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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-Im light sources
- Enables California Title 24 compliance

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RoHS



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-Im 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%

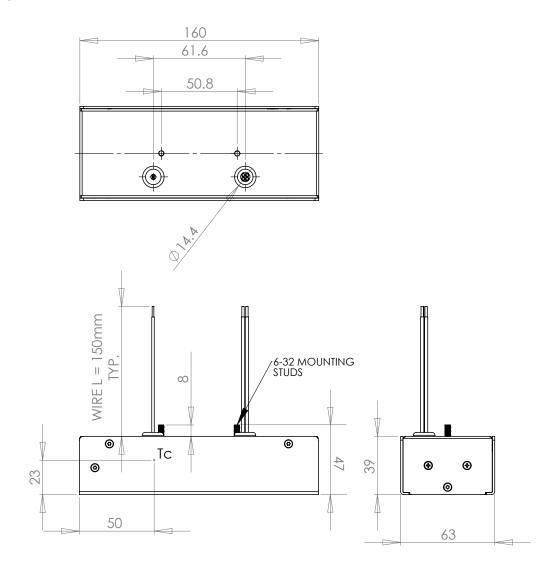
MECHANICAL DIMENSIONS

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



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.



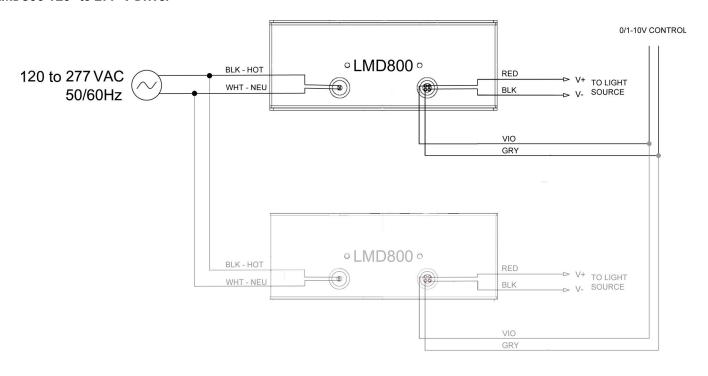
WIRING DIAGRAMS

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

	Tc (°C) @ 25 °C Room Ambient	
Expected Operation Life (Hours)	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	
	UL/cUL recognized (UL8750)		
	LVLE for US and Canada		
	UL – Damp rated	E333437	
	Air handling (plenum)		
Safety	5VA flame rating		
	EN 61347-1		
	EN 61347-2-13		
	CE SELV equivalent		
	IP-20		
	EN 55015		
	IEC 61000-3-2	E1/2014/60038	
Electromagnetic compatibility	IEC 61000-3-3	E1/2014/00036	
	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: $490 \times 235 \times 90 \text{ mm}$ Carton of 5 LMD800 120- to 270-V driver boxes: $510 \times 510 \times 255 \text{ mm}$

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Cree, Inc.:

LMD800-0120-C2A0-7030000