



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).
- 5' Dimming and Power leads included when Fixed Mounting Studs are ordered.
- 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.
- IK08 rated luminaire per IEC 66262 mechanical impact code.
- 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](http://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 <sup>1</sup>	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
<p>(Blank) - None</p> <p><b>Wireless Controls System</b></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 ALBCS1 - AirLink Blue Wireless Motion &amp; Photo Sensor Controller (8-24' mounting height)<sup>2,3</sup> ALBCS2 - AirLink Blue Wireless Motion &amp; Photo Sensor Controller (25-40' mounting height)<sup>2,3</sup></p> <p><b>Stand-Alone Controls</b></p> <p>EXT - 0-10v Dimming leads extended to housing exterior CR7P - 7 Pin Control Receptacle ANSI C136.41<sup>5</sup> IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor max 8-24' mounting height<sup>3,4</sup> IMSBT2 - Integral Bluetooth Motion and Photocell Sensor max 25-40' mounting height<sup>3,4</sup></p>	<p>BRZ - Bronze BLK - Black GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus GRN - Green WHT - White</p>	<p>(Blank) - None IH - Integral Houseside Shield IL - Integral Louver (Sharp Spill Light Cutoff) FMS - Fixed Mounting Studs<sup>9</sup></p>

### Accessory Ordering Information<sup>6</sup>

Controls Accessories <sup>6</sup>	
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 <sup>7</sup>
Shorting Cap for use with CR7P <sup>8</sup>	149328

Mounting Accessories <sup>5</sup>	
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

Fusing Options <sup>8</sup>		Shielding Options	
Description	Order Number		
Single Fusing (120V)	<a href="#">See Fusing Accessory Guide</a>	Mirada Small	<a href="#">See Shielding Guide</a>
Single Fusing (277V)		Mirada Medium	
Double Fusing (208V, 240V)		Mirada Large	
Double Fusing (480V)		Zone Medium	
Double Fusing (347V)		Zone Large	
		Slice Medium	

### FOOTNOTES:

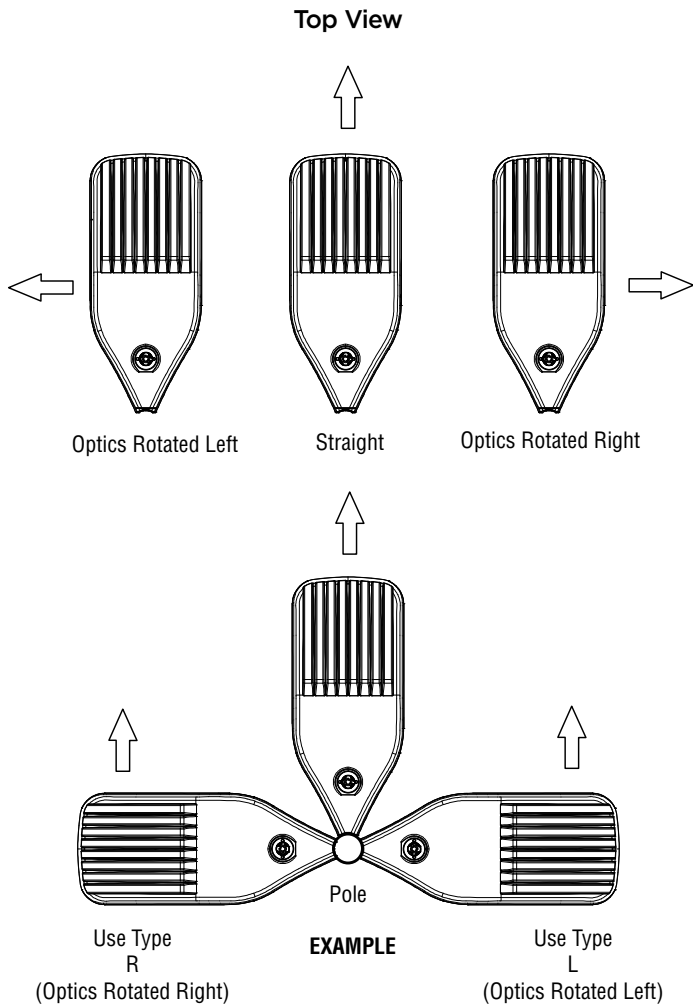
- Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
- Consult factory for site layout.
- Consult factory for 347-480V.
- IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app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

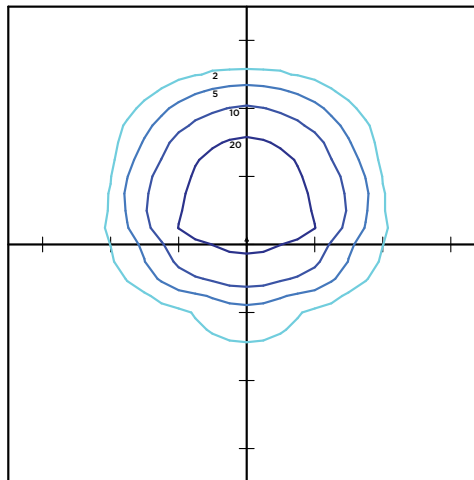
#### LUMINAIRE DATA

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

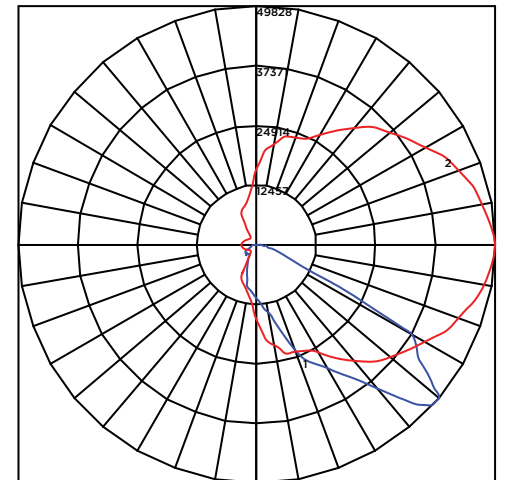
#### Zonal Lumen Summary

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

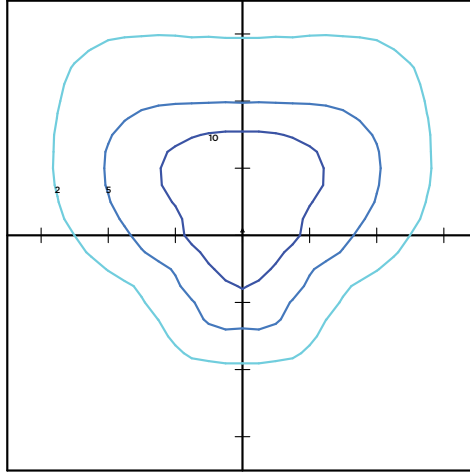
#### LUMINAIRE DATA

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

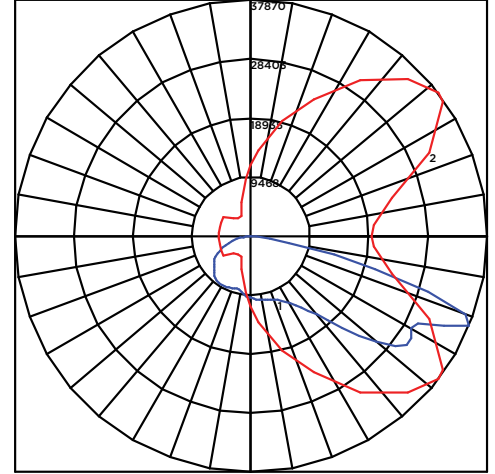
#### Zonal Lumen Summary

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





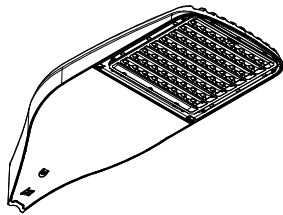
# ZONE Large Outdoor Sports Light

## ACCESSORIES/OPTIONS

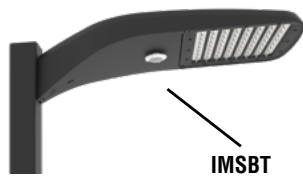
### Integral Louver (IL) and House-Side Shield (IH)

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)



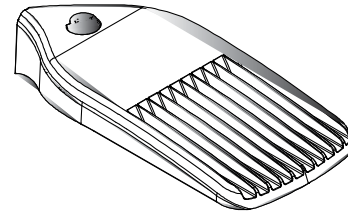
Luminaire Shown with IMSBT Option



### 7 Pin Photoelectric Control

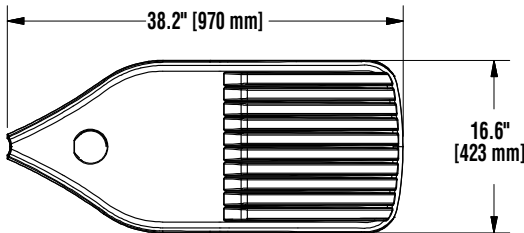
7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with PCR 7P

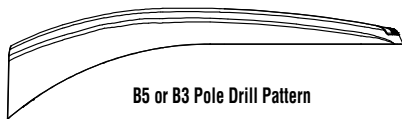


## PRODUCT DIMENSIONS

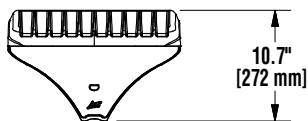
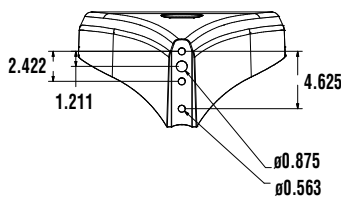
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LUMINAIRE EPA CHART - ZNL								
Tilt Degree		0°	30°	45°	Tilt Degree	0°	30°	45°
Single	Single	0.8	2.2	2.9	T90°	2.0	3.8	4.5
D180°	D180°	1.6	2.2	2.9	TN120°	2.0	5.0	6.0
D90°	D90°	1.2	3.0	3.7	Q90°	2.0	3.8	4.5

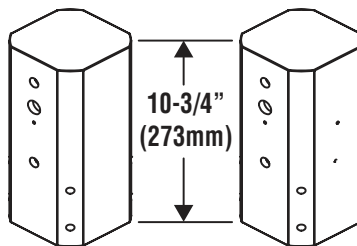


B5 or B3 Pole Drill Pattern



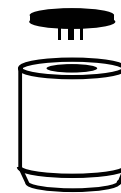
### BRACKETS

BKA-NM-\*-CLR: Tenon Mount Fitter



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

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



- 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'

