Cleanroom **EL-S Troffers**

1x4, 2x2 and 2x4 High Efficiency LED Surface 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**
- **Up to 40,000 Lm Delivered @133 Lm/W**
- **B.A.A. & B.A.B.A Compliant & Made in the USA by a Family Owned US Corporation**

ORDERING GUIDE

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

Series	Material	Size	Light Source			Voltage	Optics	Options
			Row Qty.	LED Type	CCT/CRI			
EL-S	**2** White CRS Hsg. & Polished 304 SS Door	**1x4** 1' x 4' Housing	**1**	**LEDR**	**83 CRI:**	**120V**	**P12ACR** 0.135" P12 Prismatic Impact Resistant Acrylic (Inverted)	**SW** Wet Location Hub Supplied (not installed)
			2	**LEDH**	**830** 3000K	**277V**	**LEX** 0.125" P12 Prismatic Polycarbonate (Inverted)	**PxL** * Programmed to User Specified Lumen Value.
	3 White 430 SS Hsg. & Polished 304 SS Door			**LEDHF**	**835** 3500K	**UNV**	**A19** 0.156" A19 Prismatic Impact Resistant Acrylic (Inverted)	**PxW** * Programmed to User Specified Wattage Value.
		2x2 2' x 2' Housing	**2**		**840** 4000K	**347V***	**TG** 0.156" Prismatic Tempered Glass (Inverted)	**10KV** 10KV Parallel Surge Protection (One Supplied Per Circuit)
	4 White AL Hsg. & Polished 304 SS Door	**OR**	**3**		**850** 5000K		**HIA** 0.140" P12 Prismatic High Impact Resistant Acrylic (Inverted)	**GTD** Generator Transfer Device
		2x4 2' x 4' Housing	**4**			*347V Available with 10% dimming, not all options are compatible with 347V	**FROST** 0.125" Flat Diffusing Frost Acrylic	**WHIP** Must Specify Length and Wire Qty
	5 White AL Hsg. & White AL Door				**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)
	6 White CRS Hsg. & White AL Door				**940** 4000K		**GH85** 0.125" Flat Diffused Acrylic with Glare Suppression Distribution	**EM10** 10W Integral LED EM (Specify Input Voltage)
					950 5000K			**EM20** 20W Remote LED EM (Specify Input Voltage)
								EDL -40F Electronic Driver
								WHT White Finished Door & HSG
								AMW Anti-Microbrial White Powdercoat
								2/ED Two Drivers/Two Circuits

NOTE: Additionally available in 95 + CRI with Seoul Sun-Like LEDS. Consult factory for more information.

NOTE: P12ACR option is standard and will be provided when no other option is selected

Note*: Specify Value in Ordering Notes

Ordering Notes, If Applicable

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SPECIFICATIONS

HOUSING: One piece, hole free, robotically seam welded housing has flattened knockouts for a superior seal. 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.

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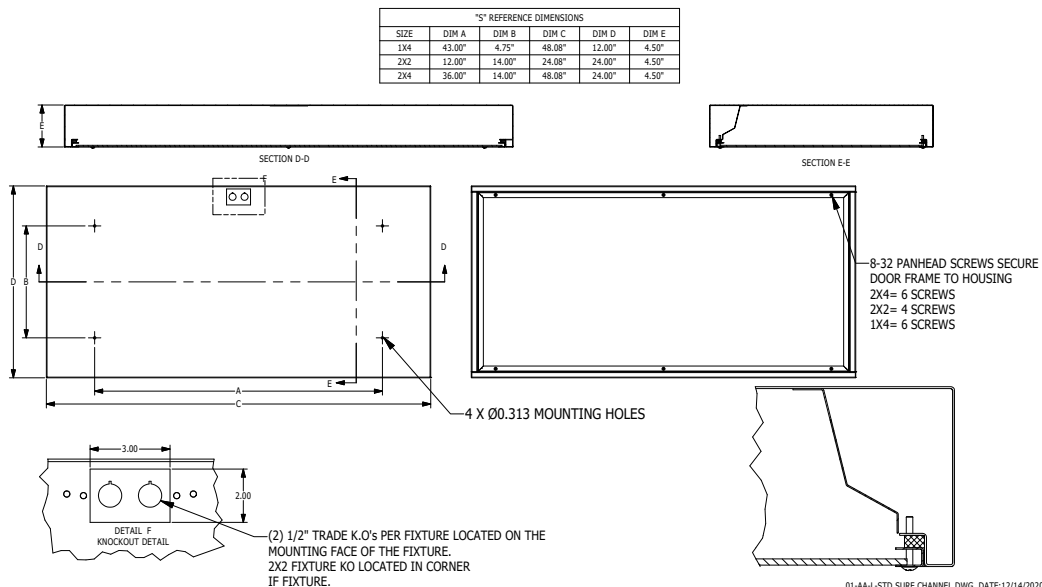
REFLECTOR: Die formed metal with high reflectance white polyester powder coat finish. Typical reflectivity 92%.

INSTALL SURFACE: Four .312" dia.mounting holes and a removable gasketed wiring access plate with Supply entry via 1/2" trade size flattened knockouts. Suitable for surface installation onto covered ceilings only.

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 powder coat with 1000hr salt spray test per ASTM B117. AMW option provides a white anti-microbial polyester powder coat to all exposed surfaces.

LISTINGS: IP55 rated for dust and water ingress. ETL listed per UL_1598 for wet locations. Certified ISO-14644-1 for class 5 through class 9 cleanspaces. Certified Fed Std 209E for Class 100 through Class 100,000 cleanspaces. NSF2 Listed for Non-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 Series is both Build America Buy America (B.A.B.A.) & Buy American Act (B.A.A.) compliant.

PRODUCT DRAWINGS

"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 D-D

SECTION E-E

8-32 PANHEAD SCREWS SECURE
DOOR FRAME TO HOUSING
2X4= 6 SCREWS
2X2= 4 SCREWS
1X4= 6 SCREWS

4 X Ø0.313 MOUNTING HOLES

3.00

2.00

DETAIL F
KNOCKOUT DETAIL

(2) 1/2" TRADE K.O's PER FIXTURE LOCATED ON THE
MOUNTING FACE OF THE FIXTURE.
2X2 FIXTURE KO LOCATED IN CORNER
IF FIXTURE.

01-AA-L-STD SURF CHANNEL DWG. DATE:12/14/2020

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ENERGY DATA

SURFACE & RECESSED CHANNEL LED TROFFER (APPROX[1] LUMENS DELIVERED)									
ENCLOSURE SIZE	LIGHT PACKAGE	80 CRI (3000K - 5000K)				90 CRI (3500K, 4000K)			STANDARD DIMMING
		LUMENS	WATTS[2]	EFFICACY[3]	MAX AMB TEMP	LUMENS	WATTS[2]	EFFICACY[3]	MAX AMB TEMP[4]	
1X4	1LEDR	3,215	29	111	45°C (113°F)	3,100	29	107	45°C (113°F)	0-10V 1%
1X4	2LEDR	6,430	55	117	45°C (113°F)	6,199	56	111	45°C (113°F)	0-10V 1%
1X4	2LEDH	12,446	109	114	35°C (95°F)	11,915	109	109	35°C (95°F)	0-10V 1%
1X4	2LEDHF	18,763	153	123	35°C (95°F)	16,060	182	88	35°C (95°F)	0-10V 1%
1X4	EM10	1110-1230	4	NA	40°C (104°F)	880-1110	4	NA	40°C (104°F)	NA
2X2	2LEDR	3,260	29	112	45°C (113°F)	3,270	29	113	45°C (113°F)	0-10V 1%
2X2	3LEDR	4,887	42	116	45°C (113°F)	4,902	42	117	45°C (113°F)	0-10V 1%
2X2	2LEDH	6,410	55	117	40°C (104°F)	6,130	55	111	40°C (104°F)	0-10V 1%
2X2	4LEDR	6,510	55	118	45°C (113°F)	6,530	55	119	45°C (113°F)	0-10V 1%
2X2	3LEDH	9,608	80	120	40°C (104°F)	9,186	81	113	35°C (95°F)	0-10V 1%
2X2	4LEDH	12,800	109	117	40°C (104°F)	12,240	109	112	35°C (95°F)	0-10V 1%
2X2	4LEDHF	18,782	153	123	35°C (95°F)	16,760	184	91	35°C (95°F)	0-10V 1%
2X2	EM10	1120-1230	4	NA	40°C (104°F)	910-1190	4	NA	40°C (104°F)	NA
2X4	2LEDR	6,942	55	126	45°C (113°F)	6,640	56	119	45°C (113°F)	0-10V 1%
2X4	3LEDR	10,412	83	125	45°C (113°F)	9,954	83	120	45°C (113°F)	0-10V 1%
2X4	2LEDH	13,650	109	125	40°C (104°F)	12,990	109	119	40°C (104°F)	0-10V 1%
2X4	4LEDR	13,880	111	125	45°C (113°F)	13,270	113	117	45°C (113°F)	0-10V 1%
2X4	3LEDH	20,464	164	125	40°C (104°F)	19,482	164	119	40°C (104°F)	0-10V 1%
2X4	4LEDH	27,280	220	124	40°C (104°F)	25,970	220	118	40°C (104°F)	0-10V 1%
2X4	4LEDHF	40,613	305	133	35°C (95°F)	35,810	373.3	96	35°C (95°F)	0-10V 1%
2X4	EM10	1240-1330	4	NA	40°C (104°F)	960-1200	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 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.

PHOTOMETRICS

P12 PRISMATIC

Key:

- - - - - - 0
- · - · - · - 45
——————— 90