



# 2x2 LPEC

## Low Profile Recessed Troffer



### OVERVIEW

Lumen Range (lm)	1,950 - 8,850
CCT (K)	3000, 3500, 4000, 5000 Tunable White
Wattage Range (W)	17 - 65
Efficacy Range (LPW)	116 - 141
Weight lbs (kg)	11 (5)

### QUICK LINKS

[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)

## FEATURES & SPECIFICATIONS

### Construction

- Rigid housing is die-formed 22-gauge cold-rolled steel for consistency and strength..
- Luminaire comes equipped with integral NEC-compliant earthquake clips.
- Ultra-slim (< 4") luminaire height and light-weight design effectively targets a broad range of plenum/wall spaces and allows for easy installation.
- Thermally optimized housing allows for direct insulation contact (IC rated).
- Luminaire is treated with phosphate rust inhibitor prior to powder coating. Reflecting surfaces are coated with high-reflectance (minimum 92%) white polyester powder.
- Luminaire is proudly manufactured in the U.S.A.

### Optical System

- High-transmission diffuse acrylic radial lens eliminates bright spots from individual LEDs and provides high vertical illuminance and visual comfort.
- Tunable White with digital control option with a CCT range of 2700K - 6500K
- State of the art LED chips for reliability and extended lumen maintenance.

### Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (1% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) or optional High Voltage (347 VAC) 50/60 Hz input.

- L80 Calculated Life: >100k Hours (See lumen maintenance table on Page 3)
- Total harmonic distortion (THD): <20%
- Power factor: > 0.95
- Sensor-ready drivers available; consult factory for details.
- Optional 120-277VAC integral emergency battery backup is available to meet critical life-safety standby lighting requirements. A test switch/indicator button is installed in the housing for ease of visibility and maintenance.

### Controls

- Available with AirLink™ Blue. AirLink Blue (ALB) is a low-power wireless Bluetooth mesh control system. ALB provides significant energy savings while ensuring code compliance and security. The integrated fixture sensor module can control multiple luminaires based on motion or daylight and events can be scheduled based on time of day or an astronomical clock.
- Available with 3rd party controls. Check out the ordering guide for compatibility.
- Tunable White powered by LSI Airlink™ Blue offers wireless digital CCT tuning between 2700K and 6500K. Tunable White technology provides ultimate flexibility and control to the end user and future-proofs any space.
- Stand-alone integral passive infrared sensor (IMSI) enables motion and daylight sensing. Optional IR remote (REM-SOLO) makes configuration changes easy.
- LSI AirLink™ controls featuring Lutron Clear

Connect makes each luminaire controllable, creating a wireless communication network with other AirLink™ control devices such as dimmers, switches, occupancy sensors and photocontrols. The integrated sensor is both a passive infrared motion detector and daylight harvester.

### Installation

- Luminaire installs by lifting it through grid ceiling and resting it on the T-bars.
- Luminaire installs onto standard 15/16" and narrow 9/16" T-grid ceiling systems.
- An accessory flange kit is available for installing into drywall or plaster.

### Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsiindustries.com/resources/terms-and-warranty.aspx> for more information.

### Listings

- Listed to UL® 1598 and UL® 8750.
- DesignLights Consortium® (DLC) Premium and/or standard. Not all versions of this product may be DLC listed. Please check the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which SKUs are listed.
- Meets Buy American Act (BAA) requirements.
- Title 24 Compliant; see local ordinance for qualification information.
- IC Rated for direct contact with building insulation.
- Suitable for damp locations.





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## ORDERING GUIDE

[Back to Quick Links](#)TYPICAL ORDER EXAMPLE: **LPEC22 LED 55L UNV DIM1 TW ALBC U**

Family/Size	LED Gen	Lumen Package*	Voltage	Driver	Color Temperature	Controls	Options	Packaging
LPEC22 - (2x2)	LED	20L - 2,000 25L - 2,500 32L - 3,200 39L - 3,900 45L - 4,500 50L - 5,000 55L - 5,500 65L - 6,500 70L - 7,000 75L - 7,500 80L - 8,000	UNV - 120-277VAC HV - 347VAC <sup>1</sup>	DIM1 - Dims to 1% (0-10 volt dimming) <sup>1</sup>  LDE1 - Hi-Lume 1% (with Soft on Fade to Black) <sup>1</sup>  L3D - Lutron Hi-Lume 1% <sup>1</sup>  SR - Sensor Ready <sup>3,5</sup>	30 - 3000K <sup>3,4</sup> 35 - 3500K 40 - 4000K 50 - 5000K	BLANK - (No Controls)  IMS1 - Integral PIR Motion and Daylight sensor  ALBCSD - Integrated AirLink™ Blue Wireless Motion and Daylight Harvesting Sensor  WSCS - Wattstopper LMFS-601 integrated wireless PIR motion/daylight sensor  AVC - Avi-on LVFA integrated wireless controller single channel  AVCM - Avi-on IFA integrated wireless controller 5 Amp 120-277VAC  ALDCS - AirLink/Lutron Integral Fixture Control with motion and daylighting sensing  ALDC - AirLink/Lutron Integral Fixture Control (RF only)	EM10- 10 Watt Emergency Battery Backup  FC1 - 6' 3/8" (3) #18 Leads (For use in Non-Dimming Applications)  FC15D - 6' 3/8" (5) #18 Leads (For use in Dimming Applications)  FC16DEM - 6' 3/8" (6) #18 Leads (For use in Dimming & EM Applications)  90C - 90 CRI <sup>3,4</sup> AR - Air Return	U - Single Pack
		Custom Lumen Packages <sup>6</sup>						
LPEC22 - (2x2)	LED	55L - 5,500	UNV - 120-277VAC	DIM1 - Dims to 1% (0-10 volt dimming) <sup>1</sup>	TW <sup>1,7</sup> - Tunable White	ALBC <sup>7</sup>	90C - 90 CRI <sup>3,4</sup>	U - Single Pack

## Accessory Ordering Information

Description	Order Number
Flange Kit 2x2	FK22
IR remote configuration tool for IMS1	REM-SOLO
SMK22 - 2x2 Surface Mount Kit	772276

### Integral PIR Motion and Daylight Sensor (IMS1)

Low profile sensor provides bi-level control based on motion and/or daylight. All control parameters are adjustable using the IR remote (sold separately).

[Click here to learn more about IMS1](#)

## AirLink™ Control Accessories

Order as separate catalog number.

Wireless Switches	Catalog Number	Part Number	Wireless Occupancy Sensors	Part Number
On/Off & Raise Lower	ALWS 3B-(color)-KIT <sup>2</sup>	6241032	Wireless 360° 400 ft <sup>2</sup> , Ceiling Mount	624094
			Wireless 180° 3000 ft <sup>2</sup> , Wall Mount	632617
Wireless Photocell Controls	ALCM-W-PC	624090	Wireless 90° 2500 ft <sup>2</sup> , Corner Mount	624096
			Wireless, Hallway 150 ft Length	632620
<b>Commission Laser Kit</b>				
(See Laser warnings)		634574		

### FOOTNOTES:

- 1 - Not available with ALDCS Control option.
- 2 - Available colors are White, Ivory and Light Almond (WH, IV, LA).
- 3 - Consult Factory for lead times.
- 4 - Consult factory for DLC qualification information.
- 5 - Required with ALDCS Control option.
- 6 - Custom lumen packages available, please consult factory. Values are within industry standard tolerances and not DLC listed.
- 7 - Only available with 120-277VAC input.

## PERFORMANCE

[Back to Quick Links](#)

DELIVERED LUMENS									
Lumen Package	3000K CCT		3500K CCT		4000K CCT		5000K CCT		Wattage
	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	
20L	1,964	116.2	2,078	123.0	2,026	119.9	2,238	132.4	16.9
25L	2,491	117.0	2,636	123.8	2,570	120.7	2,839	133.3	21.3
32L	3,182	123.3	3,367	130.5	3,283	127.2	3,627	140.6	25.8
39L	3,763	123.0	3,982	130.1	3,882	126.9	4,288	140.1	30.6
45L	4,389	121.6	4,644	128.6	4,528	125.4	5,002	138.6	36.1
50L	4,937	121.3	5,224	128.3	5,093	125.1	5,626	138.2	40.7
55L	5,412	120.3	5,727	127.3	5,584	124.1	6,168	137.1	45.0
60L	5,831	120.0	6,170	127.0	6,016	123.8	6,646	136.7	48.6
65L	6,316	118.9	6,683	125.9	6,516	122.7	7,198	135.6	53.1
70L	6,895	117.7	7,296	124.5	7,113	121.4	7,857	134.1	58.6
75L	7,341	122.4	7,768	129.5	7,574	126.2	8,367	139.4	60.0
80L	7,760	121.6	8,211	128.7	8,006	125.5	8,844	138.6	63.8

\*LED Chips are frequently updated therefore values are nominal.





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## PERFORMANCE (CONT.)

ELECTRICAL DATA*						
Lumens	Watts	120V	208V	240V	277V	347V
20L	16.9	0.1408	0.0813	0.0704	0.0610	0.0487
25L	21.3	0.1775	0.1024	0.0888	0.0769	0.0614
32L	25.8	0.2150	0.1240	0.1075	0.0931	0.0744
39L	30.6	0.2550	0.1471	0.1275	0.1105	0.0882
45L	36.1	0.3008	0.1736	0.1504	0.1303	0.1040
50L	40.7	0.3392	0.1957	0.1696	0.1469	0.1173
55L	45	0.3750	0.2163	0.1875	0.1625	0.1297
60L	48.6	0.4050	0.2337	0.2025	0.1755	0.1401
65L	53.1	0.4425	0.2553	0.2213	0.1917	0.1530
70L	58.6	0.4883	0.2817	0.2442	0.2116	0.1689
75L	60	0.5000	0.2885	0.2500	0.2166	0.1729
80L	63.8	0.5317	0.3067	0.2658	0.2303	0.1839

ELECTRICAL DATA (AMPS)* - TUNABLE WHITE					
Lumens	Watts	120V	208V	240V	277V
55L	46	0.38	0.22	0.19	0.16

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

APPLICATION REFERENCE*						
Lumens	Spacing	Lumens	LPW	W/FT2	Avg Fc	# of Luminaires
32L	10' x 8'	3,231	115	0.353	37	20
32L	8' x 8'	3,231	115	0.441	47	25
32L	8' x 6'	3,231	115	0.529	56	30

\*Based on a 9' Mtg.Ht., 4K color Temp, 80/50/20 reflectances, 2.5' work plane, LLF:1.0, 40' x 40' Room

RECOMMENDED LUMEN MAINTENANCE <sup>1</sup>					
Ambient Temp C	0 hrs. <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>3</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>
25	100%	94.70%	91.70%	88.80%	85.99%

RECOMMENDED LUMEN MAINTENANCE <sup>1</sup> - TUNABLE WHITE					
Ambient Temp C	0 hrs. <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>3</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>
25	99%	94%	89%	85%	81%

SCALING FACTORS - TUNABLE WHITE		
CCT	Lumens	Wattage
2700K	0.95	1.05
3000K	0.97	1.02
3500K	0.99	1.01
4000K	1.00	1.00
5000K	1.00	1.01
6500K	0.98	1.05

- 1 - Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
- 2 - In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).
- 3 - In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).





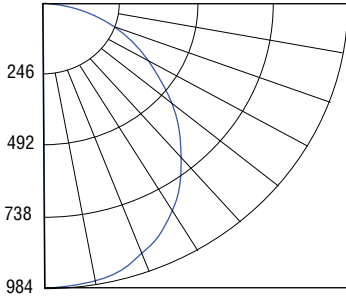
# 2x2 LPEC Low Profile Recessed Troffer

## PHOTOMETRICS

[Back to Quick Links](#)

All published luminaire photometric testing performed to IESNA LM-79 standards by a certified laboratory. For complete specifications and IES files, see website. See <http://www.lsi-industries.com/products/led-lighting-solutions.aspx> for detailed photometric data.

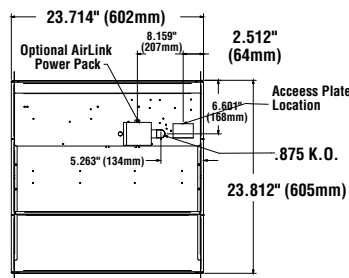
### LPEC22 LED 32L 40



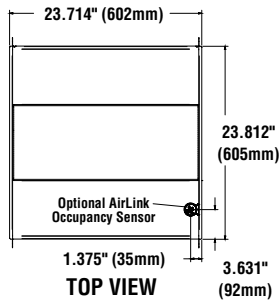
ZONAL LUMEN SUMMARY		
Zone	Lumens	% Luminaire
0-20	362.0	11.0
0-30	783.0	23.8
0-40	1,307.2	39.8
0-60	2,411.5	73.4
0-80	3177.7	96.8
0-90	3,283.2	100.0
10-90	3,190.9	97.2
20-40	945.2	28.8
20-50	1,509.8	46.0
40-70	1,557.3	47.4
60-80	766.2	23.3
70-80	313.1	9.5
80-90	105.5	3.2
90-180	0.0	0
0-180	3,283.2	100.0

## PRODUCT DIMENSIONS

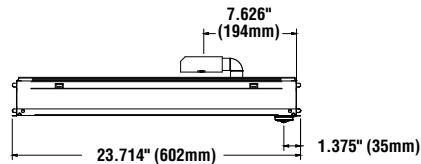
[Back to Quick Links](#)



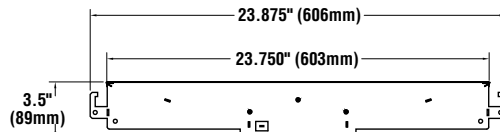
**BACK VIEW**



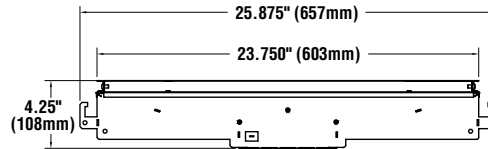
**TOP VIEW**



**SIDE VIEW**



**END VIEW**



**END VIEW - Air Return Option**

