

# Cleanroom EL-R Troffers

1x4, 2x2 and 2x4 High Efficiency LED Recessed 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**
- **Recessed Housing suitable for Tbar Grid AND Hardlid Installations**
- **B.A.A. & B.A.B.A 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										
EL-R	3	White 430 SS 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.						
	4	White AL Hsg. & Polished 304 SS Door	2x2	2" x 2" Housing	2	LEDHF	835 3500K	UNV	A19	0.156" A19 Prismatic Impact Resistant Acrylic (Inverted)	PxW *	Programmed to User Specified Wattage Value.						
							840 4000K	347V*	TG	0.156" Prismatic Tempered Glass (Inverted)	10KV	10KV Parallel Surge Protection (One Supplied Per Circuit)						
	5	White AL Hsg. & White AL Door	2x4	2" x 4" Housing	3	OR	850 5000K	*347V Available with 10% dimming, not all options are compatible with 347V	HIA	0.140" P12 Prismatic High Impact Resistant Acrylic (Inverted)	GTD	Generator Transfer Device						
							4		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	EM10	10W Integral LED EM (Specify Input Voltage)
														950 5000K			EM20	20W Remote LED EM (Specify Input Voltage)
																	GG	1/8" Thick Grid Gasket (Provided Loose)
																	EDL	-40F Electronic Driver
	NOTE: P12ACR option is standard and will be provided when no other option is selected										WHT	White Finished Door & HSG						
											AMW	Anti-Microbial White Powdercoat						
										2/ED	Two Drivers/Two Circuits							
										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 or 20Ga 430 Stainless 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. 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.

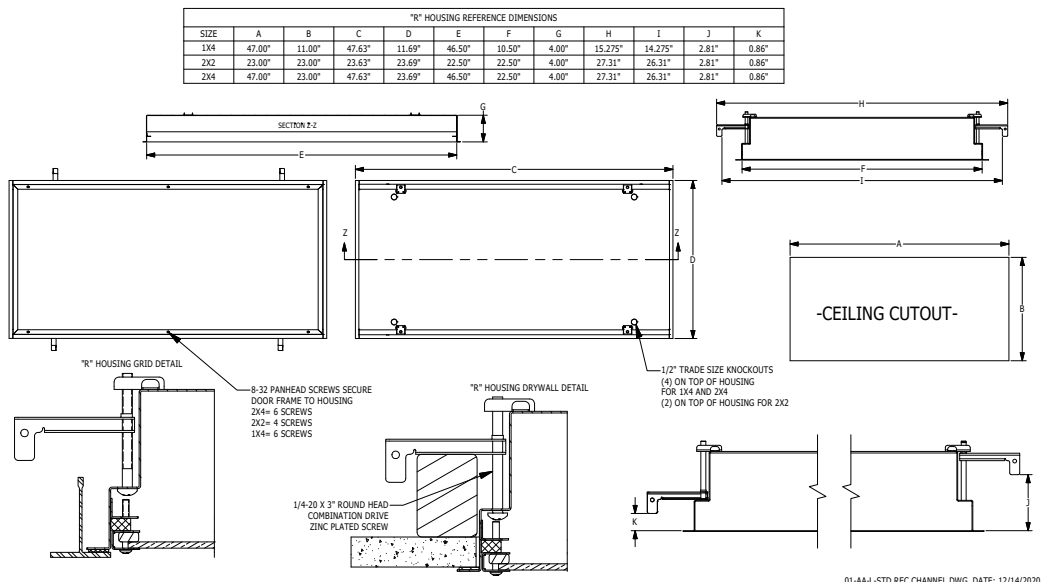
**REFLECTOR:** Die formed metal with high reflectance white polyester powder coat finish. Typical reflectivity 92%.

**INSTALLATION RECESSED:** Suitable for recessed Non-IC installation into covered ceilings. Fixtures are supplied with .875" flattened knockouts for supply entry. Recessed housings have (4) 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:** 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. 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



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## ENERGY DATA

SURFACE & RECESSED CHANNEL LED TROFFER (APPROX <sup>1</sup> LUMENS DELIVERED)										
ENCLOSURE SIZE	LIGHT PACKAGE	80 CRI (3000K - 5000K)				90 CRI (3500K, 4000K)				STANDARD DIMMING
		LUMENS	WATTS <sup>2</sup>	EFFICACY <sup>3</sup>	MAX AMB TEMP	LUMENS	WATTS <sup>2</sup>	EFFICACY <sup>3</sup>	MAX AMB TEMP <sup>4</sup>	
1X4	1LEDR	3,215	29	111	45°C (113°F)	3,100	29	107	45°C (113°F)	0-10V 1%
1X4	2LEDR	<b>6,430</b>	<b>55</b>	<b>117</b>	45°C (113°F)	<b>6,199</b>	<b>56</b>	<b>111</b>	45°C (113°F)	0-10V 1%
1X4	2LEDH	<b>12,446</b>	<b>109</b>	<b>114</b>	35°C (95°F)	<b>11,915</b>	<b>109</b>	<b>109</b>	35°C (95°F)	0-10V 1%
1X4	2LEDHF	<b>18,763</b>	<b>153</b>	<b>123</b>	35°C (95°F)	<b>16,060</b>	<b>182</b>	<b>88</b>	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	<b>4,887</b>	<b>42</b>	<b>116</b>	45°C (113°F)	<b>4,902</b>	<b>42</b>	<b>117</b>	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	<b>9,608</b>	<b>80</b>	<b>120</b>	40°C (104°F)	<b>9,186</b>	<b>81</b>	<b>113</b>	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	<b>18,782</b>	<b>153</b>	<b>123</b>	35°C (95°F)	<b>16,760</b>	<b>184</b>	<b>91</b>	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	<b>10,412</b>	<b>83</b>	<b>125</b>	45°C (113°F)	<b>9,954</b>	<b>83</b>	<b>120</b>	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	<b>20,464</b>	<b>164</b>	<b>125</b>	40°C (104°F)	<b>19,482</b>	<b>164</b>	<b>119</b>	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	<b>40,613</b>	<b>305</b>	<b>133</b>	35°C (95°F)	<b>35,810</b>	<b>373.3</b>	<b>96</b>	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

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

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

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

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

<sup>5</sup> 90 MINUTE 10W EMERGENCY DRIVER; LUMENS CALCULATED BASED ON FIXTURE EFFICACY.

## PHOTOMETRICS

### P12 PRISMATIC

Key:

— 0  
- - - 45  
— 90

