

# Cleanroom KL-R Vivarium Troffers-QS

2x2 and 2x4 Red/White LED Recessed Luminaires



- **Rated IP66**
- **Suitable for ISO 3-9 Cleanspaces**
- **Suitable for 209E Class 1-100,000 Cleanspaces**
- **ETL listed for Wet Locations**
- **One piece overlapping doorframe**
- **Robotically seam welded housing**
- **0-10v 1% Dimming Standard for most configurations.**
- **Narrow Spectrum 630nm LEDs**
- **White / Red separately controlled circuits**
- **Recessed Housing suitable for Tbar Grid AND Hardlid Installations**
- **BAA Compliant & Made in the USA by a Family Owned US Corporation**
- **5 Day Quick Ship For Orders Under 25 Fixtures**
- **3 Day Quick Ship For Orders Under 15 Fixtures**



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## ORDERING GUIDE

Series	Material	Size	Row Qty.	Red LED	Row Qty.	White LED	CCT/CRI	Voltage	Options	Quick Ship
KL-R			Light Source							
			Red LED	White LED	CCT/CRI	Voltage				
				<b>RLED630</b>		<b>LEDR</b>				
Series	Material	Size	Row Qty.	Red LED	Row Qty.	White LED	CCT/CRI	Voltage	Options	Quick Ship
KL-R	3 White 430 SS Hsg. & Polished 304 SS Door	2x2 2' x 2' Housing	1	RLED630	1	LEDR	83 CRI:	120V	EM10 10W Integral LED EM (Specify Input Voltage)	50QS (5-Day Quick Ship)
	4 White AL Hsg. & Polished 304 SS Door		2		2		835 3500K	277V	EM20 20W Remote LED EM (Specify Input Voltage)	30QS (3-Day Quick Ship)
	5 White AL Hsg. & White AL Door	OR	3		3		840 4000K	UNV	PxL Programmed to User Specified Lumen Value.	
	7 White AL Hsg. & White CRS Door	2x4 2' x 4' Housing	4						PxW Programmed to User Specified Wattage Value.	
			5 LED Rows Max						10KV 10KV Parallel Surge Protection (One Supplied Per Circuit)	
						GG 1/8" Thick Grid Gasket (Provided Loose)				

Ordering Notes, If Applicable

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## SPECIFICATIONS

**HOUSING:** One piece, hole free, robotically seam welded housing has flattened knockouts for a superior seal. Housings are available in .040" 3003 Aluminum or 20Ga 430 Stainless Steel.

**DOOR FRAME:** One piece door frame with welded corners overlaps the fixture allowing the NSF approved microcellular gasket to seal to the mounting surface. Door frame is hinged by aircraft cables and is supplied with captive stainless steel flush head screws to allow easy wiping of the surface. Available in .050" 3003 Powder coated Alum., 20Ga 304 Polished SS, or 18Ga Powder coated CRS.

**GASKETS:** NSF Listed closed cell microcellular extruded KleanLock SealPro gasket with vulcanized corners making a one-piece oil and solvent resistant gasket system. GG option provides a loose 1/8" thick adhesive backed gasket intended to adhere to the top face of a suspended grid ceiling for grid profiles that do not already have gasket on them.

**OPTICS:** Standard P12 prismatic acrylic lens is provided with an inverted lens so the smooth side faces the room for easy cleaning. Other optics may be available, consult factory for more information or options not listed.

**LEDS:** Fixture available with Red only or Red & White LEDs, each color will be supplied with its own driver for dual switching. Red LED's provide a narrow 630nm spectrum light for wavelength sensitive applications. White high efficiency LEDs are commercially available & available in a wide variety of CRI and CCT. All boards have Zhaga recognized hole patterns and come with a 5 year warranty.

**DRIVERS:** Standard Universal Voltage Class 2 drivers are 0-10v Dimmable to 1%, and rated -20C (-4F). They come with at least 2.5Kv surge protection, have less than 10% THD at max load, Ballast Factor Greater than .95 and are programmable to match specific lumen or wattage requirements. Drivers with higher input voltage ratings are available, consult factory for driver specifications. (each color LED comes standard with its own driver)

**REFLECTOR:** Die formed metal with high reflectance white polyester powder coat finish. Typical reflectivity 92%.

**INSTALLATION RECESSED:** Suitable for recessed Non-IC installation into covered ceilings. Fixtures are supplied with .875" flattened knockouts for supply entry. Recessed housings have (4) swing out toggle arms that are used to draw the fixture in to the ceiling for hard lid installation without the need for a yoke hanger. The toggle arm adjuster bolts are accessible from the room side of the luminaire and the actual toggles can be used as means of establishing a seismic support for lay in ceiling installations. Confirm ceiling compatibility with dimension drawings below.

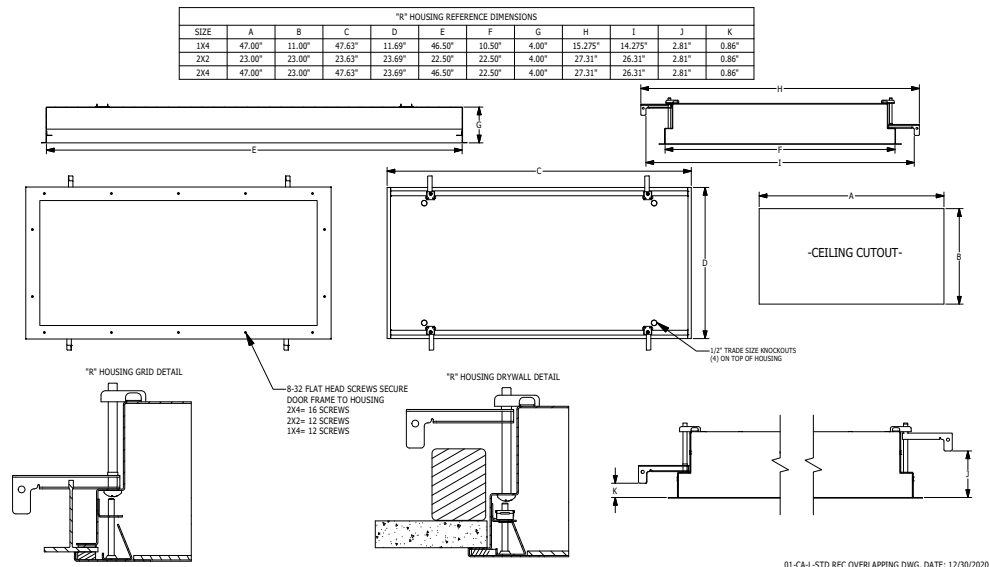
**FINISH:** Stainless steel door frames are satin polished. All other materials are provided with gloss high reflectance white polyester powdercoat with 1000hr salt spray test per ASTM B117.

**LISTINGS:** IP66 rated for dust and water ingress. Suitable for 1700 PSI high pressure hosedowns. ETL listed per UL\_1598 for wet locations. Chicago Plenum Rated. Certified ISO-14644-1 for class 3 through class 9 cleanspaces. Certified Fed Std 209E for Class 1 through Class 100,000 cleanspaces. NSF2 Listed for non-food zones & Splash Zones. Drivers and LEDs are covered by a 5 year warranty, the remaining fixture is covered by a 10 year warranty. This product is Buy American Act (B.A.A.)

**5-DAY QUICK SHIP POLICY:** Quantity restriction of 25 fixtures. Once PO is received by 12:00 PM CST, shipping will occur within 5 business days. Standard freight applies. Expedited shipping to be paid by customer.

**3-DAY QUICK SHIP POLICY:** Quantity restriction of 15 fixtures. Once PO is received by 12:00 PM CST, shipping will occur within 3 business days. Standard freight applies. Expedited shipping to be paid by customer.

## PRODUCT DRAWINGS



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## ENERGY DATA

OVERLAP-FGRS-RED LED TROFFER													
ENCLOSURE SIZE	LED SELECTION	DIMMING	83 CRI			630nm (RED)			AMBIENT TEMP RATING				
			LUMENS	WATTS	EFFICACY	LUMENS	WATTS	EFFICACY	MINIMUM	MAXIMUM <sup>3</sup>			
2x2	1LEDR	0-10V 1%	1,808	15	121	NA			-20°C (-4°F)	40°C (104°F)			
2x2	2LEDR	0-10V 1%	3,165	29	109				-20°C (-4°F)	40°C (104°F)			
2x2	3LEDR	0-10V 1%	4,747	42	113				-20°C (-4°F)	40°C (104°F)			
2X2	1RLED	0-10V 1%	NA						549	14	39	-20°C (-4°F)	40°C (104°F)
2X2	2RLED	0-10V 1%							1,011	27	37	-20°C (-4°F)	40°C (104°F)
2X2	3RLED	0-10V 1%							1,560	51	31	-20°C (-4°F)	40°C (104°F)
2X2	4RLED	0-10V 1%				2,022	53	38	-20°C (-4°F)	40°C (104°F)			
2X4	1LEDR	0-10V 1%	3,431	29	118	NA			-20°C (-4°F)	40°C (104°F)			
2X4	2LEDR	0-10V 1%	6,864	55	125				-20°C (-4°F)	40°C (104°F)			
2X4	3LEDR	0-10V 1%	10,295	83	124				-20°C (-4°F)	40°C (104°F)			
2X4	1RLED	0-10V 1%	NA						1,247	27	46	-20°C (-4°F)	40°C (104°F)
2X4	2RLED	0-10V 1%							2,298	53	43	-20°C (-4°F)	40°C (104°F)
2X4	3RLED	0-10V 1%							3,545	80	44	-20°C (-4°F)	40°C (104°F)
2X4	4RLED	0-10V 1%				4,596	106	43	-20°C (-4°F)	40°C (104°F)			

<sup>1</sup> DELIVERED LUMEN DATA IS EXTRAPOLATED FROM MEASURED DATA @25C WITH NO EXTRA OPTIONS. VARIANCES WILL OCCUR WHEN OTHER SELECTIONS ARE MADE  
<sup>2</sup> WATTAGE IS MEASURED WITH LED 840 SELECTION @ 120vAC AND Tambient = 25C. WATTAGES WILL VARY AND INCREASE WHEN ALTERNATE OPTOINS ARE SELECTED  
<sup>3</sup> MAX AMBIENT TEMP RATING, NON-IC INSTALLATON. TEMP RATING IS WITH NO OTHER OPTOINS SELECTED. WHITE LEDS ONLY SUITABLE FOR 40C AMBIENT

## COLOR LED RELATIVE DISTRIBUTION

