KURTZON
SPECIFICATION GRADE LIGHTING
ILLUMINATING YOUR WORLD

Cleanroom **EL Troffers - Tunable White**

1x4, 2x2 and 2x4 High Efficiency LED Luminaires

- **Rated IP55**
- **Suitable for ISO 5-9 Cleanspaces**
- **Suitable for 209E class 100-100,000 Cleanspaces**
- **ETL listed for Wet Locations**
- **Channel Inset Door Frame**
- **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

5/10 YEAR WARRANTY | NSF | cETLus Intertek | CCEA APPROVED | ISO 5-9 ISO 14644-1 CLASS 5 | IP55 IEC 60529 | 209E 100 FS2 STD 209E CLASS 100 | MADE IN THE USA | 2700K TW 6500K

ORDERING GUIDE

Series	Installation Type	Material	Size	Source	CCT	Control	Voltage	Options
EL								

Series	Installation Type	Material		Size	Source	CCT	Control:	Voltage	Options
EL	**R**: Recessed (Suitable for Flange & Grid)	**3:** White 430 SS Hsg. & Polished 304 SS Door		**1x4**: 1' x 4' Housing	1/LEDTW	**827/865:** 80 CRI; 2700k-6500k CCT	**0-10v Analog Dimming**	UNV	**FF:** Fuse & Holder (One Supplied Per Circuit)
		4: White AL Hsg. & Polished 304 SS Door			2/LEDTW		**10V-CON:** Continuous CCT 0-10v dimming		**WHIP:** Must Specify Length and Wire Qty
									.125 FROST: 1/8" Frost Acrylic Lens
		5: White AL Hsg. & White AL Door		**2x2**: 2' x 2' Housing OR	2/LEDTW		**10V-WD:** Warm Dim 0-10V dimming		**EM10:** 10W Integral LED EM (Specify Input Voltage)
					3/LEDTW				**EM20:** 20W Remote LED EM (Specify Input Voltage)
				2x4: 2' x 4' Housing	4/LEDTW		**DALI Digital Dimming**		**WHT:** White Finished Door & HSG
							DAL-CON: Cont. CCT DALI dimming		**LEX:** .125" Prismatic Polycarbonate
									A19: .156" Prismatic P19 Pattern Clear Acrylic
	S: Surface	**2:** White CRS Hsg. & Polished 304 SS Door		**1x4**: 1' x 4' Housing	1/LEDTW				**HIA:** .140" High Impact P12 Pattern Clear Acrylic
					2/LEDTW				**TG:** .156" Prismatic Tempered Glass
		3: White 430 SS Hsg. & Polished 304 SS Door							**SW:** Wet Locatoin Hub Supplied (not installed)
		4: White AL Hsg. & Polished 304 SS Door		**2x2**: 2' x 2' Housing OR	2/LEDTW				**PxL:** Programmed to User Specified Lumen Value.◊∞
					3/LEDTW				**PxW:** Programmed to User Specified Wattage Value.◊∞
		5: White AL Hsg. & White AL Door		**2x4**: 2' x 4' Housing	4/LEDTW				**10KV:** 10KV Parallel Surge Protection (One Supplied Per Circuit)
		6: White CRS Hsg. & White AL Door							**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 .040" 3003 Aluminum or 20Ga 430 Stainless Steel. Surface housings are available in .040" 3003 Aluminum, 20Ga 430 Stainless Steel, or 20Ga 1008 Cold Rolled Steel.

DOOR FRAME: Inset door frame made from welded channels regresses into the housing to allow the neoprene gasket to seal to the housing. Door frame is hinged by aircraft cables and secures to housing with captive stainless steel pan head screws. Available in .040" 3003 Powder coated Alum. , 20Ga 304 Polished SS.

GASKETS: Closed cell 100% pure neoprene 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. 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%.
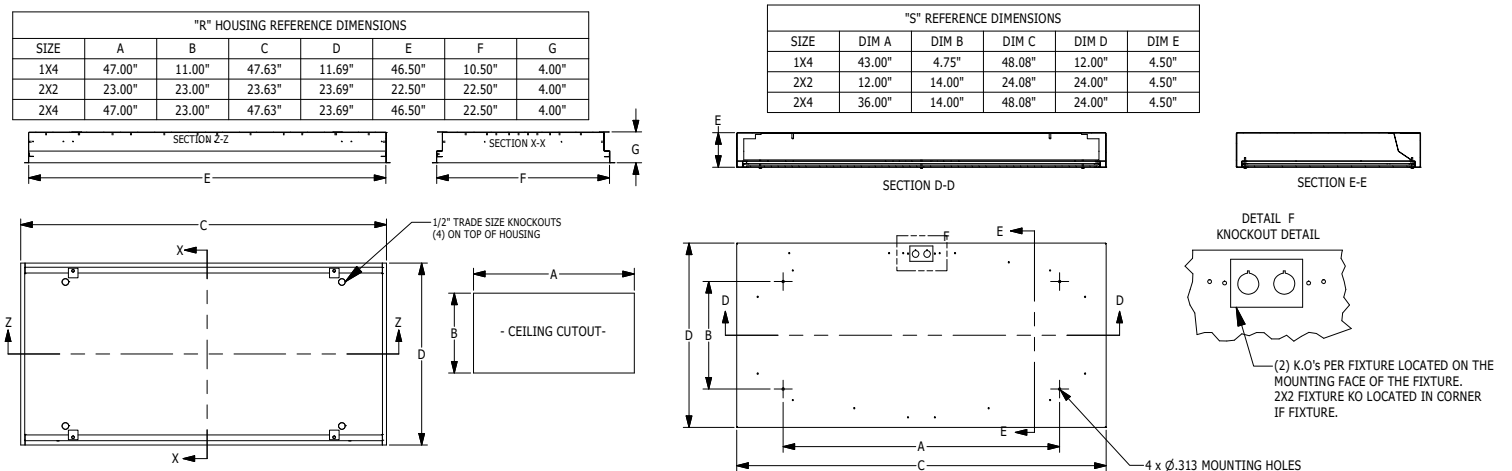
INSTALL RECESSED: One fixture suitable for Grid and Flanged installation. Accommodates 1" and 1.5" T-Bar Grid (Consult factory for 2" T-Bar Grid compatibility). Four adjustable toggle arms with holes for seismic support wire attachment. Supply entry via 1/2" trade size flattened knockouts. Non-IC installation

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 housings. Stainless steel doorframes are satin polished unless option WHT is chosen.

LISTINGS: IP55 rated for dust and water ingress. ETL listed per UL_1598 for wet locations. Chicago Plenum Rated. Certified ISO-14644-1 for class 5 through class 9 cleanspaces. Certified Fed Std 209E for Class 100 through Class 100,000 cleanspaces. Optionally NSF2 Listed for Non-Food Zones. Drivers and LEDs are covered by a 5 year warranty, the remaining fixture is covered by a 10 year warranty.

PRODUCT DRAWINGS

"R" HOUSING REFERENCE DIMENSIONS							
SIZE	A	B	C	D	E	F	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"

"S" REFERENCE DIMENSIONS					
SIZE	DIM A	DIM B	DIM C	DIM D	DIM E
1X4	43.00"	4.75"	48.08"	12.00"	4.50"
2X2	12.00"	14.00"	24.08"	24.00"	4.50"
2X4	36.00"	14.00"	48.08"	24.00"	4.50"

SECTION Z-Z

SECTION X-X

1/2" TRADE SIZE KNOCKOUTS (4) ON TOP OF HOUSING

- CEILING CUTOUT-

SECTION D-D

SECTION E-E

DETAIL F
KNOCKOUT DETAIL

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

4 x Ø.313 MOUNTING HOLES

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ENERGY DATA

CHANNEL-FGRS-LED TROFFER (APPROX[1] LUMENS DELIVERED)						
ENCLOSURE SIZE	LIGHT PACKAGE	Tunable White 80 CRI (4000K)			MAX AMB TEMP	CCT RANGE
		LUMENS	WATTS[2]	EFFICACY[3]		
1X4	1LEDTW	3,950	34	116	40°C (104°F)	2700k - 6500k
1X4	2LEDTW	7,550	68	111	40°C (104°F)	2700k - 6500k
1X4	EM10	1100-1160	4	NA	40°C (104°F)	NA
2X2	2LEDTW	3,950	35	113	40°C (104°F)	2700k - 6500k
2X2	3LEDTW	5,900	53	111	40°C (104°F)	2700k - 6500k
2X2	4LEDTW	7,800	68	115	40°C (104°F)	2700k - 6500k
2X2	EM10	1100-1130	4	NA	40°C (104°F)	NA
2X4	2LEDTW	8,150	68	120	40°C (104°F)	2700k - 6500k
2X4	3LEDTW	12,200	103	118	40°C (104°F)	2700k - 6500k
2X4	4LEDTW	15,950	135	118	40°C (104°F)	2700k - 6500k
2X4	EM10	1180-1200	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