

Project Name:	Part Number:	Type:
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VOLA

VOLUMETRIC TROFFER



407-478-3759
www.ilp-inc.com

FEATURES

- Architecturally designed volumetric troffer
- Lightweight aluminum matte white finish body
- High transmission extruded PMMA frosted acrylic lens
- Recessed, Surface or Flange Mount
- Air Return Options
- Advanced Wireless Controls Options
- 1x4, 2x2, 2x4 sizes
- 2,400 – 10,000 Delivered Lumens
- High Efficacy – Up to 151 lm/W
- 3000K – 5000K CCT
- 80 & 90 CRI Options
- Calculated L70 > 100,000 hrs
- 0-10V Dimmable Driver
- 5 Year Warranty (std); 10 Year Warranty Optional
- ETL Listed
- DesignLights Consortium® Qualified Luminaire



SUITABLE APPLICATIONS

- Education
- Healthcare
- Offices
- Hallways
- Multipurpose Rooms
- Conference Rooms

ORDERING GUIDE

SERIES	LUMENS (Select 1)		DRIVER	80CRI / CCT	FINISH	AIR RETURN	WARRANTY
VOLA14 VolumetricTroffer 1'x4'	24L	46L	U 120-277V	50	BLANK Pre-paint white	BLANK None—std. housing	BLANK 5 Year
	30L	52L	HV ⁶ 347V	40	PAF Post-paint white	AR/W Air Return—White Reveal	10YR ⁷ 10 Year
	41L	62L		35		AR/B Air Return—Black Reveal	
				30			
VOLA22 VolumetricTroffer 2'x2'	24L	45L					
	31L	50L		90CRI / CCT			
	34L	61L		940			
	39L	76L ⁵		935			
				930			
VOLA24 VolumetricTroffer 2'x4'	29L	53L					
	34L	62L					
	37L	79L ⁵					
	43L	86L ⁵					
	49L	104L ⁵					

OPTIONS		CONTROLS	
Factory Installed		Advanced	
SR	Sensor Ready Driver	ES ^{1,4}	EasySense Sensor
DR	DALI Ready Driver	5E/CU/IL ⁴	Enlighted 5E Individual Lighting (IL) Sensor with Control Unit
BLD	Bi-level dimming driver (100%/50%) with two hot leads	5E/CU/CL ⁴	Enlighted 5E Connected Lighting (CL) Sensor with Control Unit
LDE1	Lutron Hi-Lume Driver	5E/CU/IOT ⁴	Enlighted 5E Internet of Things (IOT) Sensor with Control Unit
DIM1	1% Dimming Driver	5E/5W/IL ⁴	Enlighted 5E Individual Lighting (IL) Sensor w/ Aux Driver / 5 Wire Connection
EM5	5W LED Factory Installed Battery Backup	5E/5W/CL ⁴	Enlighted 5E Connected Lighting (CL) Sensor w/ Aux Driver / 5 Wire Connection
EM5/HE	5W LED Factory Installed Battery Backup-CEC Title 20 Compliant	5E/5W/IOT ⁴	Enlighted 5E Internet of Things (IOT) Sensor w/ Aux Driver / 5 Wire Connection
EM7	7W LED Factory Installed Battery Backup	VDO ^{2,4}	Lutron Vive DFCSJ-OEM-OCC (Daylight and Occupancy)
EM7/HE	7W LED Factory Installed Battery Backup-CEC Title 20 Compliant	VRF ^{2,4}	Lutron Vive DFCSJ-OEM-RF (Radio Frequency Only)
EM10	10W LED Factory Installed Battery Backup	AWNR	Lutron Athena Wireless Node RF only
EM10/HE	10W LED Factory Installed Battery Backup-CEC Title 20 Compliant	Ship With Options and Controls	
EM10/HE-SD ⁸	10W Factory Installed Self-Diagnosing Battery Backup	ES/PCD ³	EasySense Pre-Programmed Control Device
EM12	12W LED Factory Installed Battery Backup	ES/WWS/DR	EasySense Dual Rocker Wireless Wall Switch
WHIP/6FT/3WIRE	6FT MC Cable w/ 3 leads attached to power—non-dimming function	HC	Hurricane Clips
WHIP/6FT/4WIRE	6FT MC Cable w/ 3 leads attached to power & 1 lead for use w/ Battery Backup—non-dimming functions	SM	Surface Mount Housing Kit
WHIP/6FT/5WIRE	6FT MC Cable w/ 3 leads attached to power & 2 leads attached to dimming	FLGK	Flange Kit
WHIP/6FT/6WIRE	6FT MC Cable w/ 3 leads attached to power, 2 leads attached to dimming & 1 lead for use w/ Battery Backup		

¹ Must be used with ES/PCD for commissioning

⁴ View controls page for more details (pg.3)

⁷ Contact Factory for more details

² Must be used with SR Sensor Ready Driver

⁵ Standard 120-277V driver dimmable down to 1%

⁸ Operating temp down to 32°F & CEC Title 20 Compliant

³ One needed per project

⁶ Standard 347V High Voltage driver dimmable down to 1%

LED SYSTEMS INFO ¹	3000K CCT		3500K CCT		4000K CCT		5000K CCT		Watts ²	CRI	Replaces
	Part #	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens			
VOLA14-24L-U-XX	2,185 lm	130	2,309 lm	139	2,389 lm	143	2,444 lm	147	17 W	>80	1T8
VOLA14-30L-U-XX	2,806 lm	132	2,906 lm	136	3,008 lm	141	3,076 lm	144	21 W	>80	2T8
VOLA14-41L-U-XX	3,804 lm	129	3,942 lm	134	4,081 lm	139	4,175 lm	142	29 W	>80	2T8
VOLA14-46L-U-XX	4,279 lm	127	4,434 lm	132	4,588 lm	137	4,693 lm	140	34 W	>80	2T8
VOLA14-52L-U-XX	4,855 lm	129	5,032 lm	133	5,206 lm	138	5,327 lm	141	38 W	>80	3T8
VOLA14-62L-U-XX	5,811 lm	126	5,961 lm	130	6,167 lm	135	6,309 lm	138	46 W	>80	3T8
VOLA22-24L-U-XX	2,261 lm	134	2,353 lm	141	2,435 lm	145	2,491 lm	149	17 W	>80	2T8
VOLA22-31L-U-XX	2,862 lm	136	2,965 lm	141	3,069 lm	146	3,138 lm	149	21 W	>80	2T8
VOLA22-34L-U-XX	3,156 lm	127	3,261 lm	133	3,373 lm	138	3,452 lm	141	25 W	>80	3T8
VOLA22-39L-U-XX	3,657 lm	126	3,791 lm	131	3,924 lm	135	4,014 lm	139	29 W	>80	3T8
VOLA22-45L-U-XX	4,240 lm	126	4,396 lm	130	4,547 lm	135	4,652 lm	138	34 W	>80	4T8
VOLA22-50L-U-XX	4,652 lm	127	4,821 lm	131	4,990 lm	136	5,104 lm	139	37 W	>80	2T5
VOLA22-61L-U-XX	5,652 lm	123	5,858 lm	128	6,065 lm	132	6,202 lm	135	46 W	>80	3T5
VOLA22-76L-U-XX	6,843 lm	123	7,166 lm	128	7,555 lm	135	7,802 lm	140	56 W	>80	4T5
VOLA24-29L-U-XX	2,739 lm	129	2,839 lm	134	2,938 lm	139	3,006 lm	142	23 W	>80	2T8
VOLA24-34L-U-XX	3,198 lm	128	3,315 lm	133	3,430 lm	137	3,510 lm	140	25 W	>80	2T8
VOLA24-37L-U-XX	3,449 lm	130	3,574 lm	134	3,699 lm	139	3,784 lm	142	27 W	>80	2T8
VOLA24-43L-U-XX	4,031 lm	138	4,177 lm	143	4,323 lm	148	4,422 lm	151	29 W	>80	3T8
VOLA24-49L-U-XX	4,584 lm	134	4,752 lm	139	4,919 lm	144	5,031 lm	148	34 W	>80	3T8
VOLA24-53L-U-XX	4,942 lm	130	5,121 lm	135	5,301 lm	140	5,421 lm	143	38 W	>80	3T8
VOLA24-62L-U-XX	5,878 lm	127	6,022 lm	132	6,233 lm	136	6,374 lm	139	46 W	>80	4T8
VOLA24-79L-U-XX	7,135 lm	126	7,525 lm	133	7,920 lm	140	8,197 lm	145	57 W	>80	2T5
VOLA24-86L-U-XX	7,766 lm	125	8,188 lm	132	8,617 lm	139	8,921 lm	144	62 W	>80	3T5
VOLA24-104L-U-XX	9,340 lm	123	9,854 lm	130	10,379 lm	137	10,731 lm	142	76 W	>80	4T5
VOLA14-24L-U-XX	2,199 lm	133	2,239 lm	135	2,278 lm	137	N/A	N/A	17 W	>90	1T8
VOLA14-30L-U-XX	2,634 lm	125	2,681 lm	128	2,728 lm	130	N/A	N/A	21 W	>90	2T8
VOLA14-41L-U-XX	3,474 lm	121	3,536 lm	123	3,599 lm	125	N/A	N/A	29 W	>90	2T8
VOLA14-46L-U-XX	3,902 lm	118	3,972 lm	120	4,041 lm	122	N/A	N/A	33 W	>90	2T8
VOLA14-52L-U-XX	4,453 lm	115	4,532 lm	117	4,612 lm	119	N/A	N/A	39 W	>90	3T8
VOLA14-62L-U-XX	5,414 lm	113	5,509 lm	115	5,607 lm	117	N/A	N/A	48 W	>90	3T8
VOLA22-24L-U-XX	2,083 lm	120	2,120 lm	123	2,164 lm	125	N/A	N/A	17 W	>90	2T8
VOLA22-31L-U-XX	2,539 lm	116	2,584 lm	118	2,629 lm	120	N/A	N/A	22 W	>90	2T8
VOLA22-34L-U-XX	2,871 lm	111	2,926 lm	113	2,993 lm	116	N/A	N/A	25 W	>90	3T8
VOLA22-39L-U-XX	3,573 lm	123	3,637 lm	125	3,700 lm	127	N/A	N/A	29 W	>90	3T8
VOLA22-45L-U-XX	4,143 lm	120	4,217 lm	122	4,291 lm	124	N/A	N/A	35 W	>90	4T8
VOLA22-50L-U-XX	4,496 lm	118	4,576 lm	120	4,656 lm	122	N/A	N/A	38 W	>90	2T5
VOLA22-61L-U-XX	5,384 lm	114	5,481 lm	117	5,577 lm	119	N/A	N/A	47 W	>90	3T5
VOLA22-76L-U-XX	6,078 lm	116	6,186 lm	118	6,294 lm	120	N/A	N/A	53 W	>90	4T5
VOLA24-29L-U-XX	2,734 lm	131	2,754 lm	132	2,804 lm	133	N/A	N/A	21 W	>90	2T8
VOLA24-34L-U-XX	3,375 lm	137	3,398 lm	138	3,422 lm	139	N/A	N/A	25 W	>90	2T8
VOLA24-37L-U-XX	3,649 lm	136	3,674 lm	136	3,699 lm	138	N/A	N/A	26 W	>90	2T8
VOLA24-43L-U-XX	3,915 lm	134	3,942 lm	135	3,969 lm	136	N/A	N/A	29 W	>90	3T8
VOLA24-49L-U-XX	4,336 lm	129	4,366 lm	130	4,396 lm	131	N/A	N/A	34 W	>90	3T8
VOLA24-53L-U-XX	5,015 lm	128	5,050 lm	129	5,084 lm	129	N/A	N/A	39 W	>90	3T8
VOLA24-62L-U-XX	5,457 lm	116	5,495 lm	116	5,532 lm	117	N/A	N/A	47 W	>90	4T8
VOLA24-79L-U-XX	6,795 lm	132	6,841 lm	133	6,969 lm	133	N/A	N/A	52 W	>90	2T5
VOLA24-86L-U-XX	7,782 lm	133	7,836 lm	134	7,889 lm	135	N/A	N/A	58 W	>90	3T5
VOLA24-104L-U-XX	8,409 lm	119	8,591 lm	121	8,753 lm	124	N/A	N/A	71 W	>90	4T5

¹ LED Chips are frequently updated therefore values are nominal

² Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

***Please refer to the DLC Qualified Products List at www.Designlights.org/QPL to confirm specific product qualifications.**

VOLA

VOLUMETRIC TROFFER

SPECIFICATIONS

CONSTRUCTION

Lightweight aluminum matte white finish body for rigidity, durability and ease of installation. Optional paint after fabrication. Designed to achieve maximum performance and improved aesthetics.

ELECTRICAL

Class 2 LED light engine for high efficacy and long life. Calculated L70 > 100,000 hrs. Power Factor > 0.90. Standard 120-277 VAC 0-10V dimmable (10% - 100%). Optional 347V High Voltage (HV) driver. 1% dimming driver standard on optional 347V High Voltage (HV) drivers. Optional Sensor Ready and DALI Ready drivers for pairing with controls and integrated controls networks. Optional Bi-level dimming driver (100% / 50%), 1% Dimming driver and Lutron Hi-Lume 1% dimming driver.

INSTALLATION

VOLA fits into standard $1\frac{5}{16}$ " & narrow $\frac{7}{16}$ " T-grid ceiling. Optional Flange Kit (FLGK) for recessed drywall mounting & Surface Mount (SM) to ceiling mount options available. Access plate installed on top of fixture for easy hardwire power connections. Optional factory installed power flex conduit whip (WHIP) available to reduce electrical installation time.

OPTICS

Standard high transmission extruded PMMA frosted acrylic volumetric lens. Removeable lens for easy access to LED boards and drivers for maintenance.

CONTROLS

Factory installed advanced sensor options available. Sensor mounts within the body of the fixture, see controls page for more detail (pg.3). Inquire with manufacturer for more controls options, including customer supplied items.

CERTIFICATIONS

ETL Listed to US & Canadian safety standards. Suitable for damp locations. Type IC rated. American Recovery & Reinvestment Act Funding Compliant. DLC (DesignLights Consortium) Premium Qualified, with some Standard Qualified configurations. Please refer to the DLC Qualified Products List at www.designlights.org/QPL to confirm specific product qualifications.

WARRANTY

5 Year Warranty Standard; 10 Year Warranty Optional ([Terms and Conditions apply](#)).

ADVANCED CONTROLS

EASYSense

ES

EasySense sensor combines occupancy sensing, daylight harvesting & institutional tuning in one compact solution. This is an ideal control for any commercial application. Each sensor allows you to turn on/off occupancy and/or daylight harvesting functions as well as set the full light output, background light level, occupancy prolong time, occupancy grace fading time and occupancy time out/hold time. Requires the use of EasySense Pre-Programmed Control Device (ES/PCD), or approved phone from compatibility list; one needed per project.



ES/PCD

Pre-Programmed EasySense Control Device. One needed per project. Sensor can also be programmed with the approved compatible cell phone (listed below).

Compatible Cell Phones:

- LG G4
- Samsung S5
- Samsung Note 4
- Samsung S4 Mini
- Samsung S6
- Samsung Note Edge 1
- Samsung S4

ES/WWS/DR

Optional Wireless / Batteryless Dual Rocker Wall Switch. Up to 100ft range. Functions include: On/Off, dimming and setting of (2) scenes for full room control.

Specifications:

- Wireless
- ZigBee®
- Batteryless
- 30-100ft Range
- Dual Rocker

Functions:

1. On (Hold to brighten up)
2. Off (Hold to dim down)
3. Scene 1
4. Scene 2



LUTRON

VDO

Vive DFCSJ-OEM-OCC integral fixture control sensor with daylight & occupancy. Vive provides intuitive programming allowing for maximum flexibility with wireless communication & sensing as desired. Provided with factory installed components only. Lutron system provided by others. Sensor must be used in conjunction with Pico Switch/Dimmer. Cannot be used in conjunction with mechanical on/off power switch. Contact factory for more information.



VRF

Vive DFCSJ-OEM-RF integral fixture control with Radio Frequency (RF) communication. Vive provides intuitive programming allowing for maximum flexibility with wireless communication as desired. Providing with factory installed components only. Lutron system provided by others. Sensor must be used in conjunction with Pico Switch/Dimmer. Cannot be used in conjunction with mechanical on/off power switch. Contact factory for more information.



AWNDR

Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system. Enables individual wireless control of each fixture in an Athena control system. Accommodates zone and control changes without rewiring. All drivers on the link are controlled as a single zone. Provided with factory installed components only. Lutron Athena system provided by others.



ENLIGHTED

5E/CU/IL

Bundled System with Enlighted 5E sensor (SU-5E-IL), Control Unit (CU-4E-FM) and Cable (CBL-5E-CU4-30N). Fixtures are controlled based on occupancy & ambient light. Includes ability to group fixtures together and connect to a switch to zone fixtures for group operation. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information.



5E/CU/CL

Bundled System with Enlighted 5E sensor (SU-5E-CL), Control Unit (CU-4E-FM) and Cable (CBL-5E-CU4-30N). Fixtures are controlled based on occupancy and ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. The Energy Manager provides data analysis for all data collected by the Enlighted Smart Sensors for energy, occupancy and environment. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information. (see image above)

5E/CU/IOT

Bundled System with Enlighted 5E sensor (SU-5E-IOT), Control Unit (CU-4E-FM) and Cable (CBL-5E-CU4-30N). Fixtures are controlled based on occupancy and ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. Energy Manager provides data analysis for all data collected by Enlighted Smart Sensors for energy, occupancy & environment. Additionally, the IOT functionality takes the data access and function beyond just lighting to a wide range of applications beyond the standard connected lighting controls. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information. (see image above)

5E/5W/IL

Bundled System with Enlighted 5E sensor (SU-5E-IL) & Cable (CBL-5E-CU4-30N) paired with a driver with auxiliary power and 5 wire connection. Fixtures are controlled based on occupancy and ambient light. Includes ability to group fixtures together and connect to a switch to zone fixtures for group operation. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information. (see image above)

5E/5W/CL

Bundled System with Enlighted 5E sensor (SU-5E-CL) & Cable (CBL-5E-CU4-30N) paired with a driver with auxiliary power & 5 wire connection. Fixtures are controlled based on occupancy and ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. The Energy Manager provides data analysis for all data collected by the Enlighted Smart Sensors for energy, occupancy and environment. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information. (see image above)

5E/5W/IOT

Bundled System with Enlighted 5E sensor (SU-5E-IOT) & Cable (CBL-5E-CU4-30N) paired w/ a driver w/ auxiliary power and 5 wire connection. Fixtures are controlled based on occupancy & ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. The Energy Manager provides data analysis for all data collected by Enlighted Smart Sensors for energy, occupancy & environment. Additionally, the IOT functionality takes the data access and function beyond just lighting to a wide range of applications beyond the standard connected lighting controls. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information. (see image above)

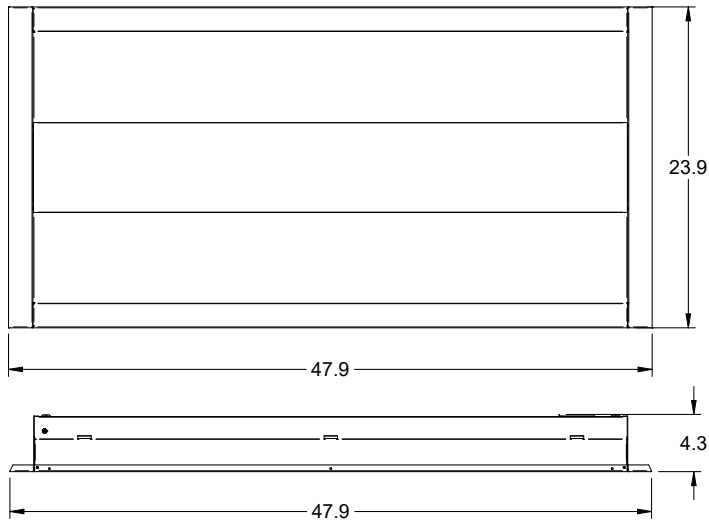
VOLA

VOLUMETRIC TROFFER

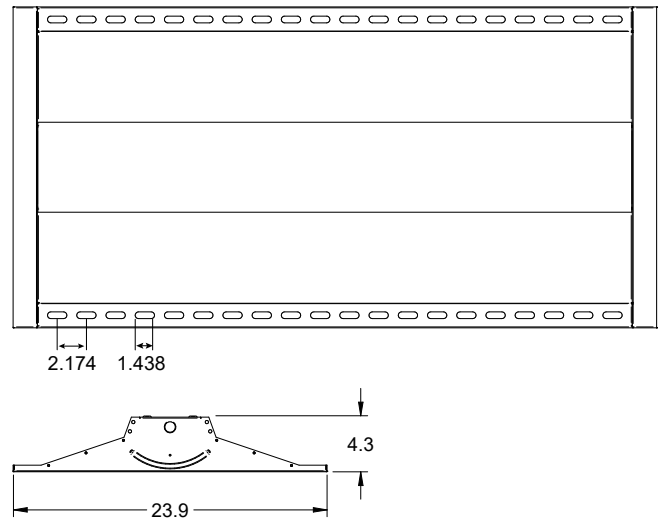
LINE DRAWINGS

2'x4'

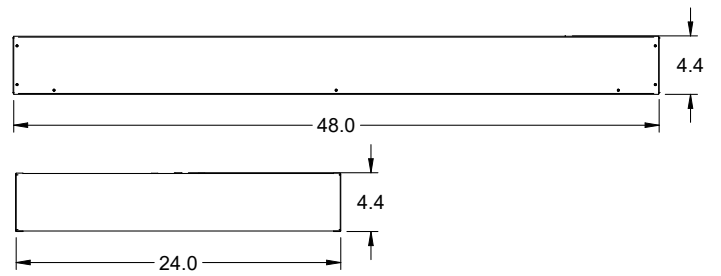
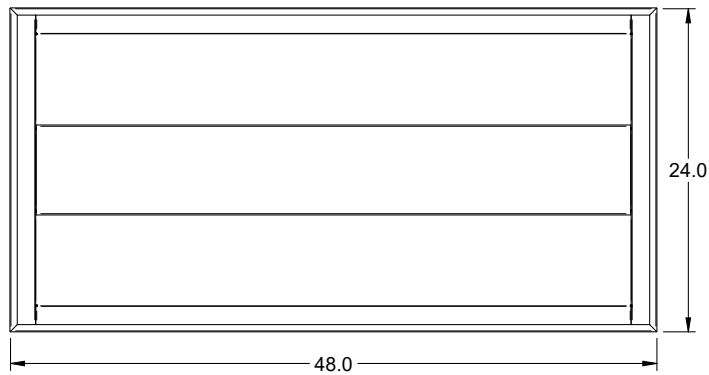
Standard Housing



Air Return Housing



Surface Mount Housing



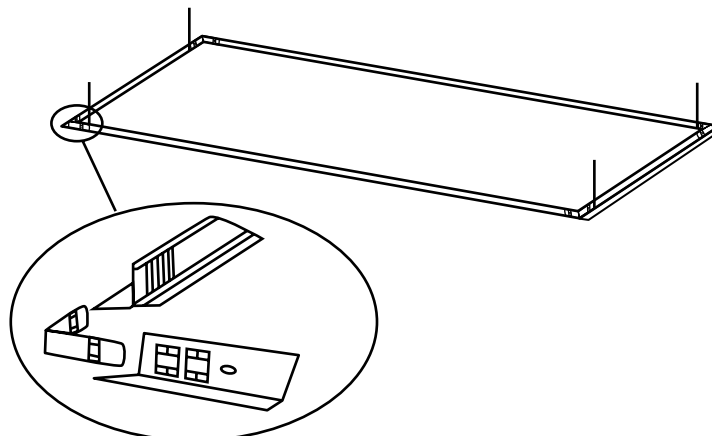
Flange Kit

Dimensions:

1x4 - Ceiling opening is 12.25" x 48.25"

2x2 - Ceiling opening is 24.25" x 24.25"

2x4 - Ceiling opening is 24.25" x 48.25"

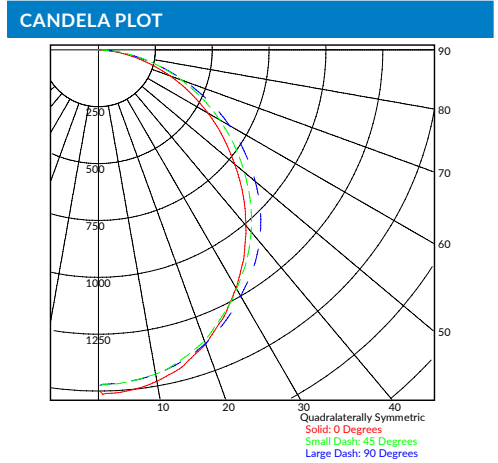


VOLUMETRIC TROFFER

PHOTOMETRIC DATA

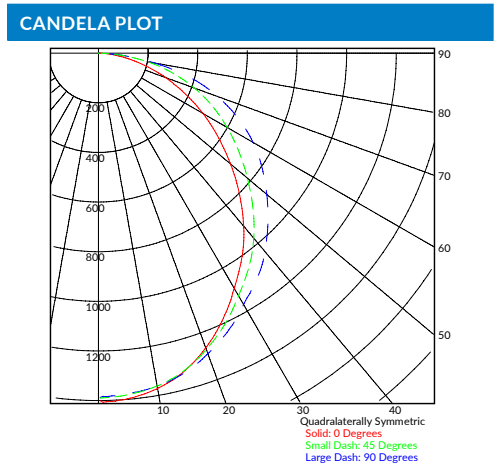
LUMINAIRE DATA	
Part Number	VOLA14-41L-U-40
Description	1x4 Volumetric LED Troffer, 4,100lm, with Frosted Acrylic Lens.
Fixture Lumens (lm)	4,081 lm
Wattage (W)	29 W
Efficacy (lm/W)	139 lm/W
Mounting	Recessed
Spacing Criteria	0° = 1.22, 90° = 1.26

ZONAL LUMEN SUMMARY		
Zone	Lumens (lm)	% Fixture
0° - 40°	1,851	45%
0° - 60°	3,231	79%
0° - 90°	4,081	100%
90° - 180°	0	0%
0° - 180°	4,081	100%



LUMINAIRE DATA	
Part Number	VOLA22-39L-U-40
Description	2x2 Volumetric LED Troffer, 3,900lm, with Frosted Acrylic Lens.
Fixture Lumens (lm)	3,924 lm
Wattage (W)	29 W
Efficacy (lm/W)	135 lm/W
Mounting	Recessed
Spacing Criteria	0° = 1.18, 90° = 1.26

ZONAL LUMEN SUMMARY		
Zone	Lumens (lm)	% Fixture
0° - 40°	1,723	44%
0° - 60°	3,023	77%
0° - 90°	3,924	100%
90° - 180°	0	0%
0° - 180°	3,924	100%



LUMINAIRE DATA	
Part Number	VOLA24-43L-U-40
Description	2x4 Volumetric LED Troffer, 4,300lm, with Frosted Acrylic Lens.
Fixture Lumens (lm)	4,323 lm
Wattage (W)	29 W
Efficacy (lm/W)	148 lm/W
Mounting	Recessed
Spacing Criteria	0° = 1.22, 90° = 1.30

ZONAL LUMEN SUMMARY		
Zone	Lumens (lm)	% Fixture
0° - 40°	2,105	43%
0° - 60°	3,739	76%
0° - 90°	4,323	100%
90° - 180°	0	0%
0° - 180°	4,323	100%

