



Adaptive architectural lighting systems



## Spec Guide

# RaceRail® | Stack | 117

Direct lighting for library stack and display applications.



RaceRail, direct or indirect, 370° rotation.

### Benefits & Features

#### Minimal, Robust Design

Round profile, Ø1.12" (28mm), 370° rotation. Round profile, Ø1.12" (28mm), 370° rotation.

#### Superior Light Quality & Performance

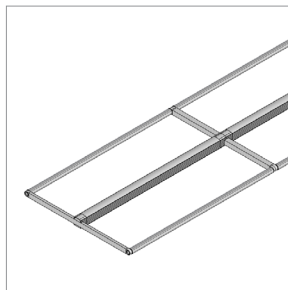
Output up to 1507 lm/ft (4943 lm/m) (HO), 132 lm/W (SO). 80 or 90 CRI & tunable white (2200K-6500K) available.

#### Adaptable Power Modules

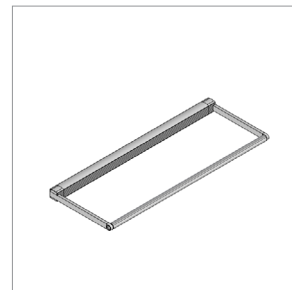
Integral Power, full range dimming power for all protocols.

#### Better Optics & Beam Control Options

FlyWing™ and diffuse lens available. Directional control with 370° rotation, angle gauge and lock.



Double-sided



Single-sided

## Build Your Specification

| 117-RR                                                 |                                                  |                                                 |                                                                                                                                                                                        | ST              | 18                                                            |
|--------------------------------------------------------|--------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------|
| System & Rail Type                                     | Single/Double Rail                               | System Length                                   | Rail Length                                                                                                                                                                            | Mounting        | Arm Length                                                    |
| 117-RR RaceRail                                        | <b>K1</b> Single-sided<br><b>K2</b> Double-sided | Specify overall system length in ft/in or M/mm. | <b>24</b> 24" (610mm)<br><b>36</b> 36" (914mm)<br><b>48</b> 48" (1219mm)<br><b>60</b> 60" (1524mm)<br><b>72</b> 72" (1829mm)<br><b>ZZ</b> Other rail length or layout (please specify) | <b>ST</b> Stack | <b>18</b> 18" arm (457mm)<br><b>ZZ</b> Other (please specify) |
| See <a href="#">Rail Length Chart</a> for more details |                                                  |                                                 |                                                                                                                                                                                        |                 |                                                               |

| IP                                                                  |                                                                                                                                                                                                                                                                                                                                                  |                                                                   | 0                                                                               | Z                      |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------|
| Power Location                                                      | Power Type*                                                                                                                                                                                                                                                                                                                                      | Voltage                                                           | Emergency Power                                                                 | LED Type               |
| Integral Power<br>IP Integral Power                                 | <b>AE</b> eldoLED 0-10v, 1.0% Dimming<br><b>AT</b> eldoLED 0-10v, 0.1% Dimming<br><b>AD</b> eldoLED DALI, 0.1% Dimming<br><b>AX</b> eldoLED DMX, 100-0% Dimming<br><b>AH</b> Hi-lume 1% EcoSystem, Soft On / Fade to Black Technology, LDE1<br><b>AH2</b> Hi-lume 1% 2-wire LTEA2W (120V forward phase only)<br><b>ZZ</b> Other (please specify) | <b>1</b> 120v<br><b>2</b> 120v-277v<br><b>X</b> Not Yet Specified | <b>0</b> No Emergency Power<br><b>ZZ</b> Emergency Power (specify requirements) | <b>Z</b> Zipper Board™ |
| *See <a href="#">Power Guide</a> for driver features & limitations. |                                                                                                                                                                                                                                                                                                                                                  |                                                                   |                                                                                 |                        |

| Lumen Output*                                                                                                                                                                                                                            | Color Temperature                                                                                                                                                                                                                                                          | Optics                                                                                                 | Finish                                                                                                              | Options                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| <b>LO</b> Low Output<br><b>SO</b> Standard Output<br><b>HO</b> High Output<br><b>ZZ</b> Other (please specify)<br>See <a href="#">IES Files</a> page for details.<br>*See <a href="#">Power Guide</a> for driver features & limitations. | <b>80+ CRI</b><br><b>27</b> 2700K<br><b>30</b> 3000K<br><b>35</b> 3500K<br><b>40</b> 4000K<br><b>90+ CRI</b><br><b>279</b> 2700K<br><b>309</b> 3000K<br><b>359</b> 3500K<br><b>409</b> 4000K<br><b>ZZ</b> Tunable White Available<br><a href="#">See Guide</a> for details | <b>Zipper Board (Z)</b><br><b>2</b> Diffuse, round<br><b>G1</b> 120° Batwing<br><b>G2</b> 120° FlyWing | <b>AL</b> Clear Anodized<br><b>WH</b> White Painted<br><b>BL</b> Black Anodized<br><b>ZZ</b> Other (please specify) | <b>0</b> None<br><b>ZZ</b> Other (please specify) |

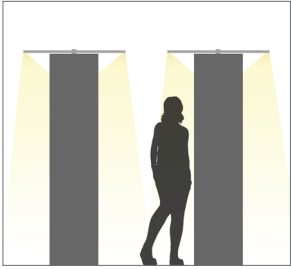
5 Year Limited Warranty. See full Vode warranty description [here](#) or at [vode.com](#).

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



## Applications

### Library Stack and Display



Cruzen-Murray Academic Library, Caldwell, ID

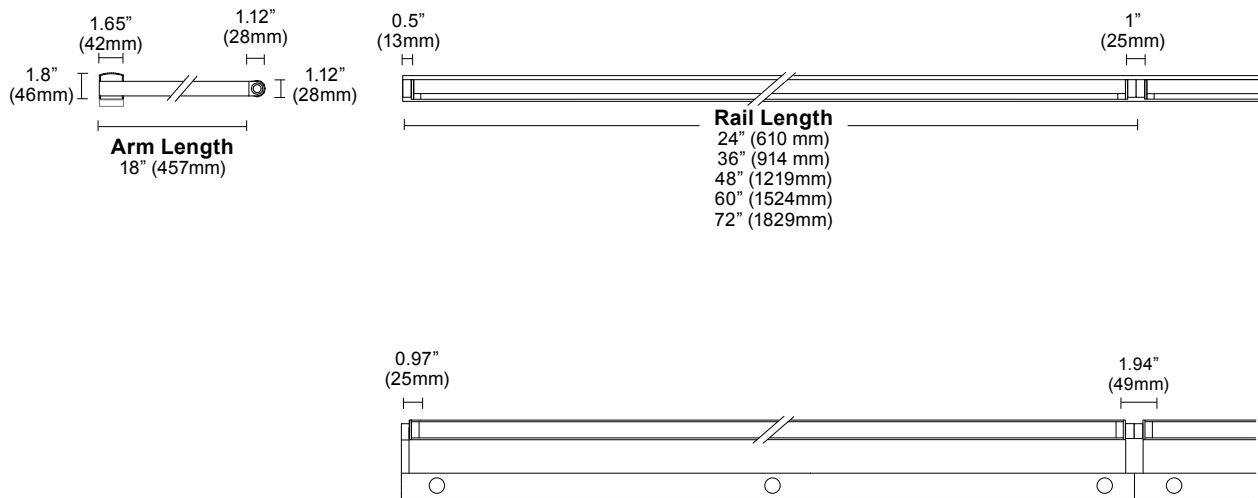
## Structure

|                       |                                                                                                      |
|-----------------------|------------------------------------------------------------------------------------------------------|
| Rail Lengths          | 24" (610mm), 36" (914mm), 48" (1219mm), 60" (1524mm), 72" (1829mm).                                  |
| Rail Dimensions       | Ø1.12" (28mm).                                                                                       |
| Construction          | Extruded and machined 6063 aluminum.                                                                 |
| Mounting              | Single or double-sided stack mount to integral power housing.                                        |
| Arm Length            | 18" (457mm). Standard and non-standard lengths available. Single-sided requires lengths 24" or less. |
| System Run Length     | 24" (610mm) minimum. Unlimited maximum.                                                              |
| Operating Temperature | 32°F to 104°F (0°C to 40°C).                                                                         |
| Humidity              | 0-85%, non-condensing.                                                                               |

## Materials

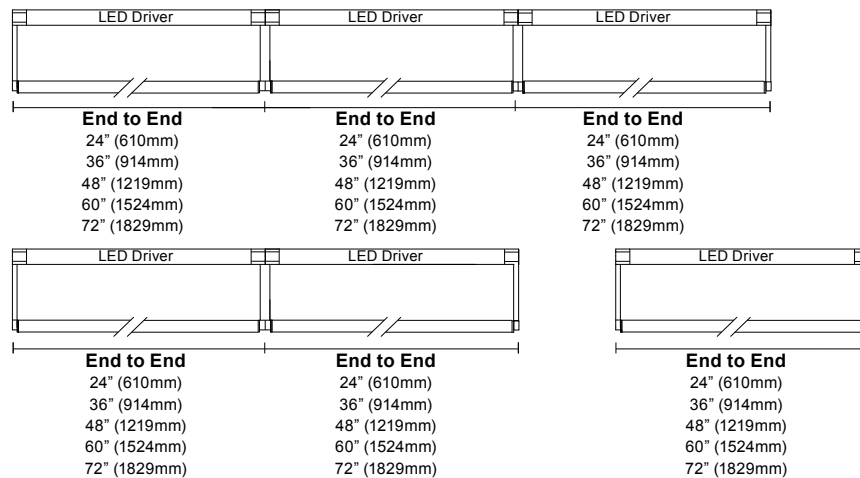
|                        |                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------|
| LED Board Construction | Aluminum core PCB, black LCP connectors, RoHS compliant.                                                             |
| Lens                   | High-impact extruded acrylic glass (PMMA).                                                                           |
| Power Cable            | Ø4mm, 18/2 AWG, Plenum (CMP) rated semi-rigid PVC or FEP, flame tested UL-910 ( <i>PVC free in 2020</i> )            |
| Cable Connectors       | Unfilled black nylon, rated UL 94 V-0, halogen free, PVC or FEP overmold, RoHS compliant ( <i>PVC free in 2020</i> ) |
| Integral Power Housing | Extruded and machined 6063 aluminum.                                                                                 |

## Dimensions

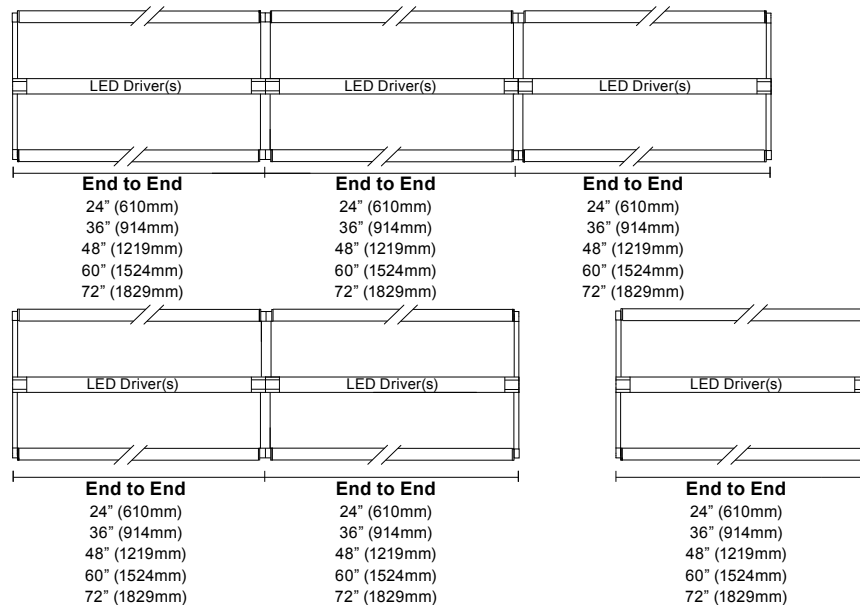


## Layout

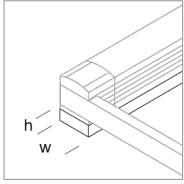
### Single Sided (K1)



### Double Sided (K2)



## Mounting Options



**Vode Strut**  
(provided with systems  
with multiple rail sections)  
h 0.8" (20mm)  
w 1.61" (41mm)

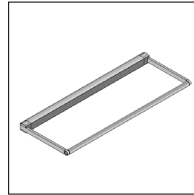
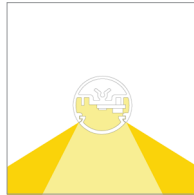
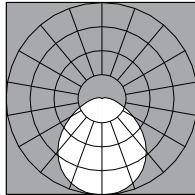
## Power and Controls

|                  |                                                                                                                     |
|------------------|---------------------------------------------------------------------------------------------------------------------|
| 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 <a href="#">Power Guide</a> for details. |
| Input Voltage    | 120v - 277v, 50/60hz.                                                                                               |
| Power Location   | Integral power. See <a href="#">Power Guide</a> for details.                                                        |

## 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)



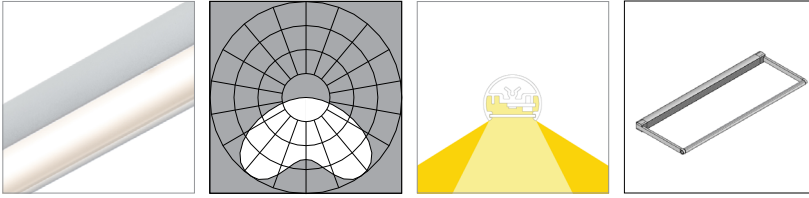
L80 >60,000 hours

|                             | 80 CRI (80min., 84 avg.) |       |       |       | 90 CRI (90min., 96 avg.) |       |       |       |
|-----------------------------|--------------------------|-------|-------|-------|--------------------------|-------|-------|-------|
|                             | 2700K                    | 3000K | 3500K | 4000K | 2700K                    | 3000K | 3500K | 4000K |
| <b>Low Output (LO)</b>      |                          |       |       |       |                          |       |       |       |
| 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   |
| <b>Standard Output (SO)</b> |                          |       |       |       |                          |       |       |       |
| 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   |
| <b>High Output (HO)</b>     |                          |       |       |       |                          |       |       |       |
| 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 Continued

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.

### 120° Batwing (G1)



L80 >60,000 hours

|                            | 80 CRI (80min., 84 avg.) |       |       |       | 90 CRI (90min., 96 avg.) |       |       |       |
|----------------------------|--------------------------|-------|-------|-------|--------------------------|-------|-------|-------|
|                            | 2700K                    | 3000K | 3500K | 4000K | 2700K                    | 3000K | 3500K | 4000K |
| <b>Low Output (LO)</b>     |                          |       |       |       |                          |       |       |       |
| 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   |

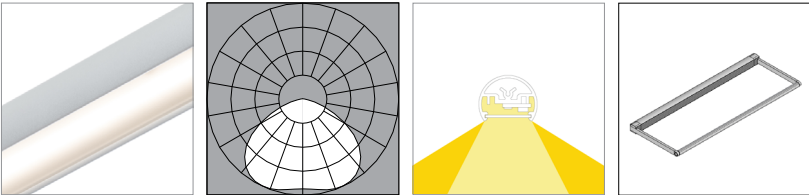
### Standard Output (SO)

|                            |     |     |     |     |     |     |     |     |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| 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 |

### 120° FlyWing (G2)



L80 is >60,000 hours

|                            | 80 CRI (80min., 84 avg.) |       |       |       | 90 CRI (90min., 96 avg.) |       |       |       |
|----------------------------|--------------------------|-------|-------|-------|--------------------------|-------|-------|-------|
|                            | 2700K                    | 3000K | 3500K | 4000K | 2700K                    | 3000K | 3500K | 4000K |
| <b>Low Output (LO)</b>     |                          |       |       |       |                          |       |       |       |
| 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 |

### 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 |

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