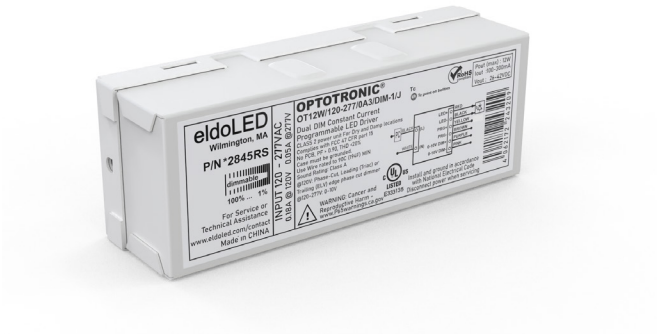
eldoLED

Technical Specifications

OPTOTRONIC® Programmable OT12 Dual Dim-1 LED Driver



General Information

Item Number	*2845RT F-type *2845RS J-type
Type	Constant Current
Output Power	12W (Max.)
Programming Tool	*274A17 Required *2743V2 Optional
Software	OT Programmer
Programmable Features	Output current Minimum dimming level Dim to Off

Environmental Specifications

Ambient Operating Temperature	-30ºC to 50ºC
Case Temperature (Tc)	80ºC (50k hrs)[1] 90°C (Max.)
Max. Storage Temp.	75ºC
Max. Relative Humidity (%)	85% non-condensing
Transient Protection	ANSI C82.77 Low Bay 2.5kV
UL Rating	Dry & Damp
UL File number	E333135
IP Rating	IP20
EMI Compliance	FCC Part 15 Class A FCC Part 15 Class B @120VAC
Sound Rating	Class A

[1] 5-year warranty applicable at 80ºC

Electrical Specifications

Input

Input Voltage (VAC)	120-277 (+/- 10%)	
Frequency Range (Hz)	50–60 (+/- 10%)	
	120V	**277V**
Input Current (A)	0.12	0.06
THD @ Full load	<20%	<20%
Power Factor @ Full load	>0.9	>0.9
Efficiency @ Full load	≥81%	≥80%
Inrush Current (Apk)[1]	4.2	10.1
Line Regulation @ Full load	<5%	<5%

[1] Complies to NEMA 410 inrush current requirements

Output

Output Current (mA)[1]	100-300mA
Default Current Setting (mA)	150mA
Output Voltage (VDC)	26-42VDC
Output Ripple Current	<30% (<1kHz)
Max. Output Power (W)	12W
LED Power-Up Time	<0.5sec
Load Regulation	<3%
Over Voltage Protection	Yes, non-latching
Over Load Protection	Yes, non-latching
Output Short-Circuit Protection	Yes, non-latching
Over Temperature Protection	Power Foldback at 95ºC

[1] Programmable with 1mA resolution with +/- 5% accuracy or +/-5mA below 100 mA programmed current.

Dimming

Dimming Control	0 – 10V & Phase-cut
Dimming Range	1-100% (0-10V) 1-100% (Phase-cut, 120VAC)
Dimming Type	Current Reduction
Dimming Input Isolation	2.5kV
Source/Sink Current	0.22mA max
Dim-to-Off OFF/ON	0.6V / 1V

CAUTION: More than one power supply present. For Phase-cut, 120VAC, Refer compatibility charts for further guidance.

c UL us LISTED Class P

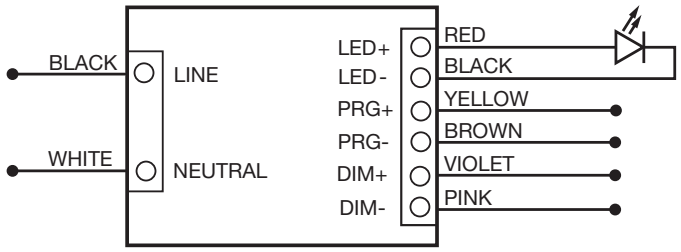
RoHS compliant

OPTOTRONIC® OT12 Dual Dim-1 - Technical Specifications

Ordering Information

Number	Ordering Abbreviation	Total Output Power (W)	Output Current Range (mA)	Default Current Setting (mA)	Output Voltage Range (VDC)	Dimming Control	Housing Type
*2845RT	OT 12W UNV 0A3 DUALDIM DIM-1 F-HOUSING J25	12	100-300	150	26-42	0-10V / Phase Cut	F-Type
*2845RS	OT 12W UNV 0A3 DUALDIM DIM-1 J-HOUSING J25	12	100-300	150	26-42	0-10V / Phase Cut	J-Type

Wiring Diagram



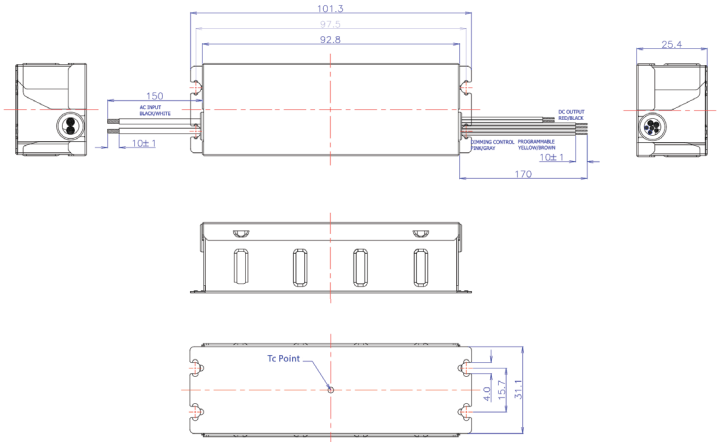
Notes:
- Maximum suggested remote mounting distance is 16 feet.
- Input (L/N) and LED Output wire leads are two core ANSI/UL1015/AWG18, temperature 105°C copper wire.
  – Cable Length: 150mm, stripped and tinned (10mm)
- DIM and PRG wire leads are two core ANSI/UL1015/AWG22, temperature 105°C copper wire.
  – Cable Length: 170mm, stripped and tinned (10mm)
- OT Outdoor Programming Tool *2743V2 can be used for PRG connection (for drivers with flying leads).
- Driver case must be grounded.

Key Application Notes

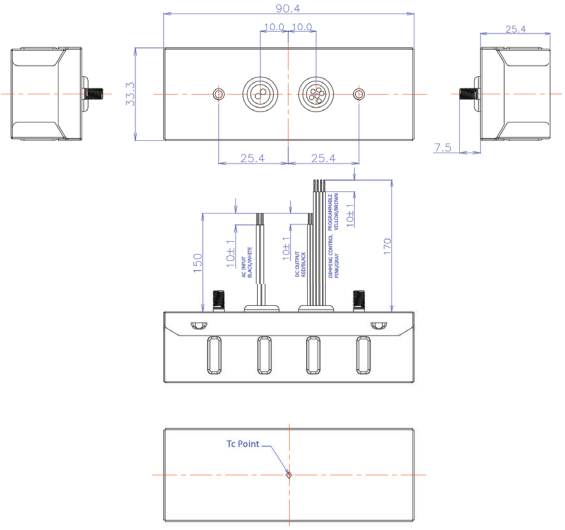
OT12 Dual Dim is compatible with both 0-10V dimming controllers and Phase Cut dimmers including:
- Electronic Low Voltage (ELV) / Reverse Phase / Trailing Edge Dimming
- TRIAC / Forward Phase / Leading Edge Dimming
- Phase Cut dimming is only available when Input Voltage is 120VAC

Mechanical Diagrams

F-Style (side-feed) Housing



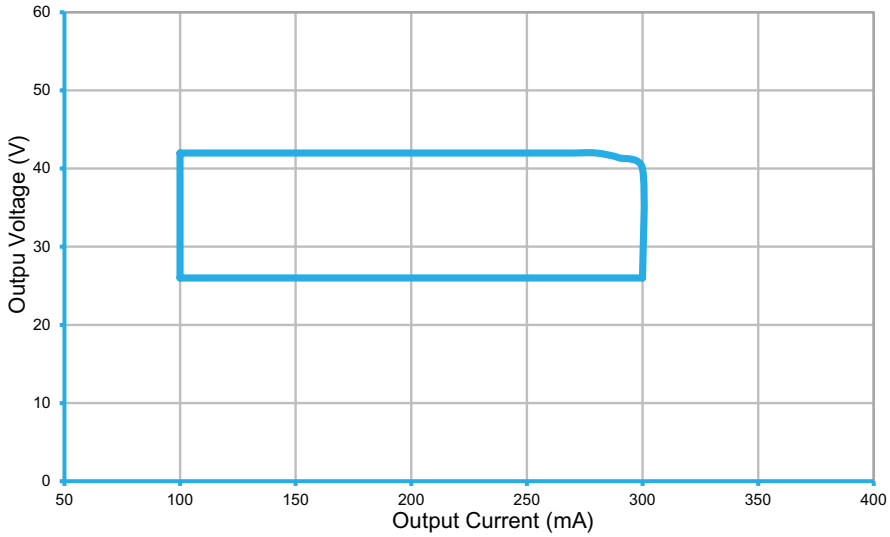
J-Style (bottom-feed) Housing



Mechanical Specifications

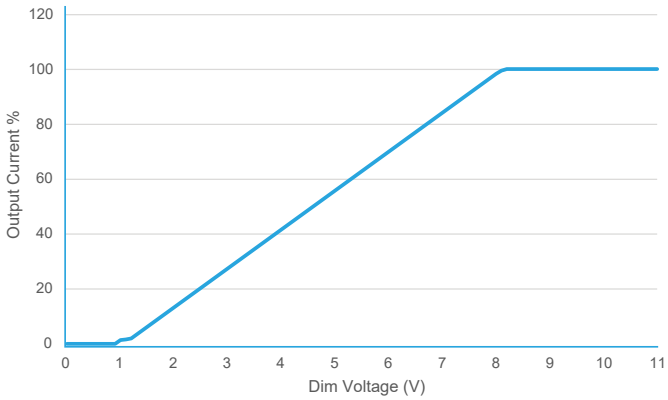
Housing	F-Style	J-Style
Length	3.98" (101.3mm)	3.56" (90.4mm)
Width	1.22" (31.1mm)	1.31" (33.3mm)
Height	1.0" (25.4mm)	1.0" (25.4mm)

Operating Range

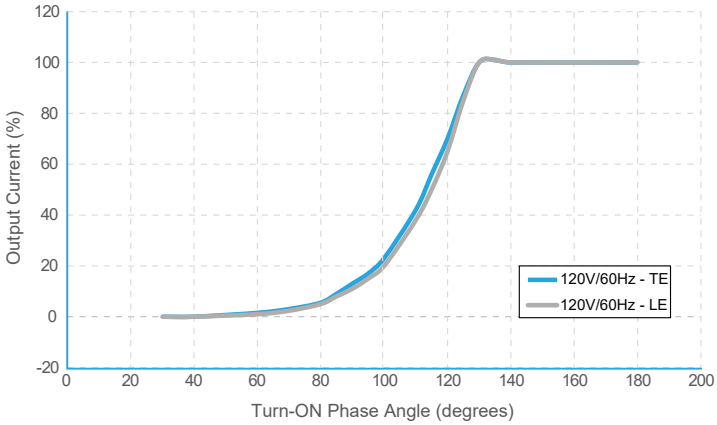


Dimming Curves

0-10V Dimming

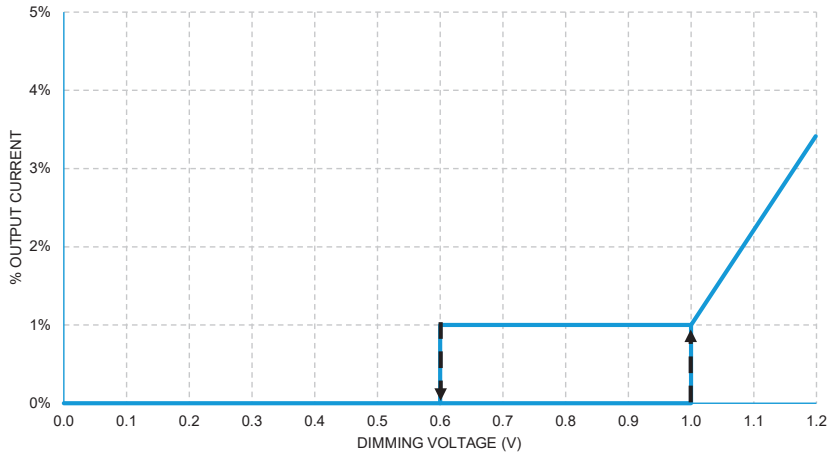


Typical dimming vs Turn-ON phase angle of AC input

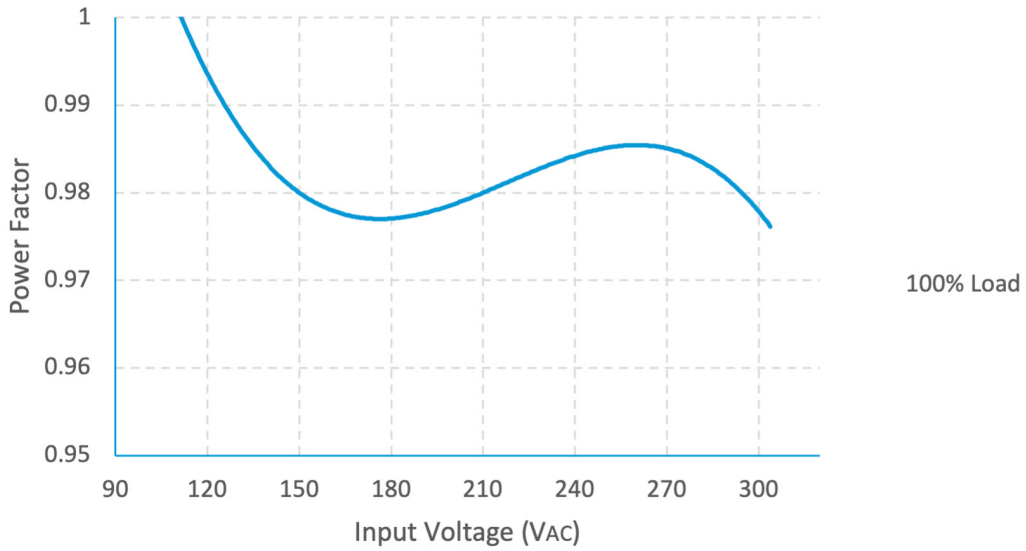


Note: Operating the driver below the minimum Turn-On Phase Angle can result in driver output turning off or unstable performance.

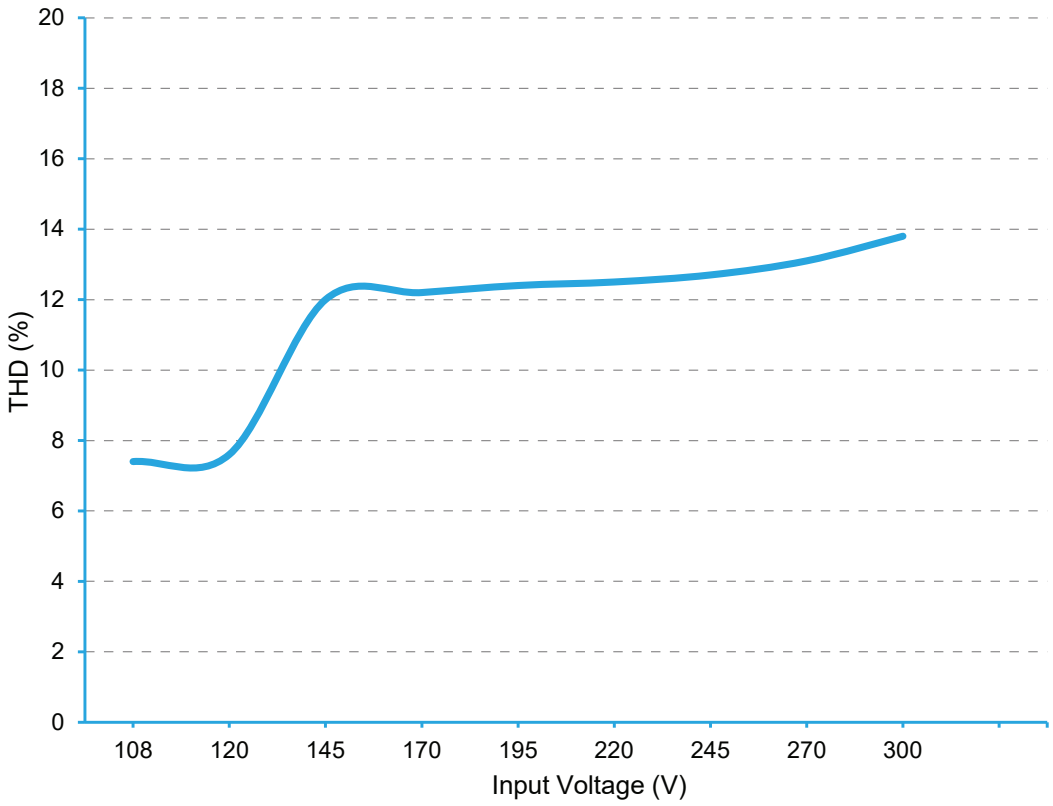
0-10V Dimming



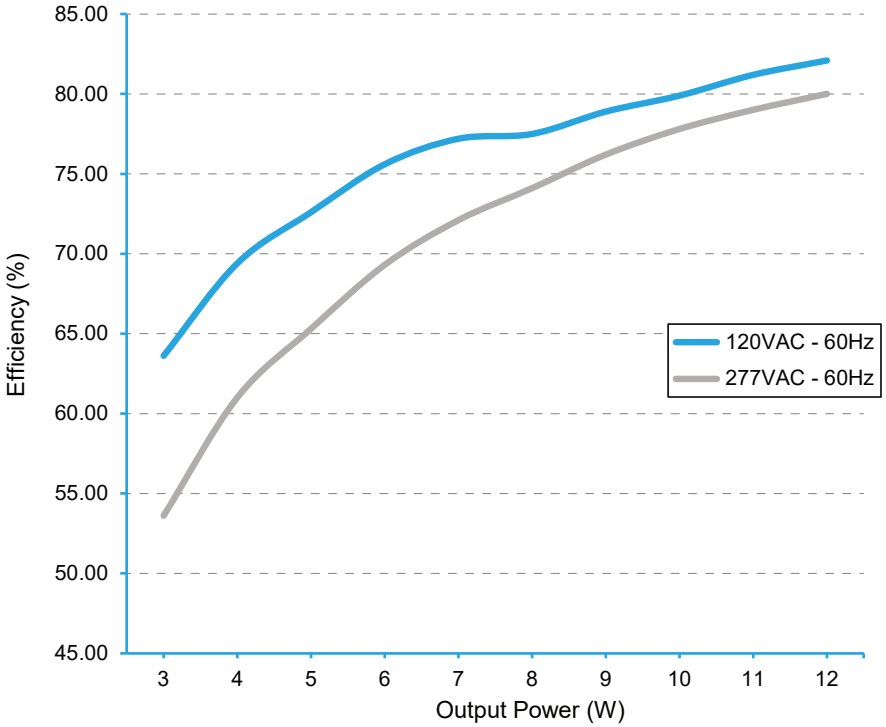
Power Factor vs. Input Voltage (Full Load)



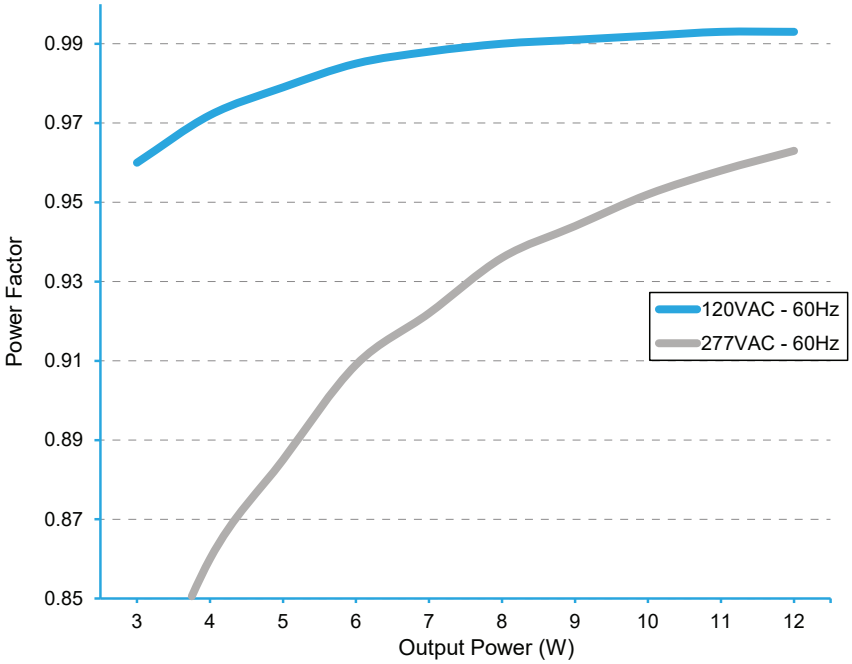
THD vs. Input Voltage (Full Load)



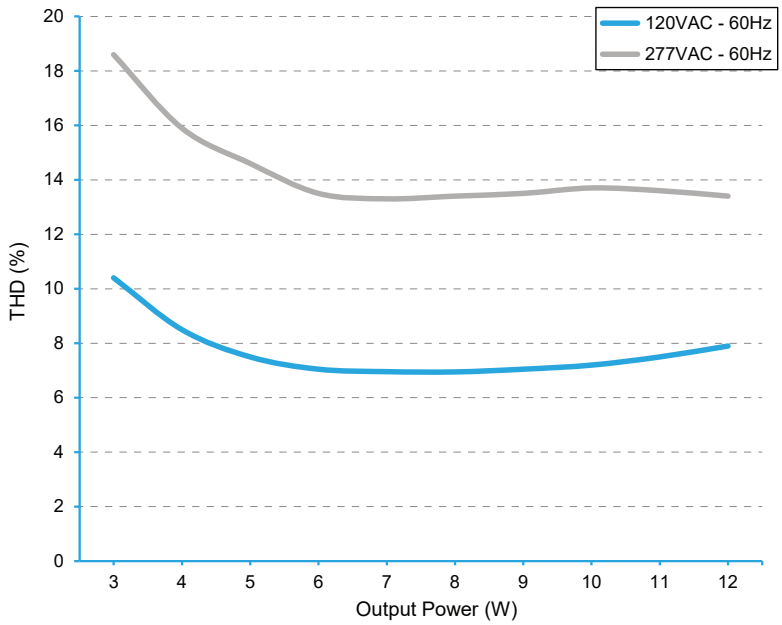
Efficiency vs. Output Power



Power Factor vs Output Power



THD vs Output Power



Inrush Characteristic

Vin (V)	Ipeak (A)	T (@10% of Ipeak)
120	4.2	268 µs
277	10.1	292 µs

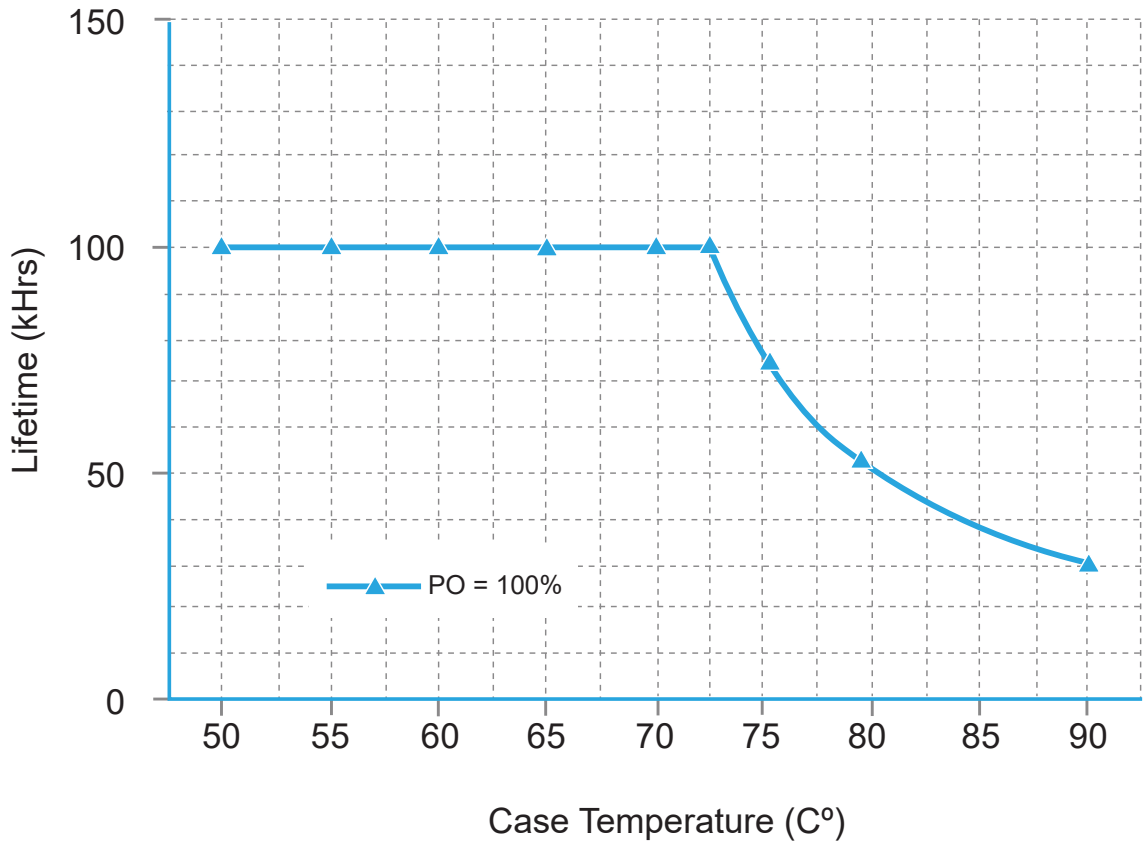
Complies to NEMA 410 inrush current requirements

Dimmer/Sensor Compatibility

Manufacturer	Model	Type
LUTRON	DVCL-153P	Leading Edge (Forward Phase)/ TRIAC
LUTRON	MACL-153M	Leading Edge (Forward Phase)/ TRIAC
LUTRON	DVELV-300P	Trailing Edge (Reverse Phase)
LUTRON	MAELV-600	Trailing Edge (Reverse Phase)
LUTRON	TGCL-153PH	Leading Edge (Forward Phase)/ TRIAC
LEVITON	6672	Leading Edge (Forward Phase)/ TRIAC
LUTRON	PD-6WCL	Leading Edge (Forward Phase)/ TRIAC
LEVITON	6674	Leading Edge (Forward Phase)/ TRIAC
LUTORN	SELV-300P	Trailing Edge (Reverse Phase)
LUTRON	SCL-153P	Leading Edge (Forward Phase)/ TRIAC
LUTRON	CTCL-153P	Leading Edge (Forward Phase)/ TRIAC
LEVITON	IPL06	Leading Edge (Forward Phase)/ TRIAC
LEVITON	TSL06	Leading Edge (Forward Phase)/ TRIAC
LEVITON	D26HD	Leading Edge (Forward Phase)/ TRIAC
LEVITON	RNL06	Leading Edge (Forward Phase)/ TRIAC

Notes:
- Trailing Edge dimmers often have adjustable conduction phase-angles. Fine tuning of the phase-angle may be required to ensure minimum dimming performance and/or stable output
- Compatibility testing must be performed in a representative application.
- The absence of a dimmer from this chart does not imply incompatibility.
- Driver may turn off if the phase angle drops below the minimum turn-on phase angle of 40° and 60° for leading edge and trailing edge dimmers, respectively.

Lifetime vs Case Temperature



Warranty

OPTOTRONIC® by eldoLED 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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