



# 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.



### Input Wattage and Voltage for all Vode Systems

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<sup>™</sup>

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				Stand	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
				Stand	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 <sup>®</sup> S 707   ZipThree <sup>®</sup> C						12" (305mm)	24" (610mm)	36" (914mm)	48" (1219mm)	60" (1524mm)	72" (1829mm)	96" (2438mm)
907   BoxRail®	-			L	ow Output	4W, 9V	7W, 18V	10W, 27V	13W, 35V	16W, 44V	19W, 53V	25W, 35V
				Stand	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   ZipTwo®		12" (305mm)	24" (610mm)	36" (914mm)	48" (1219mm)	60" (1524mm)	72" (1829mm)	96" (2438mm)	108" (2743mm)	120" (3048mm)	132" (3352mm)	144" (3658mm)
Low (	Dutput	4W, 9V	7W, 18V	10W, 27V	13W, 35V	16W, 44V	19W, 53V	25W, 35V	31W, 44V	31W, 44V	37W, 53V	37W, 53V
Standard (	Dutput	7W, 9V	13W, 18V	19W, 27V	25W, 35V	31W, 44V	37W, 53V	49W, 35V	62W, 44V	62W, 44V	74W, 53V	74W, 53V
High (	Dutput	10W, 9V	19W, 18V	28W, 27V	37W, 35V	46W, 44V	55W, 53V	70W, 35V	88W, 42V	88W, 42V	N/A	N/A
807   Nexa	24" (610mr	30" m) (762m	36" m) (914m	48" m) (1219mi	60" m) (1524mn	72" n) (1829mm	90" ) (2286mm	96" ) (2438mm)	108" (2743mm)	120" (3048mm)	132" (3352mm)	144" (3658mm)
Very Low Output	4W, 18									18W, 44V	21W, 53V	21W, 53V
Low Output	7W, 18									31W, 44V	37W, 53V	37W, 53V
Standard Output	13W, 1	8V 15W, 2	1V 19W, 2	27V 25W, 3	5V 31W, 44	V 37W, 53	46W, 35	49W, 35V	61W, 44V	61W, 44V	73W, 53V	73W, 53V
High Output	19W, 1	8V 22W, 2	1V 28W, 2	27V 37W, 3	5V 46W, 44	V 55W, 53	69W, 35	/ 73W, 35V	N/A	N/A	N/A	N/A
			I	1	I	I	I	I	I			1
207   BoxRail ®					24" (610mm)	36" (914mm)	48" (1219mm)	60" (1524mm)	72" (1829mm)	96" (2438mm)	120" (3048mm)	144" (3658mm)
			Low Out	put (Indirect)	6W, 15V	9W, 24V	12W, 32V	15W, 41V	18W, 50V	25W, 35V	31W, 44V	37W, 53V
	Low Output (Direct)			7W, 18V	10W, 27V	13W, 35V	16W, 44V	19W, 53V	25W, 35V	31W, 44V	37W, 53V	
		Sta	andard Out	put (Indirect)	11W, 15V	17W, 24V	23W, 32V	29W, 41V	35W, 50V	49W, 35V	61W, 44V	73W, 53V
		St	andard Ou	utput (Direct)	13W, 18V	19W, 27V	25W, 35V	31W, 44V	37W, 53V	49W, 35V	61W, 44V	73W, 53V
			High Out	put (Indirect)	20W, 15V	33W, 24V	45W, 32V	57W, 41V	69W, 50V	N/A	N/A	N/A
High Output (Direct)					25W, 18V	37W, 27V	49W, 35V	61W, 44V	73W, 53V	N/A	N/A	N/A

# System 107

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

#### **Additional Information**

- 1. 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	BX	RR	WG		
Rail Length	24	36	48	60	72
Mounting	ST				
LED Type	Ζ				
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	BX							
Rail Length	24	36	48	60	72	96	120	144
Mounting	СС							
LED Type	Ζ							
Lumen Output	LO	SO	НО					

#### Additional Information

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

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

System Code	707										Ade
Rail Type	Z1	Z2	Z3	Z9							1.
Rail Length	24	36	48	60	72	96	108	120	132	144	
Mounting	SL	СС									
LED Type	Ζ										
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	Ζ											
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	BX				
Rail Length	24	36	48	60	72
Mounting	F1S	R1B	R2S		
LED Type	Ζ				
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

#### Technical Specifications for eldoLED DUALdrive **561/S** (50W)

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.
Туре:	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

See eldoled.com for more information

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

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



NOTE: Driver not drawn to scale

See eldoled.com for more information

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

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.
Туре:	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



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

Dimming Control:DALI-2Dimming 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 requestDimming Type:Analog, hybrid of constant current reduction (CCR) and pulse width modulation (PWM)Wattage:75WInput Voltage:Universal 120-277V, 50/60 Hz.Operating Temperature:-20°C to 50°C (-4°F to 122°F)LED output current range:150 - 1,400mAOutput:2 x (2-55V)Remote Distance:Up to 100' (30.5m) from LED source

## Driver Wiring and Sizing Information



## Technical Specifications for eldoLED DUALdrive 1065/M (100W)

Dimming Control:	
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.
Туре:	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



<u>SC4202L1 - Translator</u> Included for 0-10V systems





## Technical Specifications for eldoLED POWERdrive 50U-M4Z0X (50W)

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.
Туре:	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.
Туре:	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



NOTE: Driver not drawn to scale

See lutron.com for more information

## Technical Specifications for Lutron T-Series PSQ02UYS-5ABLK (50W)

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



NOTE: Driver not drawn to scale

# 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.

## Technical Specifications for eldoLED SOLOdrive 30U-M2Z0A (30W)

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.
Туре:	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.
Туре:	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 75L-M2A0A (75W)

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.
Туре:	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.
Туре:	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 30U-M2Z0D (30W)

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.
Туре:	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 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.
Туре:	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**



#### DIM to WARM

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

## Technical Specifications for eldoLED SOLOdrive **1065/M** (100W)

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.
Туре:	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**

