NOTES

REV: 05/13/2021

## Cleanroom KL-FGPA Troffers

2x4 High Efficiency LED Luminaires with Plenum Access

- 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.
- Access to plenum space using sealed access panel in housing.
- One Housing Suitable for Flange and Grid Installation.
- BAA Compliant & Made in the USA by a Family Owned US Corporation



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#### **ORDERING GUIDE**

Series Material Size Row Qty. LED Type CCT/CRI Voltage Optics Options

KL-FGPA 2x4

1	Material	Size	Light Source						
Series			Row Qty.	LED Type	CCT/CRI	Voltage	Optics		Options
KL-FGPA	ISTIEU 304 55 D001		2	LEDR	83 CRI:	120V	P12ACR 0.135" P12 Prismatic Impact Resi	istant Acrylic (Inverted) 5	Wet Location Hub Supplied (not installed)
		2x4 2' x 4' Housing	3	LEDH	<b>830</b> 3000K	277V	LEX 0.125" P12 Prismatic Polycarbona	ate (Inverted)	PxL * Programmed to User Specified Lumen Value.
	5 White AL Hsg. & White AL Door		4	LEDHF	<b>835</b> 3500K	UNV	A19 0.156" A19 Prismatic Impact Resi	istant Acrylic (Inverted) F	PxW * Programmed to User Specified Wattage Value.
					<b>840</b> 4000K	347V*	TG 0.156" Prismatic Tempered Glass	(Inverted) 1	OKV 10KV Parallel Surge Protection (One Supplied Per Circuit)
	7 White AL Hsg. & White CRS Door				<b>850</b> 5000K	*347V Available with 10% dimming,	HIA 0.140" P12 Prismatic High Impac	t Resistant Acrylic (Inverted)	Generator Transfer Device
					90+ CRI:		FROST 0.125" Flat Diffusing Frost Acrylic	W	/HIP Must Specify Length and Wire Qty
							2DBW 0.125" Flat Diffused Acrylic with B	Bi-Directional Batwing DISTRIBUTION OC	CMW Internal microwave OCC Sensor
					<b>935</b> 3500K	not all	LBW 0.125" Flat Diffused Acrylic with L	inear Batwing Distribution	Fuse & Holder (One Supplied Per Circuit)
				940 4000K 950 5000K	940 4000K	options are compatible with 347V	GH85 0.125" Flat Diffused Acrylic with G	Glare Suppression Distribution	M10 10W Integral LED EM (Specify Input Voltage)
					<b>950</b> 5000K			EF	M20 20W Remote LED EM (Specify Input Voltage)
									GG 1/8" Thick Grid Gasket (Provided Loose)
						NOTE: P12ACR option is standard and will be provided when no other option is selected		DL -40F Electronic Driver	
				NOTE: Additionally available in 95 + CRI with Seoul Sun-Like LEDS. Consult factory for more information.				VHT White Finished Door & HSG	
								A	MW Anti-Microbrial White Powdercoat
								2	/ED Two Drivers/Two Circuits
								Note": Specify Value in Ordering Notes	

Ordering Notes, If Applicable



### Cleanroom KL-FGPA Troffers

2x4 High Efficiency LED Luminaires with Plenum Access

#### **SPECIFICATIONS**

**HOUSING:** Welded .050" thick aluminum construction. Hole free housing with flattened knockouts and a large plenum access plate hinged to housing by (2) aircraft cables allowing simple access to the area above the ceiling.

**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 when no other options are selected. All prismatic lensing options come with an inverted lens so the smooth side faces the room for easy cleaning. All optics are sealed to the door with NSF listed RTV silicone sealant. Other optics are available, consult factory for more information or options not listed.

**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%, 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.

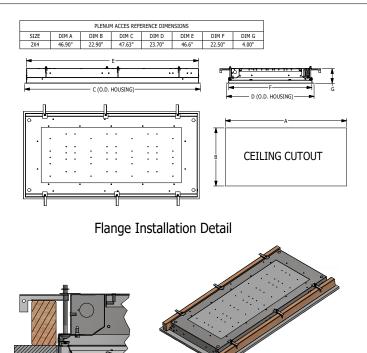
**REFLECTOR:** Die formed metal with high reflectance white polyester powder coat finish. Typical reflectivity 92%.

**INSTALLATION RECESSED:** Suitable for recessed Non-IC installation into covered ceilings. Fixtures are supplied with .875" flattened knockouts for supply entry. Recessed housings have (6) 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.

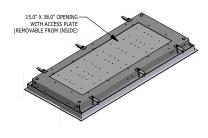
**FINISH:** Stainless steel door frames are satin polished unless WHT or AMW options are selected. All other materials are provided with gloss high reflectance white polyester powdercoat with 1000hr salt spray test per ASTM B117. AMW option provides a white anti-microbial polyester powder coat to all exposed surfaces.

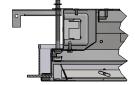
**LISTINGS:** IP66 rated for dust and water ingress. Suitable for 1700 PSI high pressure hosedowns. ETL listed per UL\_1598 for wet locations. Chicago Plenum Rated. Certified ISO-14644-1 for class 3 through class 9 cleanspaces. Certified Fed Std 209E for Class 1 through Class 100,000 cleanspaces. NSF2 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.) compliant.

#### **PRODUCT DRAWINGS**



#### Grid Installation Detail







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2x4 High Efficiency LED Luminaires with Plenum Access

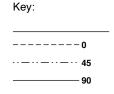
#### **ENERGY DATA**

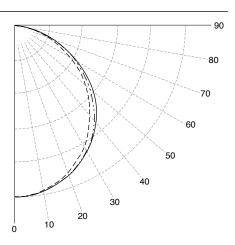
RECESSED OVERLAP PLENUM ACCESS LED TROFFER (APPROX¹ LUMENS DELIVERED)												
ENCLOSURE	LIGHT PACKAGE		83 CRI (3000	)K - 5000K)		90 CRI (3500K, 4000K)				STANDARD DIMMING		
SIZE		LUMENS	WATTS <sup>2</sup>	EFFICACY <sup>3</sup>	MAX AMB TEMP	LUMENS	WATTS <sup>2</sup>	EFFICACY <sup>3</sup>	MAX AMB TEMP⁴			
2X4	2LEDR	6,864	55	125	45°C (113°F)	6,567	56	117	45°C (113°F)	0-10V 1%		
2X4	3LEDR	10,295	83	124	45°C (113°F)	9,851	83	119	45°C (113°F)	0-10V 1%		
2X4	2LEDH	13,488	109	124	40°C (104°F)	12,816	109	118	40°C (104°F)	0-10V 1%		
2X4	4LEDR	13,726	111	124	45°C (113°F)	13,134	113	116	45°C (113°F)	0-10V 1%		
2X4	3LEDH	20,233	165	123	40°C (104°F)	19,224	165	117	40°C (104°F)	0-10V 1%		
2X4	4LEDH	26,977	220	123	40°C (104°F)	25,632	220	117	40°C (104°F)	0-10V 1%		
2X4	4LEDHF	39,373	305	129	35°C (95°F)	35,488	373	95	35°C (95°F)	0-10V 1%		
2X4	EM10	1230-1290	4	NA	40°C (104°F)	950-1190	4	NA	40°C (104°F)	NA		

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

#### **PHOTOMETRICS**







<sup>&</sup>lt;sup>2</sup> WATTAGE IS MEASURED WITH 4000K SELECTION @ 120vAC AND Tambient = 25C. WATTAGES MAY VARY WITH ALTERNATE CONFIGURATIONS

<sup>&</sup>lt;sup>3</sup> EFFICACY CALCULATED USING 4000K CCT DATA.

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

 $<sup>^{\</sup>rm 8}$   $\,$  90 minute 10W emergency driver; lumens calculated based on fixture efficacy.