Catalog # :		Project :
Prepared By :	Date :	Type :

LPEC 1'x4'
LED Low Profile Recessed Troffer

The LPEC's low profile design makes it ideal for shallow plenum applications. Best in class configurable lumen packages and efficiencies that target DLC Standard/ Premium. This fixture delivers even illumination with excellent, low angle brightness control throughout the space. Available in 1x4, 2x2, and 2x4.

Features & Specifications

Optical System

- High transmission impact resistant diffuse acrylic radius lens eliminates bright spots from individual LED's and provides high vertical illumination and visual comfort.
- Use of closely spaced medium-power, high brightness chips minimizes pixelation and provides uniform lens luminance.
- Available in 5000K, 4000K, 3500K and 3000K color temperatures.
- Minimum CRI of 80. Optional 90 CRI available, consult factory for lead times.
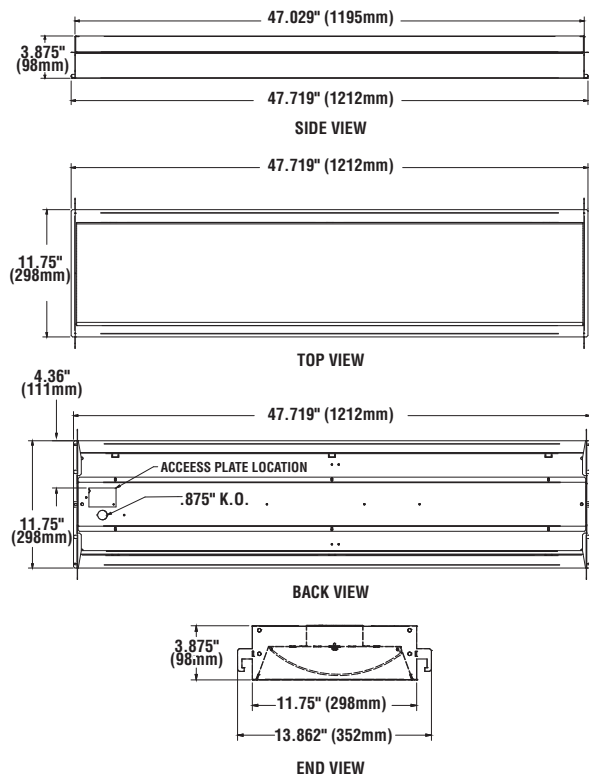
Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal voltage (120-277 Vac) Input 50/60 Hz or optional High voltage (347Vac).
- L70 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Power factor: >.95
- Input power stays constant over life.
- Optional 120v-277v integral emergency battery pack is available to meet critical life-safety lighting requirements. The 90-minute batteries provide constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed in the housing for ease of maintenance.

Controls

- LSI AirLink™ controls featuring Lutron Clear Connect makes each luminaire controllable, creating a wireless communication with other AirLink™ control devices such as dimmers, switches, occupancy sensors and photocontrols. The integrated sensor is both a passive infrared motion detector and photocell.
- Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.
- Sensor Ready Drivers available; consult factory for limitations.

Dimmable · c(UL)us LISTED · RoHS COMPLIANT · ARRA Funding Compliant · Lutron Clear Connect Wireless · MANUFACTURED IN USA · DLC QPL PREMIUM · DLC QPL LISTED

Dimensions

47.029" (1195mm)
3.875" (98mm)
47.719" (1212mm)
SIDE VIEW

47.719" (1212mm)
11.75" (298mm)
TOP VIEW

4.36" (111mm)
47.719" (1212mm)
ACCESS PLATE LOCATION
.875" K.O.
11.75" (298mm)
BACK VIEW

3.875" (98mm)
11.75" (298mm)
13.862" (352mm)
END VIEW

Features & Specifications (Cont.)

Construction
- Rigid housing is die-formed 20-gauge cold rolled steel for consistency and strength.
- End plates come equipped with integral NEC compliant earthquake clips.
- Ultra-slim < 4" luminaire height and lightweight design effectively target a broad range of plenum/wall spaces and allow for easy installations.
- Below plenum room side access to optical chamber and driver compartment via pressure removable radius lens and side panel.
- Luminaire is proudly manufactured in the U.S.
- Luminaire is painted after fabrication following treatment with phosphate rust inhibitor. Finish coating of housing reflecting surfaces is with high-reflectance white (minimum 92%) polyester powder.

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 LED Fixtures carry a 5-year warranty.
- 1 Year warranty on optional Battery Back Up. Test regularly in accordance with local codes.

Listings
- Listed to UL 1598 and UL 8750 for 25°C Ambient applications.
- IC Rated.
- DesignLights Consortium® (DLC) Premium and/or standard qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- RoHS Compliant.
- American Recovery and Reinvestment Act Funding Compliant.
- Lighting Facts Approved.
- Suitable For Damp Locations.

APPLICATION REFERENCE*

Lumens	Spacing	Lumens	LPW	W/FT2	Avg Fc	# of Luminaires
30L	10' x 8'	3031	126	0.300	35	20
30L	8' x 8'	3031	126	0.375	44	25
30L	8'x 6'	3031	126	0.450	53	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

Performance

DELIVERED LUMENS*

Lumens	3000K Delivered Lumens	3000K Efficacy	3500K Delivered Lumens	3500K Efficacy	4000K Delivered Lumens	4000K Efficacy	5000K Delivered Lumens	5000K Efficacy	Wattage
20L	1984	120.3	1966	119.2	2047	124.1	2166	131.3	16.5
25L	2448	121.2	2426	120.1	2526	125.0	2673	132.3	20.2
30L	2938	122.4	2911	121.3	3031	126.3	3207	133.6	24.0
35L	3397	120.5	3366	119.4	3505	124.3	3709	131.5	28.2
40L	3904	119.0	3869	117.9	4028	122.8	4262	129.9	32.8
45L	4430	127.7	4389	126.5	4570	131.7	4836	139.4	34.7
50L	4893	126.1	4848	125.0	5048	130.1	5341	137.7	38.8
55L	5342	126.0	5293	124.8	5511	130.0	5831	137.5	42.4
60L	5854	124.8	5801	123.7	6040	128.8	6391	136.3	46.9
65L	6346	124.4	6288	123.3	6547	128.4	6928	135.8	51.0
70L	6860	122.9	6797	121.8	7077	126.8	7488	134.2	55.8
75L	7336	122.1	7269	120.9	7568	125.9	8008	133.2	60.1
80L	7719	121.6	7649	120.5	7964	125.4	8427	132.7	63.5

*LED Chips are frequently updated therefore values are nominal.

ELECTRICAL DATA*

Lumens	Watts	120V	208V	240V	277V	347V
20L	16.5	0.138	0.079	0.069	0.060	0.048
25L	20.2	0.168	0.097	0.084	0.073	0.058
30L	24.0	0.200	0.115	0.100	0.087	0.069
35L	28.2	0.235	0.136	0.118	0.102	0.081
40L	32.8	0.273	0.158	0.137	0.118	0.095
45L	34.7	0.289	0.167	0.145	0.125	0.100
50L	38.8	0.323	0.187	0.162	0.140	0.112
55L	42.4	0.353	0.204	0.177	0.153	0.122
60L	46.9	0.391	0.225	0.195	0.169	0.135
65L	51.0	0.425	0.245	0.213	0.184	0.147
70L	55.8	0.465	0.268	0.233	0.201	0.161
75L	60.1	0.501	0.289	0.250	0.217	0.173
80L	63.5	0.529	0.305	0.265	0.229	0.183

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

RECOMMENDED LUMEN MAINTENANCE[1]

Ambient Temp C	0 hrs.[2]	25K hrs.[2]	50K hrs.[3]	75K hrs.[3]	100K hrs.[3]
25	100.00%	95.20%	92.70%	90.20%	87.90%

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).

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE:	**LPEC14 LED 30L UNV DIM1 40 ALC EM U**

Family/Size	LED Gen	Lumen Package*	Voltage	Driver	Color Temperature	Controls	Options	Packaging
LPEC14 - (1x4)	LED	20L - 2000 25L - 2500 30L - 3000 35L - 3500 45L - 4500 50L - 5000 55L - 5500 65L - 6500 70L - 7000 75L - 7500 80L - 8000 *Consult factory for programmable wattages and lumen packages.	UNV - 120-277V HV - 347V[1]	DIM1 - Dims to 1% (0-10 volt dimming) LDE1 - Hi-Lume 1% (With Soft On Fade To Black)[4] L3D -Lutron Hi-Lume 1%[4] LDE5 - Lutron 5-Series[4] SR - Sensor Ready[4] SD50 – Step Dimming Driver to 50%	30 - 3000K[3,4] 35 - 3500K 40 - 4000K 50 - 5000K	BLANK - (No Controls) ALC - AirLink Controller	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 90C - 90 CRI[3,4]	U - Single Pack JP - Job Pack

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
Flange Kit 1x4	FK14

AirLink™ Control Accessories
Order as separate catalog number. Visit http://www.lsi-airlink.com for complete listing of AirLink™ controls.

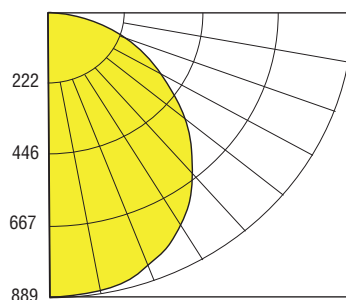| Wireless switches	Catalog number	Part Number	Wireless Occupancy Sensors	Part Number
On/Off & Raise Lower	ALWS 3B-(color)-KIT[2]	6241032	Wireless 360° 400 ft², Ceiling Mount	624094
			Wireless 180° 3000 ft², Wall Mount	632617
Wireless Photocell controls	**Catalog number**	**Part Number**	Wireless 90° 2500 ft², Corner Mount	624096
On/Off & Dimming	ALCM-W-PC	624090	Wireless, Hallway 150 ft Length	632620
Commission Laser Kit (See Laser warnings)		634574		

Footnotes:

1 - Not available with AirLink

2 - Available colors are White, Ivory and Light Almond (WH, IV, LA)

3 - Consult Factory for lead times

4 - Consult with factory

Photometry

LPEC14 LED 30L 40

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See http://www.lsi-industries.com/products/led-lighting-solutions.aspx for detailed photometric data.

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	% OF LUMINAIRE
0-20	327.6	10.8
0-30	712.9	23.5
0-40	1,199.4	39.6
0-60	2,242.9	74.0
0-80	2,945.6	97.2
0-90	3,030.7	100.0
10-90	2,947.5	97.3
20-40	871.7	28.8
20-50	1,403.4	46.3
40-70	1,468.7	48.5
60-80	702.7	23.2
70-80	277.5	9.2
80-90	85.1	2.8
90-180	0.0	0
0-180	3,030.7	100.0

Controls

AirLink™
enabled by Lutron®

AirLink is LSI's wireless indoor lighting control system. This fixture is compatible with the AirLink system & contains a factory-installed fixture controller (ALC) & sensor (ALOS/ALVS). For further information on these components, you can view their specsheets at www.lsi-airlink.com/airlink

Applications

• Small offices, conference rooms, lounges, classrooms

Features

• Minimum Light Level Setting (optional). Certain applications, such as hallways, may require that the lights never turn off. For these areas, select the minimum light level option and the load will lower to programed low-end level

• Daylighting dims lights down to OFF. Occupancy sensor must go unoccupied (vacant) in order for the fixture sensor to turn the lights off

• Occupancy sensor timeout (fixture sensor): 15 minutes

• Power failure memory: If power is interrupted, connected loads will return to the previous level

• Low-end trim adjustment (default is 1V or ballasts/drivers minimum for Lutron EcoSystem ballasts/drivers). High-end trim adjustment (default is 10V or 100% for Lutron EcoSystem ballasts/drivers)

• Includes integrated power measurement circuit that provides data to the wireless hub with +/_ 2% accuracy or 0.5W whichever is higher

• Passive infrared motion detection with exclusive Lutron XCT Technology for major and minor motion detection

• Up to 300 ft^2 (27.9 m^2) major motion coverage and 150 ft^2 (13.9 m^2) minor motion coverage & 360˚ field-of-view

• Daylight sensor has simple, automatic calibration straight out-of-the-box

• Designed to give a linear response to changes in perceived light level. Detects ambient light level changes from 0 to 150 fc (0 to 1600 lx)

Range

Wireless Sensors & Controls must be located within 60ft (18m) line of sight or 30ft (9m) through walls of the associated control module

Major motion: Movement of a person entering or passing through an area

Minor motion: Movement of a person occupying an area and engaging in small activities (e.g., reaching for a telephone, turning the pages of a book, etc.)