



Catalog #: _____ Project: _____

Prepared By: _____ Date: _____ Type: _____

ZONE™ Large (ZNL)

Outdoor Sports Light



ZONE

OVERVIEW

Lumen Range	50,000 -78,000
Wattage Range	375 - 648
Efficacy Range (LPW)	114 - 146
Weight lbs (kg)	60 (27.2)

QUICK LINKS

[Ordering Guide](#)
[Performance](#)
[Photometrics](#)
[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- 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: 68 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 95%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377.
- Minimum CRI of 70
- Integral louver (IL) and house-side shield (IH) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

Electrical

- High-performance driver features overvoltage, 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).
- L90 Calculated Life: >100k Hours (See Lumen Maintenance on Page 3)
- Total harmonic distortion: <20%
- Operating temperature: 50L and 60L: -40°C to +50°C (-40°F to +122°F). 65L and 78L: -40°C to +40°C (-40°F to +104°F)
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see page 8 for more details).

Installation

- Designed to mount to square or round poles.

- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block (accepts up to 12 ga. wire) and 5' dimming and power leads extended to the housing exterior.
- Utilizes both B3 and B5 drill patterns for easy fastening of LSI products. (See drawing on page 8)

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.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications applications are qualified.
- DesignLights Consortium® (DLC) 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.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)





ZONE Large Outdoor Sports Light

ORDERING GUIDE

[Back to Quick Links](#)TYPICAL ORDER EXAMPLE: **ZNL 60L CT UNV 50 ALBCS1 BLK IH**

Prefix	Output	Distribution	Orientation	Voltage	Color Temperature
ZNL - Zone Large	50L - 50,000 lms 60L - 60,000 lms 65L - 65,000 lms 78L - 78,000 lms Custom Lumen Packages ¹	CT - Court Optic FT - Forward Throw	(Blank) - Standard (no rotation) L - Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347 - 480V)	50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT

Controls	Finish	Options
(Blank) - None Wireless Controls System ALSC - AirLink Synapse Control System ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height) ^{2,3} ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height) ^{2,3} Stand-Alone Controls EXT - 0-10v Dimming leads extended to housing exterior CR7P - 7 Pin Control Receptacle ANSI C136.41 ⁵ IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor max 8-24' mounting height ^{3,4} IMSBT2 - Integral Bluetooth Motion and Photocell Sensor max 25-40' mounting height ^{3,4}	BRZ - Bronze BLK - Black GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus GRN - Green WHT - White	(Blank) - None IH - Integral Houseside Shield IL - Integral Louver (Sharp Spill Light Cutoff) FMS - Fixed Mounting Studs ⁹

Accessory Ordering Information⁶

Controls Accessories ⁶	
Description	Order Number
Twist Lock Photocell (120V) for use with CR7P	122514
Twist Lock Photocell (208-277) for use with CR7P	122515
Twist Lock Photocell (347V) for use with CR7P	122516
Twist Lock Photocell (480V) for use with CR7P	225180
AirLink 5 Pin Twist Lock Controller	61409
AirLink 7 Pin Twist Lock Controller	661410
Pole-Mounted Occupancy Sensor (24V)	663284CLR ⁷
Shorting Cap for use with CR7P ⁸	149328

Fusing Accessories ⁸	
Description	Order Number
Single Fusing (120V)	FK120
Single Fusing (277V)	FK277
Double Fusing (480V)	DFK480
Double Fusing (347V)	DFK347

FOOTNOTES:

1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
2. Consult factory for site layout.
3. Consult factory for 347-480V.
4. IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store. Consult Factory for 347-480V.

Mounting Accessories ⁵	
Description	Order Number
Universal Mounting Bracket	684616CLR
Adjustable Slip Fitter (2" - 2 3/8" Tenon)	688138CLR
Quick Mount Pole Bracket (Square Pole)	687073CLR
Quick Mount Pole Bracket (4-5" Round Pole)	689903CLR
15 Tilt Quick Mount Pole Bracket (Square Pole)	688003CLR
15 Tilt Quick Mount Pole Bracket (4-5" Round Pole)	689905CLR
Wall Mount Bracket	382132CLR
ZNL Upswept Arm (Requires FMS Option)	756047CLR
Integral Louver/Shield	686485
Internal Houseside Shield	743416
10' Linear Bird Spike Kit (4' Recommended per Luminaire)	736795

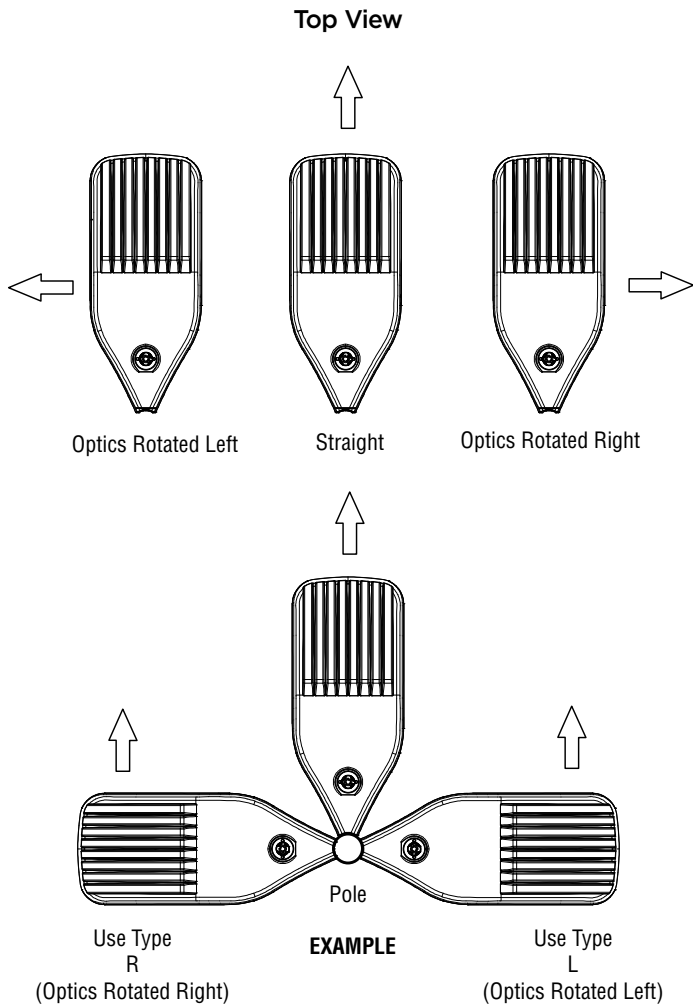
5. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
6. Accessories are shipped separately and field installed.
7. "CLR" denotes finish. See Finish options.
8. Fusing must be located in hand hole of pole.
9. For use with ZNL upswept arm only. Please see accessory table for ordering details.





ZONE Large Outdoor Sports Light

OPTICS ROTATION



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (L) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.

Luminaire Shown with IMSBT & IL/IH Options



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with PCR 7P





ZONE Large Outdoor Sports Light

PERFORMANCE

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DELIVERED LUMENS*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
50L	CT	70	50680	135	B4-U0-G3	52572	140	B4-U0-G3	64622	146	B4-U0-G3	375
	FT		50082	134	B4-U0-G5	51952	139	B4-U0-G5	53978	144	B4-U0-G5	
60L	CT		57428	128	B4-U0-G3	59446	133	B4-U0-G3	60978	133	B4-U0-G3	448
	FT		56949	127	B4-U0-G5	59083	132	B5-U0-G5	60561	135	B5-U0-G5	
65L	CT		65005	125	B4-U0-G3	67432	130	B5-U0-G3	70062	135	B5-U0-G3	518
	FT		64239	124	B5-U0-G5	66638	129	B5-U0-G5	69237	134	B5-U0-G5	
78L	CT		74805	115	B5-U0-G3	77599	120	B5-U0-G3	80625	124	B5-U0-G3	648
	FT		73925	114	B5-U0-G5	76685	118	B5-U0-G5	79676	123	B5-U0-G5	

*LEDs are frequently updated therefore values are nominal

ELECTRICAL DATA* (AMPS)						
Lumen Package	120V	208V	240V	277V	347V	480V
50L	3.13	1.80	1.56	1.35	1.08	0.78
60L	3.73	2.15	1.87	1.62	1.29	0.93
65L	4.32	2.49	2.16	1.87	1.49	1.08
78L	5.40	3.12	2.70	2.34	1.87	1.35

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

RECOMMENDED LUMEN MAINTENANCE ¹					
Ambient Temp	Lumen Multiplier				
	0 hrs. (2)	25K hrs. (2)	50K hrs. (2)	75K hrs. (3)	100K hrs. (3)
0 C - 40 C	100%	100%	97%	94%	92%

FOOTNOTES:

- Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
- 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).
- 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).

PHOTOMETRICS

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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.

ZNL-60L-CT-40

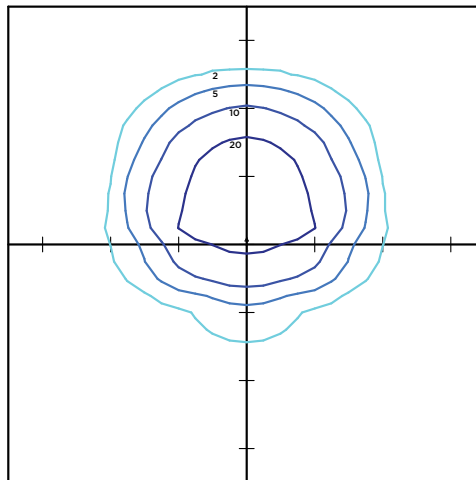
LUMINAIRE DATA

Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	67,432
Watts	518
Efficacy	130
IES Type	Type III - Very Short
BUG Rating	B5-U0-G3

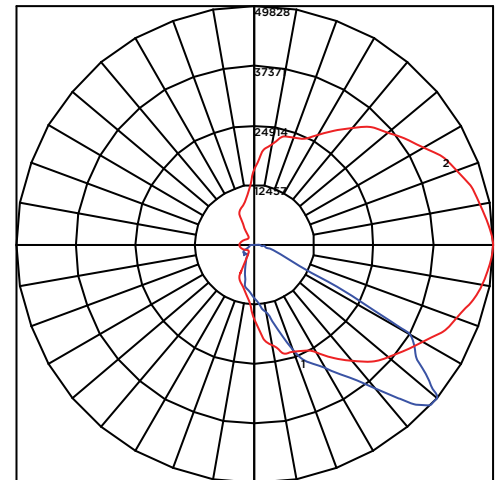
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	13837	9%
Medium (30-60)°	44654	43%
High (60-80)°	8162	48%
Very High (80-90)°	779	1%
Uplight (90-180)°	0	0%
Total Flux	67432	100%

ISO FOOTCANDLE



POLAR CURVE



25' Mounting Height/20' Grid Spacing

■ 20 FC ■ 10 FC ■ 5 FC ■ 2 FC



ZONE Large Outdoor Sports Light

PHOTOMETRICS

ZNL-65L-FT-40

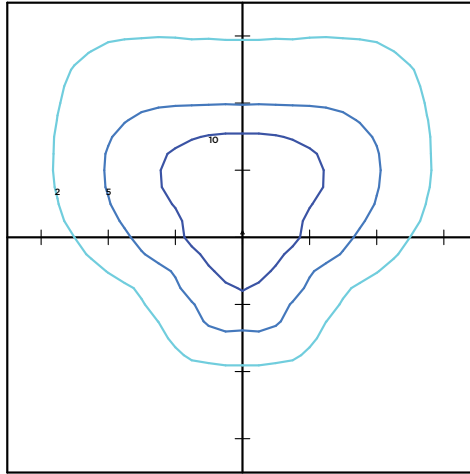
LUMINAIRE DATA

Type CT-IL Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	66,638
Watts	518
Efficacy	129
IES Type	Type IV - Short
BUG Rating	B5-U0-G5

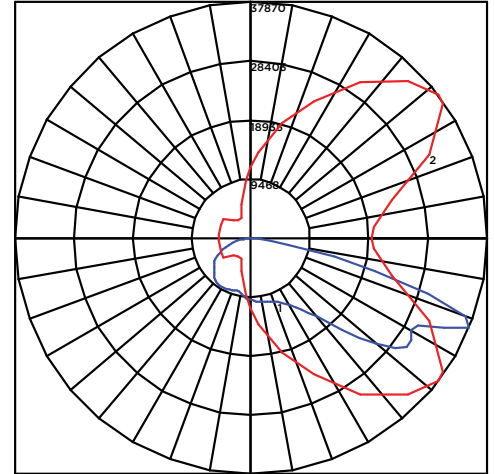
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	8542	13%
Medium (30-60)°	33055	50%
High (60-80)°	23973	36%
Very High (80-90)°	1069	2%
Uplight (90-180)°	0	0%
Total Flux	66638	100%

ISO FOOTCANDLE



POLAR CURVE



25' Mounting Height/20' Grid Spacing

20 FC
 10 FC
 5 FC
 2 FC





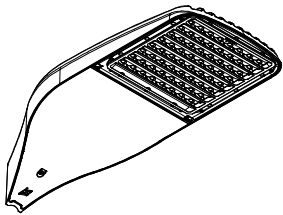
ZONE Large Outdoor Sports Light

ACCESSORIES/OPTIONS

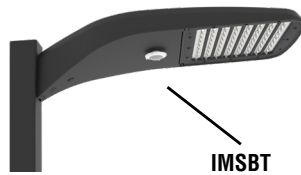
Integral Louver (IL) and House-Side Shield (IH)

Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (IL) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward-reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.

Luminaire Shown with Integral Louver (IL)



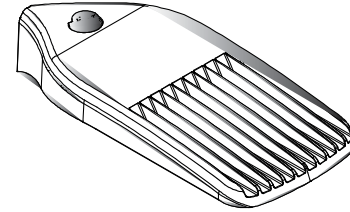
Luminaire Shown with IMSBT Option



7 Pin Photoelectric Control

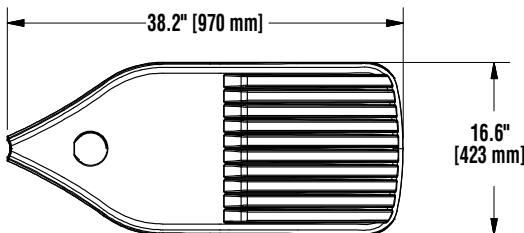
7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with PCR 7P



PRODUCT DIMENSIONS

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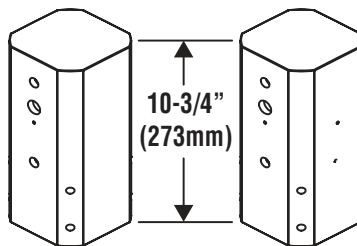
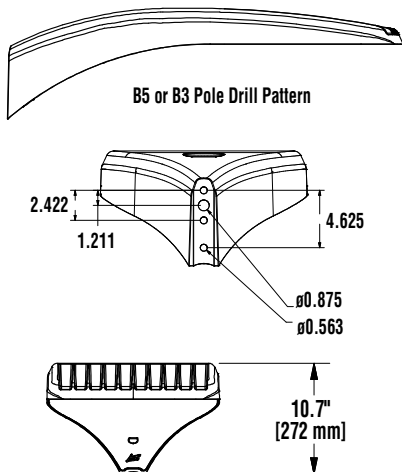
LUMINAIRE EPA CHART - ZNL

Tilt Degree		0°	30°	45°	Tilt Degree	0°	30°	45°	
	Single	0.8	2.2	2.9		T90°	2.0	3.8	4.5
	D180°	1.6	2.2	2.9		TN120°	2.0	5.0	6.0
	D90°	1.2	3.0	3.7		Q90°	2.0	3.8	4.5

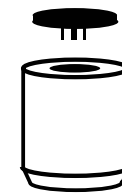
BRACKETS

BKA-NM-*-CLR: Tenon Mount Fitter

BRKT-4ESF-*-CLR: Pole Top Hub



S/D-180 (Drilled 2 Sides) D90/T90/Q90 (Drilled 4 Sides)
For flat surface brackets



S - Single
D180 - Double
D70 - Double
D90 - Double
Q90 - Quad
Q90 - Quad

Fits over 4" OD pole or tenon





ZONE Large Outdoor Sports Light

CONTROLS

AirLink Wireless Lighting Controller

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 a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

Click the link below to learn more details about AirLink.

<https://www.lsi-industries.com/documents/datasheets/airlink-outdoor-specsheet.pdf>

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click the link below to learn more details about IMSBT.

<https://www.lsi-industries.com/documents/datasheets/imsbt-specsheet.pdf>

AirLink Blue

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click the link below to learn more details about AirLink Blue.

<https://www.lsi-airlink.com/airlink-blue/>

POLES & BRACKETS

LSI offers a full line of poles and mounting accessories to complete your lighting assembly. Aluminum and steel in both square and round shafts. In addition, LSI offers round tapered, fluted and hinge based poles. Designed and engineered for durability and protected with our oven baked DuraGrip Protection System. Also available with our DuraGrip+ Protection system for unmatched corrosion resistance and an extended warranty. American made in our Ohio facility with industry leading lead times.

Click the link below to learn more details about poles & brackets.

<https://www.lsi-industries.com/products/poles-and-brackets-area-street.aspx>



BKA UMB CLR

The 3G rated UMB allows for seamless integration of LSI luminaires onto existing/ retrofit or new construction poles. The UMB was designed for square or round (tapered or straight) poles with two mounting hole spacings between 3.5" - 5".



BKS PQM15 CLR

The Pole Quick Mount Bracket allows for preset 15° up tilt of LSI luminaires for greater throw of light and increased vertical illumination as well as fast installation onto poles with LSI's 3" or 5" bolt pattern.



BKA ASF CLR

The adjustable Slip Fitter is a 3G rated rugged die cast aluminum adapter to mount LSI luminaires onto a 2" iron pipe, 2 3/8 OD tenon. The Adjustable Slip Fitter can be rotated 180° allowing for tilting LSI luminaires up to 45° and 90° when using a vertical tenon.



BKS PQMH CLR

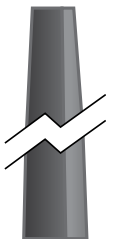
The Pole Quick Mount Bracket allows for lightning fast installation of LSI luminaires onto existing and new construction poles with LSI's B3 or B5 standard pole bolt patterns.



Square Pole
14'-39'



Round Pole
10'-30'



Tapered Pole
20'-39'





Catalog #: _____ Project: _____

Prepared By: _____ Date: _____ Type: _____

ZONE™ Medium (ZNM)

Outdoor Sports Light



OVERVIEW

Lumen Output	24,000 - 48,000
Wattage	176 - 401
Efficacy Range (LPW)	122 - 150
Weight lbs (kg)	30 (13.6)

QUICK LINKS

[Ordering Guide](#)
[Performance](#)
[Photometrics](#)
[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- 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: 37 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 95%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377.
- Minimum CRI of 70
- Integral louver (IL) and house-side shield (IH) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

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).
- L90 Calculated Life: >100k Hours (See Lumen Maintenance on Page 3)
- Total harmonic distortion: <20%
- Operating temperature: 24L to 36L: -40°C to +50°C (-40°F to +122°F). 42L and 48L: -40°C to +40°C (-40°F to +104°F)
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

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- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see page 8 for more details).

Installation

- Designed to mount to square or round poles.

- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block (accepts up to 12 ga. wire) and 5' dimming and power leads extended to the housing exterior.
- Utilizes LSI's B3 drill pattern for easy fastening of LSI products.

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.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications applications are qualified.
- DesignLights Consortium® (DLC) 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.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)





ZONE Medium Outdoor Sports Light

ORDERING GUIDE

[Back to Quick Links](#)TYPICAL ORDER EXAMPLE: **ZNM 48L CT UNV 50 ALBCS1 BLK IH**

Prefix	Output	Distribution	Orientation	Voltage	Color Temperature
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Controls	Finish	Options
<p>(Blank) - None</p> <p>Wireless Controls System</p> <p>ALSC - AirLink Synapse Control System ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor ALBCS01 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height) ^{2,4} ALBCS02 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height) ^{2,4}</p> <p>Stand-Alone Controls</p> <p>EXT - 0-10v Dimming leads extended to housing exterior CR7P - 7 Pin Control Receptacle ANSI C136.41 ⁵ IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor max 8-24' mounting height ^{3,4} IMSBT2 - Integral Bluetooth Motion and Photocell Sensor max 25-40' mounting height ^{3,4}</p>	<p>BRZ - Bronze BLK - Black GPT - Graphite MSV - Metallic Silver WHT - White PLP - Platinum Plus GRN - Green</p>	<p>(Blank) - None IH - Integral Houseside Shield IL - Integral Louver (Sharp Spill Light Cutoff)</p>

Accessory Ordering Information⁶

Controls Accessories	
Description	Order Number
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Twist Lock Photocell (208-277) for use with CR7P	122515
Twist Lock Photocell (347V) for use with CR7P	122516
Twist Lock Photocell (480V) for use with CR7P	1225180
AirLink 5 Pin Twist Lock Controller	61409
AirLink 7 Pin Twist Lock Controller	661410
Pole-Mounted Occupancy Sensor (24V)	663284CLR ⁸
Shorting Cap for use with CR7P ⁸	149328

Fusing Accessories	
Description	Order Number
Single Fusing (120V)	FK120
Single Fusing (277V)	FK277
Double Fusing (480V)	DFK480
Double Fusing (347V)	DFK347

Mounting Accessories	
Description	Order Number ⁹
Universal Mounting Bracket	684616CLR
Adjustable Slip Fitter (2" - 2 3/8" Tenon)	688138CLR
Horizontal Slip Fitter (2" - 2 3/8" Tenon)	652761CLR
Quick Mount Pole Bracket (Square Pole)	687073CLR
Quick Mount Pole Bracket (4-5" Round Pole)	689903CLR
15 Tilt Quick Mount Pole Bracket (Square Pole)	688003CLR
15 Tilt Quick Mount Pole Bracket (4-5" Round Pole)	689905CLR
Wall Mount Bracket	382132CLR
Integral Louver/Shield	690981
Internal Houseside Shield	743415
10' Linear Bird Spike Kit (3' Recommended per Luminaire)	736795

FOOTNOTES:

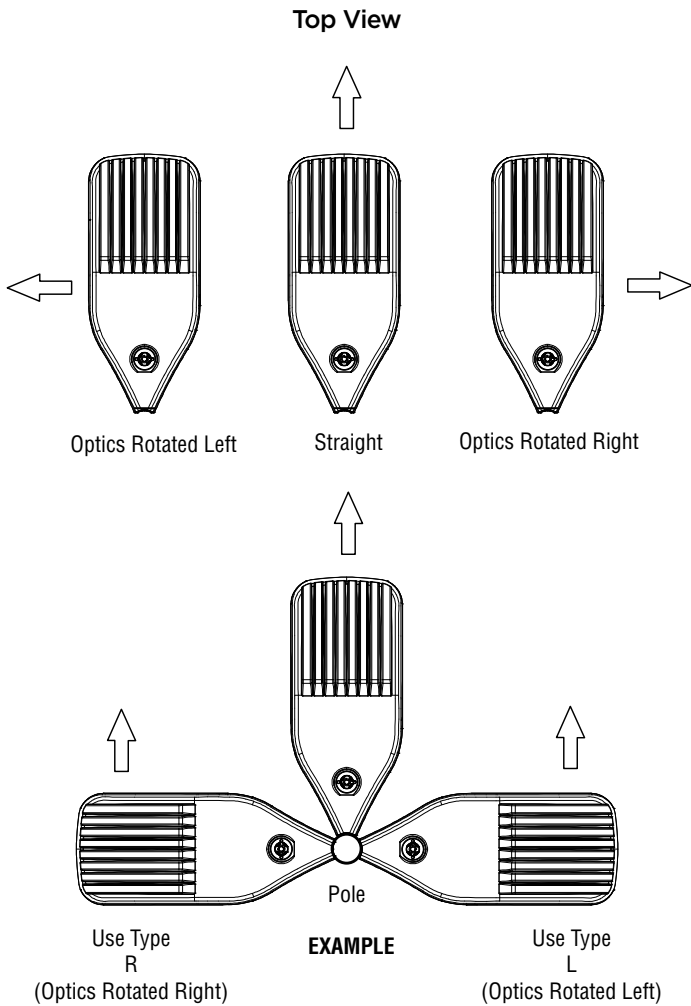
1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
2. Consult factory for site layout.
3. Consult Factory for 347-480V.
4. IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store. Consult Factory for 347-480V.
5. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
6. Accessories are shipped separately and field installed.
7. Fusing must be located in hand hole of pole.
8. "CLR" denotes finish. See Finish options.





ZONE Medium Outdoor Sports Light

OPTICS ROTATION



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (L) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.

Luminaire Shown with IMSBT & IL/IH Options



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with PCR 7P





ZONE Medium Outdoor Sports Light

PERFORMANCE

[Back to Quick Links](#)

DELIVERED LUMENS*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
24L	CT	70	26393	150	B3-U0-G2	26393	150	B3-U0-G2	26393	150	B3-U0-G2	176
	FT		25964	148	B3-U0-G4	25964	148	B3-U0-G4	25964	148	B3-U0-G4	
30L	CT		32960	142	B3-U0-G3	32960	142	B3-U0-G3	32960	142	B3-U0-G3	232
	FT		32424	140	B3-U0-G4	32424	140	B3-U0-G4	32424	140	B3-U0-G4	
36L	CT		38916	135	B3-U0-G3	38916	135	B3-U0-G3	38916	135	B3-U0-G3	288
	FT70		38283	133	B4-U0-G5	38283	133	B4-U0-G5	38283	133	B4-U0-G5	
42L	CT		44859	127	B4-U0-G3	44859	127	B4-U0-G3	44859	127	B4-U0-G3	354
	FT		44130	125	B4-U0-G5	44130	125	B4-U0-G5	44130	125	B4-U0-G5	
48L	CT		49615	124	B4-U0-G3	49615	124	B4-U0-G3	49615	124	B4-U0-G3	401
	FT		48809	122	B4-U0-G5	48809	122	B4-U0-G5	48809	122	B4-U0-G5	

*LEDs are frequently updated therefore values are nominal

ELECTRICAL DATA*						
Lumen Package	120V	208V	240V	277V	347V	480V
24L	1.47	0.85	0.73	0.64	0.51	0.37
30L	1.93	1.12	0.97	0.84	0.67	0.48
36L	2.40	1.38	1.20	1.04	0.83	0.60
42L	2.95	1.70	1.48	1.28	1.02	0.74
48L	3.34	1.93	1.67	1.45	1.16	0.84

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

RECOMMENDED LUMEN MAINTENANCE ¹					
Ambient Temp	Lumen Multiplier				
	0 hrs. ²	25K hrs. ²	50K hrs. ²	75K hrs. ³	100K hrs. ³
C					
0 C - 25 C	100%	95%	89%	94%	79%
40 C	100%	94%	87%	80%	74%

FOOTNOTES:

- Lumen maintenance values at 40C are calculated per TM-21 based on LM-80 data and in-situ testing.
- In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
- In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing.





ZONE Medium Outdoor Sports Light

PHOTOMETRICS

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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.

ZNM-48L-CT-40

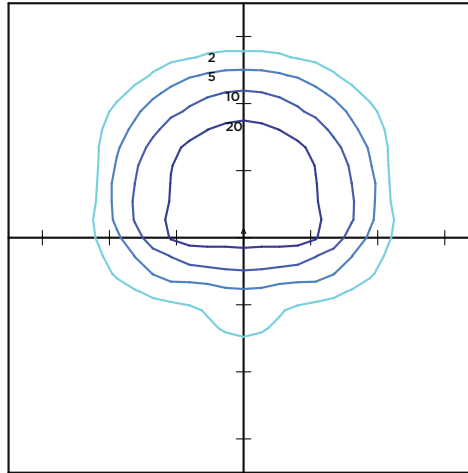
LUMINAIRE DATA

Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	48,211
Watts	400
Efficacy	121
IES Type	Type III - Very Short
BUG Rating	B4-U0-G3

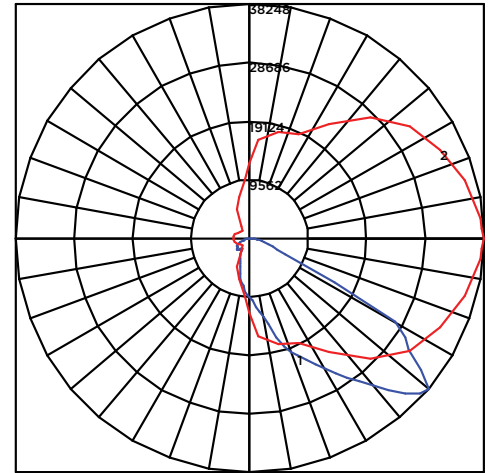
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	9897	21%
Medium (30-60)°	32201	67%
High (60-80)°	5593	12%
Very High (80-90)°	520	1%
Uplight (90-180)°	0	0%
Total Flux	48211	100%

ISO FOOTCANDLE



POLAR CURVE



20' Mounting Height/15' Grid Spacing

■ 20 FC ■ 10 FC ■ 5 FC ■ 2 FC

ZNM-48L-FT-40

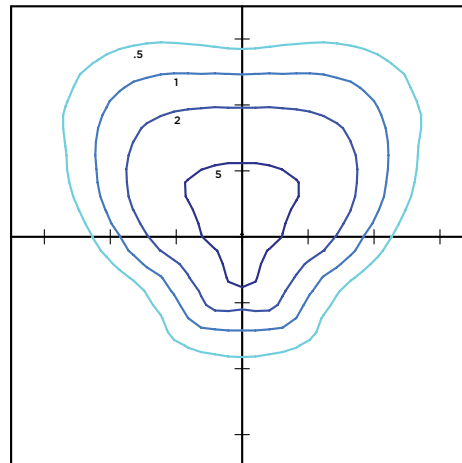
LUMINAIRE DATA

Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	48,055
Watts	400
Efficacy	120
IES Type	Type IV - Short
BUG Rating	B4-U0-G5

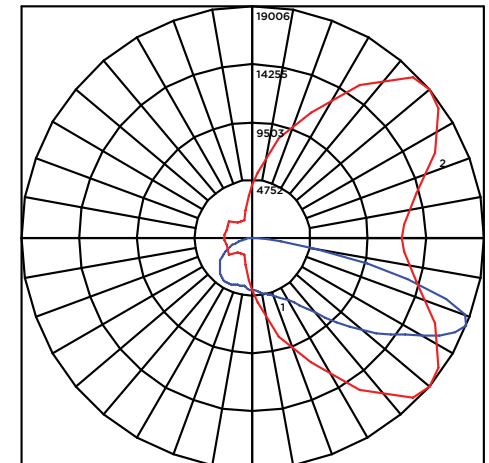
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	6199	13%
Medium (30-60)°	20250	42%
High (60-80)°	20684	43%
Very High (80-90)°	922	2%
Uplight (90-180)°	0	0%
Total Flux	48055	100%

ISO FOOTCANDLE



POLAR CURVE



20' Mounting Height/15' Grid Spacing

■ 20 FC ■ 10 FC ■ 5 FC ■ 2 FC

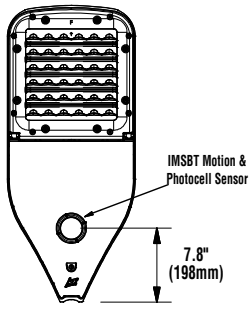
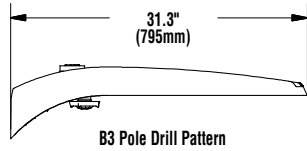
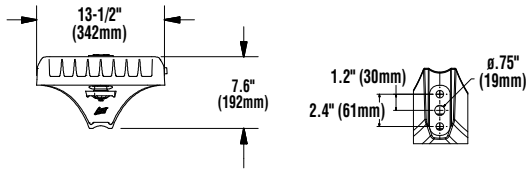




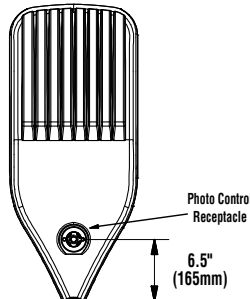
ZONE Medium Outdoor Sports Light

PRODUCT DIMENSIONS

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Bottom View

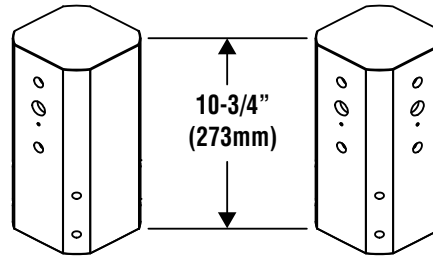


Top View

LUMINAIRE EPA CHART - ZNM					Tilt Degree				
Tilt Degree	0°	30°	45°		Tilt Degree	0°	30°	45°	
	Single	0.5	1.5	1.9		T90°	1.0	2.5	2.8
	D180°	1.0	1.5	1.9		TN120°	1.0	3.3	3.9
	D90°	0.8	1.9	2.3		Q90°	1.0	2.5	2.8

TENON BRACKETS (with 3" Reduced Drill Pattern)

BKA-XNM-*-CLR - Tenon mount fitter slip-fits 2-3/8" O.D. tenon (2.0 pipe tenon).



BKA-XNM-S or D180-*-CLR
Single/D180
(Drilled 2 Sides)

BKA-XNM-D90, T90 or Q90-*-CLR
D90/T90/Q90
(Drilled 4 Sides)



ZONE Medium Outdoor Sports Light

CONTROLS

AirLink Wireless Lighting Controller

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 a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

Click the link below to learn more details about AirLink.

<https://www.lsi-industries.com/documents/datasheets/airlink-outdoor-specsheet.pdf>

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click the link below to learn more details about IMSBT.

<https://www.lsi-industries.com/documents/datasheets/imsbt-specsheet.pdf>

AirLink Blue

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click the link below to learn more details about AirLink Blue.

<https://www.lsi-airlink.com/airlink-blue/>

POLES & BRACKETS

LSI offers a full line of poles and mounting accessories to complete your lighting assembly. Aluminum and steel in both square and round shafts. In addition, LSI offers round tapered, fluted and hinge based poles. Designed and engineered for durability and protected with our oven baked DuraGrip Protection System. Also available with our DuraGrip+ Protection system for unmatched corrosion resistance and an extended warranty. American made in our Ohio facility with industry leading lead times.

Click the link below to learn more details about poles & brackets.

<https://www.lsi-industries.com/products/poles-and-brackets-area-street.aspx>



BKA UMB CLR

The 3G rated UMB allows for seamless integration of LSI luminaires onto existing/ retrofit or new construction poles. The UMB was designed for square or round (tapered or straight) poles with two mounting hole spacings between 3.5" - 5".



BKS PQM15 CLR

The Pole Quick Mount Bracket allows for preset 15° uptilt of LSI luminaires for greater throw of light and increased vertical illumination as well as fast installation onto poles with LSI's 3" or 5" bolt pattern.



BKA ASF CLR

The adjustable Slip Fitter is a 3G rated rugged die cast aluminum adapter to mount LSI luminaires onto a 2" iron pipe, 2 3/8 OD tenon. The Adjustable Slip Fitter can be rotated 180° allowing for tilting LSI luminaires up to 45° and 90° when using a vertical tenon.



BKS PQMH CLR

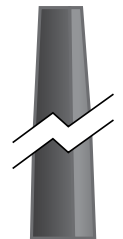
The Pole Quick Mount Bracket allows for lightning fast installation of LSI luminaires onto existing and new construction poles with LSI's B3 or B5 standard pole bolt patterns.



Square Pole
14'-39'



Round Pole
10'-30'



Tapered Pole
20'-39'





Catalog #: _____ Project: _____

Prepared By: _____ Date: _____ Type: _____

Mirada Small Area (MRS)

Outdoor LED Area Light



OVERVIEW	
Lumen Package	6,000 - 24,000
Wattage Range	41 - 196
Efficacy Range (LPW)	112 - 156
Fixture Weight lbs (kg)	20 (9.1)

QUICK LINKS

[Ordering Guide](#)
[Performance](#)
[Photometrics](#)
[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- 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: 27 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, 5W, and FT.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377
- Minimum CRI of 70.
- Integral louver (IL) and house-side shield (IH) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

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).
- L70 Calculated Life: >60k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7.

Installation

- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional B3 drill pattern.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- DesignLights Consortium® Listings in progress.

Specifications and dimensions subject to change without notice.





Mirada Small Area Light (MRS)

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ORDERING GUIDE

TYPICAL ORDER EXAMPLE: **MRS LED 18L SIL FT UNV DIM 40 70CRI ALBCS1 BLK IH**

Luminaire Prefix	Light Source	Lumen Package	Lens	Distribution	Orientation ²	Voltage	Driver
MRS - Mirada Small Area Light	LED	6L - 6,000 lms 9L - 9,000 lms 12L - 12,000 lms 15L - 15,000 lms 18L - 18,000 lms 21L - 21,000 lms 24L - 24,000 lms Custom Lumen Packages ¹	SIL - Silicone	2 - Type 2 3 - Type 3 5W - Type 5 Wide FT - Forward Throw	(blank) - standard L - Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming (0-10%)

Color Temp	Color Rendering	Controls (Choose One)	Finish	Options
50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT	70CRI - 70 CRI	(Blank) - None Wireless Controls System ALSC - AirLink Synapse Control System ALSCS2 - AirLink Synapse Control System with 12-20' MH Motion Sensor ALSCS4 - AirLink Synapse Control System with 20-40' MH Motion Sensor ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' MH) ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' MH) Stand-Alone Controls EXT - 0-10v Dimming leads extended to housing exterior CR7P - 7 Pin Control Receptacle ANSI C136.41 ³ IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH) ⁴ IMSBT2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH) ⁴	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	(Blank) - None IH - Integral Houseside Shield ² IL - Integral Louver (Sharp Spill Light Cutoff) ²

Accessory Ordering Information⁵

Controls Accessories		Mounting Accessories	
Description	Order Number	Description	Order Number ⁶
Twist Lock Photocell (120V) for use with CR7P	122514	Universal Mounting Bracket	684616CLR
Twist Lock Photocell (208-277) for use with CR7P	122515	Adjustable Slip Fitter (2" - 2 3/8" Tenon)	688138CLR
Twist Lock Photocell (347V) for use with CR7P	122516	Horizontal Slip Fitter (2" - 2 3/8" Tenon)	652761CLR
Twist Lock Photocell (480V) for use with CR7P	1225180	Quick Mount Pole Bracket (Square Pole)	687073CLR
AirLink 5 Pin Twist Lock Controller	661409	Quick Mount Pole Bracket (4-5" Round Pole)	689903CLR
AirLink 5 Pin Twist Lock Controller	661410	15 Tilt Quick Mount Pole Bracket (Square Pole)	688003CLR
Pole-Mounted Occupancy Sensor (24V)	663284CLR ⁶	15 Tilt Quick Mount Pole Bracket (4-5" Round Pole)	689905CLR
Shorting Cap for use with CR7P	149328	Wall Mount Bracket	382132CLR

Fusing Accessories ⁷	
Description	Order Number
Single Fusing (120V)	FK120
Single Fusing (277V)	FK277
Double Fusing (480V)	DFK480
Double Fusing (347V)	DFK347

Shielding & Miscellaneous Accessories	
Description	Order Number
Integral Louver/Shield	763445
Internal Houseside Shield	763446
10' Linear Bird Spike Kit (2' Recommended per Luminaire)	751632

FOOTNOTES:

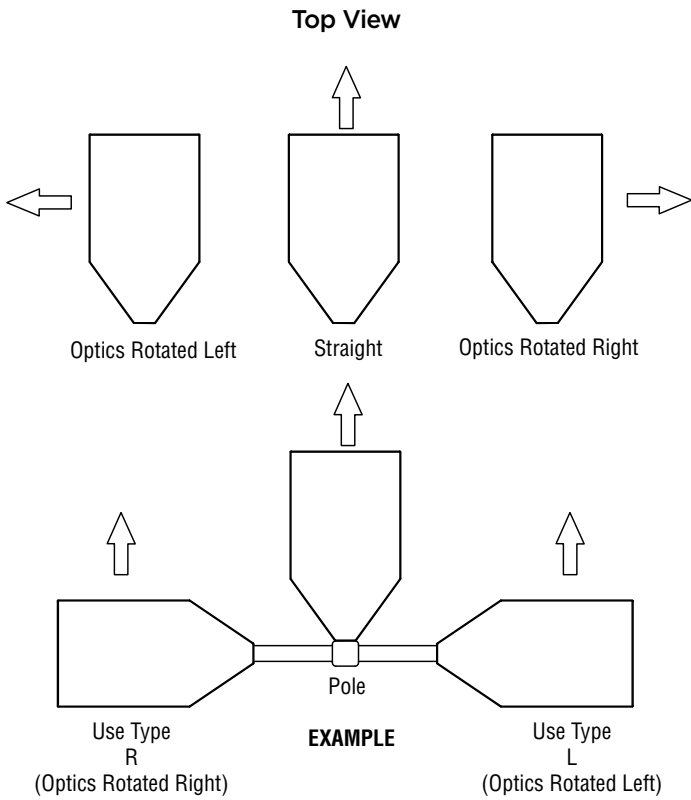
- Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
- Not available on "Type 5W" distribution.
- Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
- IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store. Consult Factory for 347-480V.
- Accessories are shipped separately and field installed.
- "CLR" denotes finish. See Finish options.
- Fusing must be located in hand hole of pole.





Mirada Small Area Light (MRS)

OPTICS ROTATION



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (L) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.

Luminaire Shown with Integral Louver (IL)



Luminaire Shown with IMSBT Option



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with CR7P





Mirada Small Area Light (MRS)

PERFORMANCE

[Back to Quick Links](#)

Delivered Lumens*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
6L	2	70	6045	148	B2-U0-G1	6268	154	B2-U0-G1	6253	153	B2-U0-G1	41
	3		6145	151	B1-U0-G2	6372	156	B1-U0-G2	6357	156	B1-U0-G2	
	5W		5812	142	B3-U0-G1	6,026	148	B3-U0-G1	6012	147	B3-U0-G1	
	FT		5947	146	B1-U0-G1	6166	151	B1-U0-G1	6152	151	B1-U0-G1	
9L	2	70	9091	145	B2-U0-G2	9484	152	B2-U0-G2	9462	151	B2-U0-G2	63
	3		9241	148	B2-U0-G2	9641	154	B2-U0-G2	9619	154	B2-U0-G2	
	5W		8740	140	B3-U0-G2	9,118	146	B3-U0-G2	9097	144	B3-U0-G2	
	FT		8943	143	B2-U0-G2	9330	149	B2-U0-G2	9308	149	B2-U0-G2	
12L	2	70	12132	141	B3-U0-G2	12685	148	B3-U0-G2	12514	146	B3-U0-G2	86
	3		12333	143	B2-U0-G2	12894	150	B2-U0-G2	12721	148	B2-U0-G2	
	5W		11664	136	B4-U0-G2	12195	142	B4-U0-G2	12031	140	B4-U0-G2	
	FT		11935	139	B2-U0-G2	12479	145	B2-U0-G2	12311	143	B2-U0-G2	
15L	2	70	14220	128	B3-U0-G2	15167	137	B3-U0-G2	14488	131	B3-U0-G2	111
	3		14938	135	B2-U0-G2	15933	144	B2-U0-G2	15219	137	B2-U0-G2	
	5W		14304	129	B4-U0-G2	15257	137	B4-U0-G2	14574	131	B4-U0-G2	
	FT		14342	129	B2-U0-G2	15297	138	B2-U0-G2	14612	132	B2-U0-G2	
18L	2	70	16438	122	B3-U0-G3	17532	130	B3-U0-G3	16747	124	B3-U0-G3	135
	3		17267	128	B3-U0-G3	18417	137	B3-U0-G3	17592	131	B3-U0-G3	
	5W		16535	123	B4-U0-G2	17636	133	B5-U0-G3	16846	125	B4-U0-G2	
	FT		16578	123	B3-U0-G3	17682	131	B3-U0-G3	16890	125	B3-U0-G3	
21L	2	70	19488	118	B3-U0-G3	20786	126	B3-U0-G3	19885	120	B3-U0-G3	165
	3		20472	124	B3-U0-G3	21835	132	B3-U0-G3	20857	126	B3-U0-G3	
	5W		19604	119	B5-U0-G3	20,909	126	B5-U0-G3	19973	121	B5-U0-G3	
	FT		19655	119	B3-U0-G4	20964	127	B3-U0-G4	20025	121	B3-U0-G4	
24L	2	70	21976	112	B3-U0-G3	23439	120	B3-U0-G3	22390	114	B3-U0-G3	196
	3		23085	118	B3-U0-G3	24622	126	B3-U0-G3	23519	120	B3-U0-G3	
	5W		22105	113	B5-U0-G3	23578	120	B5-U0-G3	22522	115	B5-U0-G3	
	FT		22164	113	B3-U0-G3	23640	121	B3-U0-G3	22581	115	B3-U0-G3	

*LEDs are frequently updated therefore values are nominal.

ELECTRICAL DATA (AMPS)*						
Lumens	120V	208V	240V	277V	347V	480V
6L	0.34	0.20	0.17	0.15	0.12	0.09
9L	0.52	0.30	0.26	0.23	0.18	0.13
12L	0.72	0.41	0.36	0.31	0.25	0.18
15L	0.93	0.53	0.46	0.40	0.32	0.23
18L	1.12	0.65	0.56	0.49	0.39	0.28
21L	1.38	0.80	0.69	0.60	0.48	0.34
24L	1.63	0.94	0.82	0.71	0.56	0.41

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

RECOMMENDED LUMEN MAINTENANCE ¹					
Ambient Temp	Lumen Multiplier				
	0 hrs. ²	25K hrs. ²	50K hrs. ²	75K hrs. ³	100K hrs. ³
0 C - 25 C	100%	95%	89%	94%	79%
40 C	100%	94%	87%	80%	74%

FOOTNOTES:

- Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
- 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).
- 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).



Mirada Small Area Light (MRS)

PHOTOMETRICS

[Back to Quick Links](#)

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.

MRS-LED-18L-SIL-2-40-70CRI

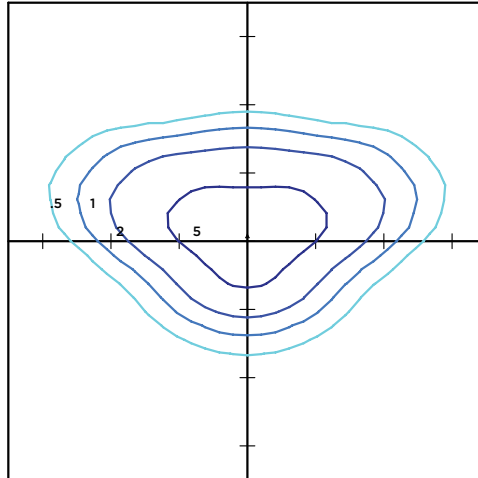
LUMINAIRE DATA

Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	17,532
Watts	135
Efficacy	130
IES Type	Type II - Short
BUG Rating	B3-U0-G3

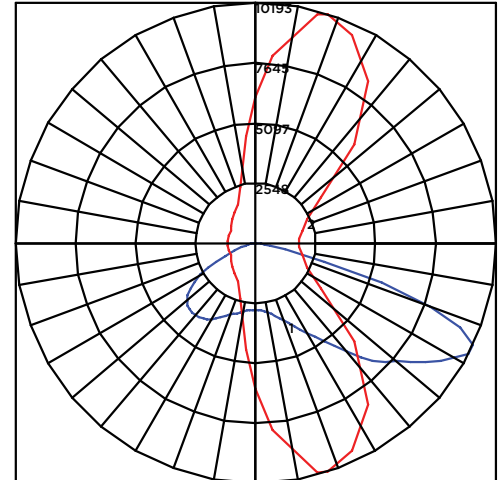
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	2831	16%
Medium (30-60)°	10310	59%
High (60-80)°	4208	24%
Very High (80-90)°	184	1%
Uplight (90-180)°	0	0%
Total Flux	17532	100%

ISO FOOTCANDLE



POLAR CURVE



20' Mounting Height/20' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

MRS-LED-18L-SIL-3-40-70CRI

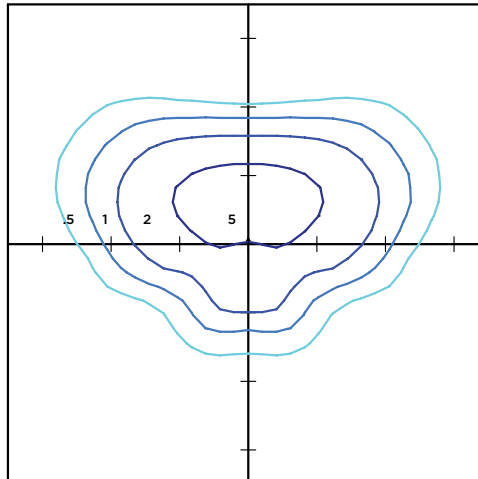
LUMINAIRE DATA

Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	18,417
Watts	135
Efficacy	137
IES Type	Type III - Short
BUG Rating	B3-U0-G3

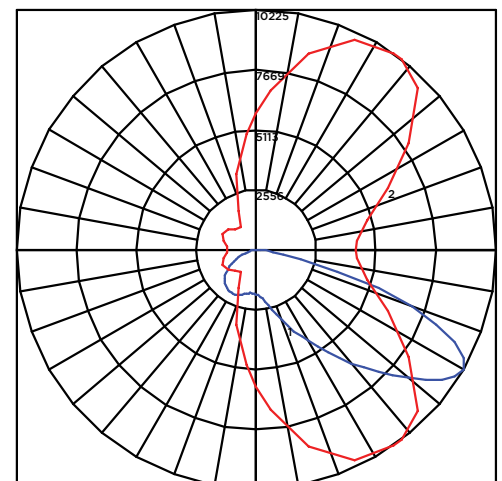
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	2329	13%
Medium (30-60)°	10634	61%
High (60-80)°	5246	30%
Very High (80-90)°	208	1%
Uplight (90-180)°	0	0%
Total Flux	18417	100%

ISO FOOTCANDLE



POLAR CURVE



20' Mounting Height/20' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC





Mirada Small Area Light (MRS)

PHOTOMETRICS (CONT)

MRS-LED-18L-SIL-FT-40-70CRI

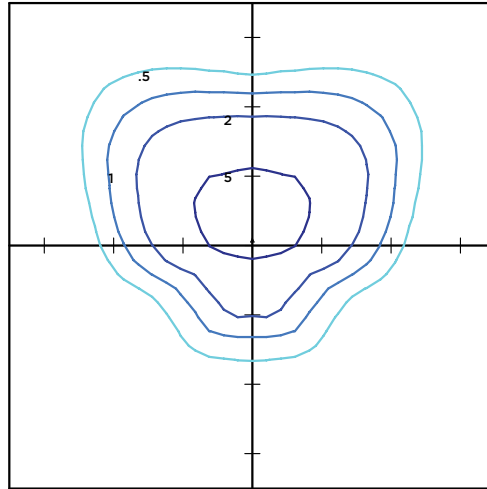
LUMINAIRE DATA

Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	17,682
Watts	135
Efficacy	131
IES Type	Type III - Short
BUG Rating	B3-U0-G2

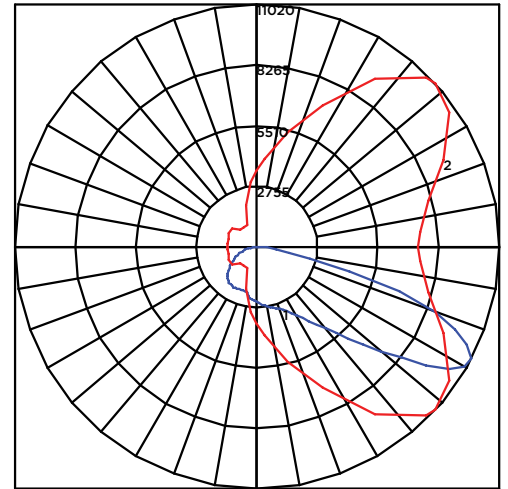
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	2255	13%
Medium (30-60)°	9463	54%
High (60-80)°	5696	32%
Very High (80-90)°	268	2%
Uplight (90-180)°	0	0%
Total Flux	17682	100%

ISO FOOTCANDLE



POLAR CURVE



20' Mounting Height/20' Grid Spacing

5 FC
 2 FC
 1 FC
 0.5 FC

MRM-LED-30L-SIL-5W-40-70CRI

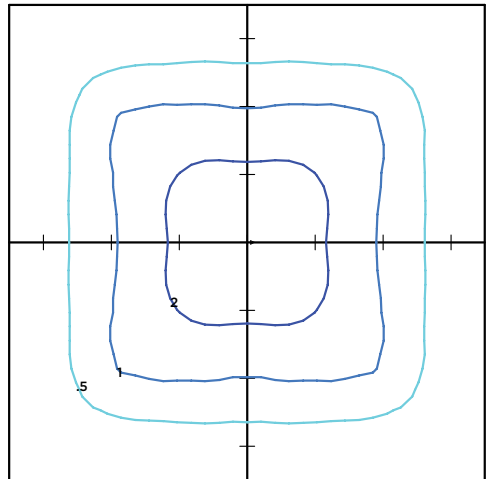
LUMINAIRE DATA

Type 5W Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	17,636
Watts	135
Efficacy	131
IES Type	Type VS - Short
BUG Rating	B4-U0-G2

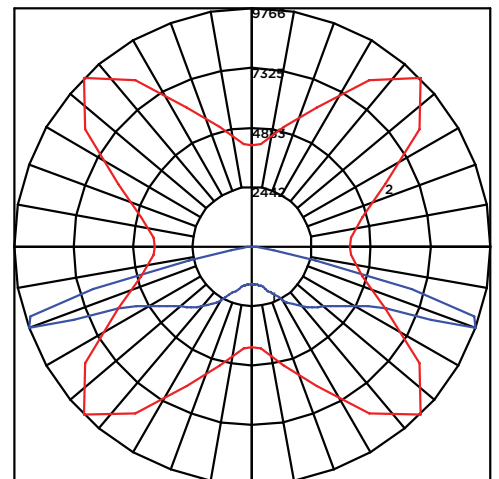
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	1646	9%
Medium (30-60)°	7453	43%
High (60-80)°	8405	48%
Very High (80-90)°	132	1%
Uplight (90-180)°	0	0%
Total Flux	17636	100%

ISO FOOTCANDLE



POLAR CURVE



20' Mounting Height/20' Grid Spacing

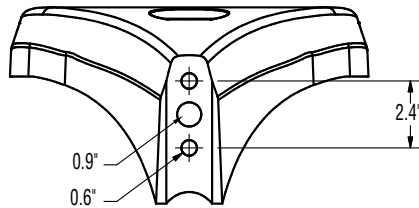
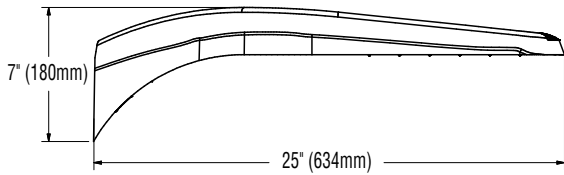
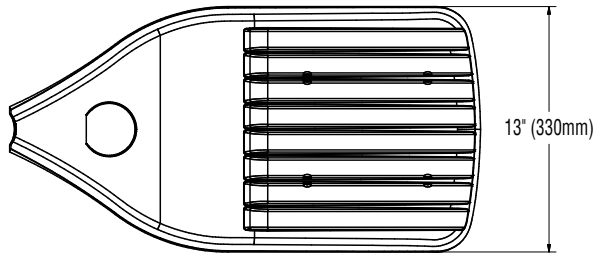
5 FC
 2 FC
 1 FC
 0.5 FC



Mirada Small Area Light (MRS)

[Back to Quick Links](#)

PRODUCT DIMENSIONS

**B3 Drill Pattern**

LUMINAIRE EPA CHART - MRS					LUMINAIRE EPA CHART - MRS				
Tilt Degree		0°	30°	45°	Tilt Degree		0°	30°	45°
	Single	0.5	1.3	1.8		T90°	1.4	2.3	2.6
	D180°	0.9	1.3	1.8		TN120°	1.4	1.9	2.3
	D90°	0.9	1.8	2.2		Q90°	1.4	2.3	2.6

CONTROLS

AirLink Wireless Lighting Controller

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 a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

[Click here to learn more about AirLink.](#)

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

[Click here to learn more about IMSBT.](#)

AirLink Blue

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

[Click here to learn more about AirLink Blue.](#)





Mirada Small Area Light (MRS)

POLES & BRACKETS

LSI offers a full line of poles and mounting accessories to complete your lighting assembly. Aluminum and steel in both square and round shafts. In addition, LSI offers round tapered, fluted and hinge based poles. Designed and engineered for durability and protected with our oven baked DuraGrip Protection System. Also available with our DuraGrip+ Protection system for unmatched corrosion resistance and an extended warranty. American made in our Ohio facility with industry leading lead times.

[Click here to learn more details about poles & brackets.](#)



BKA UMB CLR

The 3G rated UMB allows for seamless integration of LSI luminaires onto existing/ retrofit or new construction poles. The UMB was designed for square or round (tapered or straight) poles with two mounting hole spacings between 3.5" - 5".



BKA ASF CLR

The adjustable Slip Fitter is a 3G rated rugged die cast aluminum adapter to mount LSI luminaires onto a 2" iron pipe, 2 3/8 OD tenon. The Adjustable Slip Fitter can be rotated 180° allowing for tilting LSI luminaires up to 45° and 90° when using a vertical tenon.



BKS PQM15 CLR

The Pole Quick Mount Bracket allows for preset 15° uptilt of LSI luminaires for greater throw of light and increased vertical illumination as well as fast installation onto poles with LSI's 3" or 5" bolt pattern.



BKS PQMH CLR

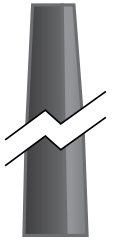
The Pole Quick Mount Bracket allows for lightning fast installation of LSI luminaires onto existing and new construction poles with LSI's B3 or B5 standard pole bolt patterns.



Square Pole
14'-39'



Round Pole
10'-30'



Tapered Pole
20'-39'





Catalog #: _____ Project: _____

Prepared By: _____ Date: _____ Type: _____

AirLinkTMenabled by **SYNAPSE**

Wireless Lighting Controller (ALSC UNV)



STAND-ALONE CONTROLS

The ALSC-UNV 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. The controller is typically installed inside of a fixture.



FEATURES & SPECIFICATIONS

Construction

- Seamlessly integrates into the outdoor AirLink wireless lighting control solution and self-healing mesh network
- Direct connect up to two (2) 24V occupancy sensors and photocontrols (consult LSI Technical Support for compatible list)
- Provided in a metal cased version with quick connect terminal blocks

Electrical

- Class 1/2 0-10V dimming control
- Input power: 100–277 VAC +/- 10% (Max 305V) 50/60 Hz
- Load rating: 5A @ 100V to 277V (+/- 10%)
- Dimming: 0–10V control; Output: Class 1/2 - 20mA Source Max / 50mA Sink Max
- Sensors inputs: 0–10V (photocontrol sensors), 0–24V (all other sensors); Sensor power supply: 24VDC @ 50mA
- Relay closes on power loss.

Controls

- True On/Off functionality via switched relay
- 2% utility grade power monitoring
- RF Range — 1,000ft line-of-sight between controllers
- Secure, over-the-air upgrades to support future enhancements
- Switched output: Default ON; Zero Cross Switching
- Lights default to on for safety

Installation

- Supports a wide range of LED drivers and fixtures
- Operating environmental: -40°F to 131°F (-40°C to 55°C)
- Dimensions: 8.2" L x 2.3" W x 1.3" H (209mm L x 59 mm W x 33 mm H) without antennas

Warranty

- 5-year warranty

Listings

- UL Listed
- FCC
- CE
- IC
- Title 24 Compliant; see local ordinance for qualification information.

ORDERING GUIDE

Catalog Number	Description	Part Number
ALSC UNV	AirLink Synapse- Controller 120-277	661408





Wireless Lighting Controller

Wiring Guide

Wiring Information	
Class 1	
Line	Black
Neutral	White
Load	Red
Class 1 or 2	
-10V Dim+	Purple
0-10V Dim-	Gray
Class 2	
Sensor In	Blue
Sensor Power	Brown
Sensor Com	White/Blue

Class 1 Terminal Block (accepts 12–28 AWG wires)

Neutral: AC Return
Line: 100–277 VAC (+/- 10%)
Load: Switched AC Load

Class 1/2 Terminal Block (accepts 18–20 AWG wires)

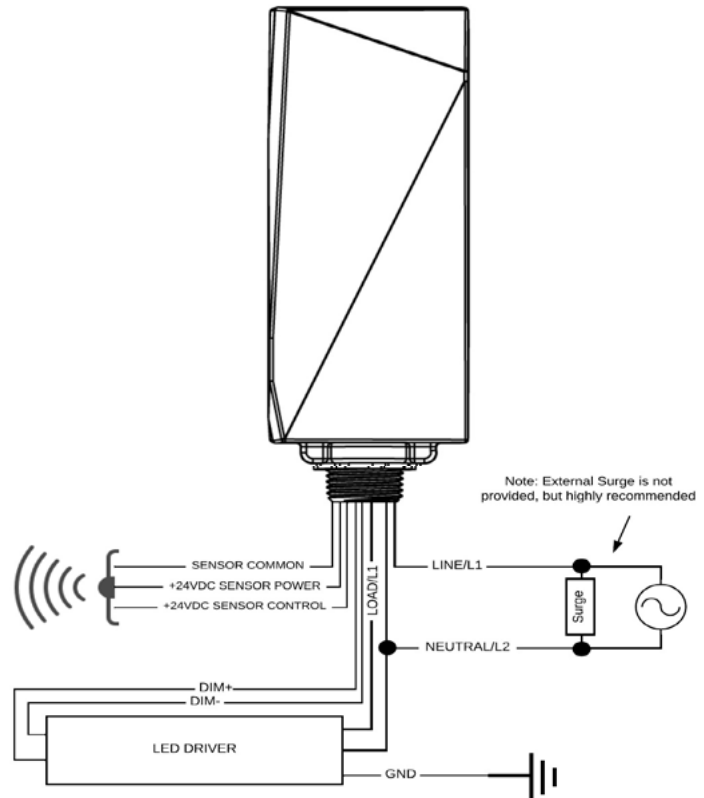
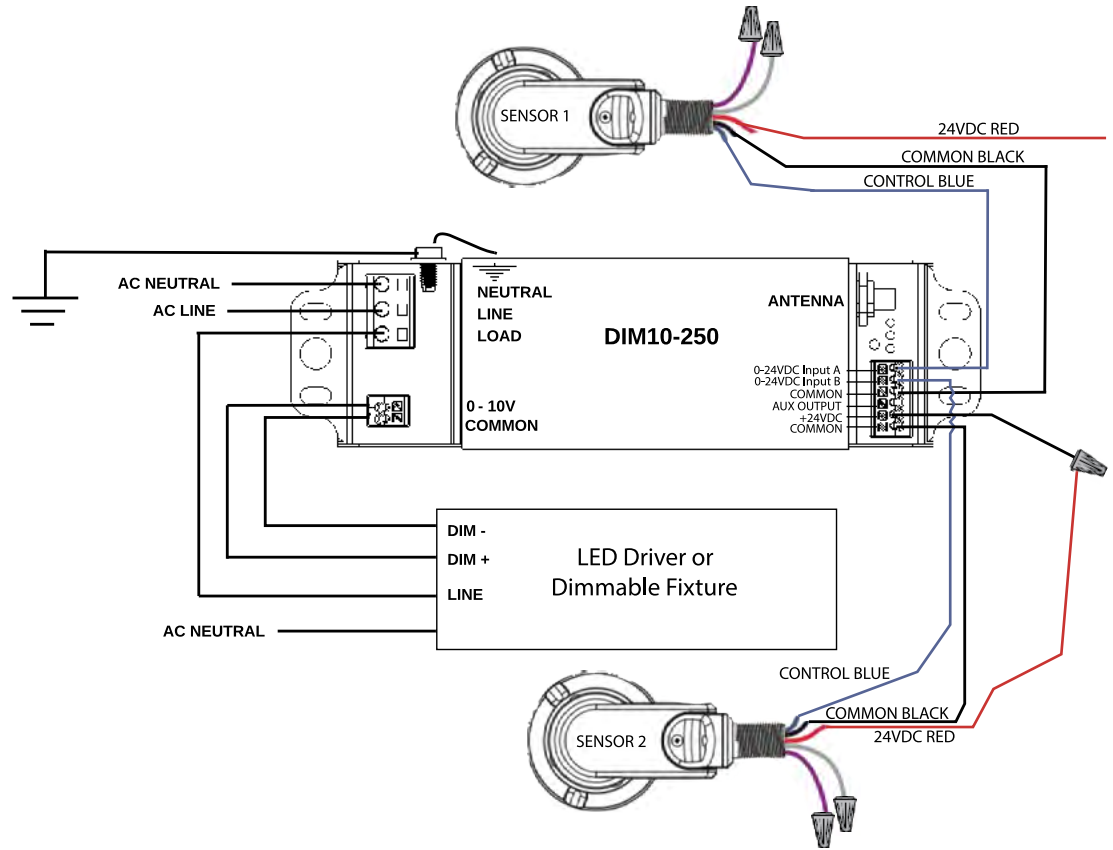
1–10V: Dim +
Common: Dim–

Class 2 Terminal Block (accepts 18–20 AWG wires)

0–24V Input: Sensor input
N/C: Do not connect
Common: Sensor DC Return
N/C: Do not connect
+24 VDC: Sensor power supply
Common: Sensor power supply return

LED Indicators

Power LED: Power On
Status1 LED: Reserved for future use
Status2 LED: Relay status - On/Off



_____ Project name
 _____ Prepared by
 / / Date



AirLink™ Site Manager Controller
 enabled by Synapse®



Catalog #: **ALSSM WIFI
 ALSSM WIFI VER CELL**
 Part #: **661411
 661412**

The AirLink site controller serves as the heart of your outdoor lighting solution, allowing local control without the internet through the AirLink Site Manager.

- Applications** Auto dealerships Warehouses Shopping centers Parking facilities

Features

- No recurring software fee—buy once, use forever
- Multiple Zones, Behaviors, Events and Schedules
- AirLink creates a Wi-Fi connection to smart phone, tablet, or PC for local access, or can be hardwired for remote access
- Optional remote access service available
- Stand alone systems available (no internet access required)
- Firmware Upgrades via USB Flash Drive
- Sunrise and Sunset Schedules driven by latitude and longitude
- Optional Cellular Connectivity (ALS-SM-WIFI-VER-CELL)
- Mounts in IT room or electrical room

- Input power: 12–24V DC (Barrel and Terminal Block Connectors)

Other

- Mounting: DIN rail or Wall Mounted
- Dimensions: 6.8" L x 4.6" W x 1.4" H (173mm L x 117mm W x 36mm H) without antennas
- Cellular: Verizon 4G CDMA (optional)
- WiFi: 802.11 a/b/g
- Radio: SNAP 2.4 GHz; 802.15.4; +20 dBm Transmit Power; -105 dBm Receive Sensitivity
- Interfaces: 1 USB Port for Software Updates; 1 Ethernet Port for Wired Access
- Warranty: limited 5-year warranty

Specifications

Regulatory Approvals

- FCC certified

Power and Performance

- Operating Environmental: -40°F to 158°F (-40°C to 70°C)

Certifications & Affiliations



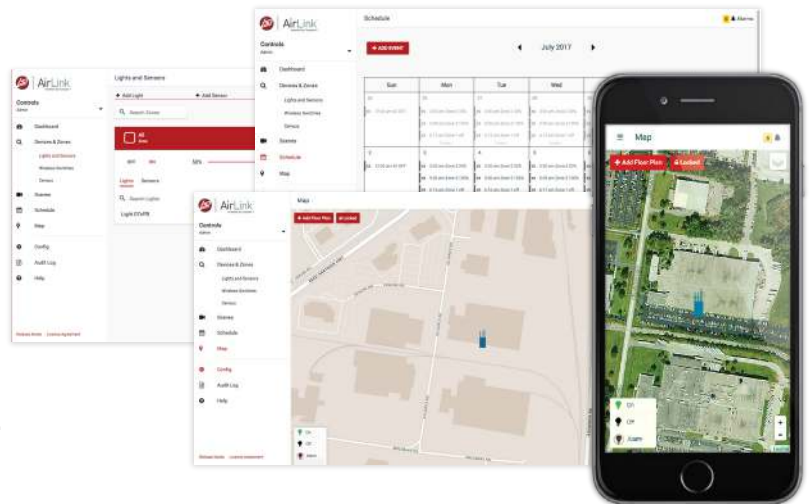


Included with ALS-SM-WIFI

- 2 Antennas
- 1 Power Supply
- Mounting Template
- Terminal Block Connector (for alternate power connection)
- Quick Install Guide

Included with ALS-SM-WIFI-VER-CELL

- 4 Antennas
- 1 Power Supply
- Mounting Template
- Terminal Block Connector (for alternate power connection)
- Quick Install Guide



AirLink Site Manager

The AirLink Site Manager (ALSM) is a free wireless, on-site control solution for monitoring and controlling outdoor and indoor lights on a single site via a SNAP mesh network. AirLink Site Manager provides the flexibility to manage your lighting, your way, with system setup and configuration through a mobile-friendly Wi-Fi interface.

The system stores power data, zones, alarms, behaviors and critical events locally for maintenance and troubleshooting; and provides municipal compliance via daily schedules, sensor controlled behaviors and multiple dimming levels. With programmable schedules and easy setup, the AirLink Site Manager is the perfect solution for remote sites or where internet is not desired. You just configure it and it runs.


Remote access and multi-site management is an available option.

Ordering Information

Part #	Catalog #	Description
661411	ALSSM WIFI	AirLink Synapse – Site Manager Wifi
661412	ALSSM WIFI VER CELL	AirLink Synapse – Site Manager Wifi Verizon Cellular

Contact LSI Controls

 **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

_____ Project name
 _____ Prepared by
 / / Date



AirLink™ Wired 5-Button Override Switch
 enabled by Synapse®

Catalog #: **ALOV USB**
 Part #: **664034**



The Wired 5-Button Switch is an AirLink component that can be installed anywhere you need indoor, wireless push-button lighting control, such as municipal ball parks, hockey arenas, basketball facilities and other multi-use sports complexes.

The Wired 5-Button Switch switch easily connects to a site controller via the 8ft USB cable to make it easy to get manual access to site lighting controls. This is ideal for customers who would like the option of controlling their lights by pressing a button rather than logging into AirLink Site Manager.

- Applications** Auto dealerships Warehouses Shopping centers Parking facilities

Features

- 5-button switch for easy control of all lights
- Allows for controlled manual access to an AirLink – enabled by Synapse lighting system
- Connects to Site Controller via USB Port
- Each of the 5 buttons can be configured to control up to 5 scenes via multi-press functionality

Specifications

- FCC, IC certified & California Title 24 compliant
- Operating environmental: 32°F to 113°F (0°C to 45°C), indoor use only
- Input power: 5V (USB)
- Dimensions: 7.88" L x 2.13" W x 1.29" H (200mm L x 54mm W x 32.8mm H)
- Warranty: limited 1-year warranty

Certifications & Affiliations



Ordering Information

Part #	Catalog #	Description
664034	ALOV-USB	AirLink Synapse – Wired 5-Button Override Switch

Contact LSI Controls

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



AirLink™ Wireless Switches

enabled by Synapse®



Project name

Prepared by

/ / Date

Catalog #: **ALSW 2B**
or **ALSW 8B**
Part #: **667859** or **667858**

The AirLink wireless low-voltage switches are compatible with the AirLink wireless outdoor lighting control system enabled by Synapse. The switches are available in either 2 or 8 button configurations. Wireless switches provide lighting control without needing to switch the lighting load directly. Switches communicate via mesh network to allow installation of the switch in the most convenient user location. Multiple wireless switches can be used throughout the site and configured to provide optimized control of the lighting.

Applications



Auto dealerships



Warehouses



Shopping centers



Parking facilities

Features

- 2 or 8 button configurations
- Mounts in standard single-gang electrical box
- Compatible with the AirLink wireless outdoor lighting Control system enabled by Synapse
- Blue LEDs behind each button indicate activation of button
- Multi-color LED indicates switch communication status and serves as LOCATOR LED
- Up to 5 scenes configurable in AirLink can be assigned to each button providing extensive flexibility in lighting control

Certifications & Affiliations



Specifications

Regulatory Approvals

- FCC, IC certified

Power and Performance

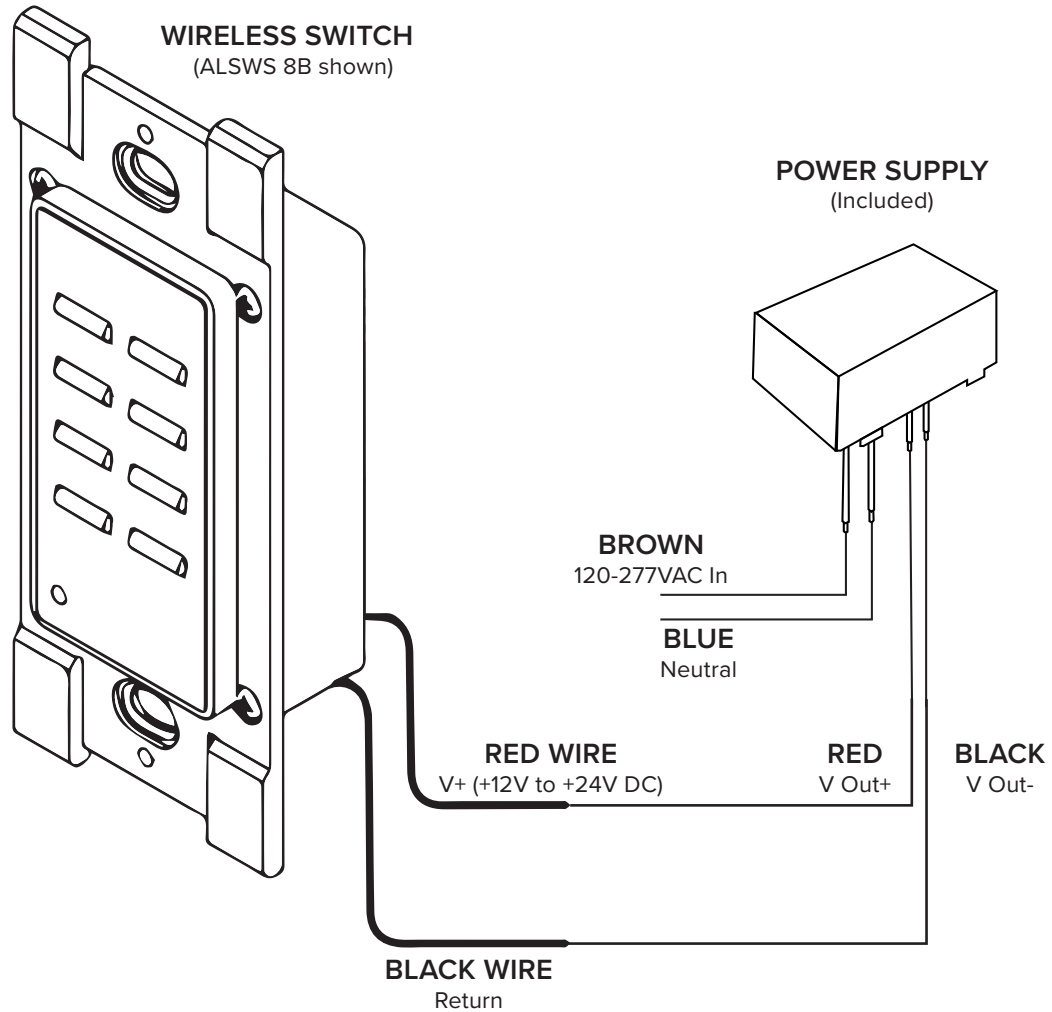
- Operating environmental: -4°F to 140°F (-20°C to 60°C); indoor use only
- Input power: 1.2W
- Input Voltage: 12–24V DC
- Radio: 2.4 GHz
- The ALSWS 8B and ALSWS 2B include an AC to DC power supply. Power supply must be located in a separate electrical box to meet electrical code requirements.

Other

- Dimensions: 4.4" H x 1.75 W x 1.5" D (112mm H x 45mm W 38 mm D)
- Warranty: 5 years



Wiring Diagram



Ordering Information

Part #	Catalog #	Description
667859	ALSW5 2B	AirLink Synapse – 2 Button Wireless Switch
667858	ALSW5 8B	AirLink Synapse – 8 Button Wireless Switch

Contact LSI Controls



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