



Electrical Specifications

Input

Input Voltage (VAC)	120V-277V (+/- 10%)	
Frequency Range (Hz)	50 – 60 Hz (+/- 5%)	
	120V	277V
Input Current (A)	0.51	0.22
THD @ Full load	<20%	<20%
Power Factor @ Full load	>0.9	>0.9
Efficiency @ Full load	≥86%	≥86%
Inrush Current (Apk, T@50% of Apk)	15.5, 180µs	40.3, 195µs

General Information

Item Number	*2743Y9 (78034)
Type	Constant Current, Class 2
Output Power	50W (Max.)
Programming Tool	*274A17 (51645) & *2747CR (51647) / *2743V1 (51648)
Software	Download
Programmable Features	Output Current Dimming: Linear & Log. DALI-2/D4i LED thermal protection Constant lumen output End-of-life indicator

Find (NAED) as cross reference for new item number i.e. *12345

Environmental Specifications

Ambient Operating Temperature	-20°C to 50°C
Max. Case Temperature (Tc)	75 °C (50kHrs) ¹
Max. Storage Temp.	70°C
Max. Relative Humidity (%)	85% non-condensing
Transient Protection	NEMA SSL 1 - 2010 Non-Roadway 2.5KV
UL Environmental Rating	Dry & Damp
UL File number	E320395
IEC	IEC 61347-1
EMI Compliance	FCC Part 15 Class A
Sound Rating	Class A

1 - Warranty applicable at 85°C

Output

Output Current (mA) ¹	600-1400mA (1mA step)
Output Voltage (VDC)	10-56VDC
Output Ripple Current	<20% @ 1400mA
Max. Output Power (W)	50W
LED Power-Up Time	<1sec
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
Over Temperature Protection	Foldback at 95°C

1 – The lowest output current is 6mA and the minimum percentage of dimming is dependent on the programmed output current of the driver.

Dimming

Dimming Control	DALI-2/D4i
Dimming Range	1-100%
Dimming Type	Digital
Voltage Rating (DALI-2/D4i)	12V typ.
Current Rating (DALI-2/D4i)	50mA (typ.), 62mA (max)
Dim-to-Off Threshold	0 (digital Level)
Standby Power ¹	0.40W(120V); 0.55W(277V)

CAUTION: More than one power supply present.

1 – This does not include the sensor power in DALI-2/D4i mode.

Ordering Information

Item Number	Ordering Abbreviation
*2743Y9	OTI50/120-277/1A4 DX L

LED Thermal Protection (NTC)

NTC Value Active Range	≤25kΩ
Temperature Derating Start	User defined

External NTC cannot leave the fixture.
The PRG/ NTC control circuit terminals or lead wires are not isolated.



DALI-2/D4i Interface

The default setting of the digital dimming interface is set to Enable D4i. It delivers power to sensors and the following data:

Input Power Consumption	5% accuracy above 25W threshold
Operating Time	Updated rate: 1 minute
Max. Case Temperature	± 5°C (41°F) accuracy
Current Case Temperature	± 5°C (41°F) accuracy

When using DALI-1.0 systems, choose the DALI option and deselect Enable D4i in the programming software. This will turn off the power delivery on the DALI interface. The interface is non-polarized in this mode.

File
Tools
Diagnostics
Help

Select LED Driver Model: OTi 50 Linear 1400mA D4i
NAED/EAN: 78034
eldoLED

Output Current

Minimum Current: 600 mA
Maximum Current: 1400 mA

Select Output Current:

☒ Custom Set Current
1050 mA

☒ Configurable Thermal Protection

☒ Fixture Thermal Protection

Temperature Derating Start: 6.3 kΩ
Temperature Derating End: 5 kΩ
Minimum Output Level: 50 %

View Derating Curve

☒ Dimming

☒ DALI
☐ Enable D4i

☐ Linear
☒ Logarithmic

Minimum Dimming Level: 1 %

View Dimming Curve

☐ Constant Lumen Module

Operating time: -- hours

☐ End-Of-Life Indicator

☐ Enable Luminaire Info

Luminaire Info

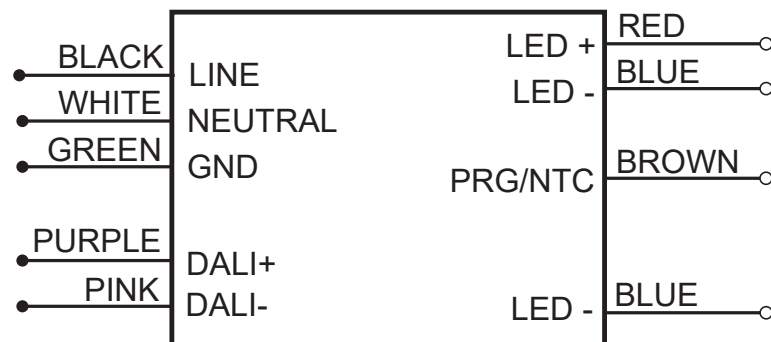
Load Profile

Program

Read

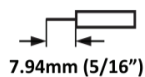
Programming tool not detected.
LED driver not detected.
Cloud Services
Update Available
Version 2.20.1.0

Wiring Diagram



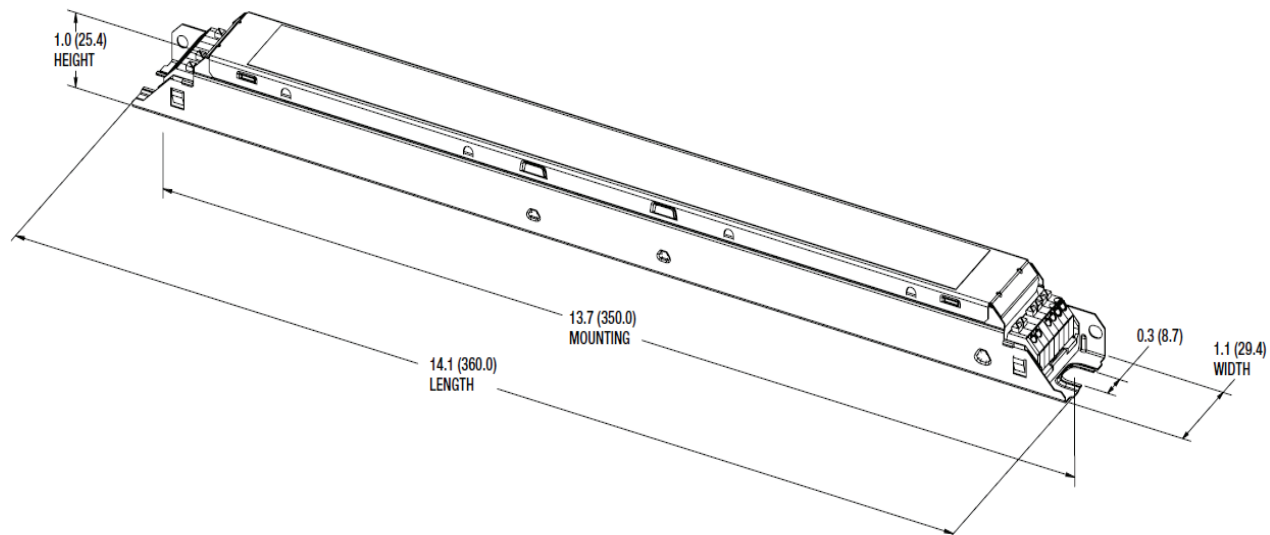
Note: - Maximum suggested remote mounting distance is 16 feet.

- Use solid copper wire only: 16-20 AWG. Strip all wires as such:



- For wiring the output ports for the LED load, Vaux 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

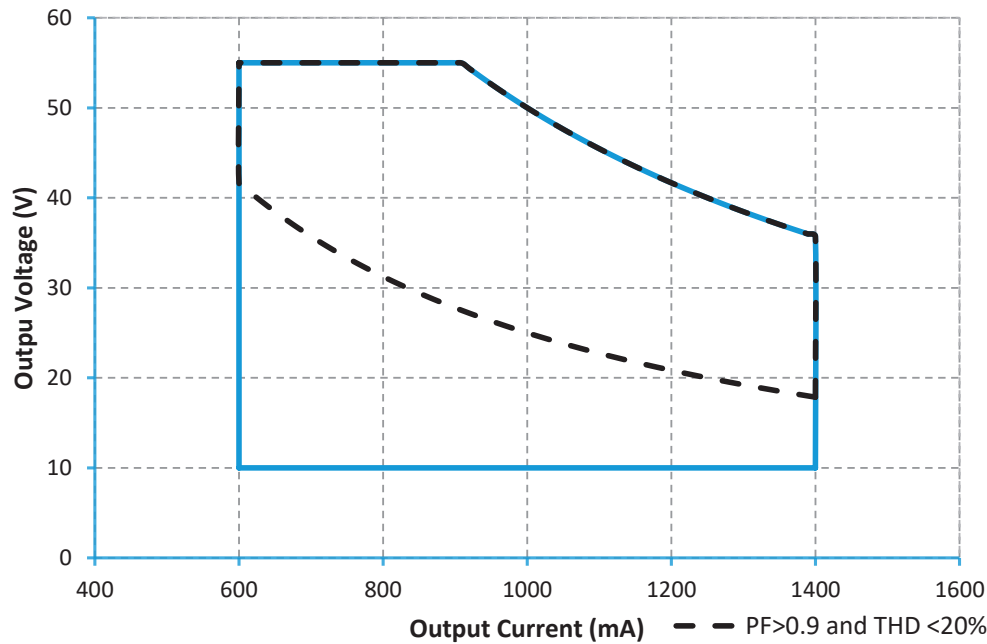
Mechanical Diagram



Mechanical Specification

Length	14.20" (280mm)
Width	1.15" (29.4mm)
Height	1.0" (25.4mm)
Mounting Length	13.77" (270mm)

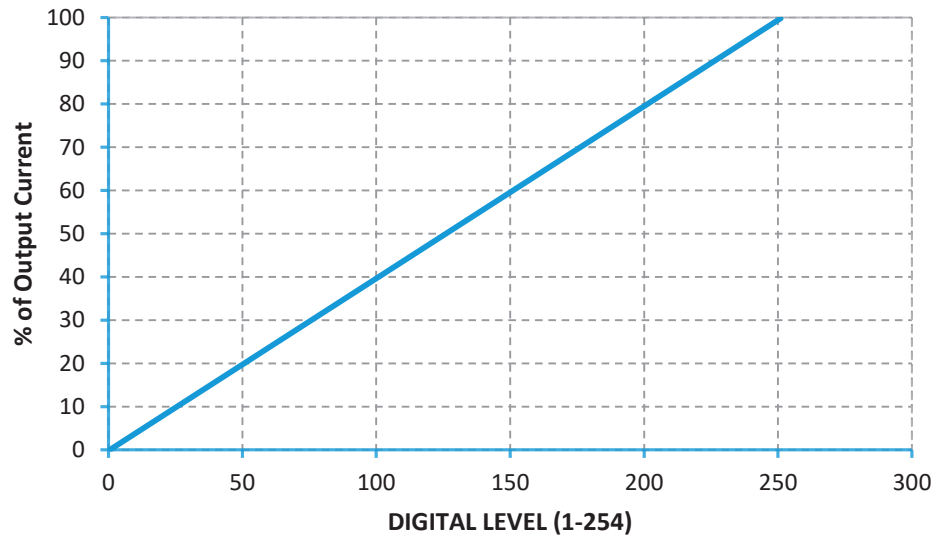
Operating Range



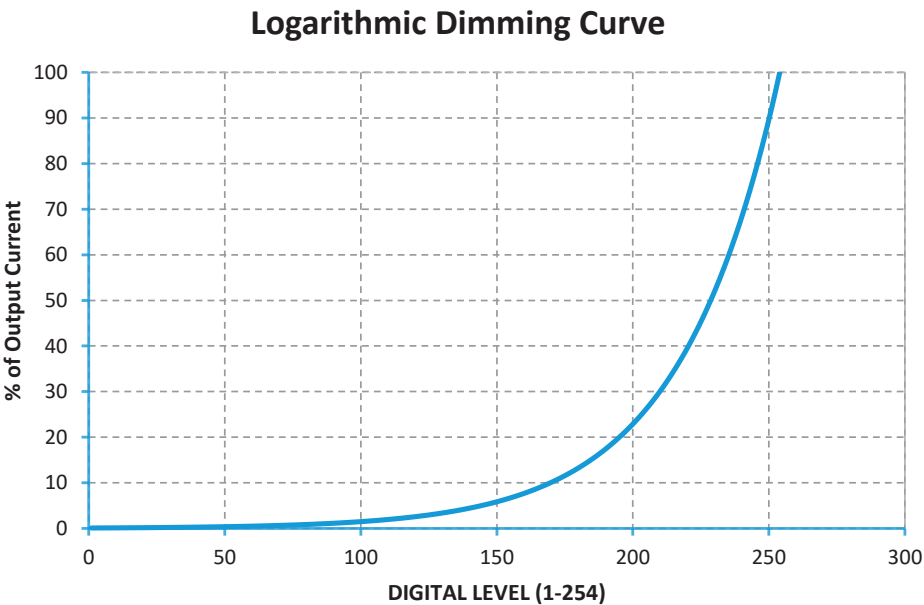
Note: Meeting DLC requirements requires minimum 50% loading.

Dimming Curves

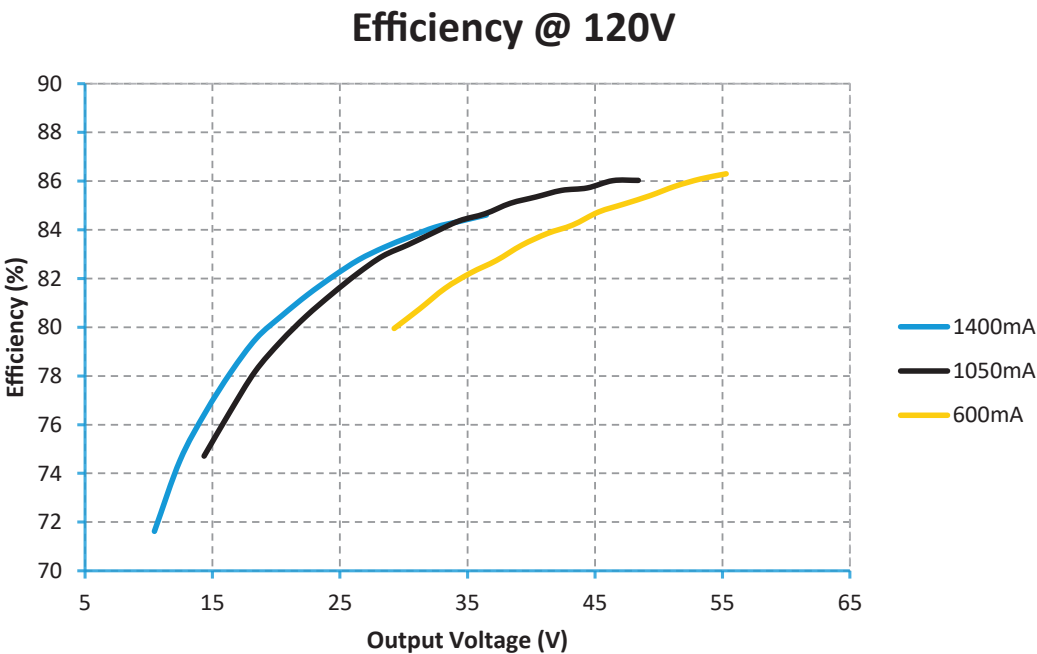
Linear Dimming Curve

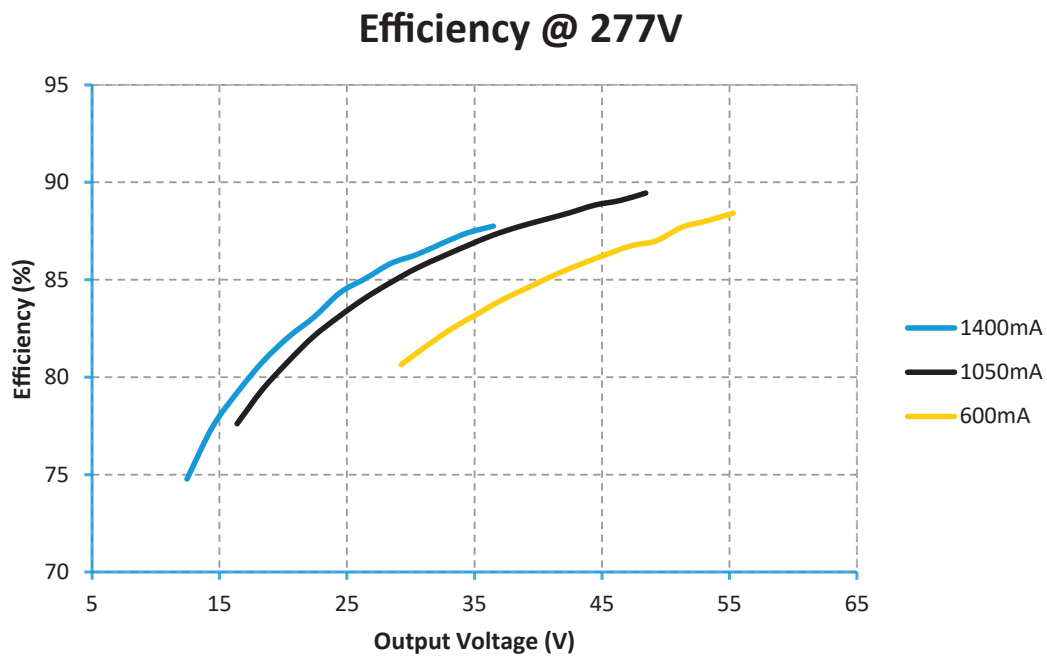


Dimming Curves

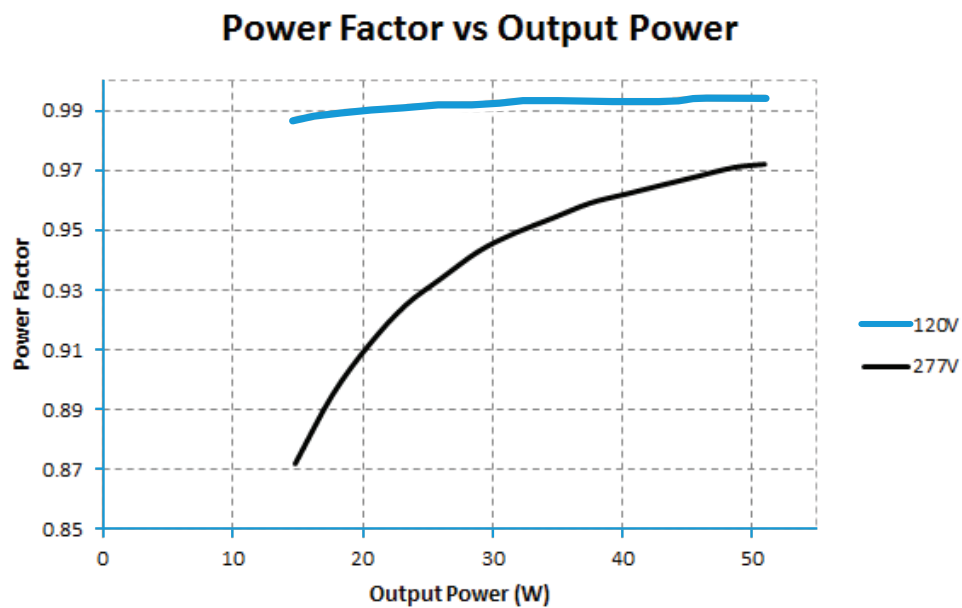


Efficiency vs Output Voltage

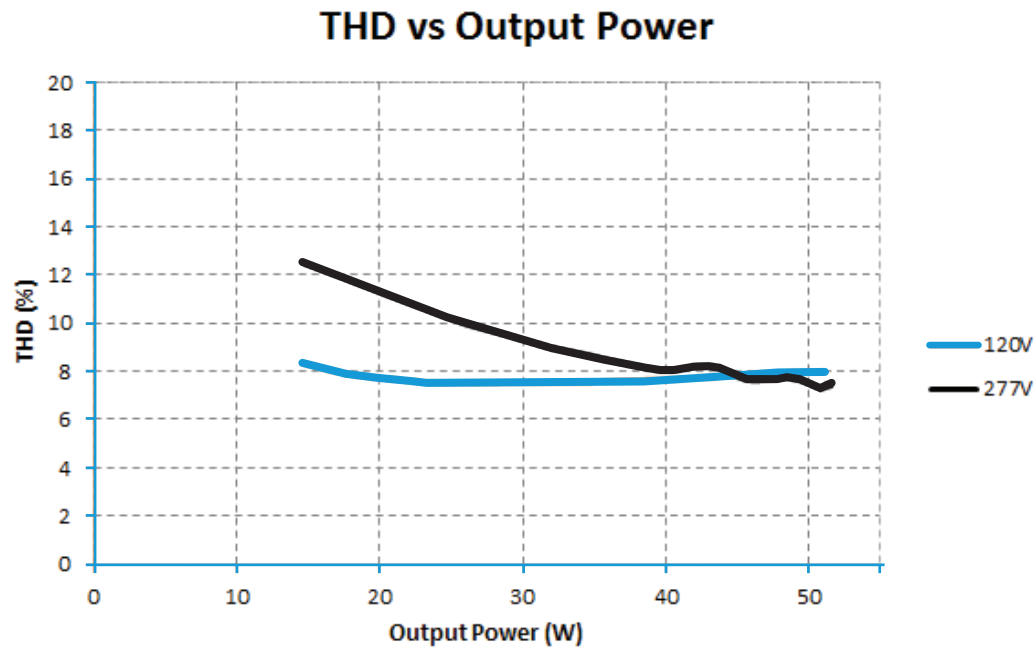




Power Factor vs Load



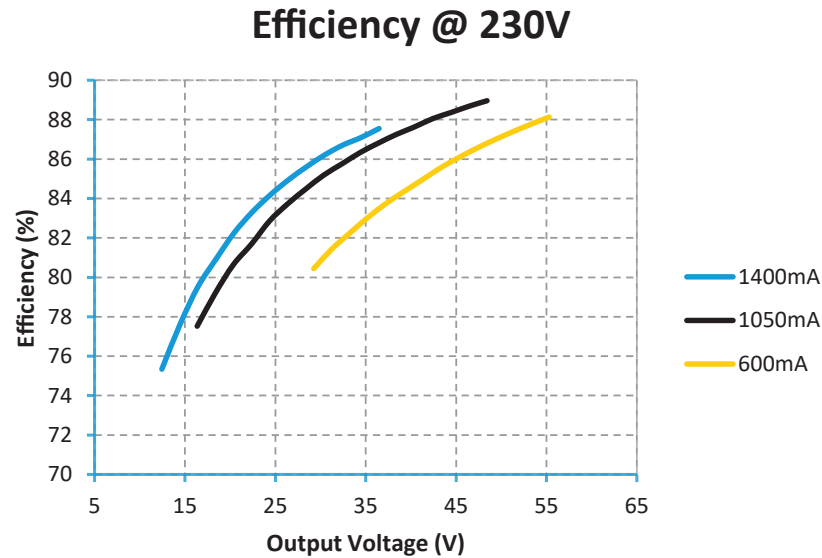
THD vs Load



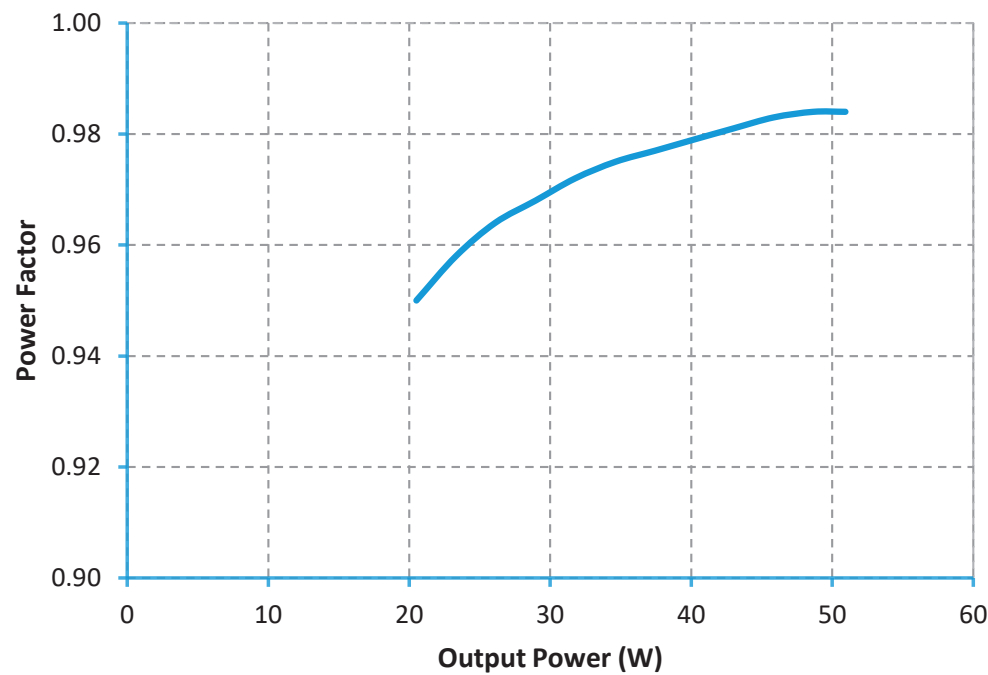
Performance at 230V

Input Current	0.18A
THD @ Full Load	<20%
Power Factor @ Full Load	>0.9
Efficiency @ Full Load	>86
Inrush Current (Apk, T@50% of Apk)	31.2, 180μs
Standby Power (W)*	0.5

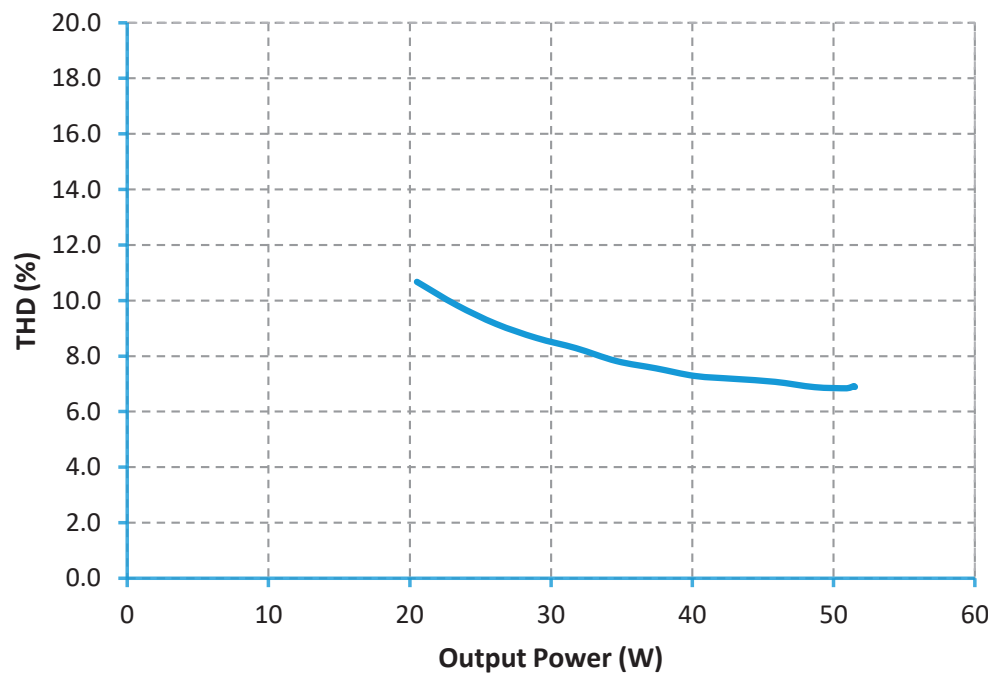
* - This does not include the sensor power in DALI-2/D4i mode.



Power Factor vs Output Power (230V)

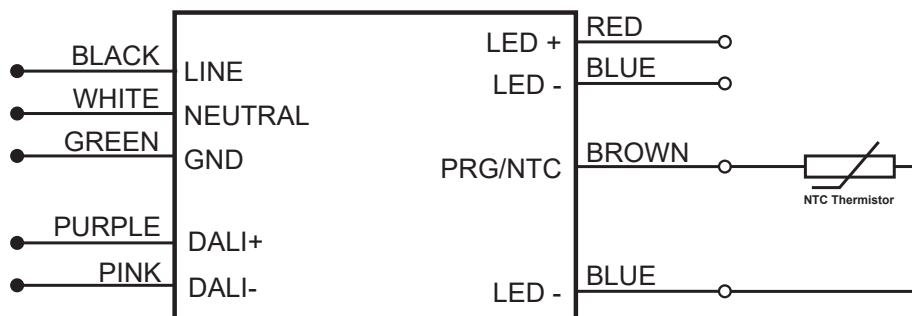


THD vs Output Power (230V)



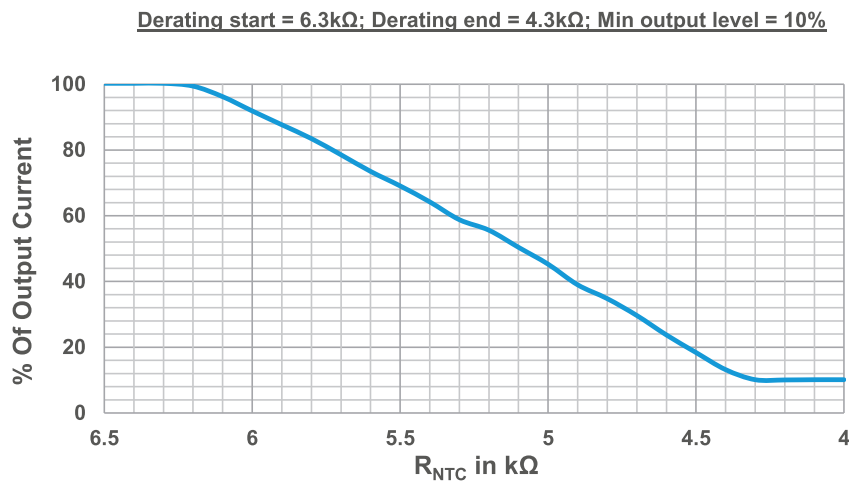
LED Thermal Protection (NTC) Characteristic

The LED thermal protection feature of the ECOdrive 50W D4i helps reduce the temperature of the LED module by reducing the output current in case of abnormal temperature conditions. To use this feature a third party NTC thermistor should be connected to the LED power supply as shown in the wiring diagram below.



In the end application, care must be taken to place the NTC thermistor close to the hottest spot on the LED module. If LED thermal protection is not required the NTC port on the LED power supply connector can be left open. Vishay, EPCOS, Murata, Panasonic are some of the manufacturers of NTC thermistor.

Note: Graphs for reference. The derating limits can be programmed using the OT Programmer.



Constant lumen Maintenance

The Constant Lumen Maintenance feature of the ECOdrive 50W D4i helps to maintain the required lumen output of the fixture at a constant level throughout its lifetime. In general LED's lumen output will depreciate over time and in order to maintain sufficient light level towards the end of lifetime, the LED's are driven at high current initially and will result in more energy consumption. The constant lumen maintenance will give the flexibility to drive the LEDs at optimal driving current throughout its lifetime. This helps in energy savings, constant light output and enhanced reliability of the system.

End-of-Life Indicator

The End-of-Life indicator helps the end user to receive a signal from the fixture indicating that it has reached its programmed life-time. After the LED driver reaches the programmed life-time, whenever it is turned ON, it stays at 'Dim' level (10%) for 10 minutes and reaches its appropriate level.

Warranty

eldoLED ECOdrive Products are covered by a 5-year limited warranty.

Complete warranty terms can be found at: www.eldoled.com/legal/terms-and-conditions

eldoLED
One Lithonia Way
Conyers, GA 30012
United States

+1 877 353 6533

nasupport@eldoLED.com
www.eldoLED.com

SS2010112-001-00

©2024 Acuity Brands Lighting, Inc.

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