vode | Adaptive Architectural Lighting Systems

Spec Guide

RaceRail | Ceiling Cable | 107

Red List Approved
Declare.

Direct or indirect lighting for open office and ambient applications.

RaceRail: direct or indirect, infinite rotation.

Benefits & Features

Minimal Profile, Robust Design
Round profile, Ø1.12" (28mm).

Superior Light Quality & Performance
Output up to 1507 lm/ft (4943 lm/m) (HO), 132 lm/W (SO). 80 or 90 CRI & tunable white (2200K-5000K) available.

Adaptive Power
Full range dimming power for all protocols. Integral or remote power available.

Better Optics & Beam Control Options
Batwing, FlyWing, and diffuse lens available. Directional control with infinite rotation, angle gauge and lock.
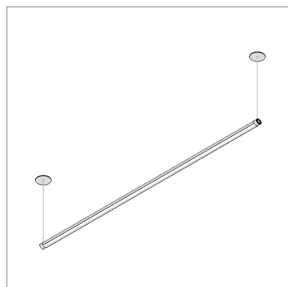
Small Round Canopy

Integral Power

Build Your Specification

107-RR	01				CC		▸▸

System & Rail Type	Single/Double Rail	System Length	Rail Length		Mounting	Cable Length	
107-RR RaceRail	**01** Single Rail	Specify overall system length in ft/in or M/mm.	**24** 24" (610mm)		**CC** Ceiling Cable	*Field adjustable.*	

System Length
Specify overall system length in ft/in or M/mm.

Corner and Shapes Available
See Guide *for details.*

Rail Length
- **24** 24" (610mm)
- **36** 36" (914mm)
- **48** 48" (1219mm)
- **60** 60" (1524mm)
- **72** 72" (1829mm)
- **ZZ** Other rail length or layout (please specify)

See **Rail Length Chart** for more details.

⚠ *Custom lengths may result in light gaps on the fixture. See **Rail Length Chart** for more details.*

Mounting
- **CC** Ceiling Cable

Cable Length
Field adjustable.
- **48** 48" cable (1219mm)
- **96** 96" cable (2438mm)
- **ZZ** Other (please specify)

				▸▸

Power Location

Integral Power
- **IP** Integral Power

Remote Power
Specify mounting and harness length code
example: **2R25, 4R25**...etc.

Mounting Option
- **2R** Small Round Canopy
- **4R** Large Round Canopy

Wire Harness
- **10** 10' (3.048m) Wire Harness
- **25** 25' (7.62m) Wire Harness
- **50** 50' (15.24m) Wire Harness
- **75** 75' (22.86m) Wire Harness
- **100** 100' (30.48m) Wire Harness

Power Type

Flexible 1 to 1 Power
- **AE** 0-10v, 1.0% Dimming
- **AT** 0-10v, 0.1% Dimming
- **AD** DALI, 0.1% Dimming
- **AX** DMX, 100-0% Dimming
- **AH** Hi-lume 1% EcoSystem, Soft On / Fade to Black Technology, LDE[1]
- **AH2** ELV 1% 2-wire (Forward and Reverse Phase)

Optimized Power
Add '**O**' to power type
example: AE**O**, AT**O**...etc. [1]

VodeNODE
Add '**N**' to power type for Flexible 1 to 1 Power
Add '**ON**' to power type for Optimized Power
example: AE**N**, AT**N**, AE**ON**, AD**ON**...etc. [2]

- **ZZ** Other (please specify)

See **Power Guide** *for driver features & limitations.*

Voltage
- **1** 120V
- **2** 120V - 277V
- **X** Not Yet Specified

Emergency Power
- **0** No Emergency Power
- **ZZ** Emergency Power *(specify requirements)*

▸▸	Z				

LED Type
- **Z** Zipper Board

Lumen Output
- **LO** Low Output
- **SO** Standard Output
- **HO** High Output
- **ZZ** Other (please specify)

See **IES Files** *page for details.*
See **Power Guide** *for driver features & limitations.*

Color Temperature

80+ CRI
- **27** 2700K
- **30** 3000K
- **35** 3500K
- **40** 4000K

90+ CRI
- **279** 2700K
- **309** 3000K
- **359** 3500K
- **409** 4000K

- **ZZ** Tunable White Available
See Guide *for details.*

Optics

Zipper Board (Z)
- **2** Diffuse, round
- **G1** 120° Batwing
- **G2** 120° FlyWing

Sensors [6]
- **0** None
- **ENC** Canopy with integrated Enlighted Micro Sensor [5]
- **WSC** Canopy with integrated Legrand Wattstopper sensor [5]
- **LAC** Canopy with integrated Lutron Athena sensor [5]
- **ZZ** Other (please specify)

▸▸		

Finish
- **AL** Clear Anodized
- **WH** White Powder Coat
- **BL** Black Anodized
- **ZZ** Other (please specify)

Options
- **0** None
- **9** 9' 18/3 Cord and Plug
- **CP** Chicago Plenum
- **LLLC** Luminaire Level Lighting Controls

NOTES & LIMITATIONS

[1] *Optimized Power is not available with Hi-lume 1% EcoSystem (AHO) Power Type.*

[2] *VodeNODE enclosure is not available with ELV 1% 2-wire (AH2) Power Type.*

[3] *9' 18/3 Cord and Plug only available with Remote Power (RP).*

[4] *Chicago Plenum not applicable for wall arm mounting.*

[5] *Rotating fixture as an uplight will interfere with sensor operation.*

[6] *Sensors, drivers and control units that are integrated into Vode fixtures are discrete components that communicate with network lighting controls. For more information about each network lighting control system, visit the manufacturer's website for additional system information and technical data sheets.*

For general information about network lighting controls, consult the DesignLights Consortium® (DLC) **Networked Lighting Control Qualified Product List.**

*Standard 5 Year Limited Warranty. See details **here**. Contact factory for options on Limited Warranties up to 20 years.*

Listed to UL standards for damp location by a Nationally Recognized Testing Laboratory (NRTL) recognized by OSHA. Certain limitations exist for each Certification. Contact factory for verification.

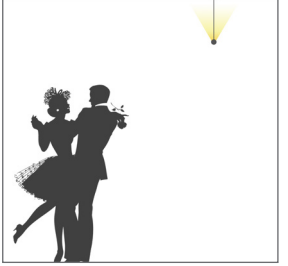## Applications

General Interior and Open Office

Square Inc, San Francisco, CA

Nektar Therapeutics Offices, San Francisco, CA

California Academy of Science, Terrace Cafe, San Francisco, CA

Declare Label

All Vode Lighting linear light fixtures proudly carry the Red List Approved designation.
See **International Living Future Institute** website for details.

Declare.℠

Red List Approved

Declare.

Vode Adaptive Architectural Lighting Systems
Vode Lighting LLC

Final Assembly: Sonoma, California, US
Life Expectancy: 10+ Year(s)
End of Life Options: Recyclable (100%)

Ingredients:

Anodized Aluminum (6063-T5 Alloy); Steel; Small Electrical Component (RoHS)[1]; Copper; Fluorinated Ethylene Propylene (masterbatch)[2]; Polymethyl methacrylate (PMMA); Stainless Steel; Polyoxymethylene Copolymer (POM); Styrene-butadiene polymer, hydrogenated; Poly(methyl methacrylate/butyl acrylate/styrene) (PMMA/BA/S); Styrene/butadiene copolymer; Distillates; Polypropylene; Calcium carbonate; Polycarbonate; EVA Copolymer; Methyl methacrylate (MMA); Polyphenylene Oxide; Brass; Tin, Organic

[1]LBC Temp Exception RL-002 - Small Electrical Components
[2]LBC Temp Exception RL-023 - Wire Sheathing Subject to NFPA 90A, NFPA 262, UL® 910

Living Building Challenge Criteria: Compliant

I-13 Red List:
☐ LBC Red List Free   % Disclosed: 100% at 100ppm
■ LBC Red List Approved   VOC Content: Not Applicable
☐ Declared

I-10 Interior Performance: Not Applicable
I-14 Responsible Sourcing: Not Applicable

VDE-0001
EXP. 01 JAN 2025
Original Issue Date: 2018

MANUFACTURER RESPONSIBLE FOR LABEL ACCURACY
INTERNATIONAL LIVING FUTURE INSTITUTE™ living-future.org/declare
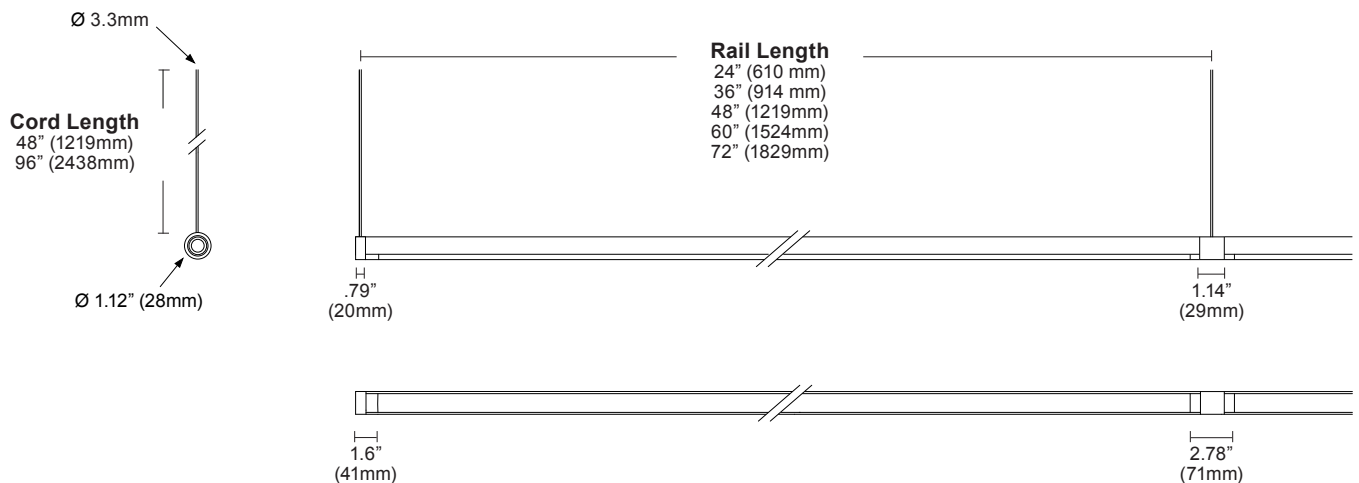
Structure

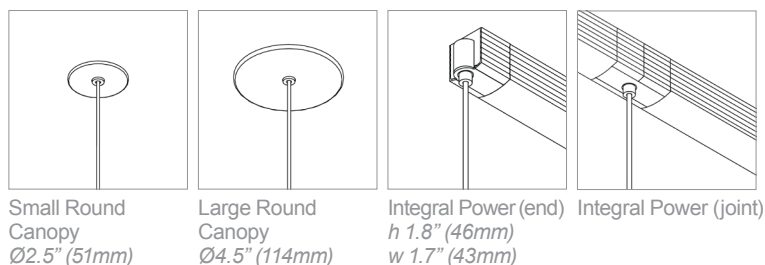|	
Rail Lengths	24" (610mm) - 72" (1829mm). Modified lengths available. *See **Rail Length Chart** for more details.*
Rail Dimensions	Ø1.12" (28mm) x length.
Construction	Extruded and machined 6063 aluminum.
Mounting	Ceiling mount to jbox or driver housing.
Cable Length	48" (1219mm) and 96" (2438mm) available. Field adjustable. Non-standard cable lengths available.
System Run Length	24" (610mm) minimum. Unlimited maximum length.
Operating Temperature	32ºF to 104ºF (0ºC to 40ºC).
Humidity	0-85%, non-condensing.
System Weight	0.65lbs per ft (0.29kg per 305mm) Power supply and housing not included.

Materials

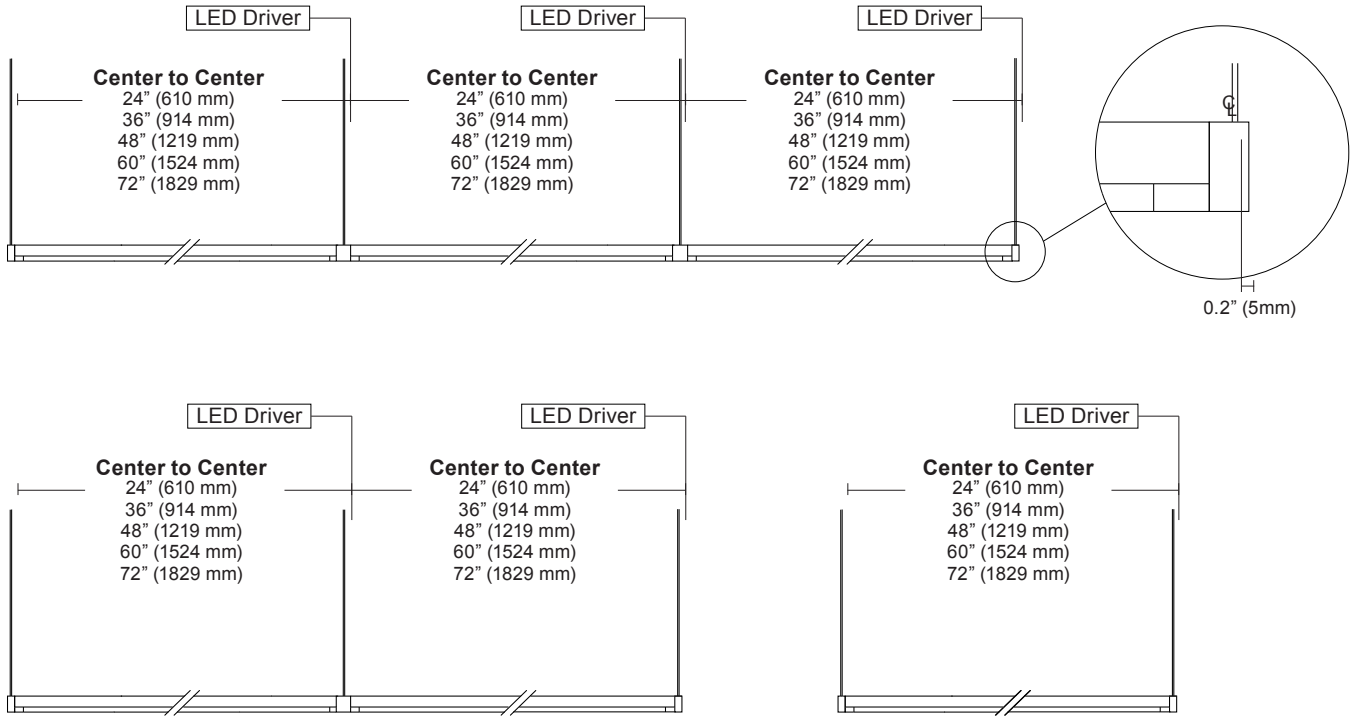|	
LED Board Construction	Aluminum core PCB, black LCP connectors, RoHS compliant.
Lens	High-impact extruded acrylic glass (PMMA).
Baffle	6063 aluminum, RoHS compliant painted finish.
Suspension Cable	Ø3.3mm, 22/2 AWG, PVC or TPE and RoHS compliant, Red List Approved.
Power Cable	Ø4mm, 18/2 AWG, Plenum (CMP) rated semi-rigid PVC or FEP, flame tested UL-910, Red List Approved.
Cable Connectors	Unfilled black nylon, rated UL 94 V-0, halogen free, PVC or FEP overmold, RoHS compliant, Red List Approved.
Remote Linear Power Housing (RLP)	20.7" x 2.375" x 2.53", 0.054" formed Galvanized Steel.
Remote Brick Power Housing (RBP)	4.32" x 3.37" x .078" Galvanized Steel mounting plate.

Dimensions

Ø 3.3mm

Cord Length
48" (1219mm)
96" (2438mm)

Ø 1.12" (28mm)

Rail Length
24" (610 mm)
36" (914 mm)
48" (1219mm)
60" (1524mm)
72" (1829mm)

.79"
(20mm)

1.14"
(29mm)

1.6"
(41mm)

2.78"
(71mm)

Mounting Options

Small Round
Canopy
Ø2.5" (51mm)

Large Round
Canopy
Ø4.5" (114mm)

Integral Power (end)
h 1.8" (46mm)
w 1.7" (43mm)

Integral Power (joint)

Layout

LED Driver

Center to Center
24" (610 mm)
36" (914 mm)
48" (1219 mm)
60" (1524 mm)
72" (1829 mm)

LED Driver

Center to Center
24" (610 mm)
36" (914 mm)
48" (1219 mm)
60" (1524 mm)
72" (1829 mm)

LED Driver

Center to Center
24" (610 mm)
36" (914 mm)
48" (1219 mm)
60" (1524 mm)
72" (1829 mm)

0.2" (5mm)

LED Driver

Center to Center
24" (610 mm)
36" (914 mm)
48" (1219 mm)
60" (1524 mm)
72" (1829 mm)

LED Driver

Center to Center
24" (610 mm)
36" (914 mm)
48" (1219 mm)
60" (1524 mm)
72" (1829 mm)

LED Driver

Center to Center
24" (610 mm)
36" (914 mm)
48" (1219 mm)
60" (1524 mm)
72" (1829 mm)

Corner and Shapes Available (Square, Rectangle, L-Shape, U-Shape, ZigZag) **See Guide** for details.

Power and Controls

|	
Power Type	Class 2 (<60V output) constant current driver.
Dimming Controls	Dimming (0.1%, 1%), 0-10V, DALI, DMX, Hi-lume 1% are available. See **Power Guide** for details.
Input Voltage	120V - 277V, 50/60hz.
Power Location	Integral or remote power. Maximum remote distance up to 100' (30.5m) *depending* on driver selection. See **Power Guide** for details.

Vode power locations fall into two categories: integral and remote. Remote power is locating the power supply away from the fixture. Remote power comes in two housing styles: brick style and linear style. Consult **Power Guide** to determine which type you will receive. Integral power is locating the power supply into the lighting fixture or mounting.

Remote Brick Power Housing
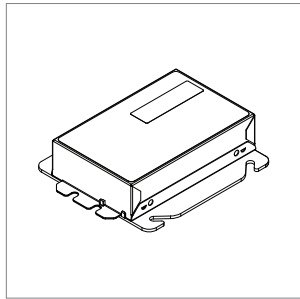
Supplied for some remote power applications. One remote power supply housing is supplied for each rail. Provided driver mounting plate fits standard 4" metal, square J-Boxes with a minimum volume of 21 in³ (J-Box not provided).
See *Tech Sheet* for details.

Remote Linear Power Housing
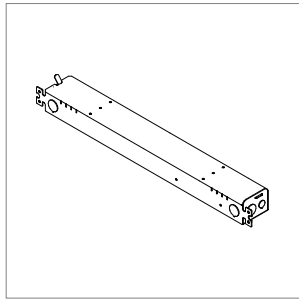
One remote power supply housing is supplied with each power supply. All Vode linear remote drivers come in a 0.054" (0.8mm) formed galvanized steel power supply housing with five (5) knockouts: (4) 1-1/8", (1) 7/8" and (1) 9/16". Accommodates standard linear power supplies.
See *Tech Sheet* for details.

Integral Power
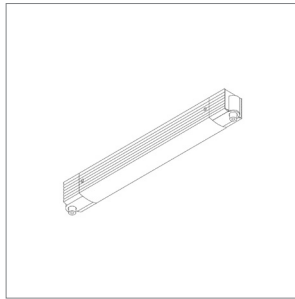
Houses integral power supply. Direct conduit feed is recommended, but integral power supply housing will mount to any standard North America 4" j-box. Mounts to most surfaces. Blocking is recommended at all arm junctions.
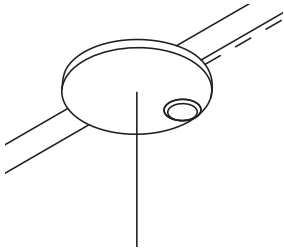See *Tech Sheet* for details.

Wire Harness
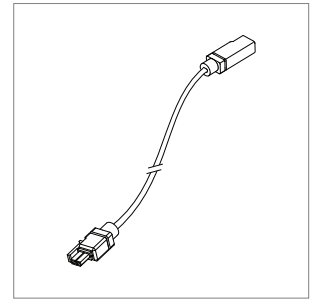
Wire harness connects driver to rail section. Lengths of 10' (3.0m) & 25' (7.6m) with snap-lock connectors for quick and easy installation. Multiple harnesses may be combined for lengths up to 100' (30.5m).
See *Tech Sheet* for details.

vodeCONNECT Sensors
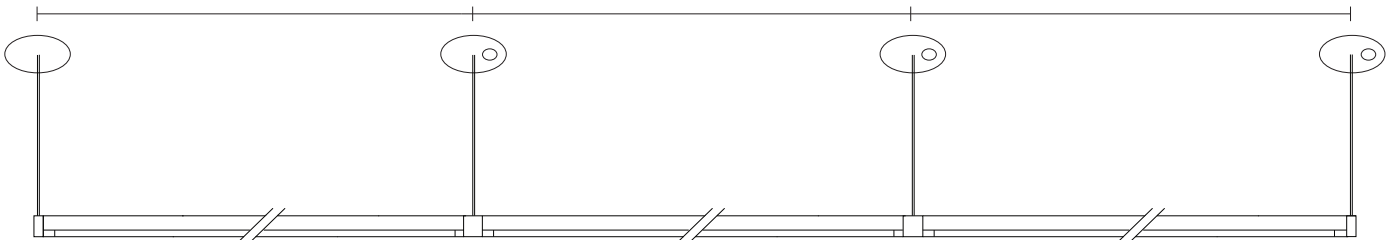
Canopy with integrated sensor

Sensor partners

⁙LUTRON   **legrand®**   **enlighted**

Integrated canopy sensor layout ¹

*1 sensor per fixture. See **vodeCONNECT brochure** for more details.*
NOTES: 1. Available with Large Round Canopy only.

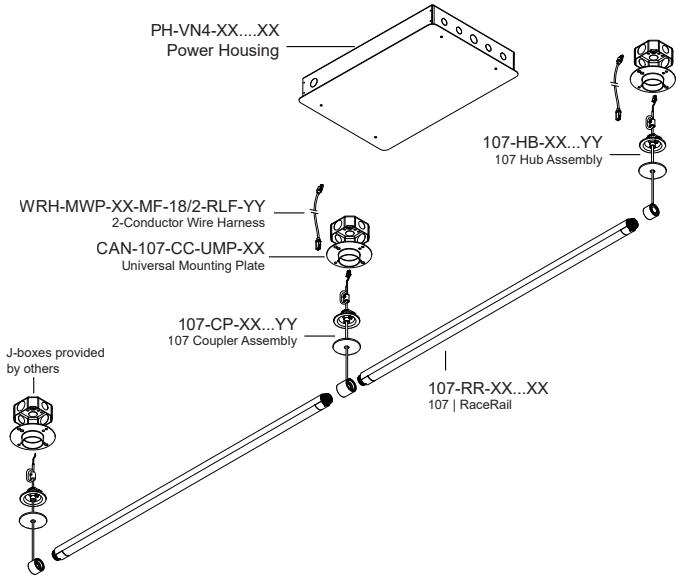## Compatible sensors

Lutron Athena

Legrand Wattstopper

Enlighted Micro Sensor
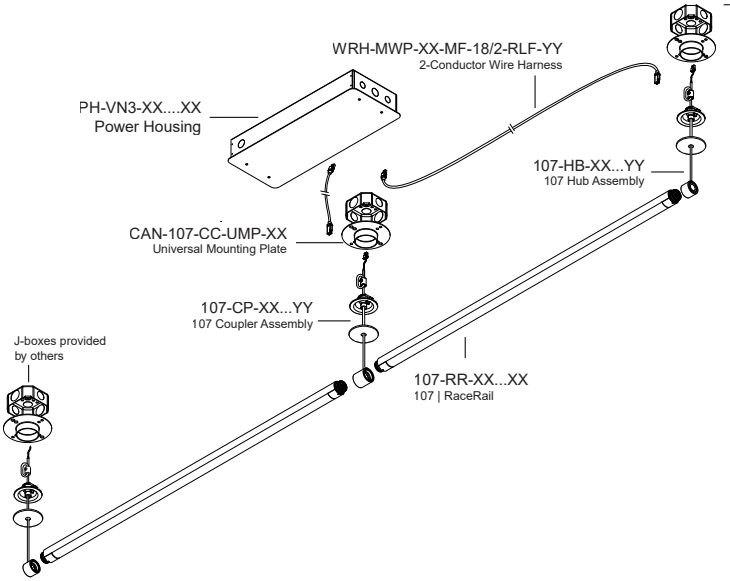
Power and Controls

Flexible 1 to 1 power

For Flexible 1 to 1 Power, Vode supplies one single output driver per fixture, allowing each fixture to be controlled independently. Direct/Indirect fixtures are supplied with two single output drivers, allowing the direct and indirect lighting to be controlled independently. Consult **Power Guide** to determine which type you will receive.

PH-VN4-XX....XX
Power Housing

107-HB-XX...YY
107 Hub Assembly

WRH-MWP-XX-MF-18/2-RLF-YY
2-Conductor Wire Harness

CAN-107-CC-UMP-XX
Universal Mounting Plate

107-CP-XX...YY
107 Coupler Assembly

J-boxes provided
by others

107-RR-XX...XX
107 | RaceRail

Optimized Power

To optimize power, Vode configures specifications with drivers that have 2 or 4 outputs. Depending on system configurations and power requirements, up to 4 fixtures can be powered from a 4-output driver. Consult **Power Guide** to determine which type you will receive.

IMPORTANT: Each fixture will still require individual wire harnesses, as shown below.

WRH-MWP-XX-MF-18/2-RLF-YY
2-Conductor Wire Harness

PH-VN3-XX....XX
Power Housing

107-HB-XX...YY
107 Hub Assembly

CAN-107-CC-UMP-XX
Universal Mounting Plate

107-CP-XX...YY
107 Coupler Assembly

J-boxes provided
by others

107-RR-XX...XX
107 | RaceRail

Note: Drawings not to scale, for reference only.

Finish

Clear Anodized Finish

Clear Anodized Rail, White Canopy/Clear Anodized Integral Power, White Cable

White Powder Coat Finish

White Rail, White Canopy/Integral Power, White Cable

Black Anodized Finish

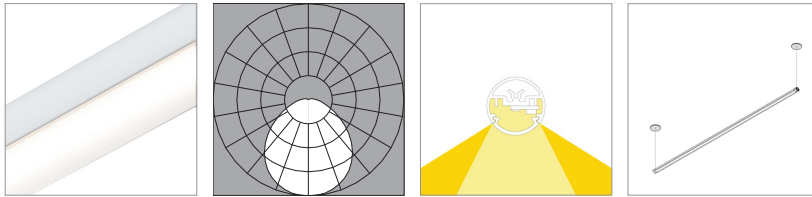

Black Rail, Black Canopy/Integral Power, Black Cable

Performance | Zipper Board Optics

Zipper Board Optics design has 72 diodes per foot (305mm).

Diffuse, round (2)

L90 >100,000 hours

	80 CRI (80min., 84 avg.)				90 CRI (90min., 96 avg.)			
Low Output (LO)	2700K	3000K	3500K	4000K	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	99	102	105	107	86	88	90	92
Lumens per foot (305mm)	369	381	389	396	318	328	335	342
Watts per foot (305mm)	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Standard Output (SO)								
Efficacy - Lumens per Watt	123	127	129	132	106	109	112	114
Lumens per foot (305mm)	739	762	777	793	637	657	670	684
Watts per foot (305mm)	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
High Output (HO)								
Efficacy - Lumens per Watt	115	118	121	123	99	102	104	106
Lumens per foot (305mm)	1403	1448	1477	1507	1210	1248	1273	1299
Watts per foot (305mm)	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4

Performance | Zipper Board Optics

Zipper Board Optics design has 72 diodes per foot (305mm).

120º Batwing (G1)
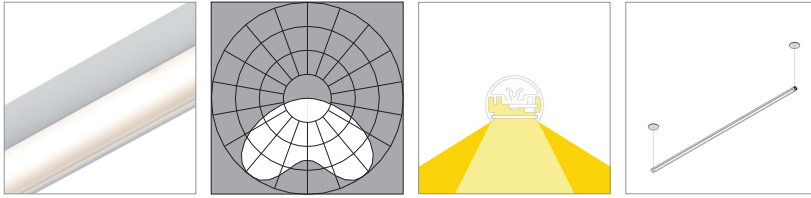
L90 >100,000 hours

	80 CRI (80min., 84 avg.)				90 CRI (90min., 96 avg.)			
Low Output (LO)	2700K	3000K	3500K	4000K	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	88	91	93	95	76	79	80	82
Lumens per foot (305mm)	328	339	346	353	283	292	298	304
Watts per foot (305mm)	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Standard Output (SO)								
Efficacy - Lumens per Watt	110	113	115	118	95	98	100	102
Lumens per foot (305mm)	657	677	691	705	566	584	596	608
Watts per foot (305mm)	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
High Output (HO)								
Efficacy - Lumens per Watt	102	105	107	109	88	91	93	94
Lumens per foot (305mm)	1248	1287	1313	1340	1076	1110	1132	1155
Watts per foot (305mm)	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4

120º FlyWing (G2)
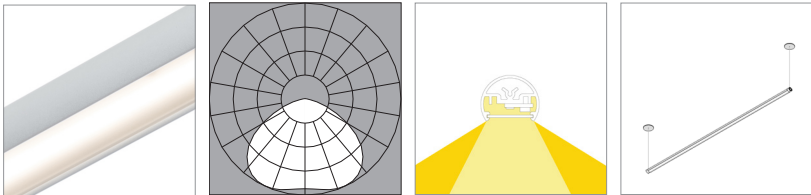
L90 >100,000 hours

	80 CRI (80min., 84 avg.)				90 CRI (90min., 96 avg.)			
Low Output (LO)	2700K	3000K	3500K	4000K	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	86	89	91	93	74	77	78	80
Lumens per foot (305mm)	320	331	33	344	276	285	291	297
Watts per foot (305mm)	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Standard Output (SO)								
Efficacy - Lumens per Watt	107	110	113	115	92	95	97	99
Lumens per foot (305mm)	641	661	675	688	552	570	582	593
Watts per foot (305mm)	6.1	6.1	6.1	6.41	6.1	6.1	6.1	6.1
CRI								
High Output (HO)								
Efficacy - Lumens per Watt	99	103	105	107	86	89	90	92
Lumens per foot (305mm)	1218	1256	1282	1307	1050	1083	1105	1127
Watts per foot (305mm)	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4