vode® Adaptive architectural lighting systems

Spec Guide

RaceRail® | Ceiling Cable │ 107

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.
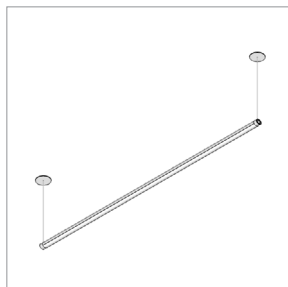
Small Round Canopy

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.*
			36 36" (914mm)		**48** 48" cable (1219mm)
		Corner and Shapes Available	**48** 48" (1219mm)		**96** 96" cable (2438mm)
		See Guide *for details*	**60** 60" (1524mm)		**ZZ** Other (please specify)
			72 72" (1829mm)		
			ZZ Other rail length or layout (please specify)		
			*See **Rail Length Chart** for more details*		

▸▸			0	▸▸
Power Location	**Power Type**	**Voltage**	**Emergency Power**	
Remote Power	**Flexible 1 to 1 Power**	**1** 120v	**0** No Emergency Power	
	AE eldoLED 0-10v, 1.0% Dimming	**2** 120v-277v	**ZZ** Emergency Power	
Small Round Canopy / **Large Round Canopy**	**AT** eldoLED 0-10v, 0.1% Dimming	**X** Not Yet Specified	*(specify requirements)*	
2R25 25' (7.62m) Wire Harness / **4R25** 25' (7.62m) Wire Harness	**AD** eldoLED DALI, 0.1% Dimming			
2R50 50' (15.24m) Wire Harness / **4R50** 50' (15.24m) Wire Harness	**AX** eldoLED DMX, 100-0% Dimming			
2R75 75' (22.86m) Wire Harness / **4R75** 75' (22.86m) Wire Harness	**AH** Hi-lume 1% EcoSystem, Soft On / Fade to Black Technology, LDE1			
2R100 100' (30.48m) Wire Harness / **4R100** 100' (30.48m) Wire Harness	**AH2** Hi-lume 1% 2-wire LTEA2W (120V forward phase only)			
	Optomized Power			
	AEO eldoLED 0-10v, 1.0% Dimming			
	ATO eldoLED 0-10v, 0.1% Dimming			
	ADO eldoLED DALI, 0.1% Dimming			
	AXO eldoLED DMX,100-0% dimming			
	ZZ Other (please specify)			
	See **Power Guide for driver features & limitations.*			

▸▸	Z				0	▸▸
LED Type	**Lumen Output***	**Color Temperature**	**Optics**	**Sensors**	
Z Zipper Board™	**LO** Low Output	**80+ CRI**	**Zipper Board (Z)**	**0** None	
	SO Standard Output	**27** 2700K	**2** Diffuse, round	**ZZ** Sensor	
	HO High Output	**30** 3000K	**G1** 120° Batwing	*(specify requirements)*	
	ZZ Other (please specify)	**35** 3500K	**G2** 120° FlyWing		
		40 4000K			
	*See **IES Files** page for details.*				
	See **Power Guide for driver features & limitations.*	**90+ CRI**			
		279 2700K			
		309 3000K			
		359 3500K			
		409 4000K			
		ZZ Tunable White Available			
		See Guide *for details*			

▸▸		▸▸
Finish	**Options**	
AL Clear Anodized	**0** None	
WH White Painted	**9** 9' 18/3 Cord and Plug [1]	
BL Black Anodized		
ZZ Other (please specify)		

NOTES & LIMITATIONS

[1] *9' 18/3 Cord and Plug only available with Remote Power (RP)*

*5 Year Limited Warranty. See full Vode warranty description **here** or at vode.com.*

Listed to UL standards for damp location by a Nationally Recognized Testing Laboratory (NRTL) recognized by OSHA.
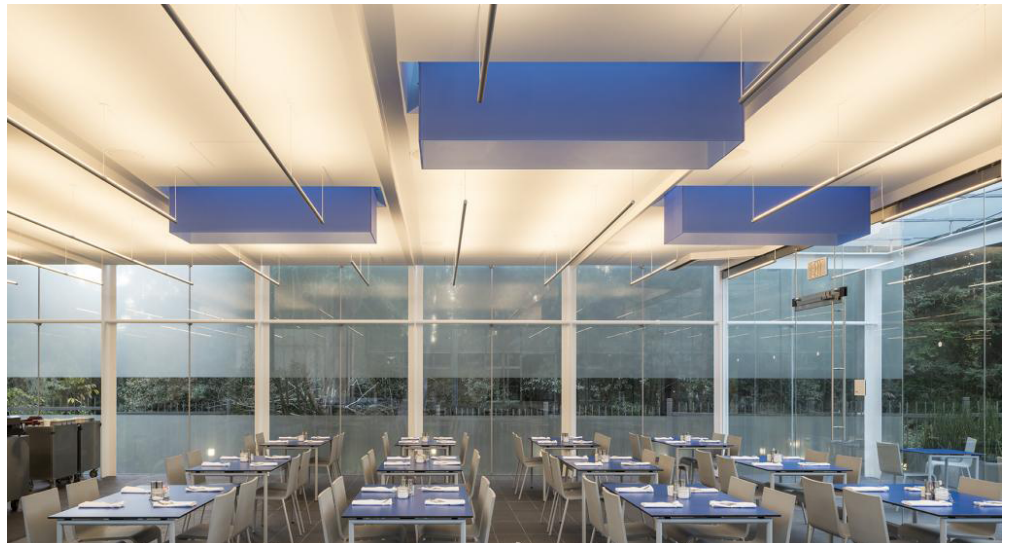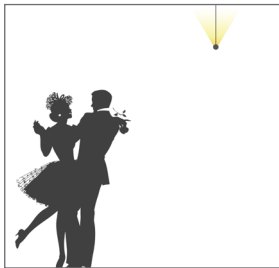
Applications

General Interior and Open Office

Square Inc, San Francisco, CA

Nektar Therapeutics Offices, San Francisco, CA

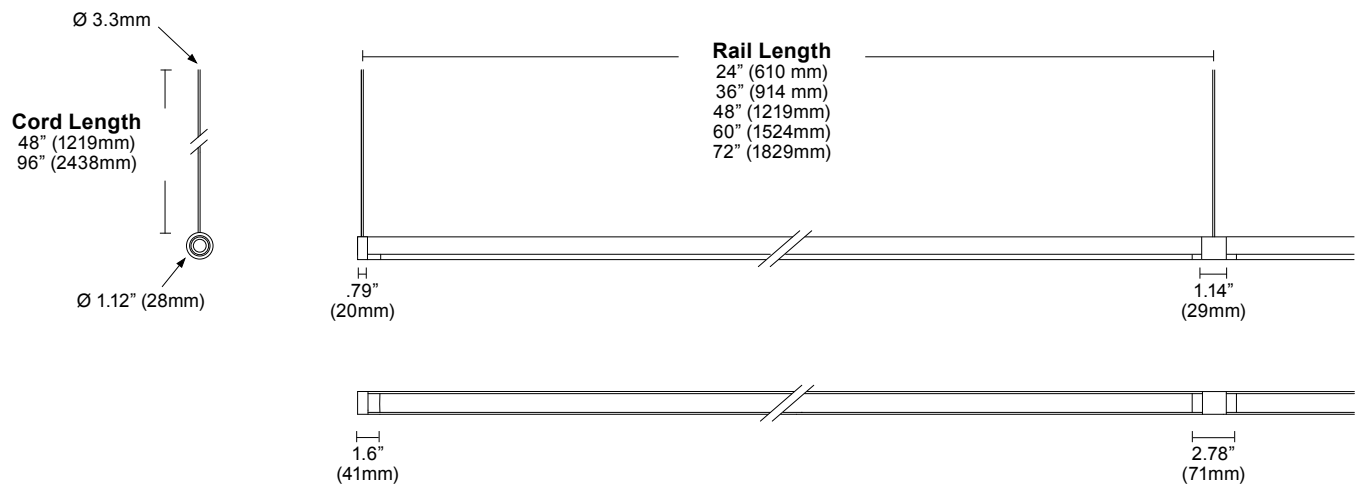California Academy of Science, Terrace Cafe, San Francisco, CA

Structure

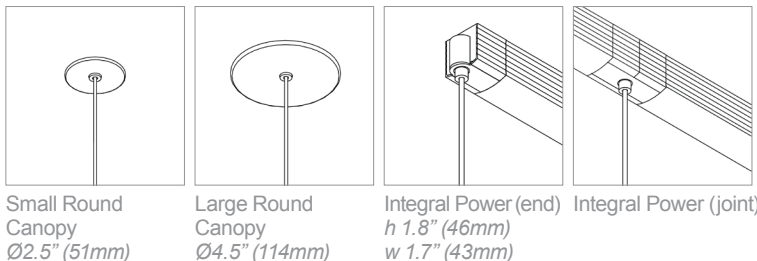|	
Rail Lengths	24" (610mm), 36" (914mm), 48" (1219mm), 60" (1524mm), 72" (1829mm)
Rail Dimensions	Ø1.12" (28mm)
Construction	Extruded and machined 6063 aluminum
Mounting	Ceiling mount to jbox or driver housing
Cable Length	48" (1219mm) and 96" (2438mm) available. Field adjustable. Non-standard cable 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

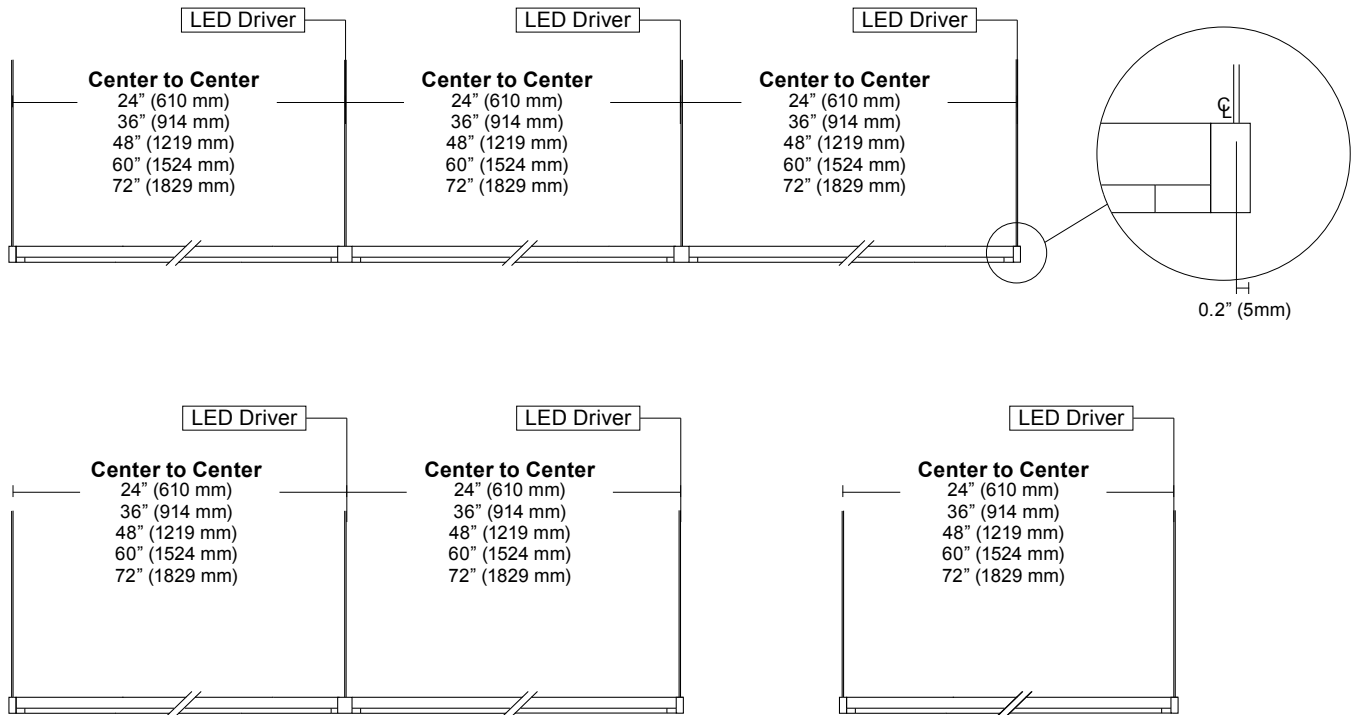|	
LED Board Construction	Aluminum core PCB, black LCP connectors, RoHS compliant
Lens	High-impact extruded acrylic glass (PMMA)
Baffle	6063 aluminum, RoHS compliant painted finish
Suspension Cable	Ø3.3mm, 22/2 AWG, PVC or TPE and RoHS compliant *(PVC free in 2020)*
Power Cable	Ø4mm, 18/2 AWG, Plenum (CMP) rated semi-rigid PVC or FEP, flame tested UL-910 *(PVC free in 2020)*
Cable Connectors	Unfilled black nylon, rated UL 94 V-0, halogen free, PVC or FEP overmold, RoHS compliant *(PVC free in 2020)*
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

Corner and Shapes Available (Square, Rectangle, L-Shape, U-Shape, ZigZag)

Power and Controls

|	
Power Type	Class 2 (<60v output) constant current driver
Dimming Controls	Dimming (0.1%, 1%), 0-10v, DALI, DMX, Lutron 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
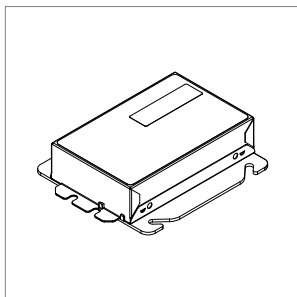
Supplied for some remote power applications. One remote power supply housing is supplied for each rail. Provided driver mounting plate fits standard 4" metal, square J-Boxes with a minimum volume of 21 in³ (J-Box not provided).
See *Tech Sheet* for details.

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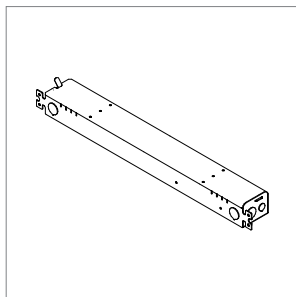
One remote power supply housing is supplied with each power supply. All Vode linear remote drivers come in a 0.054" (0.8mm) formed galvanized steel power supply housing with five (5) knockouts: (4) 1-1/8", (1) 7/8" and (1) 9/16". Accommodates standard linear power supplies.
See *Tech Sheet* for details.

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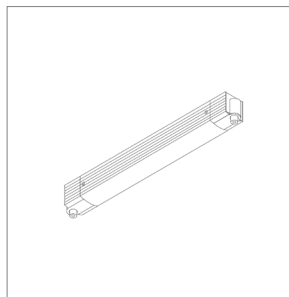
Houses integral power supply. Direct conduit feed is recommended, but integral power supply housing will mount to any standard North America 4" j-box. Mounts to most surfaces. Blocking is recommended at all arm junctions.
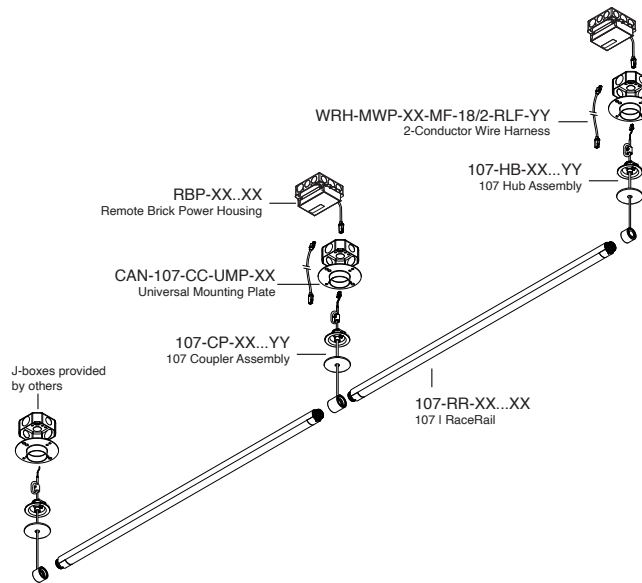See *Tech Sheet* for details.

Wire Harness
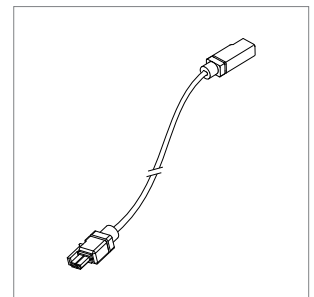
Wire harness connects driver to rail. Wire hareness is 25' (7.6m) with micro fit molex connectors for quick and easy installation. Multiple harnesses can be combined for a total length of up to 100' (30.5m).
See *Tech Sheet* for details.
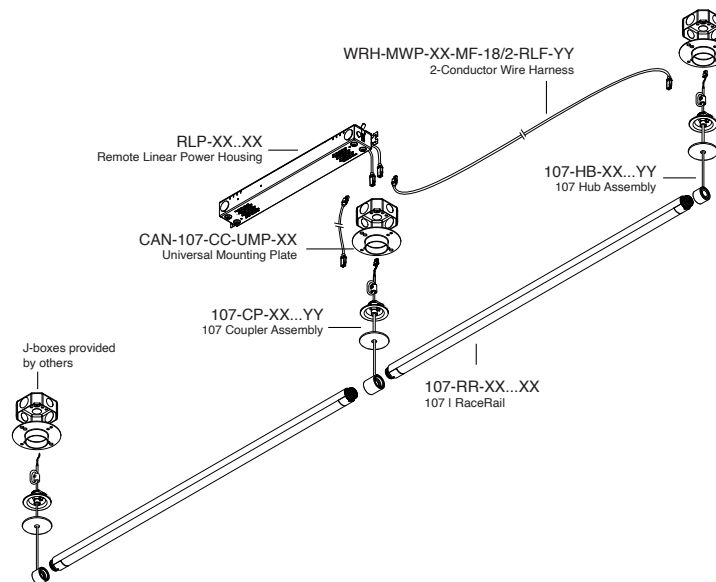
Power and Controls

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.

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

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

RBP-XX..XX
Remote Brick Power Housing

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 I 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

RLP-XX..XX
Remote Linear 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 I RaceRail

Note: Drawings not to scale, for reference only.

Power and Controls

Wire Harness

Low voltage wire harness connects driver to rail. Wire hareness is 25' (7.6m) 18/2 AWG stranded wire with provided micro fit molex connectors on either end for quick and easy installation. Multiple haresses can be combined for a total length of up to 100' (30.5m). Refer to Vode Power Guide for max remote distance based on power selection. Consult **Power Guide** to determine which type you will receive.

1.06"
(27 mm)

1.26"
(32 mm)

0.40"
(10 mm)

0.29"
(7 mm)

25' (7620 mm)
Vode Standard Length
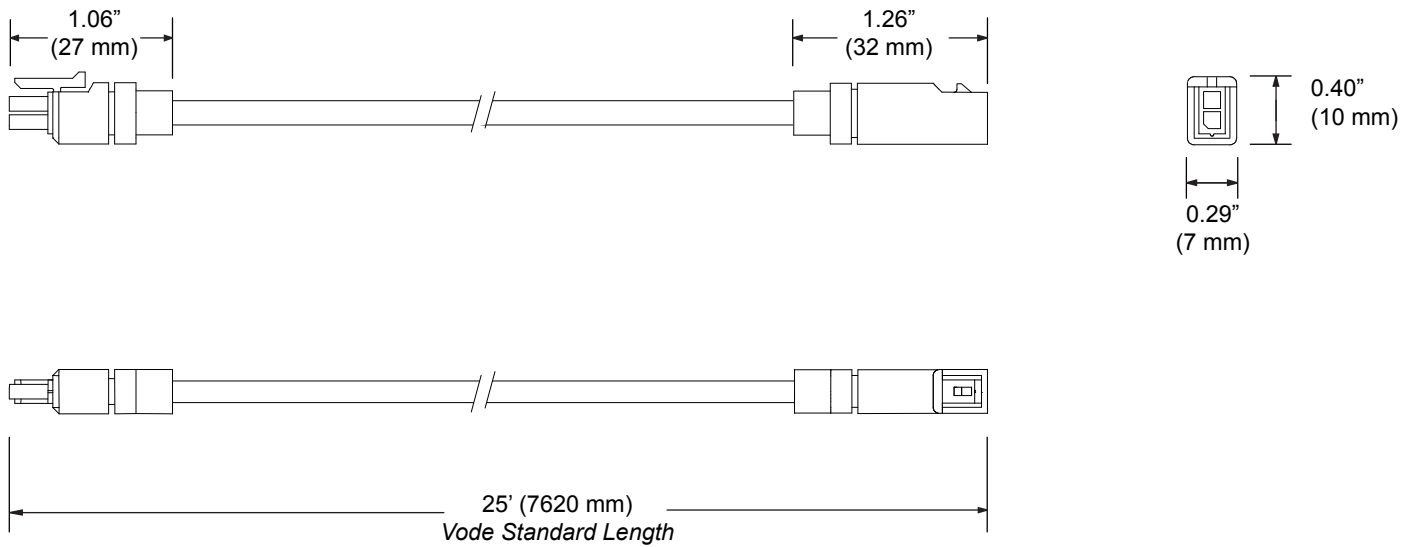
Note: Drawings not to scale, for reference only.

Finish

Clear Anodized Finish	White Painted Finish	Black Anodized Finish

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

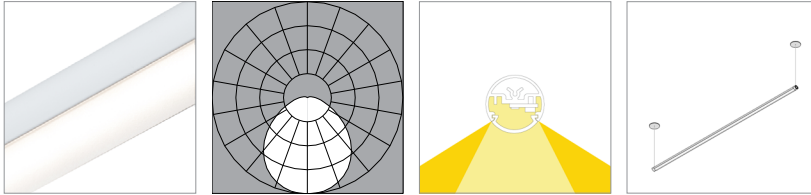White Rail, White Canopy/Integral Power, White Cable

Black Rail, Black Canopy/Integral Power, Black Cable

Performance | Zipper LED

Zipper Board has 72 diodes per foot (305mm). Testing based on a 4' rail section. Lumen measurement complies with IES-LM-79-08 testing procedures.
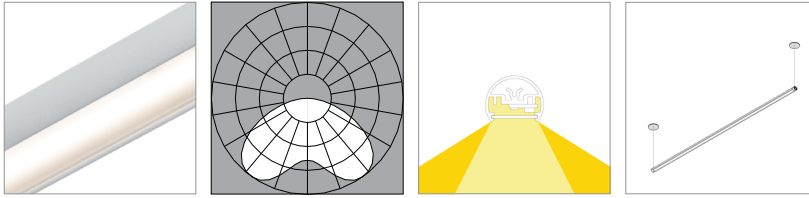
Diffuse, round (2)

L80 >60,000 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 LED

Zipper Board has 72 diodes per foot (305mm). Testing based on a 4' rail section. Lumen measurement complies with IES-LM-79-08 testing procedures.
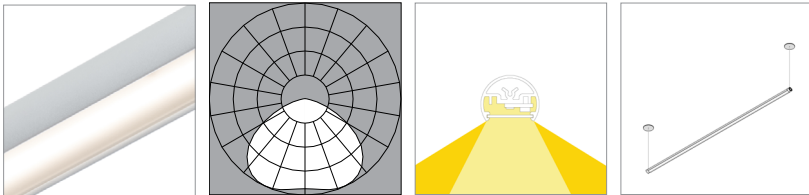
120º Batwing (G1)

L80 >60,000 hours

Low Output (LO)	80 CRI (80min., 84 avg.)				90 CRI (90min., 96 avg.)			
	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)

L80 is >60,000 hours

Low Output (LO)	80 CRI (80min., 84 avg.)				90 CRI (90min., 96 avg.)			
	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