

# RIZE

RECESSED LIGHT FOR HEALTH CARE



Project: \_\_\_\_\_  
Type: \_\_\_\_\_



Rize offers multi-function lighting with ambient, exam, and reading illumination from a pair of recessed luminaires. The pair of Rize luminaires operate in a master and satellite configuration. Each lighting function can satisfy the illuminance recommendations of ANSI-IES RP29-16. Optional BIOS SkyBlue™ technology provides a biologically optimized light spectrum that supports both circadian stimulus and visual diagnosis.

The compact and durable construction, combined with multiple light source and control options makes Rize particularly well suited to today's healthcare patient rooms. Rize is also available with Chromawerx SOLA and DUO capability (see separate spec sheet).

**IP54** **NON-IC RATED**

### Performance

FUNCTIONS	LM	W	LM/W
Exam+Ambient	14,600	159	92
Ambient	6000	62	97
Reading	2087	28	75

Calculation with 2 x 4' fixtures, 90 CRI, 3500K - In a room : H: 9' x W: 10' x D: 10', 2'8" Spacing

### Code

LUMINAIRE ID	LENGTH	LIGHT SOURCE	CRI	EXAM (2 FIXTURES) <sup>7</sup>	AMBIENT (2 FIXTURES) <sup>9</sup>	READING FUNCTION
	<b>4FT</b>					
<b>RIZD</b> - Rize <b>RIZSD</b> <sup>1</sup> - Rize Seal	<b>4FT - 4'</b>	<b>SW</b> - Static white <b>FS</b> - Full spectrum  <b>BIOSST</b> <sup>2,3</sup> - BIOS Biological Static <b>BIOSDY</b> <sup>2,3</sup> - BIOS Biological Dynamic <b>BIOSTU</b> <sup>2,3</sup> - BIOS Biological Tunable	<b>80CRI</b> <sup>4</sup> - 80 CRI <b>90CRI</b> <sup>4,5</sup> - 90 CRI <b>95CRI</b> <sup>6</sup> - 95 CRI	<b>EX1</b> <sup>8</sup> - High output 14,600 lm (with AMB1) <b>EX2</b> - Medium output 12,600 lm (with AMB2) <b>EX3</b> - Low output 11,400 lm (with AMB3)	<b>AMB1</b> <sup>10</sup> - High output 6000 lm <b>AMB2</b> - Medium output 4000 lm <b>AMB3</b> - Low output 2800 lm	<b>RZZ()</b> <sup>11,12</sup> - Rize 2 reading function <b>NA</b> - None
<sup>1</sup> IP54 rated with Rize Seal option.		<sup>2</sup> When specified with the reading function, the reading light is not available with BIOS. <sup>3</sup> See page 5 for details.	<sup>4</sup> Not available with full spectrum. <sup>5</sup> Not available with BIOS. <sup>6</sup> Only available with full spectrum.	<sup>7</sup> Lumen output reduced with BIOS and full spectrum, please consult factory. <sup>8</sup> Meets RP29-16 in static white only.	<sup>9</sup> Lumen output reduced with BIOS and full spectrum, please consult factory. <sup>10</sup> Meets RP29-16 in static white only.	<sup>11</sup> Not available with Rize Seal. <sup>12</sup> To specify, see code and example below.

FUNCTION CONTROL <sup>13</sup>	COLOR TEMP.	VOLTAGE	MOUNTING	FINISH	OPTIONS <sup>17</sup>
<b>INDEPENDENT FUNCTION CONTROL</b> <b>DI</b> - 1% 0-10V (Ambient + reading dimmable. Exam on/off control) <b>DA</b> <sup>14</sup> - DALI <b>LDE1</b> <sup>14</sup> - Lutron Hi-lume 1% Eco <b>ELD1</b> - eldoLED 1% ECOdrive 0-10V <b>ELDO</b> - eldoLED 0.1% SOLOdrive 0-10V  <b>LOW VOLTAGE CONTROL</b> <sup>15</sup> <b>LVC2#</b> - Individual or sequential control for 2 functions <b>LVC3#</b> - Individual or sequential control for 3 functions  <sup>13</sup> PoE (Power-over-Ethernet) compatible. Consult factory for details. <sup>14</sup> On-site commissioning of functions is required. <sup>15</sup> The number of functions specified must coincide with the number of functions for the low voltage control scheme, e.g. LVC34. See table on page 6 to select control scheme.	<b>27K</b> <sup>16</sup> - 2700K <b>30K</b> - 3000K <b>35K</b> - 3500K <b>40K</b> - 4000K <b>50K</b> <sup>16</sup> - 5000K  <sup>16</sup> Not available with BIOS.	<b>120V</b> - 120V <b>277V</b> - 277V	<b>TG9</b> - Tegular 9/16" <b>TG15</b> - Tegular 15/16" <b>TB9</b> - T-bar 9/16" <b>TB15</b> - T-bar 15/16" <b>ST</b> - Screw slot T-bar <b>DTR</b> - Drywall trim <b>DTL</b> - Drywall trimless <b>DMF</b> - Drywall mud flange	<b>W</b> - Matte white <b>WA</b> - Aluminum <b>WA</b> - White Antimicrobial Silverwerx <b>CF#</b> - Custom finish, specify RAL#	<b>CP</b> - Chicago Plenum <b>GGK</b> - Grid gasket <b>NA</b> - None  <sup>17</sup> Separate codes with a "+" if more than one is specified.

### Optional Reading Function (Example: RZZ(SW-28W-40DEG-2STP-80CRI-35K))

READING LIGHT ID	LIGHT SOURCE	WATTAGE (2 FIXTURES)	BEAM	COLOR QUALITY	CRI	COLOR TEMP.
<b>RZZ</b>						
<b>RZZ</b> - Rize 2	<b>SW</b> - Static white	<b>28W</b> - 28 W output, up to 2275 lm	<b>30DEG</b> - 30° Narrow flood <b>40DEG</b> - 40° Flood	<b>2STP</b> - 2-Step MacAdam Ellipse	<b>90CRI</b> - 90 CRI <b>80CRI</b> - 80 CRI <b>95CRI</b> - 95 CRI	<b>27K</b> - 2700K <b>30K</b> - 3000K <b>35K</b> - 3500K <b>40K</b> - 4000K <b>50K</b> - 5000K
	<b>RED</b> - Red, 620 nm	<b>4W</b> - 4 W	<b>30DEG</b> - 30° Narrow flood <b>40DEG</b> - 40° Flood	<b>NA</b> - Not applicable	<b>NA</b> - Not applicable	<b>NA</b> - Not applicable
	<b>SOLA</b> <sup>18</sup> - Dim-to-warm single channel control 35K to 22K	<b>26W</b> - 26 W output, up to 1508 lm	<b>40DEG</b> - 40° Flood	<b>3STP</b> - 3-Step MacAdam Ellipse	<b>90CRI</b> - 90 CRI	<b>SOLA</b> - Dim-to-warm single channel control 35K-22K
	<sup>18</sup> Only available with DI, DA, LVC3#.					



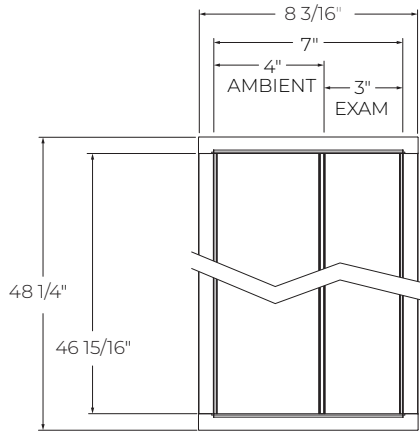
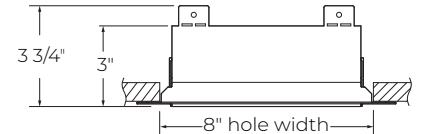
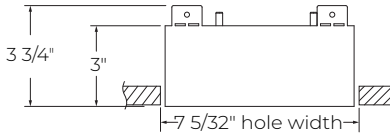
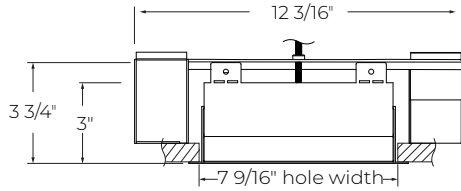
# RIZE

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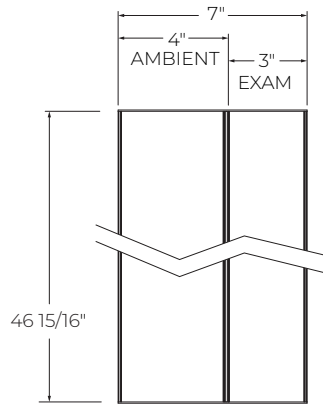


## Dimensions

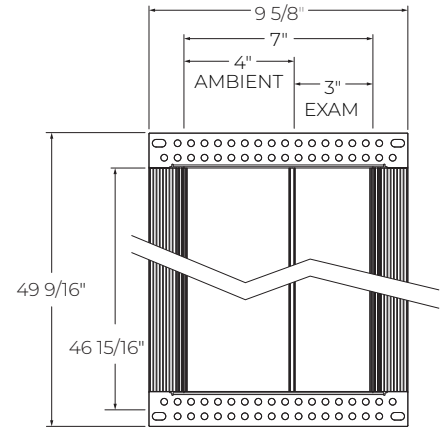
DRYWALL



**DTR** - Drywall Trim

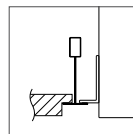
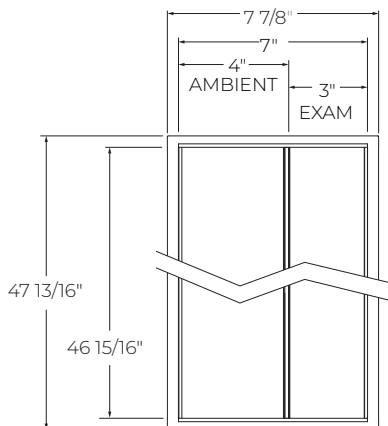
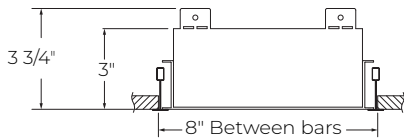


**DTL** - Drywall Trimless

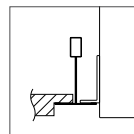


**DMF** - Drywall Mud Flange

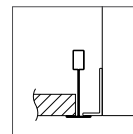
GRID



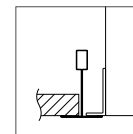
TC9  
Tegular 9/16"



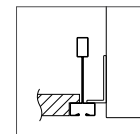
TC15  
Tegular 15/16"



TB9  
T-bar 9/16"



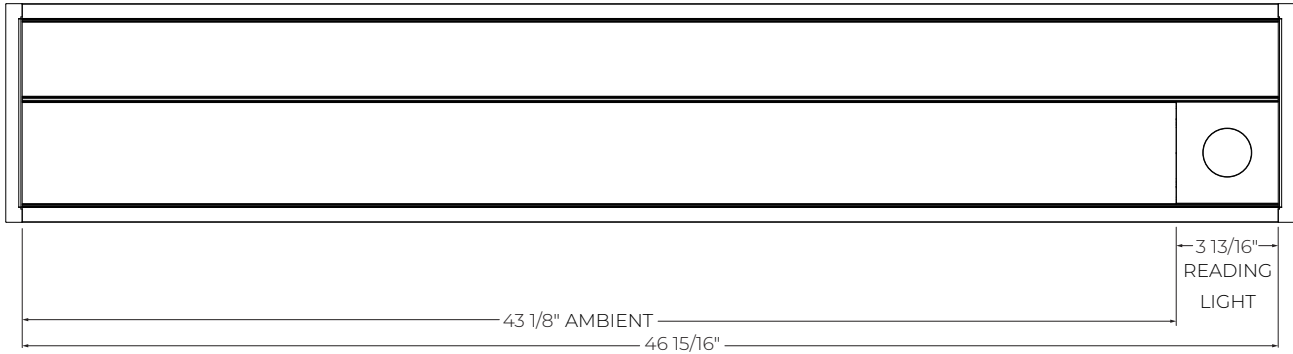
TB15  
T-bar 15/16"



ST  
Screw slot T-bar

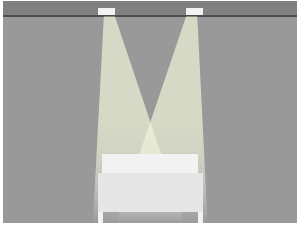
## Dimensions

### READING FUNCTION

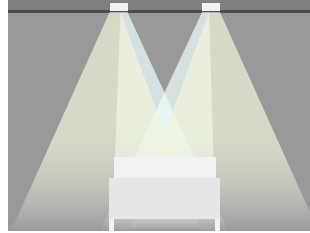
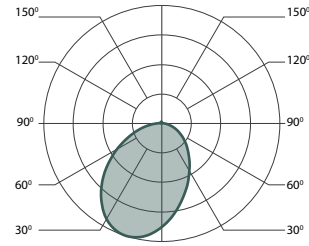


## Photometry

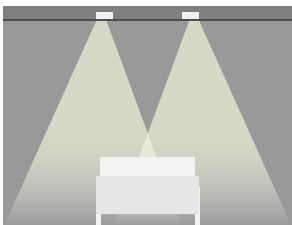
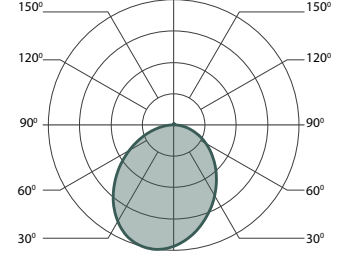
Light distribution shows the right side fixtures only.



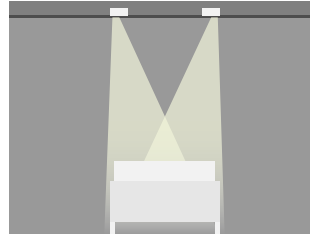
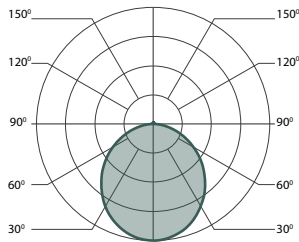
Exam  
No dimming



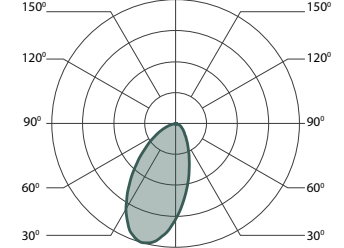
Exam HO (Exam + Ambient)  
No dimming



Ambient  
Dimmable

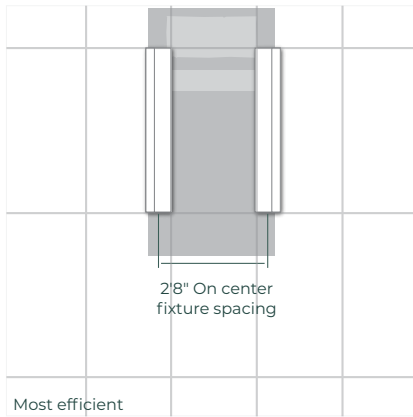


Reading  
Dimmable

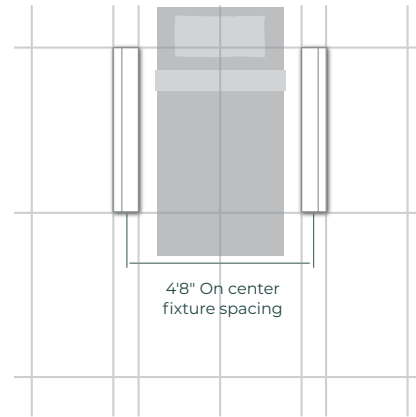


## PATIENT ROOM

10' x 10' room, 9' ceiling, 3'x6' bed against the wall



2'8" spacing



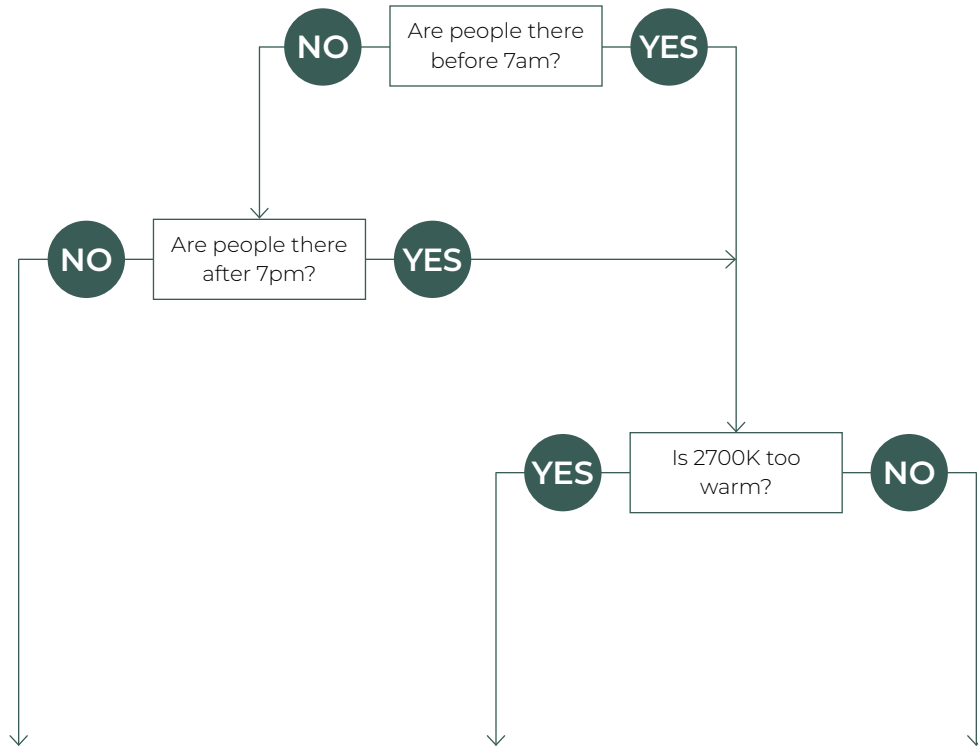
4'8" spacing

FUNCTION	LUMEN OUTPUT	AVG. ILLUMINANCE	UNIFORMITY (AVG:MIN)
EXAM HO (EXAM+AMBIENT)	14,600 lm	107 fc	1.47 : 1
EXAM	8600 lm	65 fc	1.47 : 1
AMBIENT	6000 lm	46 fc	1.46 : 1
READING	2000 lm	40 fc	1.27 : 1

Calculation with 4' fixture, 90 CRI, 3500K, 6' from floor In a room : H: 9' x W: 10' x D: 10'

## BIOS

Three BIOS Circadian LED solutions are offered – Biological Static, Biological Dynamic, and Biological Tunable. Use the decision tree below to identify when and where to use BIOS Wellness LED Lighting Solutions.



Biological Static BIOSST	Biological Dynamic BIOSDY	Biological Tunable BIOSTU
No CCT change when dimmed	500K shift when dimmed	Dims to 2700K
Daytime solution	Daytime + evening solution	Daytime + evening solution
Spaces in operation during daytime hours, between 7am and 7pm	Spaces in operation overnight, after 7pm and before 7am, and when CCT color shift in the evening is not preferred	Suitable for spaces in operation overnight, after 7pm and before 7am, and where people do not sleep (CCT color shift in the evening is preferred)
E.g. offices, medical/dental offices	E.g. hospitals	E.g. offices, shiftwork

## Technical Specifications

### OPTICS

The ambient function is lensed with a High-Efficiency Lambertian Optic (HLO) while the exam function is lensed with a ribbed High-Efficiency Lambertian Optic (HLO). The reading function employs innovative HyFlex™ optics for precise beam control.

### LIGHT SOURCE

#### Static white

Mid flux LEDs with a CRI of 80+ are standard in static white. Optional BIOS LEDs can be incorporated in the fixture to increase Cyanosis Observation Index (COI) and assist in regulating circadian rhythms. 90 CRI and other high range TM-30-18 sources are also available upon request by consulting the factory. Static white LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours.

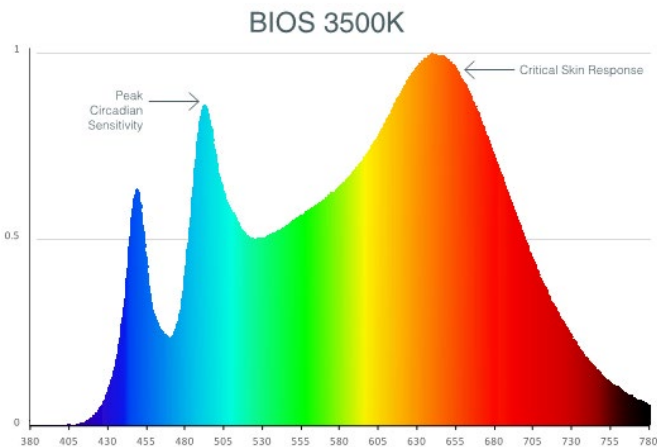
#### Full spectrum

The full spectrum LED option offers improved color particularly in the cyan region which helps increase Cyanosis Observation Index (COI) and assist in regulating circadian rhythms. The cyan region in full spectrum LED is richer at the 480 nm range.

### BIOS

The SkyBlue™ Technology option with Rize provides a modified white LED spectrum with peak intensity in the "sky blue" region (490 nm) to align better with the peak circadian stimulus. This can help regulate sleep/wake cycles and alertness.

The enhanced deep-red spectrum (near 660 nm) can improve visual diagnosis and treatment of a range of ailments, including more accurate vein delineation, essential for detecting cyanosis and administering medication.



Three BIOS solutions are offered: BIOS Biological Static (BIOSST), BIOS Biological Dynamic (BIOSDY), and BIOS Biological Tunable (BIOSTU). See page 5 for details.

### FUNCTION CONTROL

The fixture offers a variety of controls:

- Wall multi-function switches supplied by others
- Patient pillow switch supplied & low voltage wall control (with LVC options)

#### Independent control

On/off control of each load - dimming available for dimmable loads.

#### Low voltage control

The low voltage controller (LVC) option allows control of the luminaire functions from a patient pillow switch, bed side rail, or wall switch with normally open momentary dry contacts. Depending on the number of modes to be controlled, various control options are available.

Low voltage control (LVC) schemes		Reading	Exam	Ambient
2-function LVC2	LVC21		I	SM
	LVC22		I	ST
	LVC23		I	I
	LVC24		SQ	SQ
3-function LVC3	LVC31	ST	I	ST
	LVC32	SM	I	SM
	LVC33	I	I	I
	LVC34	SQ	I	SQ
<b>SM:</b> Smooth dimming		<b>SQ:</b> Sequential		
<b>I:</b> On/Off control		<b>ST:</b> Step dimming		
The number of functions specified must coincide with the functions for the low voltage control scheme.				

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## PoE

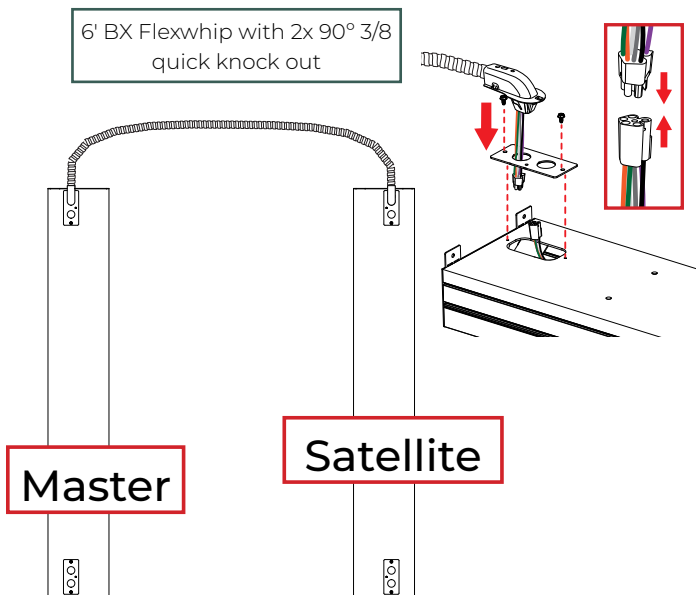
Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, DUO (tunable white), QUADRO (RGBW), emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.

## ELECTRICAL

The Rize comes with a master and satellite configuration. Power comes into the master housing and a low voltage quick connect is used to attached the satellite housing.

The low voltage cable connecting the master and satellite fixture is a 6' BX Flexwhip with 2 times 90° 3/8 quick knock out.

Each function is separately controlled with onboard drivers. Reading and Ambient functions come standard with constant-current drivers dimmable to 1% with 0-10V dimming control and high power factor. The Exam function utilizes a non-dimmable, constant current driver with high power factor. Fixtures can also be configured to employ a low-voltage controller (LVC) or additional control options subject to factory approval.



## MOUNTING

Recessed fixtures can be mounted into exposed or concealed T-bar or tegular ceiling, as well as in drywall ceilings with trim, trimless, or mud flange options.

## FINISH

Matte white, aluminum, or white antimicrobial Silverwerx powder coating. Custom finishes are also available.

## CONSTRUCTION

**Housing (RIZD):** Extruded aluminum

**Housing (RIZSD):** IP54 rated extruded aluminum housing sealed with a gasketed lens for extra protection.

**End caps:** Aluminum

**Reflector:** 98% reflective, white painted aluminum

**Grid gasket (GCK option):** 1/16" closed-cell silicone foam, assures a better seal between the fixture and the grid.

## LENGTH

The fixture has a standard length of 4'.

## WEIGHT

30 lbs - 13.6 kg

## CERTIFICATIONS

**ETL:** Rated for indoor dry/damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

**Chicago Plenum:** City of Chicago Approved (CCEA) when specified with CP option.

## WARRANTY

Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.