KURTZON
SPECIFICATION GRADE LIGHTING
ILLUMINATING YOUR WORLD

Cleanroom KL Screwless Troffers - Tunable White

1x4, 2x2 and 2x4 High Efficiency LED Luminaires With Screwless Door Frame

- **Rated IP66**
- **Suitable for ISO 3-9 Cleanspaces**
- **Suitable for 209E class 1-100,000 Cleanspaces**
- **ETL listed for Wet Locations**
- **One piece overlapping Screwless door frame for smooth cleanable surface**
- **Robotically seam welded housing**
- **Tunable White 2700k - 6500k CCT**
- **Available With DALI Or 0-10V Controls**
- **Recessed Housing suitable for Tbar Grid AND Hardlid Installations**
- **Made in the USA by a Family Owned US Corporation**

2700K TW 6500K

Certification icons: K 5/10 YEAR WARRANTY | NSF | cETLus Intertek | CCEA APPROVED | ISO 3-9 (ISO 14644-1 CLASS 3) | IP66 (IEC 60529) | BSL 3&4 (BIO SAFETY LEVELS) | 209E 1 (FED STD 209E CLASS 1) | 1700 PSI (HOSEDOWN) | MADE IN THE USA | 2700K TW 6500K

ORDERING GUIDE

Series	Installation Type	Material	Size	Source	CCT	Control	Voltage	Options
KL								

Series	Installation Type	Material	Size	Source	CCT	Control:	Voltage	Options
KL	**R/EZ:** Recessed *Suitable for Grid or Flange*	**1:** White CRS Hsg. & White CRS Door **2:** White CRS Hsg. & Polished 304 SS Door **3:** White 430 SS Hsg. & Polished 304 SS Door	**1x4:** 1' x 4' Housing	**1/LEDTW** **2/LEDTW**	**827/865:** 80 CRI; 2700k-6500k CCT	**0-10v Analog Dimming** **10V-CON:** Continuous CCT 0-10v dimming **10V-WD:** Warm Dim 0-10V dimming	UNV	**FF:** Fuse & Holder **EM10:** 10W Integral LED EM (Specify Input Voltage) **EM20:** 20W Remote LED EM (Specify Input Voltage) **WHT:** White Finished Door & HSG **PxL:** Programmed to User Specified Lumen Value.
			2x2: 2' x 2' Housing OR	**2/LEDTW** **3/LEDTW**				**PxW:** Programmed to User Specified Wattage Value. **10KV:** 10KV Parallel Surge Protection
	S/EZ: Surface	**1:** White CRS Hsg. & White CRS Door **2:** White CRS Hsg. & Polished 304 SS Door **3:** Polished 304 SS Hsg. & Polished 304 SS Door	**2x4:** 2' x 4' Housing	**4/LEDTW**		**DALI Digital Dimming** **DAL-CON:** Cont. CCT DALI dimming		**WHIP:** Must specify Length, Type, Wire Qty **LEX:** .125" Prismatic Polycarbonate **A19:** .156" Prismatic P19 Pattern Clear Acrylic **.125 FROST:** 1/8" Frost Acrylic Lens **OCCMW:** Internal microwave OCC Sensor

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SPECIFICATIONS

HOUSING: One piece, hole free, robotically seam welded housing has flattened knockouts for a superior seal. Recessed housings are available in 20Ga 430 Stainless Steel or 20Ga Cold Rolled Steel. Surface housings are available in 20Ga 304 Stainless Steel or 20Ga Cold Rolled 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 secured to the housing with torsion springs for a crevice free door frame that can be opened without tools. Available in 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.

LENS: Impact resistant .135" thick virgin acrylic with P12 prismatic pattern inverted. Sealed to door with NSF listed RTV silicone. See "Options" for other choices.

LEDS: Commercially available minimum 80 CRI 2 channel LED modules use 2700K and 6500K chips to mix color in order to achieve a desired color temperature. Modules have rated lifetime of L70 > 50,000 hrs and efficacy of 165Lm/W . See LED options to specify a custom range of Color temperatures. Consult factory for lumen output configurations not listed on spec sheets.

DRIVERS: Dual Channel Programmable Drivers make color tuning simple. Available in 0-10v Analog Dimming or DALI digital dimming. The 0-10v continuous dimming method uses two sets of dimming wires. 1 set of dimming wires controls the luminous flux while maintaining consistent color and the other set controls the color in a linear dimming curve. 0-10v is also available as warm dimming that uses 1 set of dimming wires that adjust both intensity and color simultaneously. Alternately control is available with DALI Digital Dimming as well.

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

INSTALL RECESSED: One fixture suitable for Grid and Flanged installation. Accommodates 1" and 1.5" T-Bar Grid (Consult factory for 2" T-Bar Grid compatibility). Four adjustable toggle arms with holes for seismic support wire attachment. Supply entry via 1/2" trade size flattened knockouts.

INSTALL SURFACE: Four .312" dia.mounting holes and a removable gasketed wiring access plate with Supply entry via 1/2" trade size flattened knockouts.
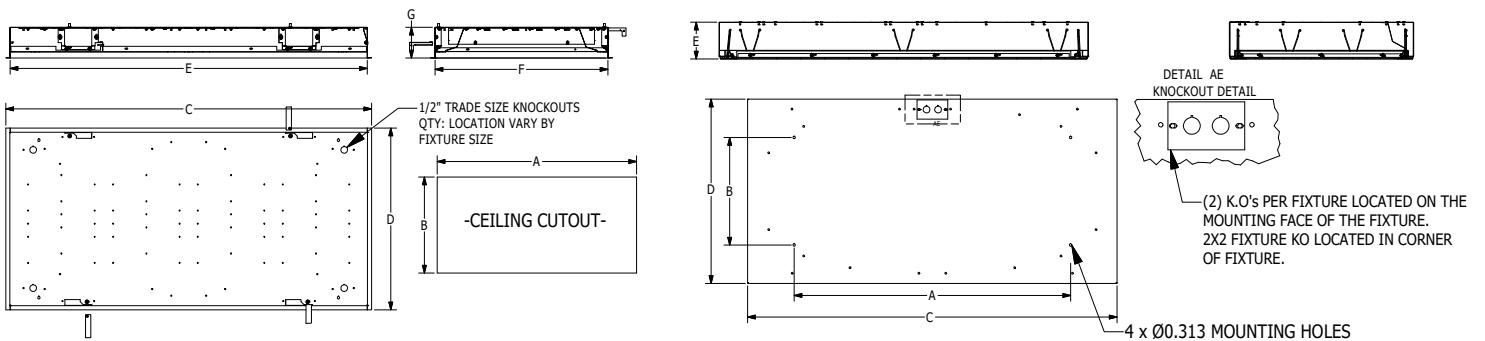
FINISH: Gloss white high reflectance 1000 hr. salt spray polyester powder coat finish standard for all recessed housings. Stainless steel doorframes and surface housings are satin polished unless option WHT is chosen

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 Food Zones. Drivers and LEDs are covered by a 5 year warranty, the remaining fixture is covered by a 10 year warranty.

PRODUCT DRAWINGS

EZ "R" HOUSING REFERENCE DIMENSIONS							
SIZE	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G
1X4	47.00"	11.00"	47.63"	11.69"	46.50"	10.50"	4.00"
2X2	23.00"	23.00"	23.63"	23.69"	22.50"	22.50"	4.00"
2X4	47.00"	23.00"	47.63"	23.69"	46.50"	22.50"	4.00"

SURFACE REFERENCE DIMENSIONS					
SIZE	DIM A	DIM B	DIM C	DIM D	DIM E
1X4	43.00"	4.75"	48.10"	12.00"	4.50"
2X2	12.00"	14.00"	24.10"	24.00"	4.500"
2X4	36.00	14.00	48.10	24.00"	4.500

1/2" TRADE SIZE KNOCKOUTS QTY: LOCATION VARY BY FIXTURE SIZE

-CEILING CUTOUT-

DETAIL AE
KNOCKOUT DETAIL

(2) K.O's PER FIXTURE LOCATED ON THE MOUNTING FACE OF THE FIXTURE. 2X2 FIXTURE KO LOCATED IN CORNER OF FIXTURE.

4 x Ø0.313 MOUNTING HOLES

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ENERGY DATA

OVERLAP-FGRS-LED TROFFER (APPROX[1] LUMENS DELIVERED)						
ENCLOSURE SIZE	LIGHT PACKAGE	80 CRI (3000K - 5000K)			MAX AMB TEMP	CCT RANGE
		LUMENS	WATTS[2]	EFFICACY[3]		
1X4	1LEDTW	3,450	34	101	40°C (104°F)	2700k - 6500k
1X4	2LEDTW	7,050	68	104	40°C (104°F)	2700k - 6500k
1X4	EM10	1010-1040*	4	NA	40°C (104°F)	NA
2X2	2LEDTW	3,750	35	107	40°C (104°F)	2700k - 6500k
2X2	3LEDTW	5,650	53	107	40°C (104°F)	2700k - 6500k
2X2	4LEDTW	7,550	68	111	40°C (104°F)	2700k - 6500k
2X2	EM10	1070-1110*	4	NA	40°C (104°F)	NA
2X4	2LEDTW	7,800	68	115	40°C (104°F)	2700k - 6500k
2X4	3LEDTW	11,700	103	114	40°C (104°F)	2700k - 6500k
2X4	4LEDTW	15,600	135	116	40°C (104°F)	2700k - 6500k
2X4	EM10	1140-1160*	4	NA	40°C (104°F)	NA

1   DELIVERED LUMEN DATA IS CALCULATED BASED ON STATIC WHITE PHOTOMETRY @ 4000K CCT

2   WATTAGE IS MEASURED WITH 4000K SELECTION @ 120vAC AND Tambient = 25C. WATTAGES MAY VARY WITH ALTERNATE CONFIGURATIONS

3   EFFICACY CALCULATED USING 4000K CCT DATA.

4   MAX AMBIENT TEMP RATING, NON-IC INSTALLATON. TEMP RATING MAY VARY WITH SPECIFIED DRIVERS OR ANY NON STANDARD SELECTION

5   90 MINUTE 10W EMERGENCY DRIVER; LUMENS CALCULATED BASED ON FIXTURE EFFICACY.

6   EM10 DELIVERED LUMENS = (DELIVERED LUMENS/LUMINAIRE WATTS)*10