

Cleanroom EL Troffers

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**
- **0-10v 1% Dimming come standard (except for 2x2 with HF LED Selection)**
- **Up to 35,000 Lm Delivered @128 Lm/W**
- **DLC Standard and Premium Listings Available**
- **Recessed Housing suitable for Tbar Grid AND Hardlid Installations**
- **Made in the USA by a Family Owned US Corporation**



To See All DLC Listings, Visit www.Kurtzon.com/DLC

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ORDERING GUIDE

Series	Installation	Material	Size	Source	CCT	Voltage	Options		
EL									
EL	R: Recessed (Suitable for Flange & Grid)	3: White 430 SS Hsg. & Polished 304 SS Door	1x4: 1' x 4' Housing	1/LEDR	83 CRI:	120V	FC: Fuse & Holder (One Supplied Per Circuit)		
		4: White AL Hsg. & Polished 304 SS Door		2/LEDR			830 = 3000K CCT	277V	2/ED: Two Drivers (Two Circuits)
		5: White AL Hsg. & White AL Door		2/LEDH			835 = 3500K CCT	UNV	EDL: -40F Electronic Driver
		2/LEDHF	840 = 4000K CCT	347V*	EM10: 10W Integral LED EM (Specify Input Voltage)				
		2x2: 2' x 2' Housing	2/LEDR		850 = 5000K CCT		EM20: 20W Remote LED EM (Specify Input Voltage)		
		OR	2/LEDH				WHT: White Finished Door & HSG		
	2x4: 2' x 4' Housing	3/LEDR	90+ CRI:	935 = 3500K CCT	LEX: .125" Prismatic Polycarbonate				
		3/LEDH		940 = 4000K CCT	A19: .156" Prismatic P19 Pattern Clear Acrylic				
		4/LEDH		950 = 5000K CCT	HIA: .140" High Impact P12 Pattern Clear Acrylic				
		4/LEDHF			TG: .156" Prismatic Tempered Glass				
						SW: Wet Locatoin Hub Supplied (not installed)			
						PxL: Programmed to User Specified Lumen Value.000			
						PxW: Programmed to User Specified Wattage Value.000			
						10KV: 10KV Parallel Surge Protection (One Supplied Per Circuit)			
						GTD: Generator Transfer Device			
						WHIP: Must Specify Length and Wire Qty			
						.125 FROST: 1/8" Frost Acrylic Lens			
						HF1: 1% Dimming for 2x2 with LEDHF			
						OCCMW: Internal microwave OCC Sensor			
	S: Surface	2: White CRS Hsg. & Polished 304 SS Door	1x4: 1' x 4' Housing	1/LEDR					
		3: White 430 SS Hsg. & Polished 304 SS Door		2/LEDR					
		4: White AL Hsg. & Polished 304 SS Door		2/LEDH					
		5: White AL Hsg. & White AL Door		2/LEDHF					
		6: White CRS Hsg. & White AL Door							
			2x2: 2' x 2' Housing	2/LEDR					
			OR	2/LEDH					
			2x4: 2' x 4' Housing	3/LEDR					
				3/LEDH					
				4/LEDR					
				4/LEDH					
				4/LEDHF					

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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 in a wide variety of Color Temperature (CCT), FLUX, and CRI. Highly efficient and consistent color maintained to 3 SDMC for color critical applications. B50/L70 and compliant with Zhaga recognized hole patterns. Consult factory for LED options or configurations not listed below.

DRIVERS: Standard Universal Voltage Class 2 drivers are 0-10v Dimmable to 1% for most LED configurations. 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.

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

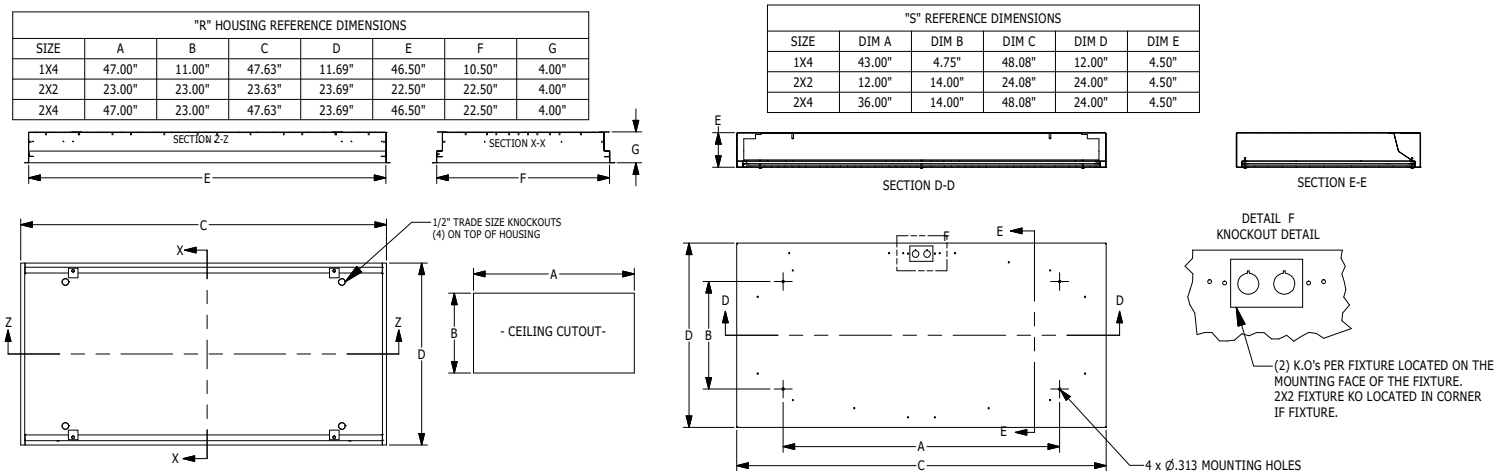
INSTALL RECESSED: One fixture suitable for Grid and Flanged installation. Accommodates 1" and 1.5" T-Bar Grid (Consult factory for 2" T-Bar Grid compatibility). Four adjustable toggle arms with holes for seismic support wire attachment. Supply entry via 1/2" trade size flattened knockouts. Non-IC installation

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



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ENERGY DATA

CHANNEL-FGRS-LED TROFFER (APPROX ¹ LUMENS DELIVERED)										
ENCLOSURE SIZE	LIGHT PACKAGE	80 CRI (3000K - 5000K)				90 CRI (5500K, 4000K)				STANDARD DIMMING
		LUMENS	WATTS ²	EFFICACY ³	MAX AMB TEMP	LUMENS	WATTS ²	EFFICACY ³	MAX AMB TEMP ⁴	
1X4	1LEDR	4,673	37	125	40°C (104°F)	2,880	34	85	40°C (104°F)	0-10V 1%
1X4	2LEDR	8,941	73	122	40°C (104°F)	5,812	62	94	40°C (104°F)	0-10V 1%
1X4	2LEDH	12,569	102	123	40°C (104°F)	12,545	146	86	35°C (95°F)	0-10V 1%
1X4	2LEDHF	15,900	139	114	35°C (95°F)	16,060	182.5	88	35°C (95°F)	0-10V 1%
1X4	EM10	1070-1150	4	NA	40°C (104°F)	860-940	4	NA	40°C (104°F)	NA
2X2	2LEDR	4,684	37	125	40°C (104°F)	2,953	32	92	40°C (104°F)	0-10V 1%
2X2	3LEDR	6,985	55	127	40°C (104°F)	4,498	48	94	40°C (104°F)	0-10V 1%
2X2	2LEDH	6,551	51	128	40°C (104°F)	5,645	73	77	40°C (104°F)	0-10V 1%
2X2	4LEDR	9,199	73	126	40°C (104°F)	5,614	62	91	40°C (104°F)	0-10V 1%
2X2	3LEDH	9,951	77	129	40°C (104°F)	8,972	110	82	35°C (95°F)	0-10V 1%
2X2	4LEDH	12,930	102	127	40°C (104°F)	11,311	146	77	35°C (95°F)	0-10V 1%
2X2	4LEDHF	21,178	171	124	35°C (95°F)	NA	NA	NA	NA	0-10V 5%
2X2	4LEDHF (1%)	16,903	138	122	35°C (95°F)	16,760	183.8	91.2	35°C (95°F)	0-10V 1%
2X2	EM10	1030-1220	4	NA	40°C (104°F)	770-940	4	NA	40°C (104°F)	NA
2X4	2LEDR	9,625	74	130	40°C (104°F)	6,567	62	106	40°C (104°F)	0-10V 1%
2X4	3LEDR	14,380	111	129	40°C (104°F)	9,856	94	105	40°C (104°F)	0-10V 1%
2X4	2LEDH	14,271	103	138	40°C (104°F)	13,028	148	88	40°C (104°F)	0-10V 1%
2X4	4LEDR	18,780	147	128	40°C (104°F)	12,838	124	104	40°C (104°F)	0-10V 1%
2X4	3LEDH	20,949	153	137	40°C (104°F)	19,667	221	89	35°C (95°F)	0-10V 1%
2X4	4LEDH	27,450	205	134	40°C (104°F)	26,054	295	88	35°C (95°F)	0-10V 1%
2X4	4LEDHF	35,563	279	128	35°C (95°F)	35,810	373.3	95.9	35°C (95°F)	0-10V 1%
2X4	EM10	1190-1280	4	NA	40°C (104°F)	870-1060	4	NA	40°C (104°F)	NA

¹ DELIVERED LUMEN DATA IS EXTRAPOLATED FROM MEASURED DATA @25C WITH NO EXTRA OPTIONS. VARIANCES WILL OCCUR WHEN OPTIONS ARE CHOSEN

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

³ EFFICACY CALCULATED USING 4000K CCT DATA.

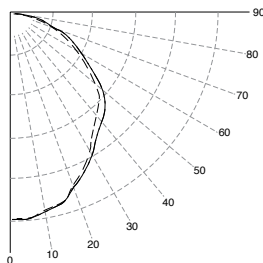
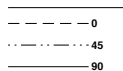
⁴ MAX AMBIENT TEMP RATING, NON-IC INSTALLATION. TEMP RATING MAY VARY WITH SPECIFIED DRIVERS OR ANY NON STANDARD SELECTION

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

PHOTOMETRICS

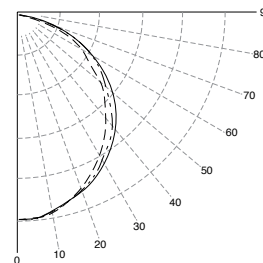
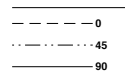
EL-R-X-2X4-4/LEDHF-835-UNV

Report No: 19677
 Total Lumens: 35,563
 Wattage: 278.64
 Efficacy: 127.6 (Lumens Per Watt)
 Fixture Size: 2'x4'
 Key:



EL-R-X-2x2-4/LEDHF-840-UNV

Report No: 19694
 Total Lumens: 21,178
 Wattage: 171.39
 Efficacy: 123.6
 Fixture Size: 2'x2'
 Key:



EL-R-5-1x4-2/LEDR840-UNV

Report No: 12406658.07A
 Total Lumens: 8,941
 Wattage: 73.16
 Efficacy: 122.2 (Lumens Per Watt)
 Fixture Size: 1'x4'
 Key:

