wiring from the LMD800 LED module driver is internally strain relieved, additional strain relief methods must be employed if the luminaire is to be suspended solely by the wiring, as in a pendant luminaire.

THERMAL DESIGN

Expected LMD800 Lifetime versus Temperature at Tc Point

Expected Operation Life (Hours)	Tc (°C) @ 25 °C Room Ambient
	LMD800 120- to 277-V 0/1-10 V Dimming Driver
50,000	75

EMERGENCY BATTERY OPERATION

The LMD800 LED module driver is a constant-current supply. Interrupting the driver current with a battery supply is an acceptable method of emergency or power outage operation. An acceptable installation should also include a switching mechanism that prevents the battery power from entering the driver through the DC output leads. Confirming backup power supply compatibility is the responsibility of the luminaire manufacturer or installer. Please refer to the backup power supply manufacturer’s instructions for installation and further product information.

SAFETY AND REGULATORY NOTES

The following table shows the safety and regulatory certifications for the LMD800 LED module driver.

	LMD800 120- to 277-VAC Driver	
	Standard	File Number
Safety	UL/cUL recognized (UL8750)	E333437
	LVLE for US and Canada	
	UL – Damp rated	
	Air handling (plenum)	
	5VA flame rating	
	EN 61347-1	
	EN 61347-2-13	
	CE SELV equivalent	
	IP-20	
Electromagnetic compatibility	EN 55015	E1/2014/60038
	IEC 61000-3-2	
	IEC 61000-3-3	
	IEC 61547	
	FCC 47 CFR Part 15 Class B/ ICES 03	E1/2014/60036C E1/2014/60037
Regulatory	IEEE C.62.41-1991 Class A (surge)	
	NEMA 410	
Environmental	RoHS	

Safety Certification

Together, the LMH2 light source combined with the LMD800 LED module driver is “suitable for damp locations; covered ceilings.” Final luminaire designs should go through safety certification as required, which is the responsibility of the luminaire manufacturer.

PACKAGING

LMD800 120- to 277-V LED module drivers are packaged in boxes of 5, which are then combined in cartons of 5 boxes, or 25 LMD800 120- to 277-V drivers.

Box and carton sizes are as follows.

Box of 5 LMD800 120- to 277-V LED module drivers: 490 x 235 x 90 mm

Carton of 5 LMD800 120- to 270-V driver boxes: 510 x 510 x 255 mm