Project Name:	Part Number:	Type:

CAVERN

STAIRWELL

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



FEATURES

- 2ft & 4ft Length Stairwell Fixture
- 7.5" Width to Cover Existing Footprints (No Painting)
- Wall or Ceiling Mount
- Two Housing Options:
  Cavern (CV)
  - .060" Aluminum Body, Cast Aluminum End Plates, Post Paint Finish and Tamper Resistant Screw Option
  Cavern Lite (CVL)
  - .040" Aluminum Body, Baked on Pre-Paint Enamel
- White Standard Finish with Optional Custom Colors
- Ultrasonic Sensor Option Provides for Maximum Sensing Range
- Impact Resistant Extruded Frosted Acrylic Lens
- High Efficacy - Up to 157 lm/W
- 3000K–5000K CCTs
- >80 Color Rendering Index (CRI)
- Calculated L_{70} >100,000 hrs
- 0–10V Dimmable Driver (100%–10%)
- 120–277V Universal Voltage
- Optional Integral Emergency Battery Backups
- ADA Compliant Luminaire
- 5 Year Warranty
- ETL Listed for Damp & Dry Location
- DesignLights Consortium Premium Qualified Luminaire

SUITABLE APPLICATIONS

- Education
- Healthcare
- Commercial Office
- Multifamily
- Hotel & Resort
- Storage Facility
- Retail

ORDERING GUIDE:

SERIES		WATTS	DRIVER	CCT	LENS	FINISH
☐ CV2	Cavern 2ft	☐ 2L	☐ U 120-277V	☐ 50	☐ FRAL Frosted Acrylic (std.)	☐ WHP White Paint (std.)
☐ CVL2	Cavern Lite 2ft	☐ 3L		☐ 40		☐ CPx [6] Custom Paint (x = spec color)
				☐ 35		
☐ CV4	Cavern 4ft	☐ 3L		☐ 30		
☐ CVL4	Cavern Lite 4ft	☐ 4L				
		☐ 5L				
		☐ 6L				

OPTIONS	
Factory Installed	
☐ EM5	5W LED Factory Installed Battery Backup
☐ EM5/HE [5]	5W LED Factory Installed Battery Backup
☐ EM7	7W LED Factory Installed Battery Backup
☐ EM7/HE [5]	7W LED Factory Installed Battery Backup
☐ EM10	10W LED Factory Installed Battery Backup
☐ EM10/HE [5]	10W LED Factory Installed Battery Backup
☐ EM12	12W LED Factory Installed Battery Backup
☐ GTD	Generator Transfer Device
☐ SR [3,7]	Sensor Ready Driver (Not compatible with basic control options)
☐ DR	DALI Ready Driver
☐ BLD [8]	Bi-Level Dimming Driver (2 hot leads)
☐ SD347 [1]	347V Step Down Transformer
☐ SD480 [1]	480V Step Down Transformer
☐ TPS [4]	Tamper Proof Screws
☐ MC6/3W	6FT MC Cable w/ 3 leads to power—non-dimming function
☐ MC6/4W	6FT MC Cable w/ 3 leads to power and 1 lead to battery backup—non-dimming function
☐ MC6/5W	6FT MC Cable w/ 3 leads to power and 2 leads to dimming
☐ MC6/6W	6FT MC Cable w/ 3 leads to power, 2 leads to dimming & 1 lead to battery backup

CONTROLS OPTIONS	
Basic	
☐ FIOS	On/Off PIR Occupancy Sensor
☐ BDxx	Preset Bi-Level Dimming Ultrasonic Occupancy Sensor (xx=%)
☐ USBD	User Selectable Bi-Level Dimming Ultrasonic Occupancy Sensor
☐ USBD/HL	User Selectable High/Low Dimming Ultrasonic Occupancy Sensor
☐ PC	120-277V Photocell
☐ AWNS [2]	Lutron Athena Wireless Node with Sensor
Advanced	
☐ VDO [2]	Lutron Vive DFCSJ-OEM-OCC (Daylight & Occupancy)
☐ VRF [2]	Lutron Vive DFCSJ-OEM-RF (RF Only)
☐ AWNR	Lutron Athena Wireless Node RF only
☐ AWNS	Lutron Athena Wireless Node with Sensor

[1] Does not qualify for DLC
[2] Must be used with SR Driver
[3] For use with VDO and VRF Controls options only
[4] Available on Cavern (CV) version only
[5] CEC Title 20 Compliant
[6] Contact factory for available options
[7] Not compatible with any Basic Control Options
[8] BLD not compatible with BDxx or USBD

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STAIRWELL

LED SYSTEMS INFO[1]	3000K		3500K		4000K		5000K		Watts[2]	CRI	Ambient Temp Range	DLC	Replaces
Part Numbers	Lumens	Efficacy	Lumens	Efficacy	Lumens	Efficacy	Lumens	Efficacy					
CV(L)2-2L-U-XX-FRAL	2,121 lm	135 lm/W	2,199 lm	140 lm/W	2,327 lm	145 lm/W	2,377 lm	148 lm/W	16W	>80	-4°F–125°F	Premium	1T8
CV(L)2-3L-U-XX-FRAL	3,050 lm	141 lm/W	3,103 lm	143 lm/W	3,233 lm	150 lm/W	3,246 lm	150 lm/W	22W				2T8
CV(L)4-3L-U-XX-FRAL	3,182 lm	145 lm/W	3,237 lm	147 lm/W	3,373 lm	154 lm/W	3,445 lm	157 lm/W	22W				1T8
CV(L)4-4L-U-XX-FRAL	3,876 lm	142 lm/W	3,943 lm	145 lm/W	4,109 lm	151 lm/W	4,197 lm	154 lm/W	27W				2T8
CV(L)4-5L-U-XX-FRAL	4,965 lm	137 lm/W	5,051 lm	139 lm/W	5,263 lm	145 lm/W	5,375 lm	148 lm/W	36W				3T8
CV(L)4-6L-U-XX-FRAL	5,365 lm	124 lm/W	5,452 lm	128 lm/W	5,661 lm	133 lm/W	6,079 lm	143 lm/W	43W				2T5

[1]Values are nominal, see IES file for more detail
[2]Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

SPECIFICATIONS

CONSTRUCTION
Stairwell fixture designed for rigidity, durability, ease of installation while achieving maximum performance and improved aesthetics. 7.5" width construction luminaire for robust design. Cavern (CV) is designed with .060" aluminum body, decorative and vandal resistant .200" 6061 machined aluminum end caps, .500" threaded end plugs and baked on enamel powdercoat finish. Cavern Lite (CVL) is designed with .040" full aluminum body, end knockouts, and baked on pre-painted enamel finish. Tamper proof screw option available on Cavern (CV). Available in white (std.) with custom finishes available.

ELECTRICAL
Class 2 LED light engine for high efficacy and long life. Calculated L70 > 100,000hrs. LED Lumen Maintenance Estimates based on TM-21 projections for the light source at 25C ambient. Power Factor > 0.90. Standard 120-277 Vac 0-10V dimmable (10% - 100%). Optional battery backups and generator transfer device available to meet critical life safety lighting requirements.

INSTALLATION
Designed for a variety of stairwell solutions including ceiling and wall mounting. Knockouts located on back and each side of fixture for electrical access. Threaded end cap HUBs standard on Cavern (CV). Tamper proof screw option available on Cavern (CV).

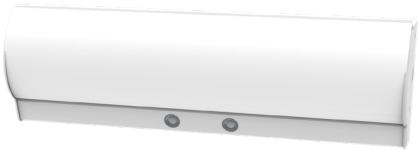
WARRANTY
5 Year Warranty (Terms and Conditions apply)

OPTICS
High transmission extruded impact resistant PMMA frosted acrylic lens for durability and LED glare reduction. Vandal resistant lens design on Cavern (CV) only servicable when removing end cap. Toolless field removeable lens design on Cavern Lite (CVL) for easy access to driver channel for installation and maintenance.

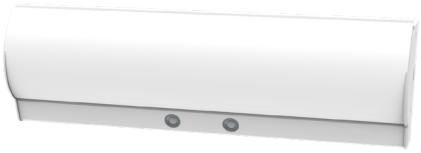
CONTROLS
Factory Installed Advanced and Basic integral occupancy sensors available. Fully control light levels for both occupied and unoccupied areas with high/low user selectable bi-level dimming options to meet critical life safety lighting requirements. Ultrasonic sensors provide for maximum sensing range and energy efficiency. Sensors mount within body of fixture. Advanced controls available for grouping capabilites and BAS operation. See controls page for more detail (pg. 3).

CERTIFICATIONS
ETL Listed to US and Canadian safety standards. Suitable for damp locations. American Recovery and Reinvestment Act Funding Compliant. BAA Compliant. ADA Compliant Luminaire. Title 24 Compliant with sensor option; see local ordinance for qualification information. DLC Premium Listed Product, Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

TWO HOUSING SPECIFICATIONS



CAVERN (CV)
- .060” Aluminum Body
- Cast Aluminum End Plates
- Post Paint Finish
- Tamper Resistant Design
- Ideal for front of house stairwells



CAVERN LITE (CVL)
- .040” Aluminum Body
- Baked on Pre-Paint Enamel
- Economical solution without loss of performance
- Ideal for back of house stairwells

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CONTROLS OPTIONS

BASIC

BDxx
Factory Set Bi-Level Dimming Ultrasonic Sensor. Fixtures with this option come with a 0-10V sensor and driver set to dim down to the number indicated in "xx" portion of the part number, when in an unoccupied mode. For example, BD25, would have the fixture dim down to 25% lumen output when unoccupied and go to 100% when motion is detected. Ultrasonic sensors provide for maximum sensing range and energy efficiency. Available at 10%/25%/50% selections. Sensor installed within the body of the fixture.

FIOS
Standard on/off PIR motion sensor for 360 degree sensing. End-mount installed sensor on the fixture.

USBD
User Selectable Bi-Level Dimming Ultrasonic Sensor. Fixtures with this option come with a 0-10V sensor & driver along with an integrated control to allow the end user to select how low the fixture will dim when in unoccupied mode. Once motion is detected fixture will light up to 100% light output. Ultrasonic sensors provide for maximum sensing range and energy efficiency. Sensor installed within body of the fixture.

USBD/HL
User Selectable Bi-Level Dimming Ultrasonic Sensor is for both high and low output control. Allows user to control how far the fixture dims down when the sensor is in unoccupied mode and allows user to select how bright fixture becomes when in occupied mode. Ultrasonic sensors provide for maximum sensing range and energy efficiency. Utilizes Bluetooth connectivity with IOS and Android app integration to set controls. Sensor installed within body of fixture.

ADVANCED

LUTRON

VDO
Vive DFCSJ-OEM-OCC integral fixture Zigbee 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. 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.



AWNR
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.

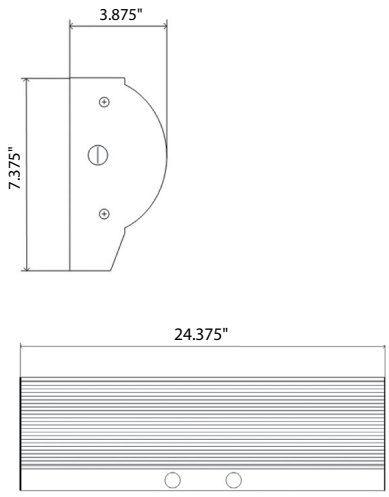


AWNS
Athena wireless node with a sensor that enables simple, digital control of individual light fixtures in an Athena control system. Provides wireless control of the fixture and includes a passive infrared (PIR) sensor for occupancy and a daylight sensor. Enables individual wireless control of each 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.

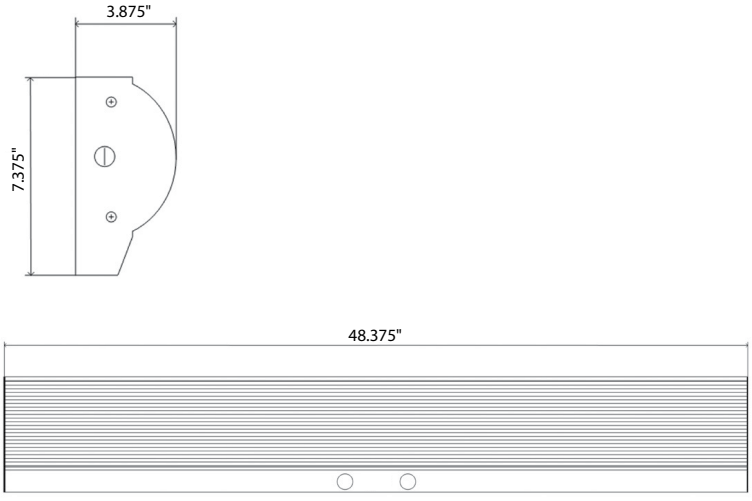


LINE DRAWINGS

2FT



4FT



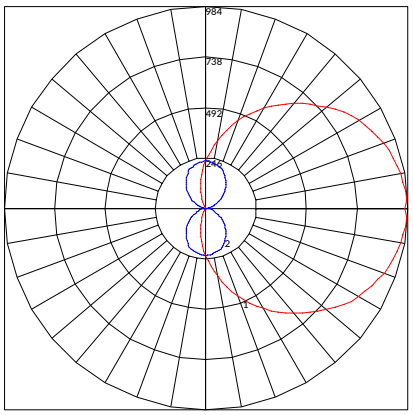
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PHOTOMETRIC DATA

LUMINAIRE DATA	
Part Number	CV2-3L-U-40-FRAL
Description	Cavern Stairwell, 3,000 lm, frosted acrylic lens
Fixture Lumens (lm)	3,233 lm
Wattage (W)	22 W
Efficacy (lm/W)	150 lm/W
Mounting	Recessed
Spacing Criteria	0° = 1.18, 90° = 1.32

ZONAL LUMEN SUMMARY		
Zone	Lumens (lm)	% Fixture
0° - 40°	348	11%
0° - 60°	772	24%
0° - 90°	1,617	50%
90° - 180°	1,617	50%
0° - 180°	3,234	100%

CANDELA PLOT

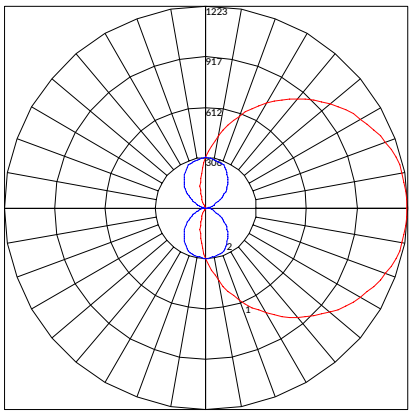


Maximum Candela = 984.19 Located At Horizontal Angle = 85, Vertical Angle = 87.5
1 - Vertical Plane Through Horizontal Angles (85 - 265) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (0 - 180)

LUMINAIRE DATA	
Part Number	CV4-4L-U-40-FRAL
Description	Cavern Stairwell, 4,000 lm, frosted acrylic lens
Fixture Lumens (lm)	4,109 lm
Wattage (W)	27 W
Efficacy (lm/W)	151 lm/W
Mounting	Recessed
Spacing Criteria	0° = 1.19, 90° = 1.33

ZONAL LUMEN SUMMARY		
Zone	Lumens (lm)	% Fixture
0° - 40°	460	11%
0° - 60°	1,004	24%
0° - 90°	2,055	50%
90° - 180°	2,055	50%
0° - 180°	4,110	100%

CANDELA PLOT

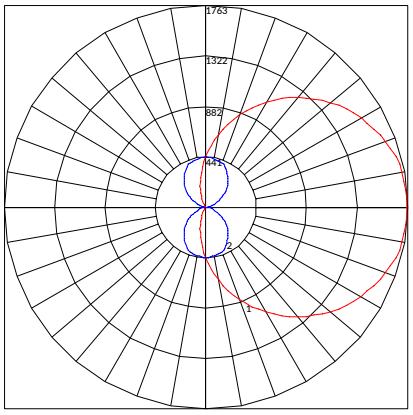


Maximum Candela = 1223 Located At Horizontal Angle = 90, Vertical Angle = 87.5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (0 - 180)

LUMINAIRE DATA	
Part Number	CV4-6L-U-40-FRAL
Description	Cavern Stairwell, 6,000 lm, frosted acrylic lens
Fixture Lumens (lm)	5,952 lm
Wattage (W)	42 W
Efficacy (lm/W)	144 lm/W
Mounting	Recessed
Spacing Criteria	0° = 1.2, 90° = 1.33

ZONAL LUMEN SUMMARY		
Zone	Lumens (lm)	% Fixture
0° - 40°	664	11%
0° - 60°	1,453	24%
0° - 90°	2,977	50%
90° - 180°	2,977	50%
0° - 180°	5,954	100%

CANDELA PLOT



Maximum Candela = 1763 Located At Horizontal Angle = 90, Vertical Angle = 87.5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (0 - 180)