

Cleanroom EL-R Blue Troffers

1x4, 2x2 and 2x4 Blue/White LED Recessed Luminaires

- **ETL Listed for Wet Locations**
- **IP55 Rated**
- **Suitable for ISO 5-9 Cleanspaces**
- **Suitable for FED Std 209E Class 100-100,000 Cleanspaces**
- **Channel inset door frame**
- **Robotically seam welded housing**
- **Narrow spectrum 475nm or 450nm Blue LEDs**
- **White/Blue separately controlled circuits**
- **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.	Blue LED Wavelength	Row Qty.	White LED	CCT/CRI	Voltage	Optics	Options	
EL-R											
Series	Material	Size	Light Source					Voltage	Optics		
EL-R	3	White 430 SS Hsg. & Polished 304 SS Door	1x4 1' x 4' Housing 3 LED Rows Max	1	BLED450	1	LEDR	83 CRI:	120V	P12ACR	0.135" P12 Prismatic Impact Resistant Acrylic (Inverted)
				2	BLED475	2	LEDH	830 3000K	277V	LEX	0.125" P12 Prismatic Polycarbonate (Inverted)
	4	White AL Hsg. & Polished 304 SS Door	2x2 2' x 2' Housing			1	LEDHF	835 3500K	UNV	A19	0.156" A19 Prismatic Impact Resistant Acrylic (Inverted)
								840 4000K	347V*	TG	0.156" Prismatic Tempered Glass (Inverted)
	5	White AL Hsg. & White AL Door	2x4 2' x 4' Housing 5 LED Rows Max		2	850 5000K		HIA	0.140" P12 Prismatic High Impact Resistant Acrylic (Inverted)		
					3		FROST	0.125" Flat Diffusing Frost Acrylic			
					4		2DBW	0.125" Flat Diffused Acrylic with Bi-Directional Batwing Distribution			
							LBW	0.125" Flat Diffused Acrylic with Linear Batwing Distribution			
							GH85	0.125" Flat Diffused Acrylic with Glare Suppression Distribution			
						NOTE: P12ACR option is standard and will be provided when no other option is selected					
						Options					
						SW Wet Location Hub Supplied (not installed)					
						PxL * Programmed to User Specified Lumen Value.					
					PxW * Programmed to User Specified Wattage Value.						
					10KV 10KV Parallel Surge Protection (One Supplied Per Circuit)						
					GTD Generator Transfer Device						
					WHIP Must Specify Length and Wire Qty						
					OCCMW Internal microwave OCC Sensor						
					FC Fuse & Holder (One Supplied Per Circuit)						
					EM10 10W Integral LED EM (Specify Input Voltage)						
					EM20 20W Remote LED EM (Specify Input Voltage)						
					EDL -40F Electronic Driver						
					WHT White Finished Door & HSG						
					AMW Anti-Microbial White Powdercoat						
					2/EDB Two Circuits of Blue Light						
					2/EDW Two Circuits of White Light						
					GG 1/8" Thick Grid Gasket (Provided Loose)						
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: Fixture available with Blue only or Blue & White LED's, each color will be supplied with its own driver for dual switching. Blue LED's provide a narrow 450nm or 475nm spectrum. White high efficiency LEDs are commercially available & in a wide variety of CRI and CCT. All boards have Zhaga recognized hole patterns and come with a 5 year warranty.

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. (each color LED comes standard with its own driver)

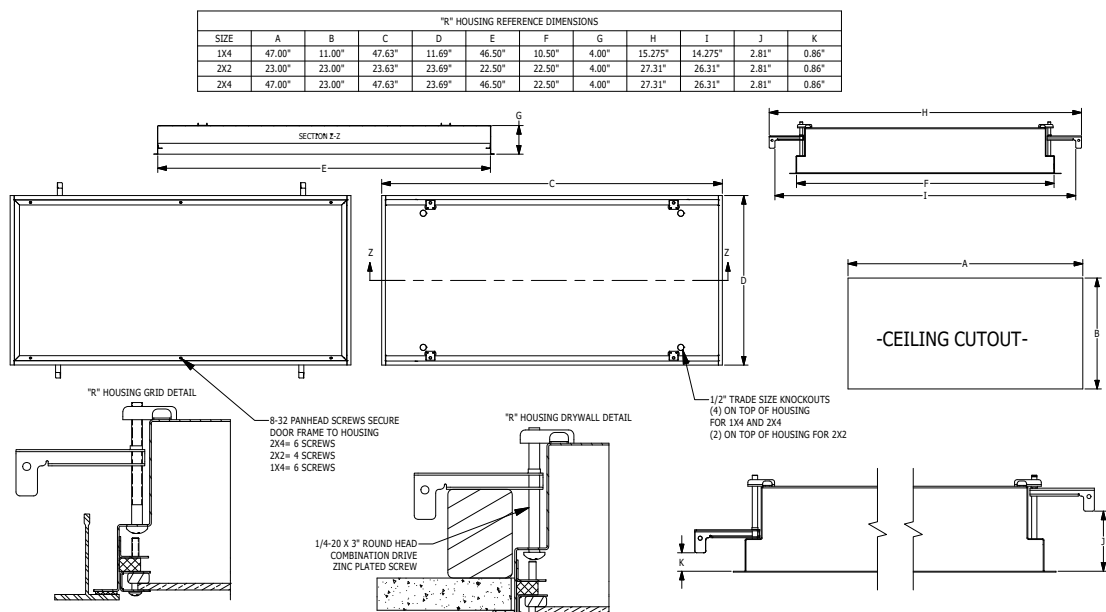
REFLECTOR: Die formed metal with high reflectance white polyester powder coat finish. Typical reflectivity 92%.

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



Cleanroom EL-R Blue Troffers

1x4, 2x2 and 2x4 Blue/White LED Recessed Luminaires

ENERGY DATA - WHITE LED

SURFACE & RECESSED CHANNEL 2 CIRCUIT 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	1LEDH	6,220	55	113	40°C (104°F)	5,950	57	104	40°C (104°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	1LEDHF	9,380	78	120	35°C (95°F)	8,030	92	87	35°C (95°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	EM10	1110-1200	4	NA	40°C (104°F)	870-1110	4	NA	40°C (104°F)	NA
2X2	1LEDR	1,630	15	109	45°C (113°F)	1,630	15	109	45°C (113°F)	0-10V 1%
2X2	1LEDH	3,200	29	110	40°C (104°F)	3,060	29	106	40°C (104°F)	0-10V 1%
2X2	2LEDR	3,260	29	112	45°C (113°F)	3,270	29	113	45°C (113°F)	0-10V 1%
2X2	1LEDHF	4,690	39	120	40°C (104°F)	4,190	46	91	40°C (104°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	2LEDHF	9,390	77	122	40°C (104°F)	8,380	92	91	35°C (95°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	3LEDHF	14,080	115	122	35°C (95°F)	12,570	138	91	35°C (95°F)	0-10V 1%
2X2	EM10	1090-1220	4	NA	40°C (104°F)	910-1170	4	NA	40°C (104°F)	NA
2X4	1LEDR	3,470	29	120	45°C (113°F)	3,320	29	114	45°C (113°F)	0-10V 1%
2X4	1LEDH	6,820	57	120	40°C (104°F)	6,490	57	114	40°C (104°F)	0-10V 1%
2X4	2LEDR	6,942	55	126	45°C (113°F)	6,640	56	119	45°C (113°F)	0-10V 1%
2X4	1LEDHF	10,150	77	132	40°C (104°F)	8,950	93	96	40°C (104°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	2LEDHF	20,300	153	133	40°C (104°F)	17,900	187	96	40°C (104°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	3LEDHF	30,450	229	133	35°C (95°F)	26,850	280	96	35°C (95°F)	0-10V 1%
2X4	EM10	1200-1330	4	NA	40°C (104°F)	960-1200	4	NA	40°C (104°F)	NA

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

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

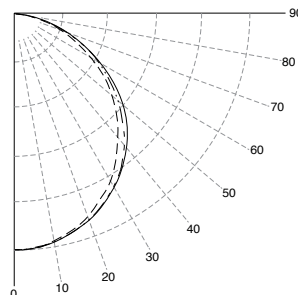
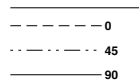
³ EFFICACY CALCULATED USING 4000K CCT DATA.

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

PHOTOMETRICS

P12 PRISMATIC

Key:



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ENERGY DATA - COLOR LED

SURFACE & RECESSED CHANNEL-BLUE LED TROFFER							
ENCLOSURE SIZE	LED SELECTION	DIMMING	475nm (BLUE)			AMBIENT TEMP RATING	
			LUMENS	WATTS	EFFICACY	MINIMUM	MAXIMUM ³
1X4	1BLED	0-10V 1%	2,119	43	49	-20°C (-4°F)	40°C (104°F)
1X4	2BLED	0-10V 1%	4,237	86	49	-20°C (-4°F)	40°C (104°F)
2X2	1BLED	0-10V 1%	1,168	22	53	-20°C (-4°F)	40°C (104°F)
2X2	2BLED	0-10V 1%	2,337	43	54	-20°C (-4°F)	40°C (104°F)
2X2	3BLED	0-10V 1%	3,505	65	54	-20°C (-4°F)	40°C (104°F)
2X2	4BLED	0-10V 1%	4,673	86	54	-20°C (-4°F)	40°C (104°F)
2X4	1BLED	0-10V 1%	2,482	44	56	-20°C (-4°F)	40°C (104°F)
2X4	2BLED	0-10V 1%	4,964	87	57	-20°C (-4°F)	40°C (104°F)
2X4	3BLED	0-10V 1%	7,446	130	57	-20°C (-4°F)	40°C (104°F)
2X4	4BLED	0-10V 1%	9,928	173	57	-20°C (-4°F)	40°C (104°F)

* View previous page for energy data notes.

NOTE: 450nm Royal Blue light is measured in radiometric power since the wavelengths are so close to the human non-visible light spectrums. Each module of 450nm LEDs generates ≈ 10,000 mW of radiometric power.