

# Tunable White & Dim to Warm

Guide to Vode's Tunable White. Enhance the workspace using Vode's Tunable White, available on all systems.

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## Introduction

#### **Tunable White**

Tunable white enables the color temperature to be adjustable from **2200K** - **5000K**, Vode's standard range. Vode fixtures use a 2-channel LED board to provide a range of color temperatures. Vode Zipper Boards have 72 LEDs per foot, (36) 2200K and (36) 5000K. Contact factory if a different color range is required.



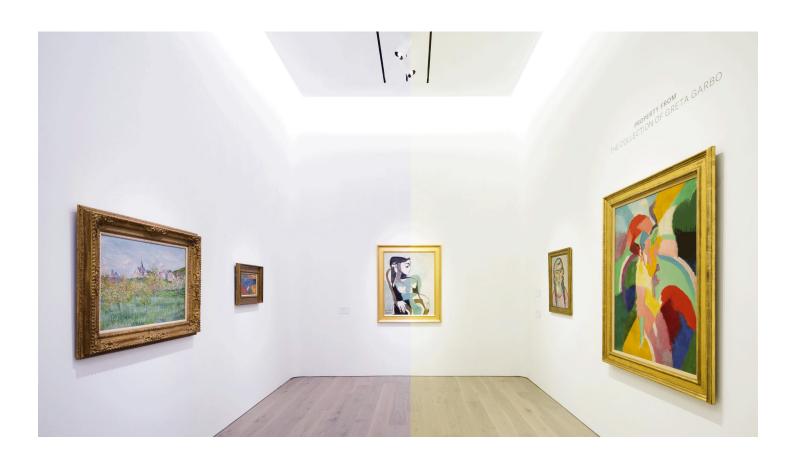
Tunable white can be used to alter a space where color temperature is critical to the design, such as retail, hospitality, and healthcare.

#### **Dim to Warm**

Dim to warm enables the color temperature to be adjustable from **2200K-3000K**. Dim to Warm is designed to replicate the feeling of dimming an incandescent light. Vode fixtures use a 2-channel LED board to provide a range of color temperatures. Vode Dim to Warm Zipper Boards have 72 LEDs per foot, (36) 2200K and (36) 3000K.



Dim to warm is often used in hospitality, residential, and restaurant applications.



The chart below shows the input wattage and voltage information for Vode systems. To select a driver, use below system specs. Contact Vode for any assistance required for specifying your system.

### Remote Power

### **Vode Zipper Board**™

107   BoxRail®						12" (305mm)	24" (610mm)	36" (914mm)	48" (1219mm)	60" (1524mm)	72" (1829mm)	96" (2438mm)
107   RaceRail® 107   WingRail®				L	ow Output	3W, 6V	6W, 15V	19W, 24V	12W, 32V	15W, 41V	18W, 50V	25W, 35V
107   DoubleBox 107   DoubleRac				Standa	ard Output	5W, 6V	11W, 15V	17W, 24V	23W, 32V	29W, 41V	35W, 50V	49W, 35V
				Н	igh Output	9W, 6V	21W, 15V	33W, 24V	45W, 32V	57W, 41V	70W, 50V	72W, 35V
707   ZipOne®						12" (305mm)	24" (610mm)	36" (914mm)	48" (1219mm)	60" (1524mm)	72" (1829mm)	96" (2438mm)
				L	ow Output	4W, 9V	7W, 18V	10W, 27V	13W, 35V	16W, 44V	19W, 53V	25W, 35V
				Standa	ard Output	7W, 9V	13W, 18V	19W, 27V	25W, 35V	31W, 44V	37W, 53V	49W, 35V
				Н	igh Output	10W, 9V	19W, 18V	28W, 27V	37W, 35V	46W, 44V	55W, 53V	73W, 35V
						,	,					,
707   ZipThree® \$	Surface I	Mount†				12"	24"	36"	48"	60"	72"	96"
707   ZipThree® (					au Outaut	(305mm)	(610mm)	(914mm)	(1219mm)	(1524mm)	(1829mm)	(2438mm)
907   BoxRail®					ow Output	4W, 9V	7W, 18V	10W, 27V	13W, 35V	16W, 44V	19W, 53V	25W, 35V
					ard Output	7W, 9V	13W, 18V	19W, 27V	25W, 35V	31W, 44V	37W, 53V	49W, 35\
				Н	igh Output	10W, 9V	19W, 18V	28W, 27V	37W, 35V	46W, 44V	55W, 53V	73W, 35V
707   ZipTwo®		12" (305mm)	24" (610mm)	36" (914mm)	48" (1219mm)	60" (1524mm)	72" (1829mm)	96" (2438mm)	108" (2743mm)	120" (3048mm)	132" (3352mm)	144" (3658mm)
Low (	Output	4W, 9V	7W, 18V	10W, 27V	13W, 35V	16W, 44V	19W, 53V	25W, 35V	31W, 44V	31W, 44V	37W, 53V	37W, 53V
Standard (	Output	7W, 9V	13W, 18V	19W, 27V	25W, 35V	31W, 44V	37W, 53V	49W, 35V	62W, 44V	62W, 44V	74W, 53V	74W, 53V
High (	Output	10W, 9V	19W, 18V	28W, 27V	37W, 35V	46W, 44V	55W, 53V	70W, 35V	88W, 42V	88W, 42V	N/A	N/A
											1	
307   Nexa	24"	30"	36"	48"	60"	72"	90"	96"	108"	120"	132"	144"
Very Low Output	(610mm									(3048mm)	(3352mm)	(3658mm)
Low Output	4W, 18\									18W, 44V	21W, 53V	21W, 53V
·	7W, 18\									31W, 44V	37W, 53V	37W, 53V
Standard Output	13W, 18	15W, 21	V 19W, 27	V 25W, 35	5V 31W, 44	V 37W, 53\	46W, 35V	/ 49W, 35V	61W, 44V	61W, 44V	73W, 53V	73W, 53V
High Output	19W, 18	22W, 21	V 28W, 27	V 37W, 35	5V 46W, 44	55W, 53V	69W, 35V	73W, 35V	N/A	N/A	N/A	N/A
					0.47	007	407	007	70"	007	400"	4.4.47
207   BoxRail ®					24" (610mm)	36" (914mm)	48" (1219mm)	60" (1524mm)	72" (1829mm)	96" (2438mm)	120" (3048mm)	144" (3658mm)
			Low Outp	ut (Indirect)	6W, 15V	9W, 24V	12W, 32V	15W, 41V	18W, 50V	25W, 35V	31W, 44V	37W, 53V
			Low Out	put (Direct)	7W, 18V	10W, 27V	13W, 35V	16W, 44V	19W, 53V	25W, 35V	31W, 44V	37W, 53V
		Star	dard Outp	ut (Indirect)	11W, 15V	17W, 24V	23W, 32V	29W, 41V	35W, 50V	49W, 35V	61W, 44V	73W, 53V
		Sta	ndard Out	put (Direct)	13W, 18V	19W, 27V	25W, 35V	31W, 44V	37W, 53V	49W, 35V	61W, 44V	73W, 53V
			High Outp	ut (Indirect)	20W, 15V	33W, 24V	45W, 32V	57W, 41V	69W, 50V	N/A	N/A	N/A

25W, 18V

37W, 27V | 49W, 35V | 61W, 44V | 73W, 53V

N/A

N/A

N/A

High Output (Direct)

## System 107 \_\_\_\_\_

System Code	107					
Single/Double Rail	01					
Rail Type	ВХ	RR	WG	DB	DR	
Rail Length	24	36	48	60	72	96
Mounting	WA	CA	TA	CC		
LED Type	Z					
Lumen Output	LO	SO	НО			

#### **Additional Information**

- Arm mount (CA, WA, TA) available as individual rails or continuous systems
- 2. Not available with Cord & Plug and on/off switch options
- 3. WingRail not available with baffle
- 4. Follow standard rail length and mounting configurations.

  Contact Vode for assistance specifying

## System 117

System Code	117				
Single/Double Rail	K1	K2			
Rail Type	ВХ	RR	WG		
Rail Length	24	36	48	60	72
Mounting	ST				
LED Type	Z				
Lumen Output	LO	SO	НО		

#### **Additional Information**

- 1. 24" and 36" rails lengths not available in Double Rails (K2)
- 2. WingRail not available with baffle
- Follow standard rail length and mounting configurations.
   Contact Vode for assistance specifying

## System 207

System Code	207							
Rail Type	ВХ							
Rail Length	24	36	48	60	72	96	120	144
Mounting	CC							
LED Type	Z							
Lumen Output	LO	SO	НО					

#### **Additional Information**

 Follow standard rail length and mounting configurations. Contact Vode for assistance specifying

## System 707 \_\_\_\_\_

System Code	707									
Rail Type	Z1	Z2	Z3	Z9						
Rail Length	24	36	48	60	72	96	108	120	132	144
Mounting	SL	CC								
LED Type	Z									
Lumen Output	LO	SO	НО							

#### **Additional Information**

 Follow standard rail length and mounting configurations. Contact Vode for assistance specifying

## System 807 \_\_\_\_\_

System Code	807											
Rail Type	NEX3	NEX5										
Rail Length	24	36	30	48	60	72	90	96	108	120	132	144
Mounting	SL	RS										
LED Type	Z											
Lumen Output	VLO	LO	SO	НО								

#### **Additional Information**

1. Follow standard rail length and mounting configurations. Contact Vode for assistance specifying

# System 907

System Code	907				
Rail Type	ВХ				
Rail Length	24	36	48	60	72
Mounting	F1S	R1B	R2S		
LED Type	Z				
Lumen Output	LO	SO	НО		

#### **Additional Information**

Follow standard rail length and mounting configurations.
 Contact Vode for assistance specifying

## Controlling Tunable White

Vode recommends using eldoLED DUAL drive DALI power supply for tunable white systems in the following methods:

#### 0-10V Applications:

- Supplied with an eldoLED translator (SC4202L) to convert 0-10v single to DALI.
- Driver and translator supplied in one 4.15" x 2.05" x 20 metal housing.
- 0-10V controller provided by others
- · 0.1% or 1% dimming available
- One driver per rail section
- Two wire harnesses per rail section provided as standard

#### **DALI Applications:**

- · The DALI power supply unit (PSU) and controller provided by others
- 0.1% Dimming
- · One driver per rail section
- Two wire harnesses per rail section provided as standard

#### **nLight Lighting Control Platform:**

- · Utilizes the eldoLED DUALdrive with nIO device
- eldoLED LEDcode Dimmer and controller provided by others
- 0.1% dimming
- · One driver per rail section
- · Two wire harnesses per rail section provided as standard

The above power and controls is what Vode recommends however, Vode tunable white systems are also compatible with the following power supplies.

#### Lutron (AH & AH2)

- · Two drivers provided per rail section
- · Light shaping commissioning by others. Without commissioning, one controller (dimmer) per driver is required
- · Controller provided by others
- 1% dimming
- Two wire harnesses per rail section provided as standard

#### eldoLED DMX (AX)

- One driver per rail section
- Light shaping commissioned by others
- · Controller provided by others
- 100-0.1% dimming
- · Two wire harnesses per rail section provided as standard

Dimming Control: 0-10V

Dimming Range: 100% to 0.1% (Factory Programmed to 1% upon request)

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request

Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 50W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

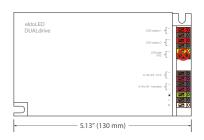
Operating Temperature: -20°C to 50°C (-4°F to 122°F)

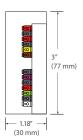
LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

Remote Distance: Up to 100' (30.5m) from LED source

## **Driver Wiring and Sizing Information**





NOTE: Driver not drawn to scale

## Technical Specifications for eldoLED DUALdrive 360/U (30W)

See eldoled.com for more information

Dimming Control: DALI-2

Dimming Range: 100% to 0.1% (Factory Programmed to 1% upon request)

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 30W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

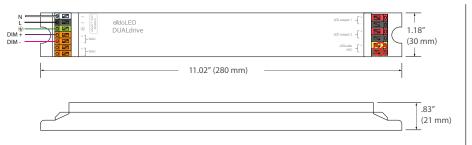
LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

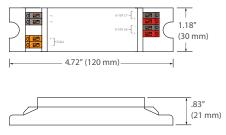
Remote Distance: Up to 100' (30.5m) from LED source

## **Driver Wiring and Sizing Information**

#### DUALDrive 360/U



#### SC4202L1 - Translator Included for 0-10V systems



Dimming Control: DALI-2

Dimming Range: 100% to 0.1% (Factory Programmed to 1% upon request)

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request

Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 50W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

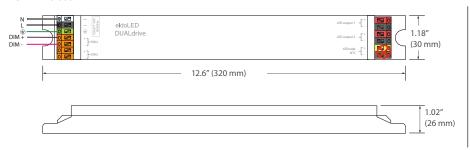
LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

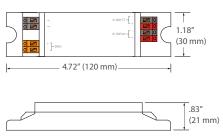
Remote Distance: Up to 100' (30.5m) from LED source

### **Driver Wiring and Sizing Information**

#### DUALDrive 560/L



#### SC4202L1 - Translator Included for 0-10V systems



NOTE: Driver not drawn to scale

## Technical Specifications for eldoLED DUALdrive 760/L (75W)

See eldoled.com for more information

Dimming Control: DALI-2

Dimming Range: 100% to 0.1% (Factory Programmed to 1% upon request)

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 75W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

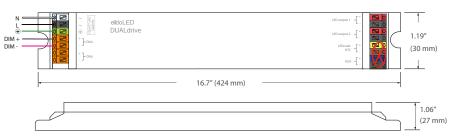
LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

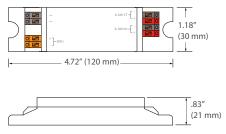
Remote Distance: Up to 100' (30.5m) from LED source

## **Driver Wiring and Sizing Information**

#### DUALDrive 760/L



#### SC4202L1 - Translator Included for 0-10V systems



Dimming Control: DALI-2

Dimming Range: 100% to 0.1% (Factory Programmed to 1% upon request)

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request

Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 100W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

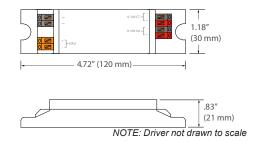
Remote Distance: Up to 100' (30.5m) from LED source

## **Driver Wiring and Sizing Information**

#### DUALDrive 1065/U



#### SC4202L1 - Translator Included for 0-10V systems



Dimming Control: Digital Multiplex (DMX)

Dimming Range: 100% to 0.1%

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic/Square is available by request.

Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 50W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

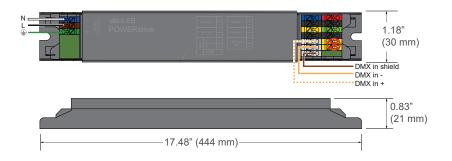
Operating Temperature: -20°C to 50°C (-4°F to 122°F)

LED output current range: 200 - 1,050 mA

Output: 4x (2-55V)

Remote Distance: Up to 100' (30.5m) from LED source

### **Driver Wiring and Sizing Information**



NOTE: Driver not drawn to scale

## Technical Specifications for eldoLED POWERdrive **106/M** (100W)

See eldoled.com for more information

Dimming Control: Digital Multiplex (DMX)

Dimming Range: 100% to 0.1%

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic/Square is available by request.

Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 100W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

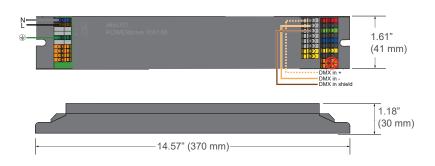
Operating Temperature: -40°C to 50°C (-40°F to 122°F)

LED output current range: 200 - 1,050 mA

Output: 4x (2-57V)

Remote Distance: Up to 100' (30.5m) from LED source

#### Driver Wiring and Sizing Information



Dimming Control: Compatibility with T-Series Energi Savr Node as a part of a Quantum system

Dimming Range: 100% to 0.1%

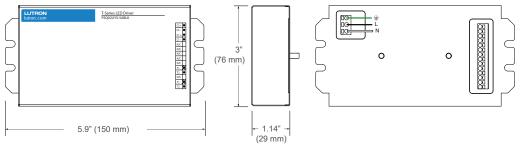
Wattage: 50W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

LED output current range: 200 - 1,500 mA
Output: 2x (8-54V)

## **Driver Wiring and Sizing Information**



## Controlling DIM to WARM

#### 0-10V Applications

- 0-10V controller provided by others.
- 0.1% dimming.
- One driver per rail section.
- Two wire harnesses per rail section provided as standard.

#### **DALI Applications**

- The DALI power supply unit (PSU) and controller provided by others.
- 0.1% dimming.
- · One driver per rail section.
- Two wire harnesses per rail section provided as Standard.

#### **nLight Lighting Controls Platform**

- Utilizes the eldoLED DUALdrive with nIO device
- eldoLED LEDcode dimmer and controller provided by others.
- 0.1% dimming.
- · One driver per rail.
- Two wire harnesses per rail section provided as Standard.

The above power & controls is what Vode recommends however, Vode warm dim systems are also compatible with the following power supplies, if required by customer.

#### eldoLED DMX (AX)

- · One driver per rail section.
- · Light shaping commissioning by others.
- · Controller provided by others.
- 100-0.1% dimming.
- Two wire harnesses per rail section provided as standard.
- · High Output (HO) not available.

Dimming Control: 0-10v (isolated)
Dimming Range: 100% to 0.1%

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 30W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

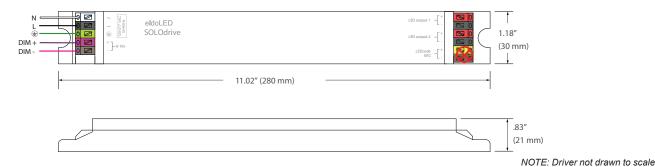
Operating Temperature: -20°C to 50°C (-4°F to 122°F)

LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

Remote Distance: Up to 100' (30.5m) from LED source

## **Driver Wiring Information**



## Technical Specifications for eldoLED SOLOdrive 561/L (50W)

See eldoled.com for more information

Dimming Control: 0-10v (isolated)
Dimming Range: 100% to 0.1%

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 50W

Input Voltage: Universal 120-277V, 50/60 Hz.

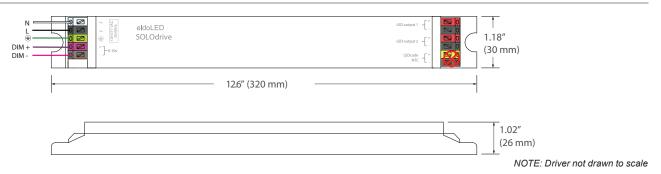
Type: Constant current, Class 2

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

Remote Distance: Up to 100' (30.5m) from LED source



Dimming Control: 0-10v (isolated) Dimming Range: 100% to 0.1%

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request

Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 75W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

Remote Distance: Up to 100' (30.5m) from LED source

## **Driver Wiring Information**



## Technical Specifications for eldoLED SOLOdrive 1066/M (100W)

See <u>eldoled.com</u> for more information

Dimming Control: 0-10v (isolated) Dimming Range: 100% to 0.1%

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 100W

Input Voltage: Universal 120-277V, 50/60 Hz. Type: Constant current, Class 2

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

Remote Distance: Up to 100' (30.5m) from LED source



Dimming Control: Digital Addressable Lighting Interface (DALI-2)

Dimming Range: 100% to 0.1%

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request

Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 30W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

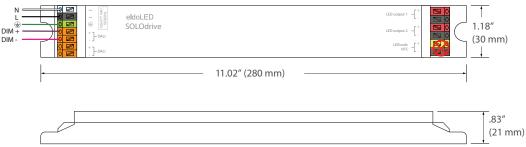
Operating Temperature: -20°C to 50°C (-4°F to 122°F)

LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

Remote Distance: Up to 100' (30.5m) from LED source

### **Driver Wiring Information**



NOTE: Driver not drawn to scale

## Technical Specifications for eldoLED SOLOdrive 560/L (50W)

See <u>eldoled.com</u> for more information

Dimming Control: Digital Addressable Lighting Interface (DALI-2)

Dimming Range: 100% to 0.1%

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 50W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

Remote Distance: Up to 100' (30.5m) from LED source



Dimming Control: Digital Addressable Lighting Interface (DALI-2)

Dimming Range: 100% to 0.1%

Dimming Curve: Driver dimming curve is factory preset to linear. Logarithmic is available upon request

Dimming Type: Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)

Wattage: 75W

Input Voltage: Universal 120-277V, 50/60 Hz.

Type: Constant current, Class 2

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

LED output current range: 150 - 1,400mA

Output: 2 x (2-55V)

Remote Distance: Up to 100' (30.5m) from LED source

