Catalog # :	Project :
Prepared By :	Date :

Scottsdale® Vertex™ - SCV
Petroleum Canopy LED Luminaire

The Scottsdale® Vertex™ is the most feature-rich canopy fixture in the marketplace. Innovations such as combined optical distributions, multiple lumen packages, field serviceability and simple installation make this fixture the ideal canopy solution. Its exceptional design and performance are backed by LSI's best-in-class customer service.

SCOTTSDALE

Dimmable • WIRELESS CONTROLS • RoHS COMPLIANT • ARRA Funding Compliant • TITLE 24 COMPLIANT • c UL us LISTED

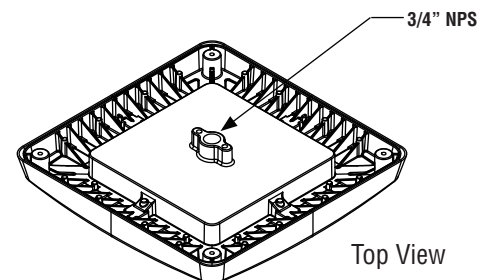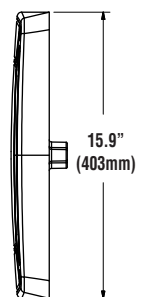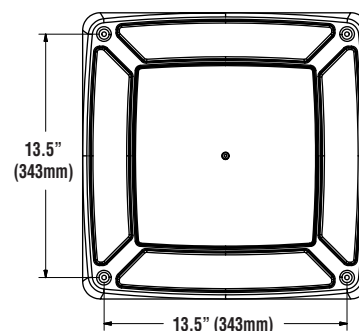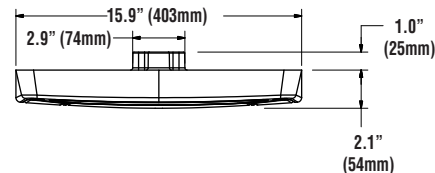## Features & Specifications

Optical System

- Proprietary silicone refractor optics provide exceptional coverage and uniformity in Symmetrical or Combination Forward Throw distributions.
- Silicone optical material does not yellow or crack with age and provides a minimum light transmittance of 93%.
- Available in 5000K and 4000K (+/- 275K) color temperatures.
- Minimum CRI of 70.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F) when mounted to Steel/Aluminum surfaces for 10L, 13L, & 15L Lumen Packages, +45°C for 20L Lumen Package, and +40°C for 23L Lumen Package. If mounted to a non-metalic surface, reduce ambient by 5°C.
- Power factor: >0.90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs are mounted to (4) circuit boards to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards.
- A single fastener secures access door to driver and key components and provides quick & easy access to the electrical compartment for servicing.

Dimensions

15.9" (403mm)
2.9" (74mm)
1.0" (25mm)
2.1" (54mm)

13.5" (343mm)
13.5" (343mm)
15.9" (403mm)

3/4" NPS

Top View

Features & Specifications (Cont.)

Construction

- Rugged low-profile die-cast aluminum housing, optical unit, and driver cover.
- Ultra-slim 2" luminaire height and lightweight design effectively target a broad range of applications and allow for easy installations.
- Below canopy access to optical chamber and driver housing for serviceability.
- Luminaire is proudly manufactured in the U.S. of U.S. and imported parts.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 15 lbs in carton.

Controls

- Optional integral passive infrared motion and daylight sensor activates switching of luminaire light levels (see page 6 for more details).
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see page 7 for more details)

Installation

- Installs in a 12" or 16" deck pan.
- Deck penetration consists of a min 3" hole and four suitable fasteners, creating a simple installation.
- Unit is designed to quickly retrofit into existing Scottsdale (4") hole.
- Locking Collar accessory is available to help prevent sagging of deck.
- Retrofit panels are available for existing Encores, Richmond, 2x2 Universal, and more (see accessories on page 3).

Warranty

- LSI LED Fixtures carry a 5-year warranty or 10-year warranty with registration (contact your LSI representative for details).

Listings

- Listed to UL 1598 and UL 8750.
- RoHS Compliant.
- State of California Title 24 Compliant with IMS or ALSC/ALSCS option.
- American Recovery and Reinvestment Act Funding Compliant.
- Lighting Facts Approved.

Performance

DELIVERED LUMENS*

Lumens	4000K		5000K		
	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Wattage
10L	10218	156	10306	156	66
13L	12793	153	12933	153	84
15L	15209	150	15411	150	103
20L	20083	153	20141	155	130
23L (SC)	22652	149	23150	152	153
23L (SCFT)	N/A	N/A	24361	127	192

*LED Chips are frequently updated therefore values are nominal.

ELECTRICAL DATA*

Lumens	120V	208V	240V	277V	347V	480V
10L	0.55	0.32	0.28	0.24	0.19	0.14
13L	0.70	0.41	0.35	0.30	0.24	0.18
15L	0.86	0.50	0.43	0.37	0.30	0.21
20L	1.09	0.63	0.54	0.47	0.38	0.27
23L (SC)	1.27	0.73	0.64	0.55	0.44	0.32
23L (SCFT)	1.60	0.92	0.80	0.69	0.55	0.40

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

SC DISTRIBUTION RECOMMENDED LUMEN MAINTENANCE[1]

Ambient Temperature C	Lumen Multiplier				
	0 hrs.[2]	25K hrs.[2]	50K hrs.[2]	75K hrs.[3]	100K hrs.[3]
25	1.00	0.96	0.92	0.88	0.84
30	1.00	0.96	0.91	0.87	0.83
35	1.00	0.96	0.91	0.87	0.83
40	1.00	0.96	0.91	0.87	0.83
45	1.00	0.96	0.91	0.87	0.82

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).

SCFT DISTRIBUTION RECOMMENDED LUMEN MAINTENANCE[1]

Ambient Temperature C	Lumen Multiplier				
	0 hrs.[2]	25K hrs.[2]	50K hrs.[2]	75K hrs.[3]	100K hrs.[3]
25	1.00	1.00	1.00	0.99	0.99
30	1.00	1.00	0.99	0.99	0.99
35	1.00	1.00	0.99	0.99	0.99
40	1.00	1.00	0.99	0.99	0.99

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:	**SCV LED 13L SC UNV DIM 50 WHT IMS**

| Family / Size	LED Gen	Lumen Package*	Distribution	Voltage	Driver	Color Temperature	Finish	Controls	Packaging
SCV - Petroleum Canopy Luminaire	LED	10L - 10000 Lumens 13L - 13000 Lumens 15L - 15000 Lumens 20L - 20000 Lumens 23L - 23000 Lumens *Consult factory for programmable wattages and lumen packages.	SC - Standard Symmetric SCFT[1] - Combination Standard Symmetric and Forward Throw	UNV - 120-277V HV - 347-480V	DIM - Dims to 10% (0 to 10V dimming)	40 - 4000K 50 - 5000K	WHT - White BLK - Black BRZ - Bronze Consult factory for additional paint finishes	Blank - NONE IMS[3,4] - Integral Motion & Daylight Sensor ALSC[2] - Airlink Synapse Wireless Control System ALSCS[2] - Airlink Synapse Wireless Control System with Sensor	Blank - Single Pack

Accessory Ordering Information

Description	Order Number
Retrofit Panel Kit - EC / ECTA / SCF to SCV, for 16" Deck Panel with larger openings[5]	673425
Retrofit Panel Kit - RECU Richmond to SCV	673426
Retrofit Panel Kit - UNV Universal 2x2 to SCV	673427
Retrofit 2x2 Cover Panel Blank (no holes)	357282
Retrofit RIC Cover Panel Blank (no holes)	354702
26" X 26" Beauty Plate Kit (with 4" Center hole)	557193WHT
26" X 32" Beauty Plate Kit (with 4" Center hole)	580696

Description	Order Number
Locking Collar Kit (includes locking collar, gasket, and hardware)	673430
Junction Box Kit (includes J-Box and stem)[6]	673429
Conduit stem (includes stem and conduit nuts)	673806
Kit - Hole Plugs and Sealant (enough for 25 retrofits)	1320540
Rectangular Top Plate Kit (includes top plate and sealant) (Available Soon)	TBD
Surface Mount Box (Available Soon)	673433
IMS/PC Remote Configurator Tool	584929

FOOTNOTES:
1 - Only available in 23L lumen package at 5000K color temperature.
2 - Not available in HV.
3 - IMS is a dual sensor (Daylight & Motion) which is field adjustable via IMS hand held remote configurator tool, which must be ordered separately.
4 - Not compatible with external dimming.
5 - Ideal for 9" to 12" openings.
6 - Matches the conduit locations of existing Scottsdale, CRU, CRUS, CRO2, and CRO3.
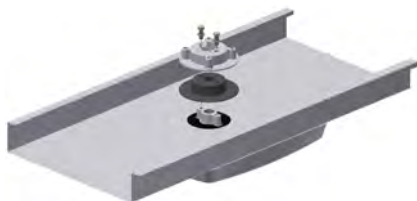
Locking Collar Kit
Helps prevent sagging of deck
[includes collar, gasket, and hardware]
 # 673430

Junction Box Kit
Designed to align to existing conduit of Scottsdale (HID) and many other LSI fixtures.
[includes J-Box and conduit stem]
#673429

Conduit stem
Helpful when using an existing junction box.
[includes stem and conduit nuts]
#673806

Retrofit Ordering Information

To Retrofit Product	Existing Application	Accessories	Part Number	
New Construction	New Construction	NONE REQUIRED **Optional:** • Junction Box Kit • Locking Collar Kit	673429 673430	
LSI Scottsdale LSI CRU LSI CRUS	4" Hole	NONE REQUIRED **Optional:** • Junction Box Kit • Locking Collar Kit	673429 673430	
LSI Encore (bottom access) Cree 304	12" square hole in a 16" deck pan	ENCORE ACCESSORY KIT • Includes: top panel with gasket, locking collar, and hardware **Optional:** • Junction Box Kit	673425 673429	
Cree CAN-228 30 LED	.375" x 11.375" hole in 12" or 16" deck pan	ENCORE ACCESSORY KIT • Includes: top panel with gasket, locking collar, and hardware **Optional:** • Junction Box Kit	673425 673429	
LSI ECTA LSI Scottsdale Flat	9" round hole in a 12" or 16" deck pan	NONE REQUIRED **Optional:** • Junction Box Kit • Locking Collar Kit • Encore Accessory Kit	673429 673430 673425	
LSI CRO2 LSI CRO3 LSI CRS	5-hole pattern with 7" or 4" diameter	NONE REQUIRED **Optional:** • Junction Box Kit • Locking Collar Kit • Conduit Stem	673429 673430 673806	

| To Retrofit Product	Existing Application	Accessories	Part Number	
LSI CRO2 LSI CRO3 LSI CRS	Existing EC/ECTA retrofit of 9" or 12" hole to 5-hole or 4" hole	LOCKING COLLAR KIT • Includes: locking collar, gasket, and hardware **Optional:** • Junction Box Kit • Conduit Stem (use existing box)	673430 673429 673806	
RECU Richmond Retrofit	Rectangular Richmond housing	RECU ACCESSORY KIT • Includes mounting panel, tether clip, locking collar and hardware	673426	
Total Replacement of: LSI Richmond Cree CAN-228 60LED Cree CAN-228 90LED	Rectangular hole 9.5" x 19.125" 7.375" x 16.125" 7.375" x 20.9375"	RECU ACCESSORY KIT • Includes mounting panel, tether clip, locking collar and hardware Rectangular Top Plate **Optional:** • Rectangular Top Plate Kit • Junction Box Kit	673426 ABCDEF 673429	
UNV (Universal 2x2) LSI Masters LSI Dakota Other similar 2x2 products	Surface mount 2x2 housing	UNV ACCESSORY KIT • Includes mounting panel with auxiliary latch, 4 inner flange brackets and hardware to attach panel to fixture	673427	
Remove Surface Mount Box	Conduit hole and possible discoloration of decking	NONE REQUIRED **Optional:** • 26" Beauty Plate (no holes) • 26" Beauty Plate with 4" center hole • Locking Collar Kit • Junction Box Kit	 357282 557193WHT 673430 673429	
New Surface Mount Box		SURFACE MOUNT BOX KIT INCLUDES **Available Soon** • Includes 2" deep housing with tether kit, tether bolt and mounting bolts.	673433	

Photometry

Luminaire photometry has been conducted by an 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.

SC
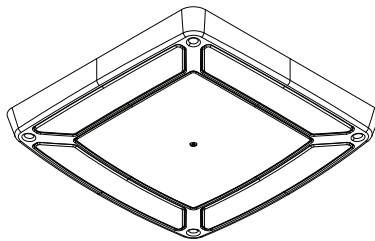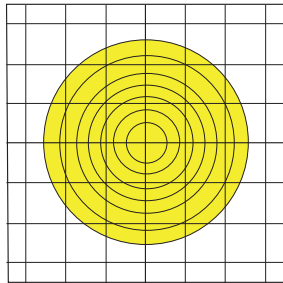
SCFT
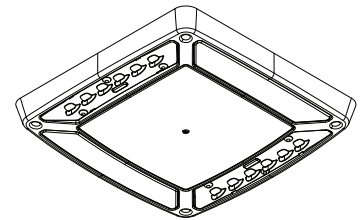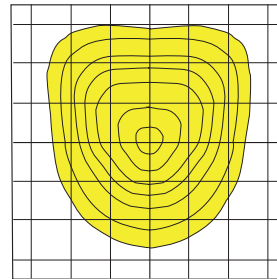
| CANOPY COMPARISON									
Canopy Layout	Fixture	QTY	Fixture Lumens	Fixture Watts	Lumens/ Watts	Canopy/ Watts	Canopy Watts/Sq. Ft.	*Canopy/Avg.	*Transition Area Avg.
1	SCV-LED-13L-SC-50	18	12,933.0	84.3	153.0	1,717	0.39	35.41	3.43
2	SCV-LED-10L-SC-50	12	10,306.0	66.1	156.0	1,942	0.50	34.34	9.58
	SCV-LED-22L-SCFT-50	6	24,361.0	191.5	127.0				
3	SCV-LED-13L-SC-50	12	12,933.0	84.3	153.0	2,161	0.56	39.43	9.70
	SCV-LED-22L-SCFT-50	6	24,361.0	191.5	127.0				
4	SCV-LED-15L-SC-50	12	15,410.0	103.0	150.0	2,385	0.62	44.23	9.80
	SCV-LED-22L-SCFT-50	6	24,361.0	191.5	127.0				
5	SCV-LED-20L-SC-50	12	20,141.0	130.3	155.0	2,713	0.70	53.38	10.03
	SCV-LED-22L-SCFT-50	6	24,361.0	191.5	127.0				
6	SCV-LED-23L-SC-50	12	23,150.0	152.5	152.0	2,979	0.77	59.22	10.16
	SCV-LED-22L-SCFT-50	6	24,361.0	191.5	127.0				

*Initial foot-candle values at grade.

(18) 13L Symmetrical Fixtures

Transition Area
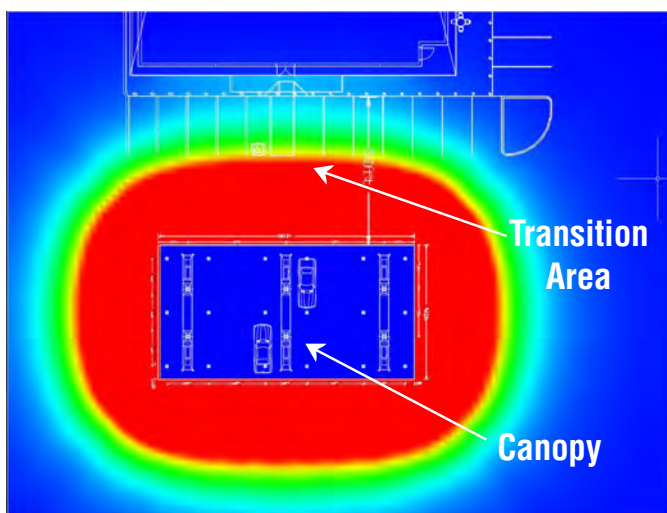
Canopy

(12) Symmetrical AND (6) Combo FT Fixtures

Transition Area
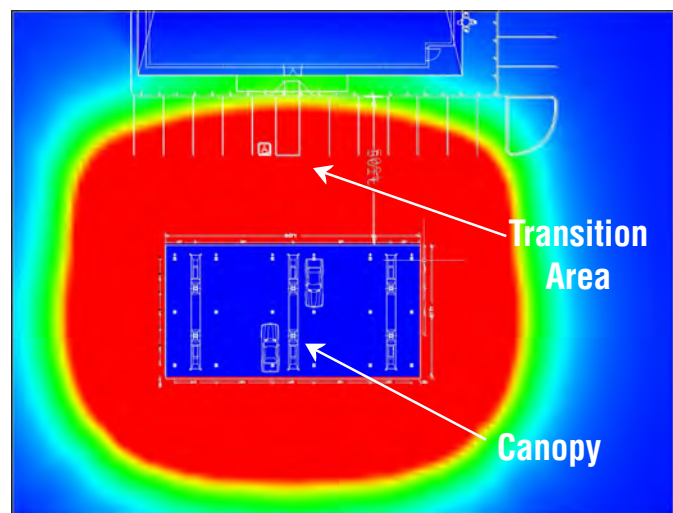
Canopy

Controls

Occupancy Sensor / Daylight Sensor (IMS)

Optional integral passive infrared motion and daylight sensor activates switching of luminaire light levels. Standard Factory settings: High level light is activated and increased to full bright upon detection of motion. Low light level (30% maximum drive current) is activated when target zone is absent of motion activity for ~5 minutes. See coverage diagram for detection cone. Optional configurator tool allows for easy and safe programming of each luminaire from the ground level.

IMS/PC Remote Configurator Tool

IMS Coverage Diagram

SIDE VIEW

TOP VIEW

AirLink™
enabled by Synapse®

Wireless Lighting Controller (ALSC/ALSCS)

The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect up to two (2) sensors into the outdoor AirLink wireless lighting system.

Features

- 2% Utility Grade Power Monitoring
- Up to 80% Savings through smart dimming
- True On/Off functionality via switched relay
- Seamlessly integrates into the outdoor AirLink wireless lighting control solution & Self-healing Mesh Networking
- Relay closes on power loss
- Supports a wide range of LED drivers and fixtures
- Class 1 / Class 2 0-10V Dimming Control
- Direct Connect up to two (2) to 24V Occupancy Sensors and Photocells (consult sales for compatible list)
- Secure, over-the-air upgrades to support future enhancements
- Excellent RF Range — 1,000ft LoS between controllers
- Lights default to on for safety

Specifications

Regulatory Approvals
- FCC, IC, CE certified
- cULus Listed
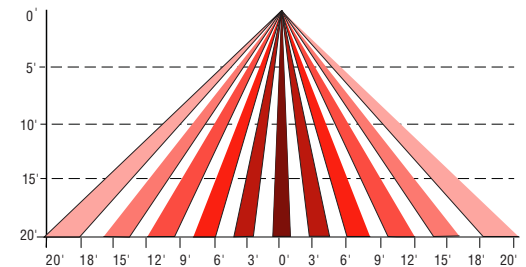- California Title 24 compliant

Power and Performance
- Operating environmental: -40°F to 131°F (-40°C to 55°C)
- Input power: 100–277 VAC +/- 10% (Max 305V)47/64 Hz
- Switched output: Default ON; Zero Cross Switching
- Load rating: 5A @ 100V to 277V (+/- 10%)
- Dimming: 0–10V control; Output: Class 1/2 - 20mA Source Max / 50mA Sink Max
- Power monitoring: Utility grade - 2% accuracy
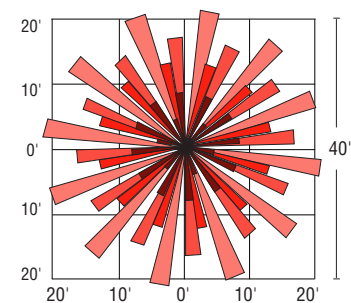- Sensors inputs: 0–10V (photocell sensors), 0–24V (all other sensors); Sensor power supply: 24VDC @ 50mA

Other
- Radio: SNAP 2.4 GHz; 802.15.4; +20 dBm Transmit Power; -105 dBm Receive Sensitivity
- Warranty: 5 years

Sales
controls.sales@lsi-industries.com

Support
controls.support@lsi-industries.com
1 (800) 436-7800 (support, option 8)

More information
For more information on AirLink, visit our website at www.lsi-airlink.com/airlink