



Electrical Specifications

Input		
Input Voltage (VAC)	120V-277V (+/- 10%)	
Frequency Range (Hz)	50 - 60 Hz (+/- 5%)	
	120V	277V
Input Current (A)	0.83	0.36
THD @ Full load	<10%	<15%
Power Factor @ Full load	>0.95	>0.95
Efficiency @ Full load	≥87%	≥89%
Inrush Current (Apk, T@50% of Apk)	33.1, 170µs	79.6, 150µs

General Information

Item Number	*2743WF (57432)
Type	Constant Current, Class2
Output Power	85W (Max.)
Programming Tool	*274A17 (51645) / *274R (51647) / *274V1 (51649)
Software	Download
Programmable Features	Output Current Dimming: Linear & Log. DEXAL or DALI LED thermal protection Constant luminous output End-of-life indicator

Output

Output Current (mA)	700-2300mA (1mA step) 1400mA default
Output Voltage (VDC)	10-56VDC
Output Ripple Current	<20% @ 2300mA
Max. Output Power (W)	85W
LED Power Up Time	11µsec
Load Regulation	±3%
Line Regulation	<3%
Over Voltage Protection	Yes, non-latching
Over Load Protection	Yes, non-latching
Output Short-Circuit Protection	Yes, non-latching
Over Temperature Protection	Follows LED

Dimming

Dimming Control	DEXAL (DALI based)
Dimming Range	1-100%
Dimming Type	Digital
Voltage Range (DEXAL)	12V typ.
Current Range (DEXAL)	50mA (typ.), 2300mA (max)
Dim-to-Cut Threshold	0 (digital level)
Standby Power ²	0.17W(120V); 0.35W(277V)

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

2 - This does not include the sensor power in DEXAL mode.

3 - The lowest output current is 7mA and the minimum percentage of dimming is dependent on the programmed output current of the driver.

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.

The external NTC needs to be isolated or separated by live parts.

Find (NAED has cross reference for new item numbers, e. *12345

Environmental Specifications

Ambient Operating Temperature	-20°C to 50°C
Max. Case Temperature (Tc)	85°C (50Hz) ¹
Max. Storage Temp.	70°C
Max. Relative Humidity (%)	85% (no condensing)
Transient Protection	NEMA SSL 1 - 2010 Non-Roadway 2.5KV
EFT	IEC61000-4-4, Level 3
UL Rating	Dry & Damp
UL File number	E333135
EMI Compliance	FCC Part 15 Class A
Sound Rating	Class A

¹ - Warranty applicable at 85°C



Discontinued
See ECOdrive 85W
Indoor Linear D4i

DEXAL Interface

The default setting of the digital dimming interface is set to DEXAL that delivers power to sensors and the following data:

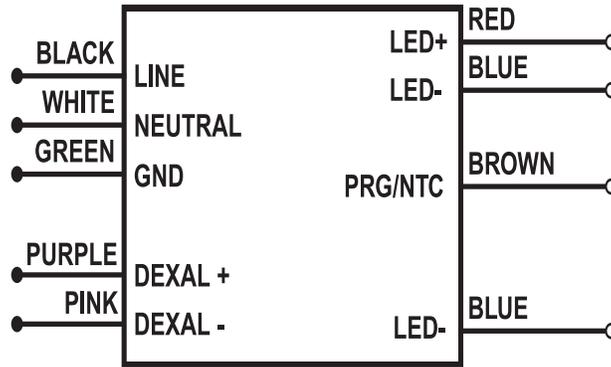
- Input Power Consumption : 5% accuracy above 50% loading
- Operating Time : Updated rate 1 min
- Max. Case Temperature : $\pm 5^{\circ}\text{C}$ accuracy
- Current Case Temperature : $\pm 5^{\circ}\text{C}$ accuracy

When using DALI 1.0 systems, choose the DALI option in the programming software, shown in the image below. This will turn off the power delivery on the DEXAL interface. The interface is non-polarized in this mode.

The screenshot shows the programming software interface for the LED driver. The 'Select LED Driver Model' dropdown is set to 'OTI 50 Linear 1400mA DEXAL'. The 'Output Current' section shows 'Minimum Current: 600 mA' and 'Maximum Current: 1400 mA'. The 'Custom Set Current' checkbox is checked, and the value is set to 1050 mA. The 'Configurable Thermal Protection' section is checked, and the 'Fixture Thermal Protection' radio button is selected. The 'Temperature Derating Start' is set to 6.3 kΩ, the 'Temperature Derating End' is set to 5 kΩ, and the 'Minimum Output Level' is set to 50%. The 'Dimming' section is checked, and the 'DALI' radio button is selected, with the 'Enable DEXAL' checkbox unchecked. The 'Constant Lumen Module' checkbox is unchecked, and the 'Operating time' is set to -- hours. The 'End-Of-Life Indicator' checkbox is unchecked. The 'Enable Luminaire Info' checkbox is unchecked. The 'Load Profile' section shows a barcode. The 'Program' and 'Read' buttons are visible. The status bar at the bottom shows 'Programming tool not detected.', 'LED driver not detected.', 'Cloud Services', and 'Update Available'.

Discontinued
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Wiring Diagram



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

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

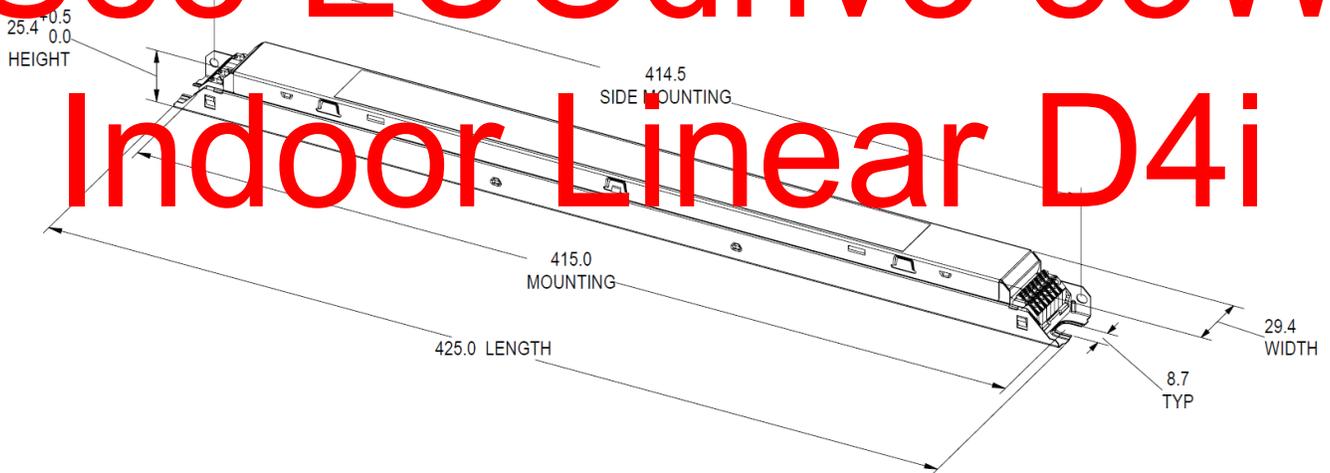


- For wiring the output ports for the LED load, Vaux and DIM wire, 16 to 22 AWG is acceptable for use. For more detailed information and requirements, consult the light engine information and or information pertaining to the light engine connectors

Discontinued

Mechanical Diagram

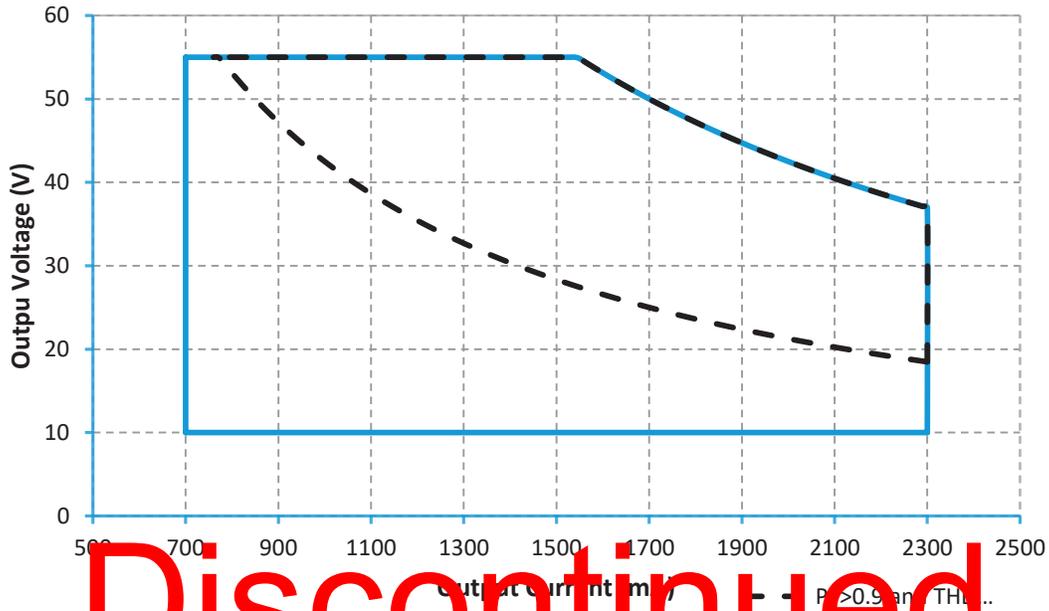
See ECOdrive 85W Indoor Linear D4i



Mechanical Specification

Length	16.73" (425mm)
Width	1.15" (29.4mm)
Height	1.0" (25.4mm)
Mounting Length	16.34" (415mm)

Operating Range



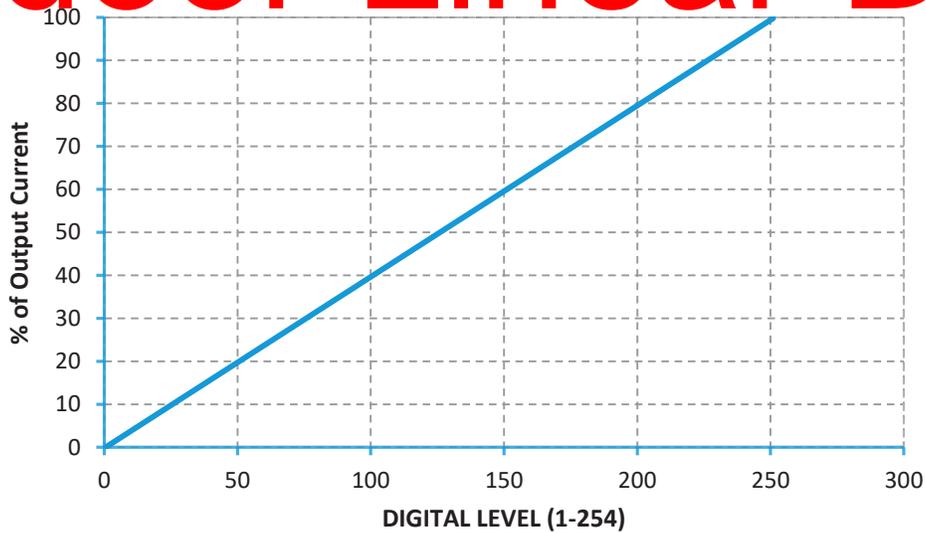
Discontinued

Note: Meeting DLC requirements requires minimum 50% loading.

See ECOdrive 85W

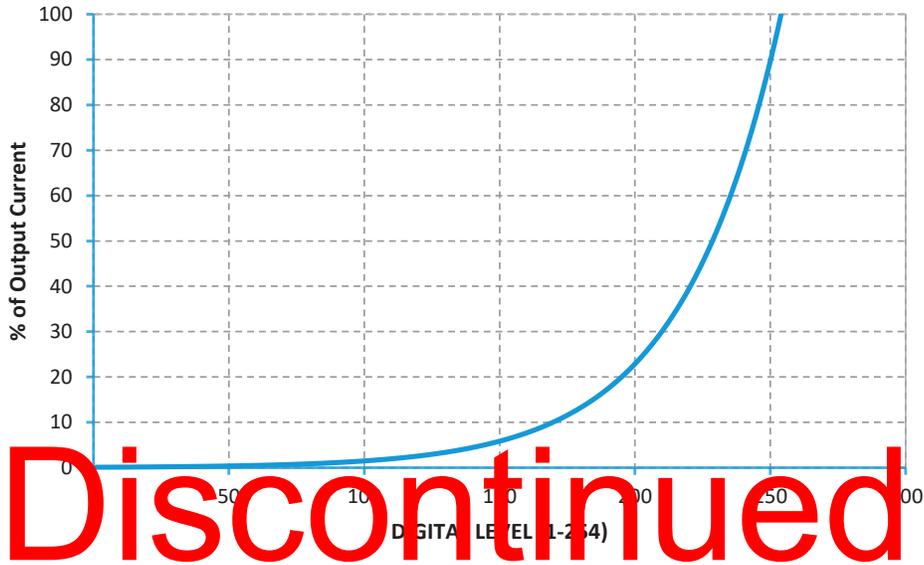
Dimming Curves

Indoor Linear Dimming D4i



Dimming Curves

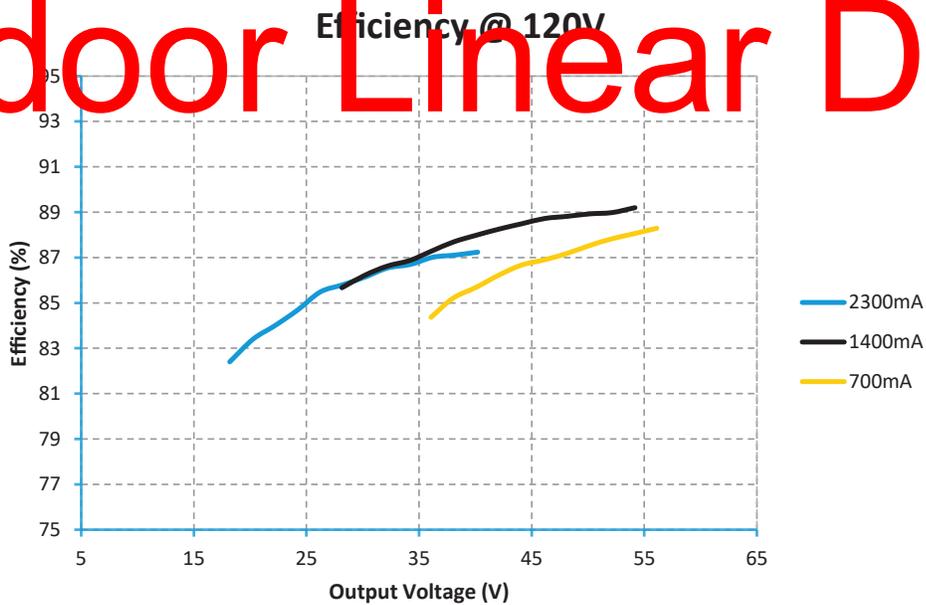
Logarithmic Dimming Curve



Discontinued

See ECOdrive 85W

Indoor Linear D4i

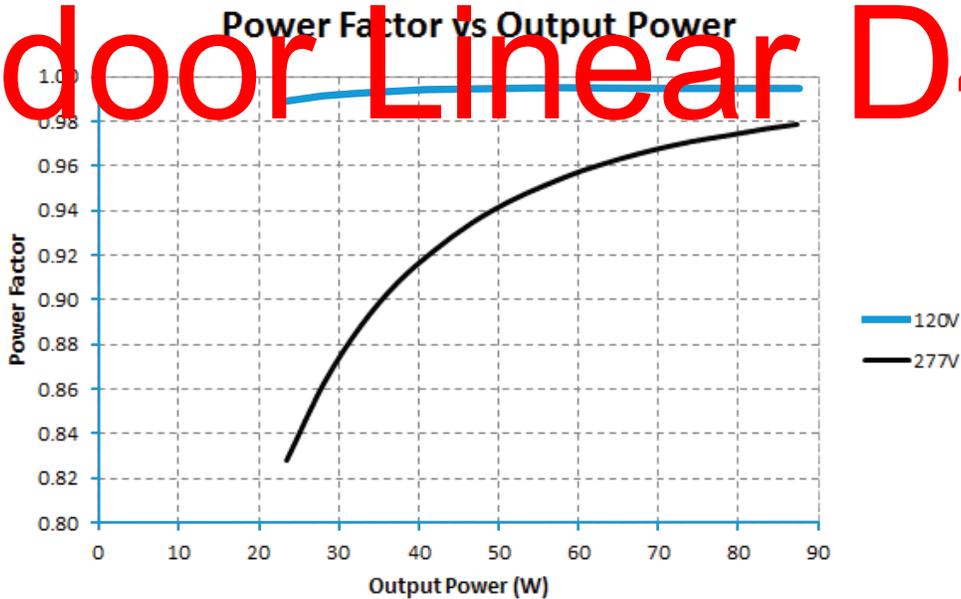




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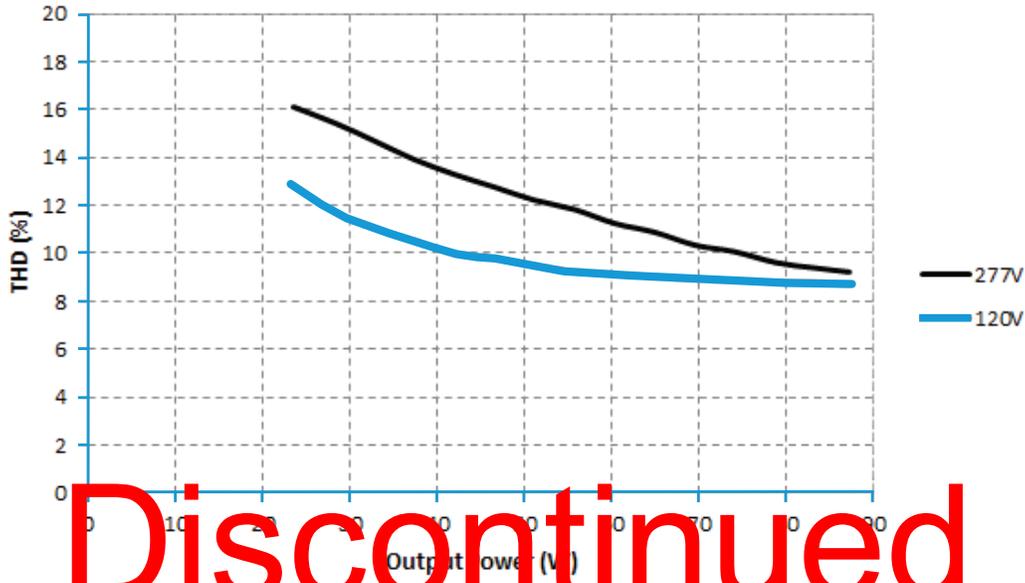
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Indoor Linear D4i



THD vs Load

THD vs Output Power



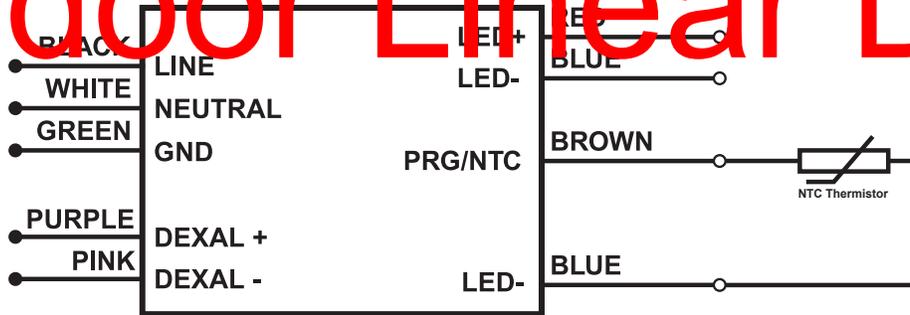
Discontinued

See ECOdrive 85W

LED Thermal Protection (NTC) Characteristic

The LED thermal protection feature of the O-85W 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.

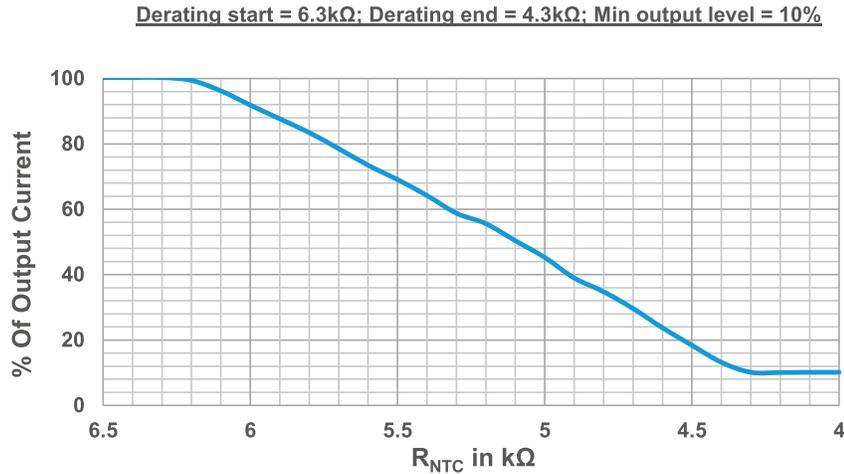
Indoor Linear D4i



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. EPCOS part number for reference only **B57164K153J (15kΩ @ 25°C)**. Murata part number for reference only - **NCP03XH223J05RL (22kΩ @ 25°C)**.

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



Constant Lumen Maintenance

The Constant Lumen Maintenance feature of the OTC 85W 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 drive reaches the programmed life-time, whenever it is turned ON, it stays at Dim level 1 (10%) for 10 minutes and reaches its appropriate level.

Dimmer/Sensor Compatibility

Manufacturer	Part Number
Digital Lumens, Inc.	45678
Lutron Electronics	Vive integral fixture control (DFCSJ-OEM-OCC/RF)
Enlighted Inc.	FS-D22 (Two-wire Fixture Mount Sensor) 2-Wire Micro Sensor (SU-5E)
Magnum Energy Systems	Mx-OPUS-MLD/MLDHB
Casambi	CBU-DCS
Nedap Light Controls	Luxon IOT Node

Note: The absence of a dimmer from this chart does not necessarily imply incompatibility. Please reference the dimmer manufacturer's instructions for installation.

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

Discontinued See ECOdrive 85W Indoor Linear D4i

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