

# High Lumen 2x2 - TL Series: TL-FG-2X2-LEDB

Recessed 2x2 Troffer for Cleanroom & Containment

- **Rated IP65**
- **Suitable for ISO 3-9 Cleanspaces**
- **Suitable for 209E class 1-100,000 Cleanspaces**
- **ETL listed for Wet Locations**
- **One Piece Inset Doorframe**
- **Robotically seam welded housing**
- **0-10v 5% Dimming Standard.**
- **Up to 40,000 Lm Delivered @ over 130 Lm/W**
- **Frost Acrylic Lens Standard**
- **Made in the USA by a Family Owned US Corporation**
- **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	
TL-FG									
Series	Material	Size	Light Source			Voltage	Optics	Options	
			Row Qty.	LED Type	CCT/CRI				
TL-FG	1	White CRSHsg.&White CRS Door	2x2 2x2Housing	3	LEDB	70 CRI:	120V	P12ACR 0.135" P12 Prismatic Impact Resistant Acrylic (Inverted)	SW Wet Location Hub Supplied (not installed)
				4		750 5000K	277V	LEX 0.125" P12 Prismatic Polycarbonate (Inverted)	PxL * Programmed to User Specified Lumen Value.
	2	White CRS Hsg. & Polished SS Door	2x2LP 2x2Housing	4	LEDFE	83 CRI:	UNV	A19 0.156" A19 Prismatic Impact Resistant Acrylic (Inverted)	PxW * Programmed to User Specified Wattage Value.
				6		835 3500K	347V	TG 0.156" Prismatic Tempered Glass (Inverted)	10KV 10KV Parallel Surge Protection (One Supplied Per Circuit)
	6	White CRS Hsg. & White AL Door	(LowProfile-Provided with high-powered linear modules. No heatsinks.)			840 4000K		HIA 0.140" P12 Prismatic High Impact Resistant Acrylic (Inverted)	GTD Generator Transfer Device
						850 5000K		FROST 0.125" Flat Diffusing Frost Acrylic	WHIP Must Specify Length and Wire Qty
						90+ CRI:		2DBW 0.125" Flat Diffused Acrylic with Bi-Directional Batwing DISTRIBUTION	OCCMW Internal microwave OCC Sensor
						935 3500K		LBW 0.125" Flat Diffused Acrylic with Linear Batwing Distribution	FC Fuse & Holder (One Supplied Per Circuit)
						940 4000K		GH85 0.125" Flat Diffused Acrylic with Glare Suppression Distribution	EM20 20W Remote LED EM (Specify Input Voltage)
						950 5000K			GG 1/8" Thick Grid Gasket (Provided Loose)
									EDL -40F Electronic Driver
									WHT White Finished Door & HSG
			AMW Anti-Microbial White Powdercoat						
			2/ED Two Drivers/Two Circuits						
Ordering Notes, If Applicable									
Note*: Specify Value in Ordering Notes Below									

Ordering Notes, If Applicable

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### SPECIFICATIONS

**HOUSING:** One piece, robotically seam welded, hole free 20-gauge CRS construction.

**DOOR FRAME:** One piece inset door frame with seam welds regressing into housing to allowing the NSF approved microcellular 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, or 18Ga 1008 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 frost 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:** Replaceable 3 or 4 COB array using commercial available LED's installed directly onto thermal management system. Available in a wide variety of CCTs ranging from 2700-6500K. Also available in 70, 80, or 90CRI. 5 Year warranty. Also available with up to 6 linear modules for a more uniform distribution, selecting the 2X2LP option will remove the heatsink from the enclosure.

**DRIVERS:** Standard driver(s): Universal voltage (120-277 volt). LED drivers are commercially available high efficiency, HPF and dimmable with 0-10v control. Standard drivers are programable to match wattage or lumen requirements. Provided with a five (5) year warranty.

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

**INSTALLATION FLANGE:** Adjustable toggle arm mounting standard. Seismic support wire attachment locations. Supply entry via 1/2" trade size flattened knockouts. Suitable for through wiring.

**INSTALLATION GRID:** Standard luminaires accommodate 1.0" & 1.5" and some 2.0" T-Bar Grid. Four adjustable toggles have holes for cable attachment point for seismic support. Supply entry via 1/2" trade size flattened knockouts. Suitable for through wiring.

**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:** IP65 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 & 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.

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### ENERGY DATA

INSET-FG-2X2-3or4LED GEN2													
ENCLOSURE SIZE	LIGHT PACKAGE	DIMMING	70 CRI (5000K)			80 CRI (3000K-5000K)			90 CRI (3500K-5000K)			AMBIENT TEMP RATINGS	
			Lumens <sup>1</sup>	Wattage <sup>2</sup>	Efficacy <sup>3</sup>	Lumens <sup>1</sup>	Wattage <sup>2</sup>	Efficacy <sup>3</sup>	Lumens <sup>1</sup>	Wattage <sup>2</sup>	Efficacy <sup>3</sup>	MINIMUM	MAXIMUM <sup>4</sup>
2X2	FROST LENS 3LEDB	0-10V 5%	30,644	250	123	28,012	250	112	23,970	250	95.88	-40°C (-40°F)	50°C (122°F)
2X2	FROST LENS 4LEDB	0-10V 5%	39,480	330	120	36,284	330	110	30,832	330	93	-40°C (-40°F)	50°C (122°F)
2X2	CLEAR LENS 3LEDB	0-10V 5%	32,430	250	130	29,610	250	118	25,380	250	101.52	-40°C (-40°F)	50°C (122°F)
2X2	CLEAR LENS 4LEDB	0-10V 5%	41,830	330	127	38,446	330	117	32,618	330	99	-40°C (-40°F)	50°C (122°F)
2X2	20W EM <sup>5</sup>	NA	2387-2594	9	NA	2199-2368	9	NA	1861-2030	9	NA	0°C (32°F)	45°C (113°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

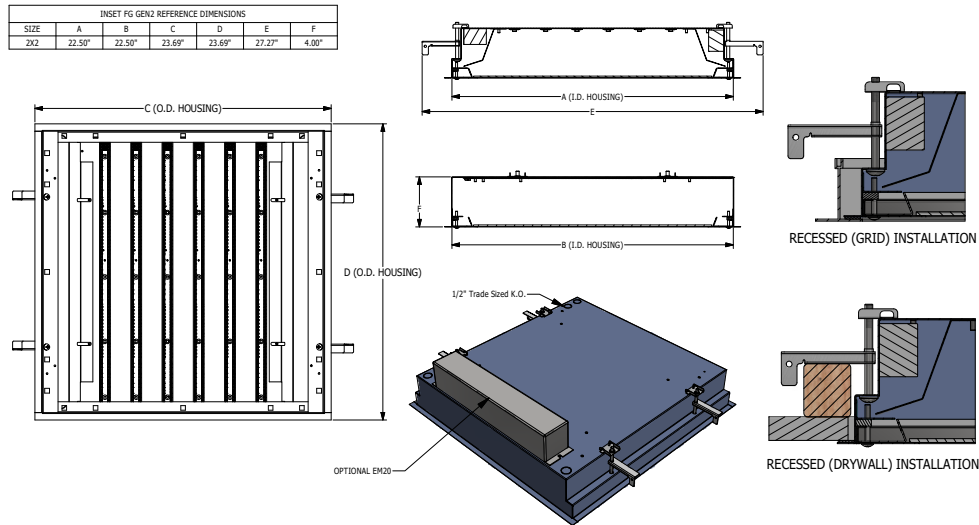
<sup>2</sup> WATTAGE IS MEASURED WITH LED 750 SELECTION @ 120vAC AND Tambient = 25C. WATTAGES WILL VARY AND INCREASE WHEN ALTERNATE OPTIONS ARE SELECTED

<sup>3</sup> EFFICACY CALCULATED USING LOWEST CCT @ 25C AMBIENT VARIATIONS MAY OCCUR

<sup>4</sup> MAX TEMP RATING IS WITH NO OTHER OPTIONS SELECTED.

<sup>5</sup> INITIAL LUMEN VALUE CALCULATED BY (20W)\*(NORMAL LUMENS/NORMAL WATTAGE).

### PRODUCT DRAWINGS



## High Lumen 2x2 - TL Series: TL-FG-2X2-LEDB

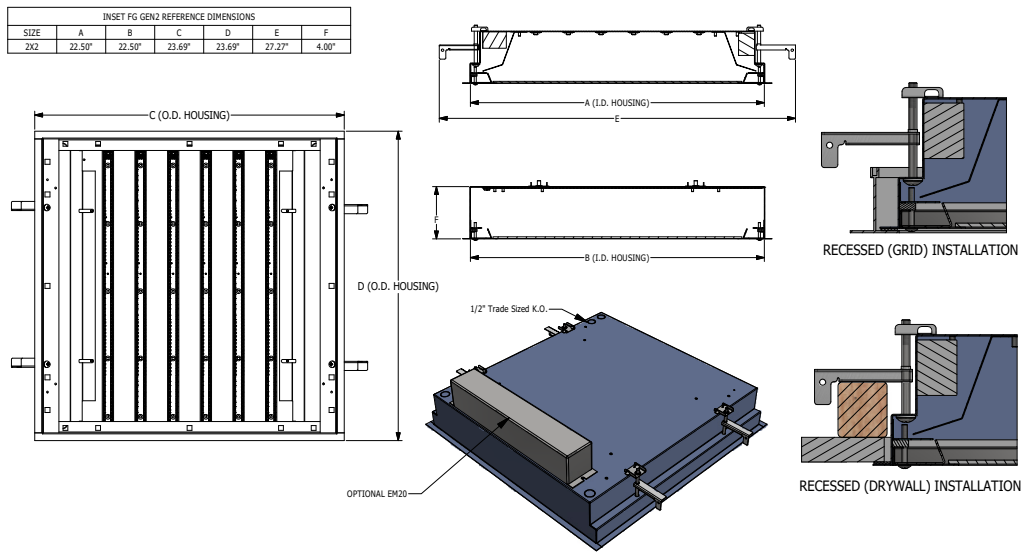
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### ENERGY DATA - LOW PROFILE (2x2LP)

INSET-FG-2X2LP-4 OR 6 LED													
ENCLOSURE SIZE	LIGHT PACKAGE	DIMMING	70 CRI (5000K)			80 CRI (3000K-5000K)			90 CRI (3500K-5000K)			AMBIENT TEMP RATINGS	
			Lumens <sup>1</sup>	Wattage <sup>2</sup>	Efficacy <sup>3</sup>	Lumens <sup>1</sup>	Wattage <sup>2</sup>	Efficacy <sup>3</sup>	Lumens <sup>1</sup>	Wattage <sup>2</sup>	Efficacy <sup>3</sup>	MINIMUM	MAXIMUM*
2X2LP	FROST LENS 4LEDFE	0-10V 5%	N/A			24,600	214	115	N/A			-40°C (-40°F)	50°C (122°F)
2X2LP	FROST LENS 6LEDFE	0-10V 5%				36,900	321	115				-40°C (-40°F)	50°C (122°F)
2X2LP	20W EM <sup>5</sup>	NA	N/A			2,300	9	NA	N/A			0°C (32°F)	45°C (113°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 750 SELECTION @ 120VAC AND Tambient = 25C. WATTAGES WILL VARY AND INCREASE WHEN ALTERNATE OPTIONS ARE SELECTED
- <sup>3</sup> EFFICACY CALCULATED USING LOWEST CCT @ 25C AMBIENT VARIATIONS MAY OCCUR
- <sup>4</sup> MAX TEMP RATING IS WITH NO OTHER OPTIONS SELECTED.
- <sup>5</sup> INITIAL LUMEN VALUE CALCULATED BY (20W)\*(NORMAL LUMENS/NORMAL WATTAGE).

### PRODUCT DRAWINGS - LOW PROFILE (2x2LP)



09-BB-L-STD FGLP INSET GEN2 DWG DATE: 9/11/2020