



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 (IMS1) 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 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 ¹ | DIM1 - Dims to 1% (0-10 volt dimming) ¹ LDE1 - Hi-Lume 1% (with Soft on Fade to Black) ¹ L3D - Lutron Hi-Lume 1% ¹ SR - Sensor Ready ^{3,5} | 30 - 3000K ^{3,4} 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 ^{3,4} AR - Air Return SM - Integrated Surface Mount | U - Single Pack |
| | | Custom Lumen Packages ⁶ | | | | | | |
| LPEC22 - (2x2) | LED | 55L - 5,500 | UNV - 120-277VAC | DIM1 - Dims to 1% (0-10 volt dimming) ¹ | TW ^{1,7} - Tunable White | ALBC ⁷ | 90C - 90 CRI ^{3,4} | 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 ² | 6241032 | Wireless 360° 400 ft ² , Ceiling Mount | 624094 |
| | | | Wireless 180° 3000 ft ² , Wall Mount | 632617 |
| Wireless Photocell Controls | ALCM-W-PC | 624090 | Wireless 90° 2500 ft ² , Corner Mount | 624096 |
| | | | Wireless, Hallway 150 ft Length | 632620 |
| Commission Laser Kit | | | | |
| (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

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| 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/FT ² | 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 ¹ | | | | | |
|--------------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|------------------------|
| Ambient Temp C | 0 hrs. ² | 25K hrs. ² | 50K hrs. ³ | 75K hrs. ³ | 100K hrs. ³ |
| 25 | 100% | 94.70% | 91.70% | 88.80% | 85.99% |

| RECOMMENDED LUMEN MAINTENANCE ¹ - TUNABLE WHITE | | | | | |
|------------------------------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|------------------------|
| Ambient Temp C | 0 hrs. ² | 25K hrs. ² | 50K hrs. ³ | 75K hrs. ³ | 100K hrs. ³ |
| 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).



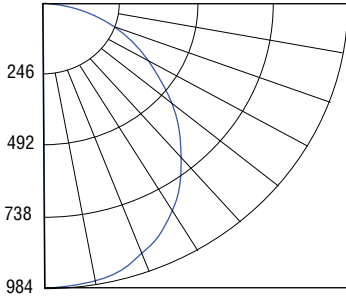
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PHOTOMETRICS

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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.

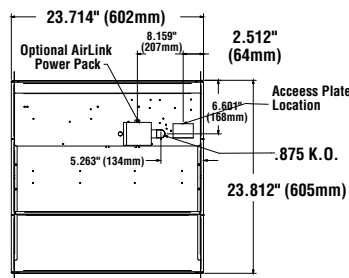
LPEC22 LED 32L 40



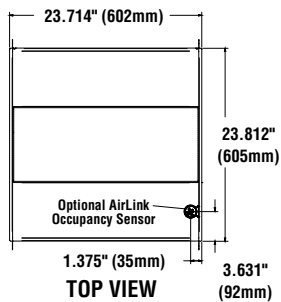
| ZONAL LUMEN SUMMARY | | |
|---------------------|---------|-------------|
| Zone | Lumens | % Luminaire |
| 0-20 | 362.0 | 11.0 |
| 0-30 | 783.0 | 23.8 |
| 0-40 | 1,307.2 | 39.8 |
| 0-60 | 2,411.5 | 73.4 |
| 0-80 | 3,177.7 | 96.8 |
| 0-90 | 3,283.2 | 100.0 |
| 10-90 | 3,190.9 | 97.2 |
| 20-40 | 945.2 | 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

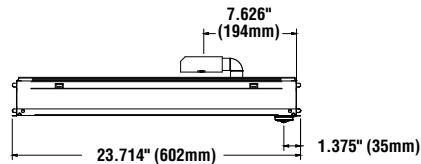
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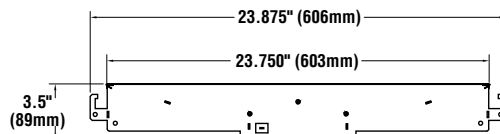
BACK VIEW



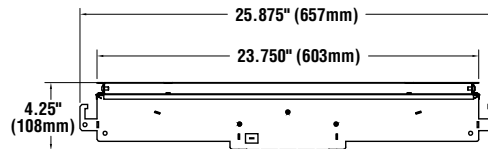
TOP VIEW



SIDE VIEW



END VIEW



END VIEW - Air Return Option

