DESCRIPTION

The USSL LED area, site, and roadway luminaire combines optical performance, energy efficiency and long term reliability in an advanced, patent pending modern design. Utilizing the latest LED technology, the USSL luminaire delivers unparalleled uniformity resulting in greater pole spacing. A versatile mount standard arm facilitates ease of installation for both retrofit and new installations. The USSL fixture replaces 150 - 1,000W metal halide fixtures in general area lighting applications such as parking lots, walkways, roadways and building areas.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Construction is comprised of a heavy-duty, single-piece die-cast aluminum housing. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. The die-cast aluminum door is tethered to provide easy access to the driver if replacement is required. A one-piece silicone gasket seals the door to the fixture housing. The optics are mounted on a versatile, aluminum plate that dissipates heat from the LEDs resulting in longer life of the fixture. The fixture is IP66 and vibration rated (ANSI C136.31) to insure strength of construction and longevity in the selected application.

Optics

Precision molded, high efficiency optics are precisely designed to shape the distribution, maximizing efficiency and application spacing. Available in Type II, III, IV and V distributions with lumen packages ranging from 7,000 to 48,600 nominal lumens. Light engine configurations consist of 1, 2, 4 or 6 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life. For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed.

Electrical

LED drivers are mounted to the fixture for optimal heat sinking and ease of maintenance. Thermal management incorporates both conduction and convection to transfer heat rapidly away from the LED source for optimal efficiency and light output. Class 1 electronic drivers have a power factor >90%, THD <20%. Available in 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. 0-10V dimming driver is standard with leads external to the fixture to accommodate controls capability such as dimming and occupancy. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA (high ambient) available. NEMA 3-PIN twistlock photocontrol receptacle and NEMA 7-PIN twistlock photocontrol receptacles are available as options. Standard 3-position terminal block installed with flying leads external to the luminaire.

Controls

See Control Options section for more details on available offerings.

Mounting

Standard pole mount arm is bolted directly to the pole and the fixture slides onto the arm and locks in place with a bolt facilitating quick and easy installation. The versatile, patent pending, standard mount arm accommodates multiple drill patterns ranging from 4-7/8" to 1-1/2". Removal of the door on the standard mounting arm enables wiring of the fixture without having to access the driver compartment. A knock-out on the standard mounting arm enables round pole mounting. Wall mount and mast arm mounting options are available. Mast arm adapter fits 2-3/8" O.D. tenon.

Finish

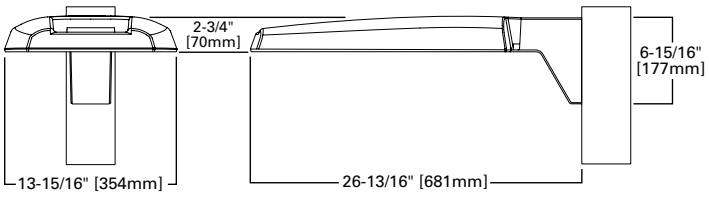
Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard color is bronze. Additional colors available in white, grey, black, dark platinum and graphite metallic.

Warranty

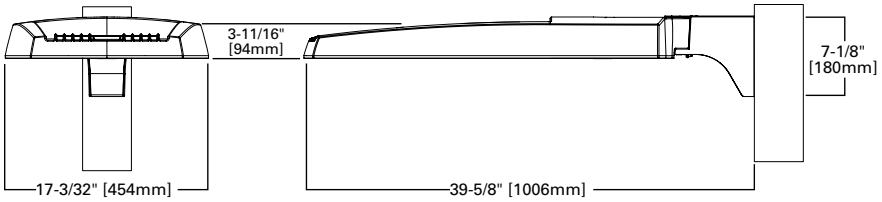
Standard five-year warranty. Optional ten-year warranty, please see your Cooper Lighting Solutions Streetworks sales representative for more information.

DIMENSIONS

USSL



USSL-XL



USSL
USSL-XL

LED

AREA / SITE / ROADWAY LUMINAIRE

LumenSafe Technology CLICK HERE

CERTIFICATION DATA

UL and cUL Wet Location Listed
IP66-Rated
USSL: 3G Vibration Rated
USSL-XL Standard Arm: 1.5G Vibration Rated
USSL-XL Mast Arm: 3G Vibration Rated
ISO 9001
FCC Class A
DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver
0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 and 60Hz,
347V/60Hz, 480V/60Hz
-40°C Minimum Temperature Rating
+40°C Ambient Temperature Rating

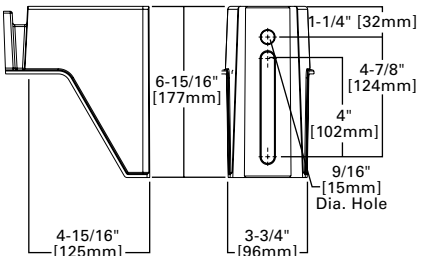
SHIPPING DATA

Approximate Net Weight:
USSL: 20 lbs. (9.09 kgs.)
USSL-XL: 45 lbs. (20.41 kgs.)

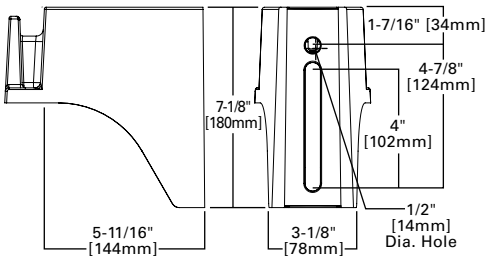
COOPER Lighting Solutions

*www.designlights.org

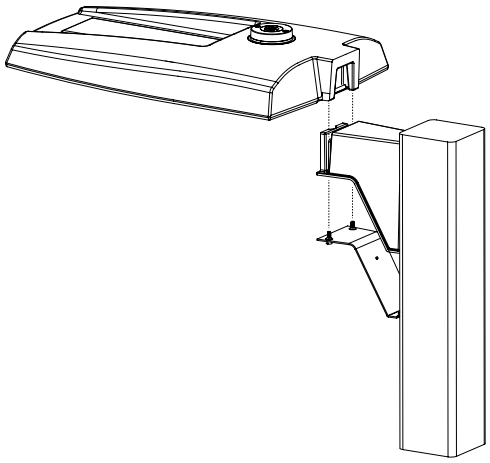
POLE MOUNT ARM (USSL)



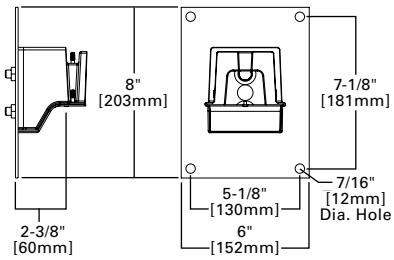
POLE MOUNT ARM (USSL-XL)



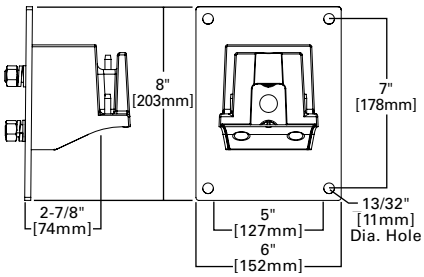
VERSATILE MOUNT SYSTEM



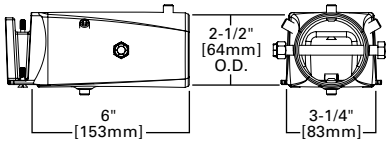
WALL MOUNT (USSL)



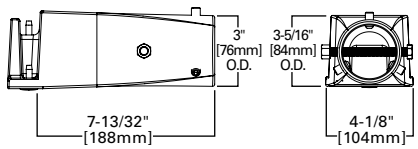
WALL MOUNT (USSL-XL)



MAST ARM MOUNT (USSL)



MAST ARM MOUNT (USSL-XL)



MOUNTING CONFIGURATIONS AND EPAS

NOTE: For 2 USSL's mounted at 90°, requires minimum 3" square or 4" round pole for fixture clearance. For 2 USSL-XL's mounted at 90°, requires minimum 4" square or round pole for fixture clearance. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for applications.

Wall Mount

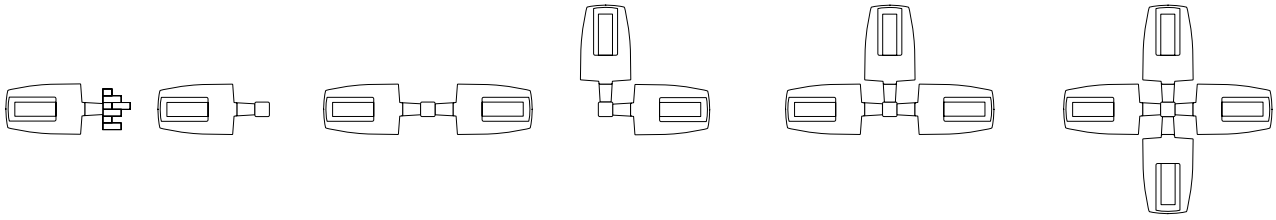
Arm Mount Single
EPA 0.75 (USSL)
EPA 1.12 (USSL-XL)

Arm Mount 2 @ 180°
EPA 1.50 (USSL)
EPA 2.25 (USSL-XL)

Arm Mount 2 @ 90°
EPA 1.50 (USSL)
EPA 2.13 (USSL-XL)

Arm Mount 3 @ 90°
EPA 2.25 (USSL)
EPA 2.52 (USSL-XL)

Arm Mount 4 @ 90°
EPA 3.00 (USSL)
EPA 2.52 (USSL-XL)



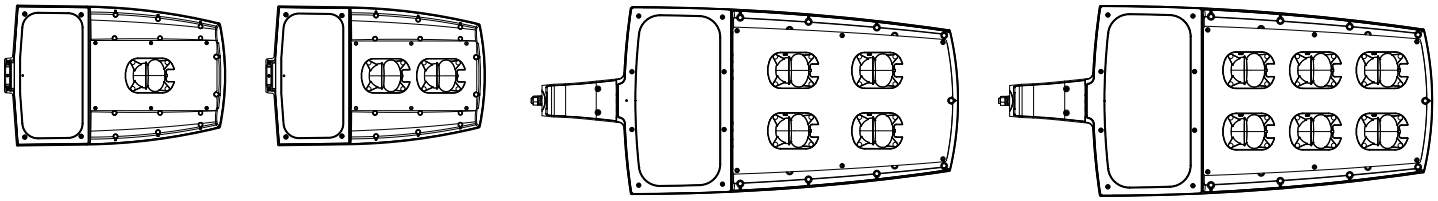
OPTICAL CONFIGURATIONS

USSL-C01
(7,100 Nominal Lumens)

USSL-C027/C029/C02
(13,100/17,100/20,000 Nominal Lumens)

USSL-XL-C047/C049/C04
(26,100/31,000/36,300 Nominal Lumens)

USSL-XL-C069/C06
(41,100/48,600 Nominal Lumens)



POWER AND LUMENS (USSL)

Light Engine		C01	C027	C029	C02
Power (Watts)		52	96	131	153
Input Current @ 120V (A)		0.43	0.80	1.09	1.32
Input Current @ 277V (A)		0.19	0.35	0.48	0.57
Input Current @ 347V (A)		0.17	0.30	0.41	0.48
Input Current @ 487V (A)		0.12	0.22	0.30	0.35
Distribution					
Type II	4000K Lumens	7,123	13,205	17,172	20,083
	BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3
	3000K Lumens	6,994	12,965	16,860	19,718
Type III	4000K Lumens	7,111	13,183	17,144	20,050
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4
	3000K Lumens	6,982	12,944	16,832	19,686
Type IV	4000K Lumens	7,088	13,140	17,087	19,984
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G4	B3-U0-G5
	3000K Lumens	6,959	12,901	16,777	19,621
Type V	4000K Lumens	7,576	14,045	18,264	21,360
	BUG Rating	B3-U0-G3	B4-U0-G3	B4-U0-G4	B5-U0-G4
	3000K Lumens	7,438	13,790	17,932	20,972

POWER AND LUMENS (USSL-XL)

Light Engine		C047	C049	C04	C069	C06
Power (Watts)		176	217	264	285	346
Input Current @ 120V (A)		1.50	1.84	2.21	2.38	2.92
Input Current @ 277V (A)		0.66	0.82	0.97	1.04	1.25
Input Current @ 347V (A)		0.54	0.66	0.79	0.84	1.02
Input Current @ 487V (A)		0.40	0.48	0.57	0.62	0.74
Distribution						
Type II	4000K Lumens	26,263	31,231	36,503	41,349	48,876
	BUG Rating	B3-U0-G3	B3-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
	3000K Lumens	25,786	30,664	35,840	40,598	47,989
Type III	4000K Lumens	26,120	31,061	36,304	41,124	48,610
	BUG Rating	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	3000K Lumens	25,646	30,497	35,645	40,377	47,727
Type IV	4000K Lumens	26,098	31,035	36,274	41,089	48,569
	BUG Rating	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	3000K Lumens	25,624	30,471	35,615	40,343	47,687
Type V	4000K Lumens	28,129	33,450	39,097	44,287	52,349
	BUG Rating	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	3000K Lumens	27,618	32,843	38,387	43,483	51,398

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99

LUMEN MAINTENANCE

Configuration	TM-21 Lumen Maintenance (50,000 Hours)	Theoretical L70 (Hours)
Up to USSL-C60 at 25°C	91.30%	194,000
Up to USSL-C60 at 40°C	87.59%	134,000
Up to USSL-XL-C175 at 25°C	91.40%	204,000
Up to USSL-XL-C175 at 40°C	89.41%	158,000

CONTROL OPTIONS

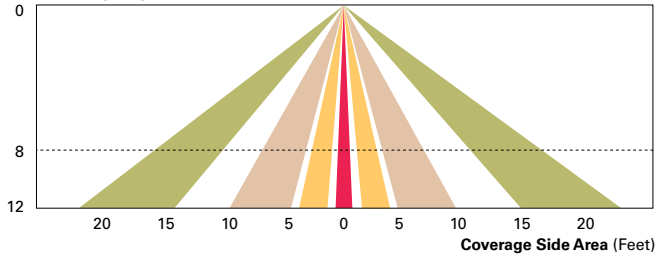
0-10V (D) The dimming option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (4 and 4N7) Photocontrol receptacles provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the 4N7 receptacle.

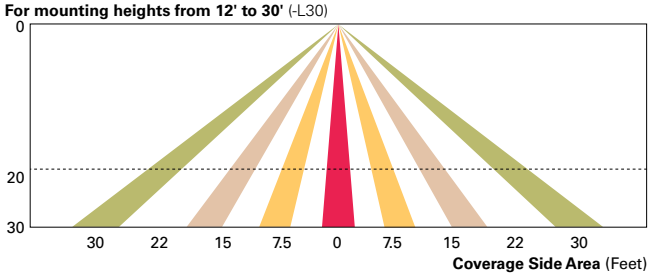
Dimming Occupancy Sensor (MSP and MS) These sensors are factory installed in the luminaire housing. When a sensor for dimming operation (/DIM) option is selected, the luminaire will dim down to approximately 50 percent power after five minutes of no activity detected. When activity is detected, the luminaire returns to full light output. When a sensor for ON/OFF operation is selected, the luminaire will turn off after five minutes of no activity.

These occupancy sensors include an integral photocell that can be activated or inactivated with the programming remote / configuration tool for "dusk-to-dawn" control or "daylight harvesting". Note: For MSP sensors, the factory preset is ON (Enabled), and for MS sensors, the factory preset is OFF (Disabled). The programming remote / tool is a wireless tool that can be utilized to change the dimming level, time delay, sensitivity and other parameters. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 8'-40'.

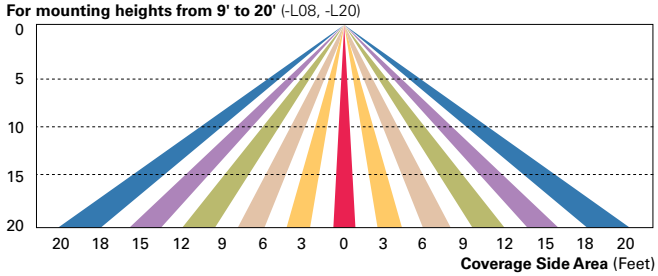
For mounting heights from 8' to 12' (-L12)



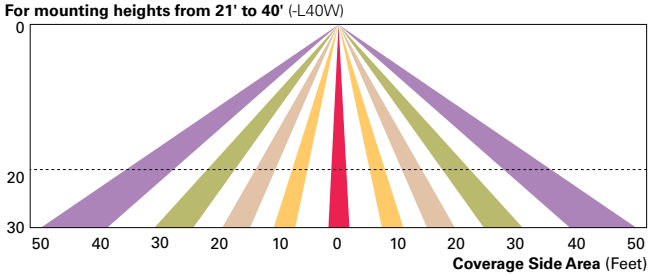
For mounting heights from 12' to 30' (-L30)



For mounting heights from 9' to 20' (-L08, -L20)



For mounting heights from 21' to 40' (-L40W)

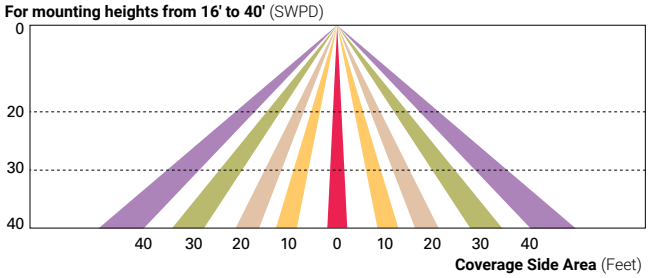


WaveLinx Wireless Control and Monitoring System WaveLinx Wireless Control and Monitoring System Available in 7-PIN or 4-PIN configurations, the WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. Use the WaveLinx Mobile application for set-up and configuration. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including adjustment of any factory pre-sets).

WaveLinx Outdoor Control Module (WOLC-7P-10A) A photocontrol that enables astronomic or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

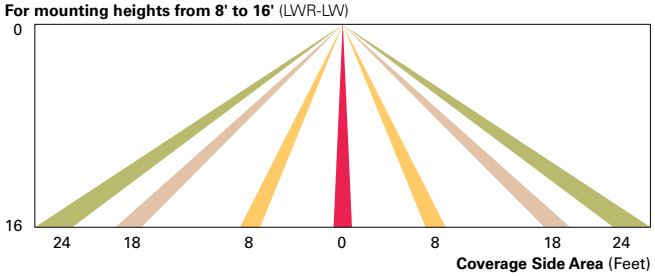
WaveLinx Wireless Sensor (SWPD4 and SWPD5) These outdoor sensors offer passive infrared (PIR) occupancy and a photocell for closed loop daylight sensing. These sensors can be factory installed or field-installed via simple, tool-less integration into luminaires equipped with the Zhaga Book 18 compliant 4-PIN receptacle (ZD or ZW). These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected. These occupancy sensors include an integral photocell for "dusk-to-dawn" control or daylight harvesting that is factory-enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.

For mounting heights from 16' to 40' (SWPD)

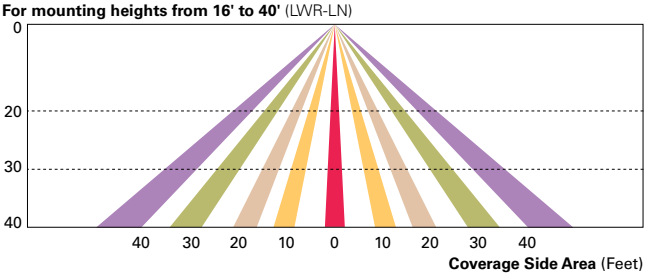


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted System is a connected lighting solution that combines LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of other resources beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



LumenSafe Integrated Network Security Camera (LD) The LumenSafe integrated network camera is a streamlined, outdoor-ready camera that provides high definition video surveillance. This IP camera solution is optimally designed to integrate into virtually any video management system or security software platform of choice. No additional wiring is needed beyond providing line power to the luminaire. LumenSafe features factory-installed power and networking gear in a variety of networking options allowing security integrators to design the optimal solution for active surveillance.

ORDERING INFORMATION

Sample Number: USSL-XL-C047-D-U-T2-SA-BZ-4N7-10K

Product Family [1,2]	**Light Engine** [3]	**Driver**	**Voltage**	**Distribution**	**Mounting** (Included)	**Color**
USSL	**C01**=(1 LED) Full Output **C027**=(2 LED) Approx. 70% Output **C029**=(2 LED) Approx. 90% Output **C02**=(2 LED) Full Output	**D**=Dimming (0-10V)	**U**=Universal (120-277V) **9**=347V **8**=480V [4]	**T2**=Type II **T3**=Type III **T4**=Type IV **T5**=Type V	**SA**=Standard Versatile Arm **MA**=Mast Arm **WM**=Wall Mount Arm	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White
USSL-XL	**C047**=(4 LED) Approx 70% Output **C049**=(4 LED) Approx. 90% Output **C04**=(4 LED) Full Output **C069**=(6 LED) Approx. 90% Output **C06**=(6 LED) Full Output					

Options (Add as Suffix)

7030=70 CRI / 3000K CCT [5]
7050=70 CRI / 5000K CCT [5]
HSS=House Side Shield [6]
L90=Optics Rotated 90° Left
R90=Optics Rotated 90° Right
10MSP=10kV MOV Surge Protective Device
10K=10kV UL 1449 Fused Surge Protective Device
20MSP=20kV MOV Surge Protective Device
20K=20kV UL 1449 Fused Surge Protective Device
TH=Tool-less Door Hardware
HA=50°C High Ambient Temperature [7]
4=NEMA 3-PIN Twistlock Photocontrol Receptacle
4N7=NEMA 7-PIN Twistlock Photocontrol Receptacle
MSP/DIM-L12=Integrated Sensor for Dimming Operation, 8' - 12' Mounting Height [8, 9]
MSP/DIM-L30=Integrated Sensor for Dimming Operation, 12' - 30' Mounting Height [8, 9]
MSP-L12=Integrated Sensor for ON/OFF Operation, 8' - 12' Mounting Height [8, 9]
MSP-L30=Integrated Sensor for ON/OFF Operation, 12' - 30' Mounting Height [8, 9]
MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [9, 10]
MS/DIM-L40W=Motion Sensor for Dimming Operation, 20' - 40' Mounting Height [9, 10]
MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [9, 10]
MS-L40W=Motion Sensor for ON/OFF Operation, 20' - 40' Mounting Height [9, 10]
ZD=DALI-enabled 4-PIN Twistlock Receptacle [9, 11, 12]
ZW=WaveLinx-enabled 4-PIN Twistlock Receptacle [9, 11, 12]
SWPD4XX=WaveLinx Wireless Sensor, 7' – 15' Mounting Height [9, 11, 12, 13, 14]
SWPD5XX=WaveLinx Wireless Sensor, 15' – 40' Mounting Height [9, 11, 12, 13, 14]
LWR-LW=Enlighted Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [9, 15]
LWR-LN=Enlighted Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [9, 15]
(See Table Below)=LumenSafe Integrated Network Security Camera [16, 17]
CC=Coastal Construction

Accessories (Order Separately) [18]

PRVWM-XX=Wall Mount Kit [9]
PRVMA-XX=Mast Arm Mounting Kit [9]
PRVSA-XX=Standard Arm Mounting Kit [9]
PRVXLSA-XX=Standard Arm Mounting Kit [16]
PRVXLWM-XX=Wall Mount Kit [16]
PRVXLMA-XX=Mast Arm Mounting Kit [16]
MA1010-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon
MA1011-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon
MA1017-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon
MA1018-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon
HS/VERD=House Side Shield [6, 19]
VGS-F/B=Vertical Glare Shield, Front/Back [19]
VGS-SIDE=Vertical Glare Shield, Side [19]
OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=NEMA Photocontrol - 120V
OA/RA1016=NEMA Photocontrol - Multi-Tap 105-285V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1027=NEMA Photocontrol - 480V
ISHH-01=Integrated Sensor Programming Remote [20]
FSIR-100=Wireless Configuration Tool for Occupancy Sensor [21]
SWPD4-XX=WaveLinx Wireless Sensor, 7' – 15' Mounting Height [12, 13, 14]
SWPD5-XX=WaveLinx Wireless Sensor, 15' – 40' Mounting Height [12, 13, 14]
WOLC-7P-10A=WaveLinx Outdoor Control Module (7-PIN) [22]

NOTES:
1. DesignLights Consortium™ Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to installation instructions IB500002EN and pole white paper WP513001EN for additional support information.
3. Standard 4000K CCT and 70CRI.
4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. Use dedicated IES files on product website for non-standard CCTs.
6. Not suitable with T5 distribution or C02 lumen package.
7. Not available with C02 lumen package.
8. Only available in USSL configurations C01, C027, C029 or C02.
9. Controls system is not available with photocontrol receptacle (4 or 4N7) or other controls systems (MS, MSP, ZW, ZD or LWR).
10. Utilizes Wattstopper sensor FSP-211.
11. Sensor passive infrared (PIR) may be overly sensitive when operating below -20°C (-4°F).
12. For this device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more Wavelinx application information.
13. Replace XX with sensor color (WH, BZ or BK).
14. Requires 4-PIN twistlock receptacle (ZD or ZW) option.
15. Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See website for application information.
16. Only available in USSL-XL configurations C047, C049, C04, C069 or C06.
17. Not available in 347V, 480V, or HA options. Consult LumenSafe system product pages for additional details and compatibility information.
18. Replace XX with paint color.
19. Must order one per optic/LED when ordering as a field-installable accessory (1, 2, 4 or 6).
20. This tool enables adjustment to Integrated Sensor (MSP) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
21. This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
22. Requires 7-PIN NEMA twistlock photocontrol receptacle (4N7) option. The WOLC-7 cannot be used in conjunction with other controls systems (MS, MSP, ZW, ZD or LWR). Operates on 120-347V input voltages.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

Product Family	**Camera Type**	**Data Backhaul**
L=LumenSafe Technology* LumenSafe Technology CLICK HERE	**D**=Dome Camera, Standard	**C**=Cellular, Customer Installed SIM Card **A**=Cellular, Factory Installed AT&T SIM Card **V**=Cellular, Factory Installed Verizon SIM Card **S**=Cellular, Factory Installed Sprint SIM Card **E**=Ethernet Networking

*Consult LumenSafe system pages for additional details and compatibility. Not available with 347V, 480V or high ambient options.