



Programmable Constant Current, 2-channel, dimming to 10%, 0-10V, enabling switchable lumen output and CCT.

The OPTOTRONIC 87W Linear Switchable LED driver features 2 LED outputs and switchable lumen output and CCT, enabling the design of luminaires with multiple configurations in one.

The OPTOTRONIC 87W Linear Switchable LED driver delivers dimming down to 10%, supporting Analog 0-10V controls. Configure low, medium and high selections for output current, and set selections for warm, cool and neutral color temperatures.

Simplify design with flexibility in light engine selection and no additional hardware required.

Electrical Specifications

Input		
Input Voltage (VAC)	120V-277V (+/- 10%)	
Frequency Range (Hz)	50 – 60 Hz (+/- 10%)	
	120V	277V
Input Current (A)	0.88	0.38
THD @ Full load	<15%	<10%
Power Factor @ Full load	>0.9	>0.9
Efficiency @ Full load	88%	90%
Inrush Current (Apk, T@10% of Apk)	27.6, 51µs	45.2, 71µs

Output	
Output Current (mA)	950-1740mA Default (1000/1300/1600mA)
Output Voltage (VDC)	20-50 VDC
Output Ripple Current	<TBD% @ 1740mA
Max. Output Power (W)	87 W
LED Power-Up Time	<1 sec
Load Regulation	<5%
Line Regulation	<5%
Over Voltage Protection	Yes, non-latching
Over Load Protection	Yes, non-latching
Output Short-Circuit Protection	Yes, non-latching

Dimming	
Dimming Control	0 – 10V (Isolated)
Dimming Range	10-100%
Dimming Type	Analog
Dimming Input Isolation	2.5kV
Source/Sink Current	0.2mA max
Dimming Interface Protection ²	Yes, 120-277Vac

CAUTION: Two power supplies if dimming is connected to non-class 2 circuits.

General Information

Item Number	*284CVN
Type	Constant Current, Class2
Output Power	87W (Max.)
Programming Tool	*274A17 (51645)
Software	Download

Environmental Specifications

Ambient Operating Temperature	-20°C to 45°C
Case Temperature (Tc)	78°C Max ¹ 75°C – (50kHrs)
Max. Storage Temp.	70°C
Max. Relative Humidity (%)	85% non-condensing
Transient Protection	NEMA SSL 1 - 2010 Non-Roadway 2.5KV
UL Rating	Dry and Damp
UL File number	E333135
EMI Compliance	FCC Part 15 Class A
Sound Rating	Class A

1 - Warranty applicable only at TBD°C

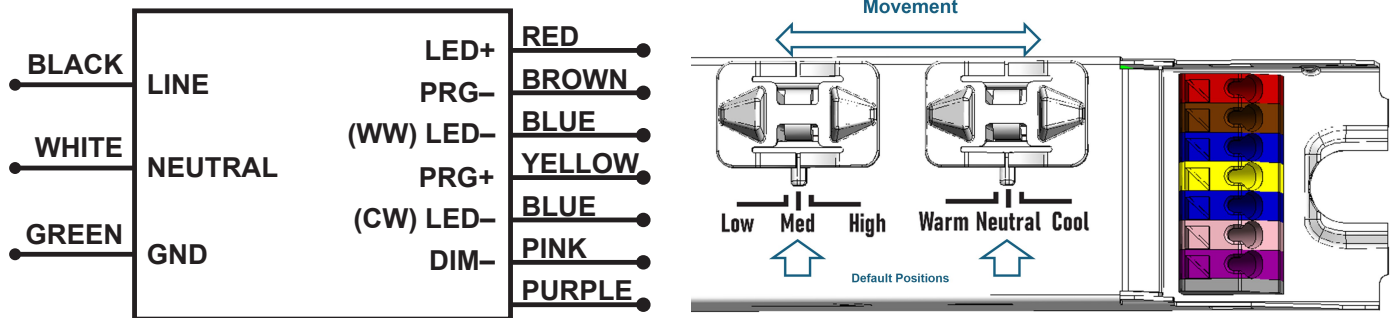


OPTOTRONIC® 87W Switchable Indoor Linear - Technical Specifications

Ordering Guide

Item Number	Ordering Description
*284CVN	OTS 87L-M2Z1A1

Wiring Diagram



Note: Maximum suggested remote mounting distance is 16 feet.

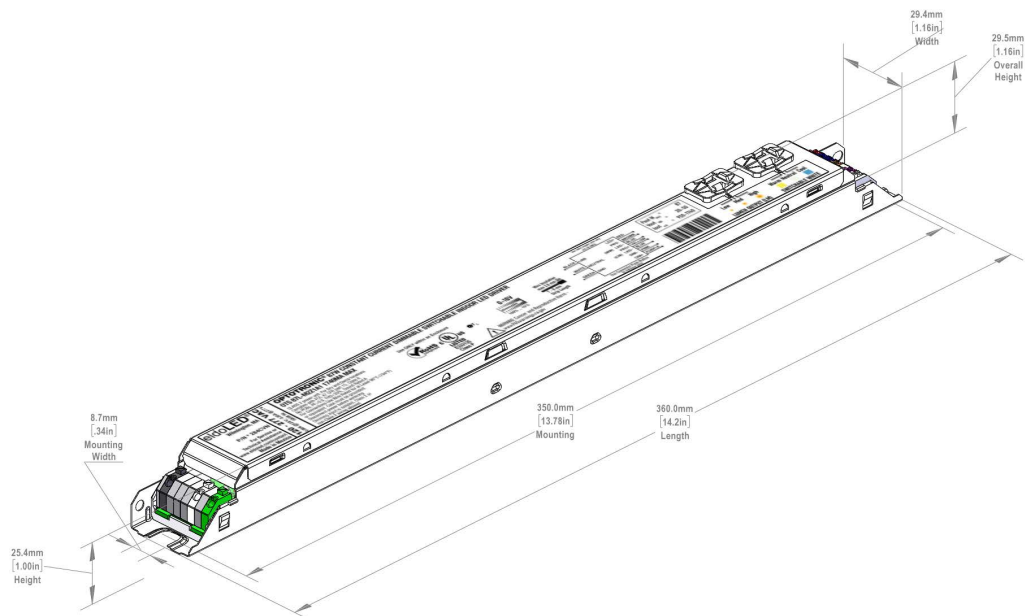
Note: Use solid copper wire only: 16-20 AWG. Strip all wires to 5/16 inch (7.94mm).

Note: For wiring the output ports for the LED load, and DIM wire, 16 to 22 AWG is acceptable for use. For more detailed information and requirements, consult the light engine information and or information pertaining to the light engine connectors.

Key Application Notes

Use ONLY within an Enclosure.

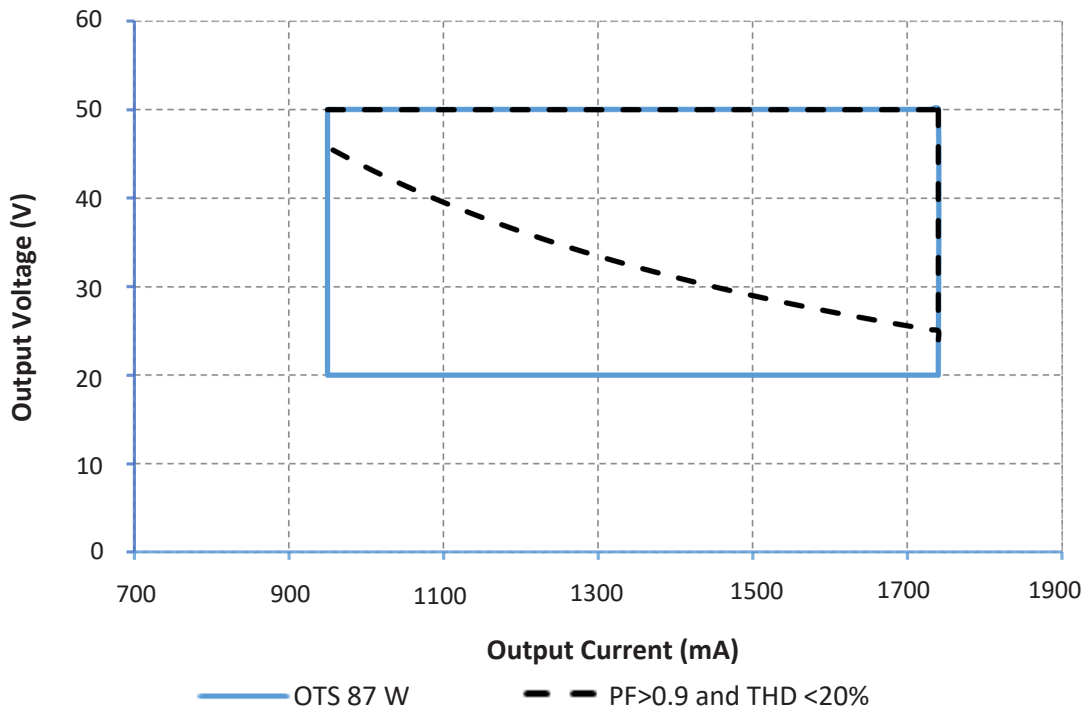
Mechanical Diagram



Mechanical Specification

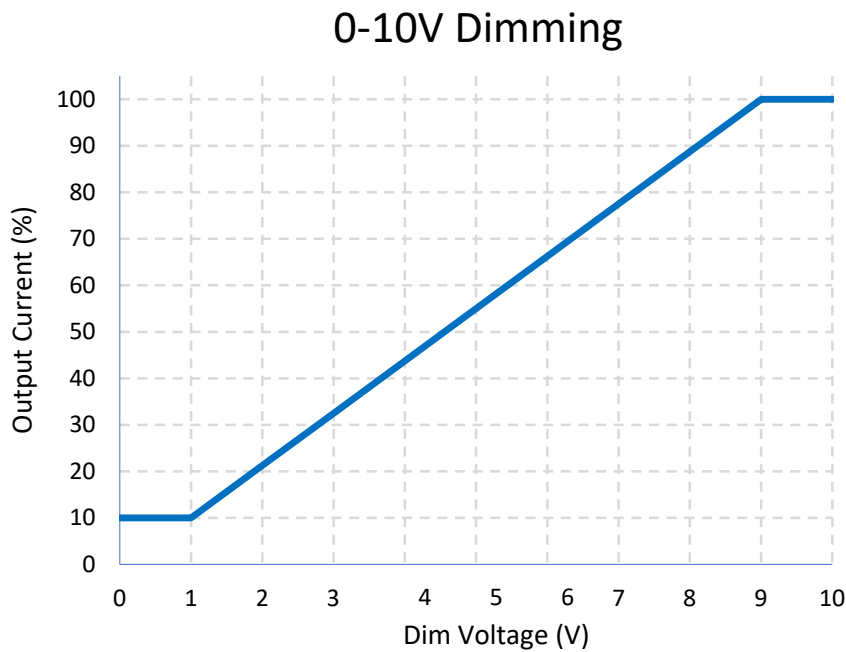
Length	14.01" (360mm)
Width	1.15" (29.4mm)
Height (w/Switch)	1.16" (29.5mm)
Mounting Length	13.77" (350mm)

Operating Range



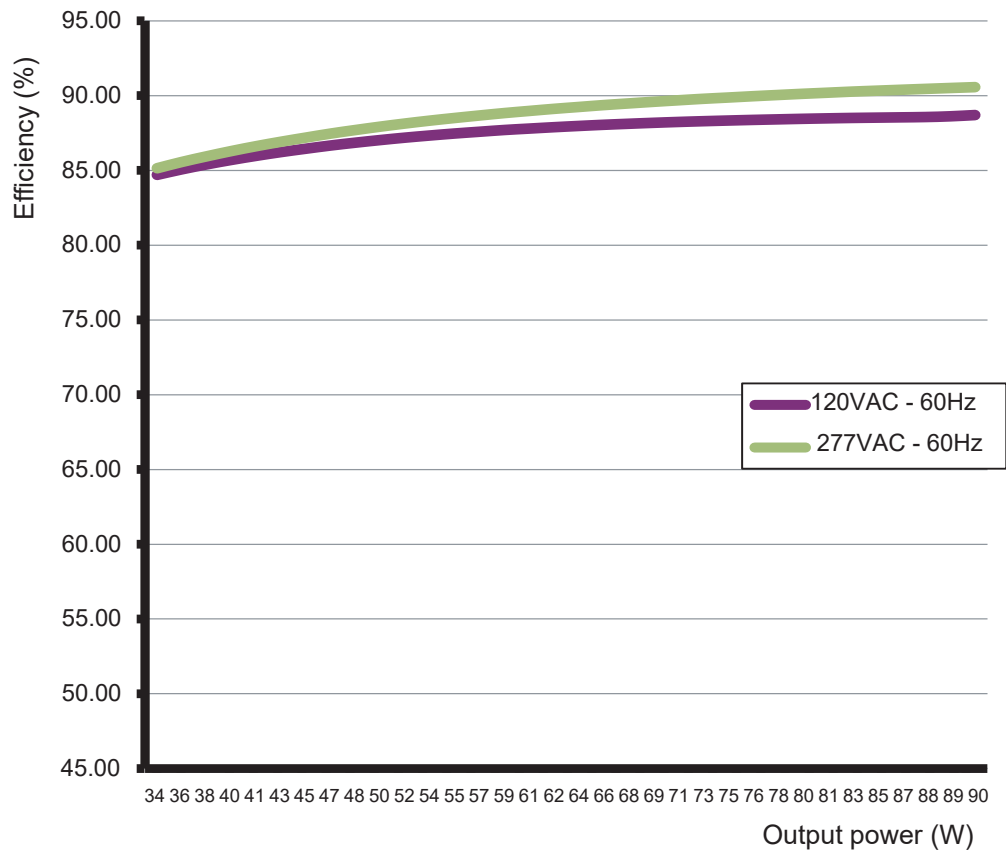
Note: Meeting DLC requirements requires minimum 50% loading.

Dimming Curve

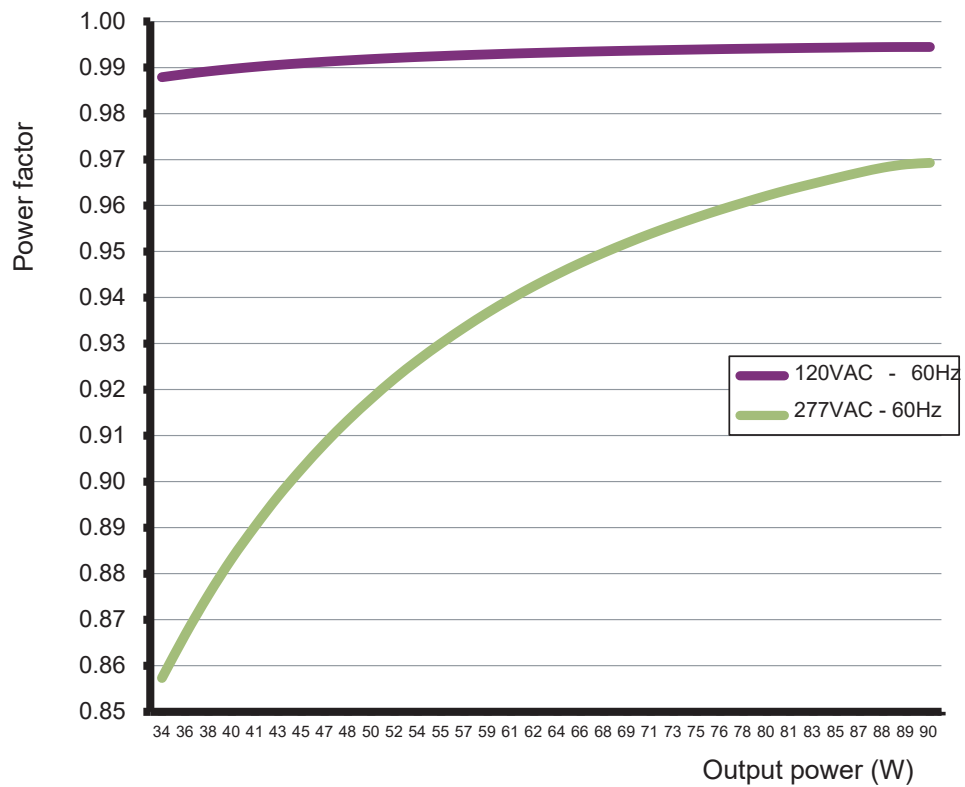


Note: Compliant with ANSI C137.1

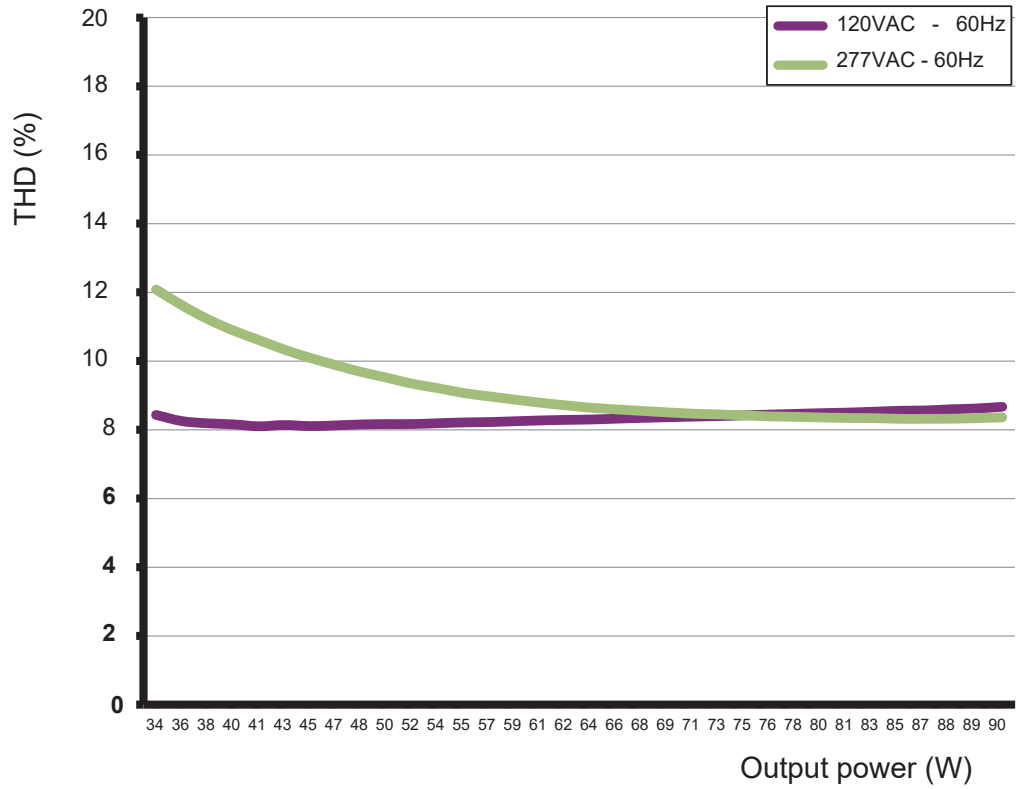
Efficiency vs Output Power



Power Factor vs Output Power



THD vs Output Power

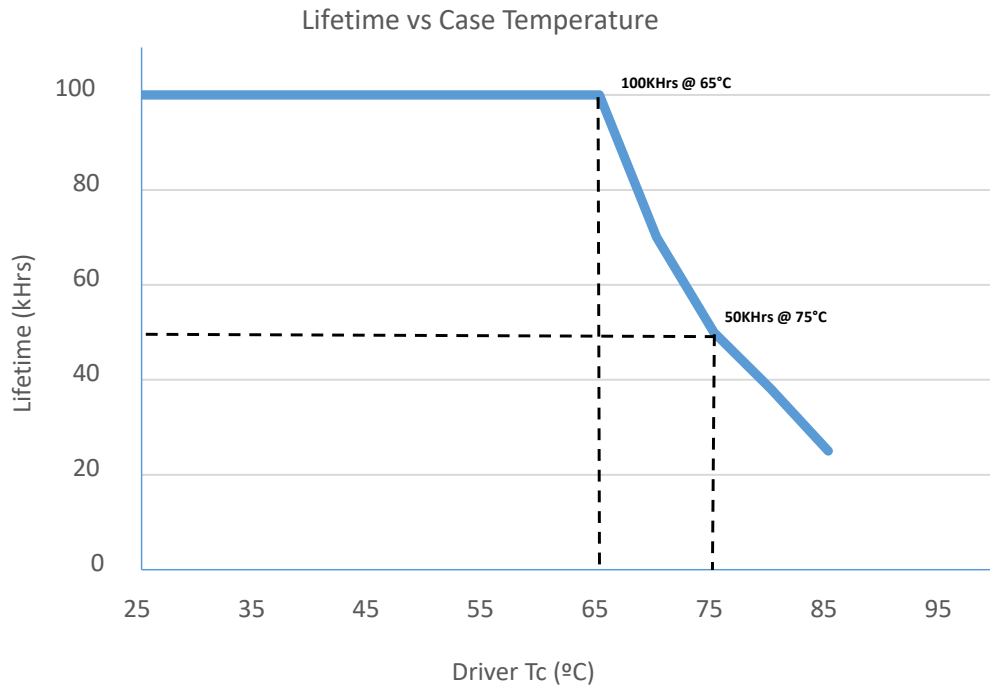


Inrush Characteristics

Vin (V)	Ipeak (A)	T(@ 10% of Ipeak)
120	26.7	51 μs
277	45.2	71 μs

Complies with NEMA 410 inrush current requirements

Lifetime Curve



Warranty

eldoLED OPTOTRONIC® Products are covered by a 5-year limited warranty.
Complete warranty terms can be found at: www.eldoled.com/legal/terms-and-conditions

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Specifications subject to change without notice. Actual performance may differ as a result of end-user environment and application.