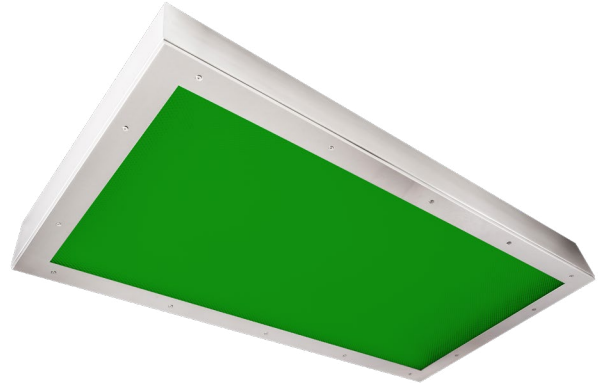


Cleanroom KL-S Green Troffers

1x4, 2x2 and 2x4 Green/White LED Surface Luminaires

- **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 for most configurations.**
- **Narrow Spectrum 540nm Green LEDs**
- **White / Green separately controlled circuits**
- **B.A.A. & B.A.B.A Compliant & Made in the USA by a Family Owned US Corporation**



DISCLAIMER: Although KURTZON has prepared the information contained in this document with all due care, KURTZON does not warrant or represent that the information is free from errors or omission. While the information is considered to be true and correct at the date of publication, changes in circumstances after the time of publication may impact on the accuracy of the information. The information may change without notice and KURTZON is not in any way liable for the accuracy of any information printed and stored or in any way interpreted or used.

ORDERING GUIDE

Series	Material	Size	Row Qty.	Green LED Wavelength	Row Qty.	White LED	CCT/CRI	Voltage	Optics	Options			
KL-S				GLE540									
Series	Material	Size	Light Source					Voltage	Optics				
			Row Qty.	Green LED Wavelength	Row Qty.	White LED	CCT/CRI						
KL-S	2 White CRS Hsg. & Polished 304 SS Door	1x4 1' x 4' Housing 3 LED Rows Max	1	GLE540	1	LEDR	83 CRI:	120V	P12ACR	0.135" P12 Prismatic Impact Resistant Acrylic (Inverted)			
			2		2	LEDH	830 3000K	277V	LEX	0.125" P12 Prismatic Polycarbonate (Inverted)			
	3 Polished 304 SS Hsg. & Polished 304 SS Door	2x2 2' x 2' Housing	1		1	LEDHF	835 3500K	UNV	A19	0.156" A19 Prismatic Impact Resistant Acrylic (Inverted)			
							840 4000K	347V*	TG	0.156" Prismatic Tempered Glass (Inverted)			
	4 White AL Hsg. & Polished 304 SS Door	2x4 2' x 4' Housing	2		2	850 5000K	*347V Available with 10% dimming, not all options are compatible with 347V	HIA	0.140" P12 Prismatic High Impact Resistant Acrylic (Inverted)				
			3		3			FROST	0.125" Flat Diffusing Frost Acrylic				
	5 White AL Hsg. & White AL Door	5 LED Rows Max	4					90+ CRI:	2DBW	0.125" Flat Diffused Acrylic with Bi-Directional Batwing Distribution			
								935 3500K	LBW	0.125" Flat Diffused Acrylic with Linear Batwing Distribution			
	6 White CRS Hsg. & White AL Door							940 4000K	GH85	0.125" Flat Diffused Acrylic with Glare Suppression Distribution			
								950 5000K	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)				
								GG	1/8" Thick Grid Gasket (Provided Loose)				
								EDL	-40F Electronic Driver				
								WHT	White Finished Door & HSG				
								2/EDG	Two Circuits of Green Light				
								2/EDW	Two Circuits of White Light				
								AMW	Anti-Microbial White Powdercoat				
								2/ED	Two Drivers/Two Circuits				
Note*: Specify Value in Ordering Notes													

Ordering Notes, If Applicable

Ordering Notes, If Applicable

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

Note*: Specify Value in Ordering Notes

Cleanroom KL-S Green Troffers

1x4, 2x2 and 2x4 Green/White LED Surface Luminaires

SPECIFICATIONS

HOUSING: One piece, hole free, robotically seam welded housing has flattened knockouts for a superior seal. Housings are available in .050" 3003 Aluminum, 18Ga 304 Stainless Steel, or 20Ga Cold Rolled Steel.

DOOR FRAME: One piece door frame with welded corners overlaps the fixture allowing the NSF approved microcellular gasket to seal to the housing. 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.

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 Green only or Green & White LED's, each color will be supplied with its own driver for dual switching. Green LEDs provide a narrow 540nm 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)

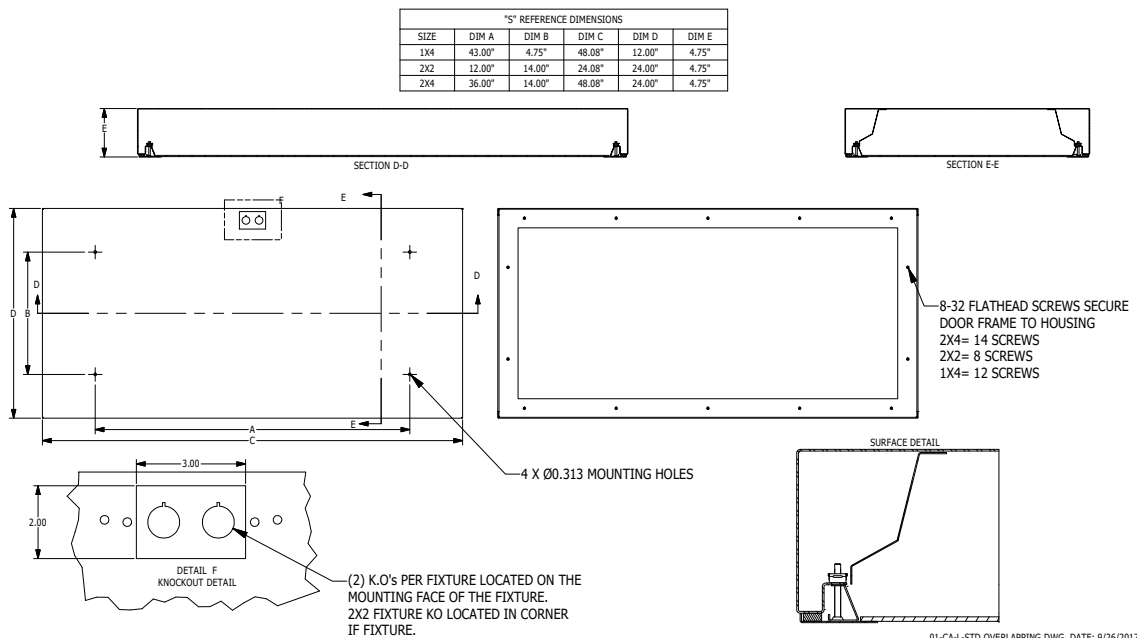
REFLECTOR: Die formed metal with high reflectance white polyester powder coat finish. Typical reflectivity 92%.

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 & housings 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: IP66 rated for dust and water ingress. Suitable for 1700 PSI high pressure hosedowns. ETL listed per UL_1598 for wet locations. 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 & 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 KL-S Green Troffers

1x4, 2x2 and 2x4 Green/White LED Surface Luminaires

ENERGY DATA- WHITE LED

SURFACE & RECESSED OVERLAP 2 CIRCUIT TROFFER (APPROX ¹ LUMENS DELIVERED)										
ENCLOSURE SIZE	LIGHT PACKAGE	83 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	1LED R	2,974	29	103	45°C (113°F)	2,868	29	99	45°C (113°F)	0-10V 1%
1X4	1LED H	5,740	57	101	40°C (104°F)	5,490	57	96	40°C (104°F)	0-10V 1%
1X4	2LED R	5,948	55	108	45°C (113°F)	5,736	56	103	45°C (113°F)	0-10V 1%
1X4	1LEDHF	9,020	77	117	35°C (95°F)	7,773	92	84	35°C (95°F)	0-10V 1%
1X4	2LED H	11,493	109	106	35°C (95°F)	10,980	109	101	35°C (95°F)	0-10V 1%
1X4	EM10	1010-1170	4	NA	40°C (104°F)	850-1030	4	NA	40°C (104°F)	NA
2X2	1LED R	1,808	15	121	45°C (113°F)	1,521	15	101	45°C (113°F)	0-10V 1%
2X2	1LED H	3,106	29	107	40°C (104°F)	2,964	29	102	40°C (104°F)	0-10V 1%
2X2	2LED R	3,165	29	109	45°C (113°F)	3,042	29	105	45°C (113°F)	0-10V 1%
2X2	1LEDHF	4,630	39	119	40°C (104°F)	4,106	46	89	40°C (104°F)	0-10V 1%
2X2	3LED R	4,747	42	113	45°C (113°F)	4,563	42	109	45°C (113°F)	0-10V 1%
2X2	2LED H	6,213	55	113	40°C (104°F)	5,928	55	108	40°C (104°F)	0-10V 1%
2X2	2LEDHF	9,260	77	120	40°C (104°F)	8,212	92	89	35°C (95°F)	0-10V 1%
2X2	3LED H	9,319	80	116	40°C (104°F)	8,892	81	110	35°C (95°F)	0-10V 1%
2X2	3LEDHF	13,890	115	121	35°C (95°F)	12,319	138	89	35°C (95°F)	0-10V 1%
2X2	EM10	1070-1210	4	NA	40°C (104°F)	890-1110	4	NA	40°C (104°F)	NA
2X4	1LED R	3,431	29	118	45°C (113°F)	3,280	29	113	45°C (113°F)	0-10V 1%
2X4	1LED H	6,744	57	118	40°C (104°F)	6,408	57	112	40°C (104°F)	0-10V 1%
2X4	2LED R	6,864	55	125	45°C (113°F)	6,567	56	117	45°C (113°F)	0-10V 1%
2X4	1LEDHF	9,840	77	128	40°C (104°F)	8,872	93	95	40°C (104°F)	0-10V 1%
2X4	3LED R	10,295	83	124	45°C (113°F)	9,851	83	119	45°C (113°F)	0-10V 1%
2X4	2LED H	13,488	109	124	40°C (104°F)	12,816	109	118	40°C (104°F)	0-10V 1%
2X4	2LEDHF	19,680	153	129	40°C (104°F)	17,744	187	95	40°C (104°F)	0-10V 1%
2X4	3LED H	20,233	165	123	40°C (104°F)	19,224	165	117	40°C (104°F)	0-10V 1%
2X4	3LEDHF	29,520	229	129	35°C (95°F)	26,616	280	95	35°C (95°F)	0-10V 1%
2X4	EM10	1180-1290	4	NA	40°C (104°F)	950-1190	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 INSTALLATION. TEMP RATING MAY VARY WITH SPECIFIED DRIVERS OR ANY NON-STANDARD SELECTION

⁵ 90 MINUTE 10W EMERGENCY DRIVER; LUMENS CALCULATED BASED ON FIXTURE EFFICACY.

* View previous page for energy data notes.

Cleanroom KL-S Green Troffers

1x4, 2x2 and 2x4 Green/White LED Surface Luminaires

ENERGY DATA - COLOR LED

SURFACE & RECESSED OVERLAP GREEN LED TROFFER							
ENCLOSURE SIZE	LED SELECTION	DIMMING	540nm (GREEN)			AMBIENT TEMP RATING	
			LUMENS	WATTS	EFFICACY	MINIMUM	MAXIMUM ³
1X4	1GLED	0-10V 1%	2,459	38.0	64.7	-20°C (-4°F)	40°C (104°F)
1X4	2GLED	0-10V 1%	4,970	73.0	68.1	-20°C (-4°F)	40°C (104°F)
2X2	1GLED	0-10V 1%	1,328	20.0	66.4	-20°C (-4°F)	40°C (104°F)
2X2	2GLED	0-10V 1%	2,656	38.0	69.9	-20°C (-4°F)	40°C (104°F)
2X2	3GLED	0-10V 1%	3,983	56.0	71.1	-20°C (-4°F)	40°C (104°F)
2X2	4GLED	0-10V 1%	5,311	73.0	72.8	-20°C (-4°F)	40°C (104°F)
2X4	1GLED	0-10V 1%	2,743	38.0	72.2	-20°C (-4°F)	40°C (104°F)
2X4	2GLED	0-10V 1%	5,487	73.0	75.2	-20°C (-4°F)	40°C (104°F)
2X4	3GLED	0-10V 1%	8,230	111.0	74.1	-20°C (-4°F)	40°C (104°F)
2X4	4GLED	0-10V 1%	9,703	145.0	66.9	-20°C (-4°F)	40°C (104°F)

* View previous page for energy data notes.