ZONE™ Medium (ZNM)
Outdoor Sports Light

Bluetooth · *TITLE 24 COMPLIANT* · *DLC PREMIUM* · *MANUFACTURED IN THE USA* · *ida DARK SKY APPROVED* · *c(UL)us LISTED* · **IP66** · **IK08**

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 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: 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.

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 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 applicationsapplicationsare 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 to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)

ZONE Medium Outdoor Sports Light

ORDERING GUIDE

TYPICAL ORDER EXAMPLE:	ZNM	48L	CT	UNV	50	ALBCS1	BLK	IH

Prefix	Output	Distribution	Orientation	Voltage	Color Temperature
ZNM - Zone Medium	**24L** - 24,000 lms **30L** - 30,000 lms **36L** - 36,000 lms **42L** - 42,000 lms **48L** - 48,000 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 **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] **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 **WHT** - White **PLP** - Platinum Plus **GRN** - Green	**(Blank)** - None **IH -** Integral Houseside Shield **IL -** Integral Louver (Sharp Spill Light Cutoff)

Accessory Ordering Information[6]

Controls Accessories

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	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 Options[7]

Description	Order Number
Single Fusing (120V)	
Single Fusing (277V)	
Double Fusing (208V, 240V)	See Fusing Accessory Guide
Double Fusing (480V)	
Double Fusing (347V)	

Mounting Accessories

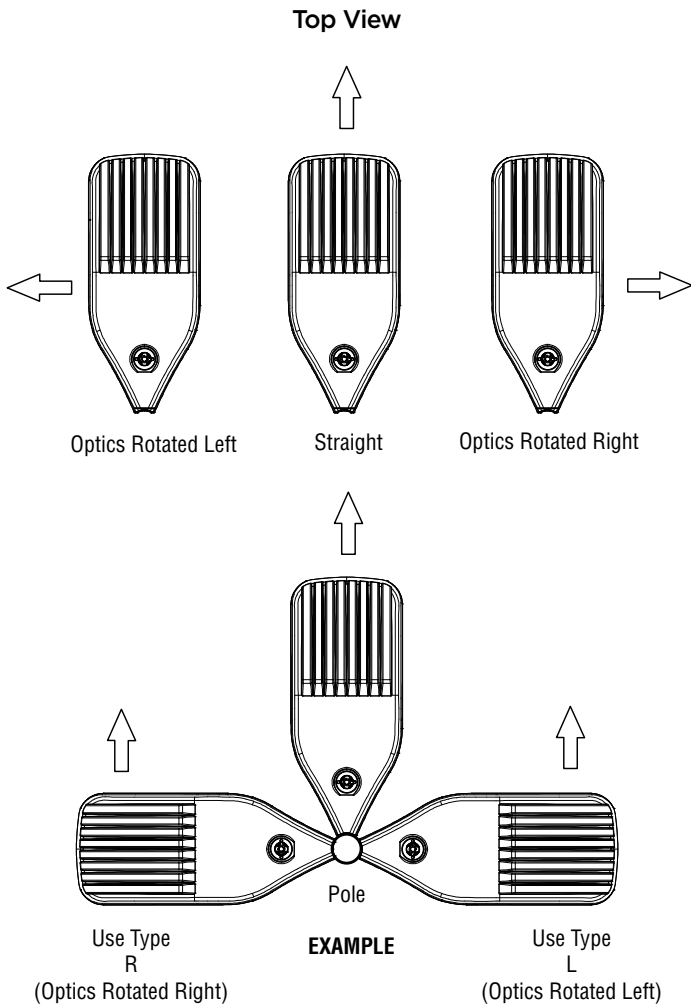| Description	Order Number[9]
Universal Mounting Bracket	684616CLR
Adjustable Slip Fitter (2" - 2 3/8" Tenon)	688138CLR
Horizontal Slip Fitter (2" - 2 3/8" Tenon)	652761CLR
Quick Mount Pole Bracket (Square Pole)	687073CLR
Quick Mount Pole Bracket (4-5" Round Pole)	689903CLR
15 Tilt Quick Mount Pole Bracket (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

Shielding Options

Mirada Small	
Mirada Medium	
Mirada Large	See Shielding Guide
Zone Medium	
Zone Large	
Slice Medium	

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 Facotry for 347-480V.
4. IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
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. See Fusing Accessory Guide for compatability.
8. "CLR" denotes finish. See Finish options.

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OPTICS ROTATION

Top View

Optics Rotated Left | Straight | Optics Rotated Right

Pole

EXAMPLE

Use Type
R
(Optics Rotated Right)

Use Type
L
(Optics Rotated Left)

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

IH/IL

IMSBT

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
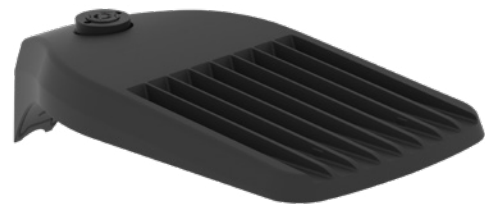
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PERFORMANCE

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
24L	FT		25964	148	B3-U0-G4	25964	148	B3-U0-G4	25964	148	B3-U0-G4	176
30L	CT		32960	142	B3-U0-G3	32960	142	B3-U0-G3	32960	142	B3-U0-G3	232
30L	FT		32424	140	B3-U0-G4	32424	140	B3-U0-G4	32424	140	B3-U0-G4	232
36L	CT		38916	135	B3-U0-G3	38916	135	B3-U0-G3	38916	135	B3-U0-G3	288
36L	FT70		38283	133	B4-U0-G5	38283	133	B4-U0-G5	38283	133	B4-U0-G5	288
42L	CT		44859	127	B4-U0-G3	44859	127	B4-U0-G3	44859	127	B4-U0-G3	354
42L	FT		44130	125	B4-U0-G5	44130	125	B4-U0-G5	44130	125	B4-U0-G5	354
48L	CT		49615	124	B4-U0-G3	49615	124	B4-U0-G3	49615	124	B4-U0-G3	401
48L	FT		48809	122	B4-U0-G5	48809	122	B4-U0-G5	48809	122	B4-U0-G5	401

*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				
C	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:
1. Lumen maintenance values at 40C are calculated per TM-21 based on LM-80 data and in-situ testing.
2. 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.
3. 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.

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PHOTOMETRICS

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
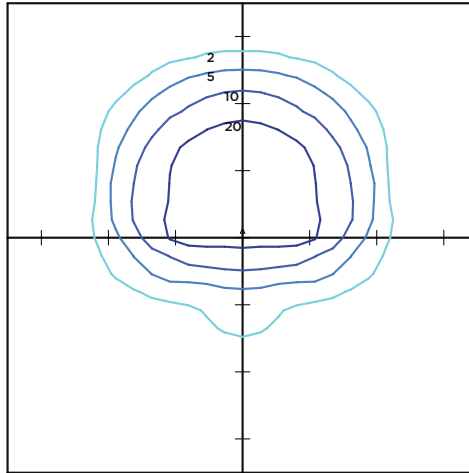
20' Mounting Height/15' Grid Spacing
■ 20 FC ■ 10 FC ■ 5 FC ■ 2 FC

POLAR CURVE
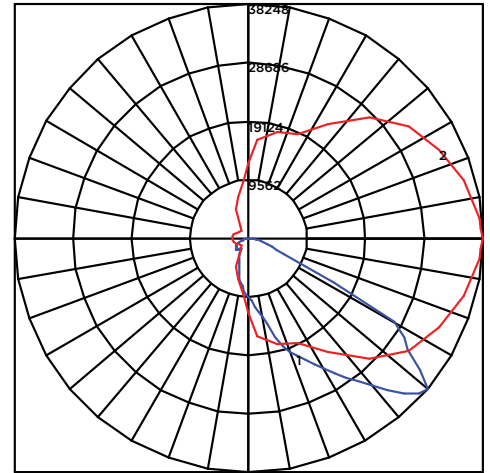
ZNM-48L-FT-40

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
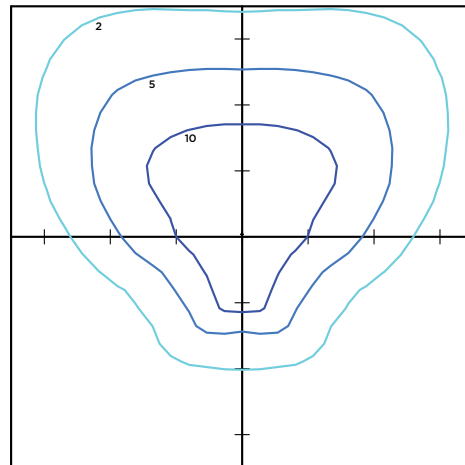
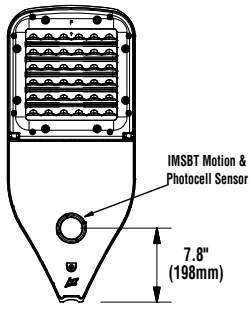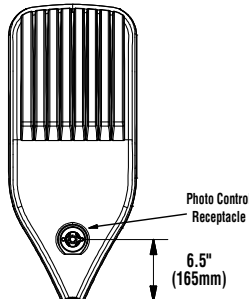**20' Mounting Height/15' Grid Spacing**
■ 20 FC ■ 10 FC ■ 5 FC ■ 2 FC

POLAR CURVE
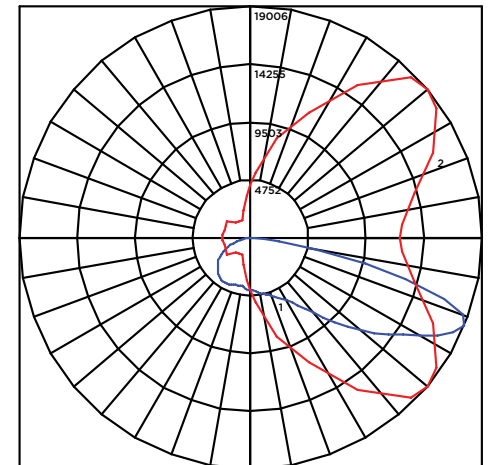
ZONE Medium Outdoor Sports Light

PRODUCT DIMENSIONS

13-1/2" (342mm)

7.6" (192mm)

1.2" (30mm)
2.4" (61mm)
ø.75" (19mm)

31.3" (795mm)

B3 Pole Drill Pattern

IMSBT Motion & Photocell Sensor

Photo Control Receptacle

7.8" (198mm)

6.5" (165mm)
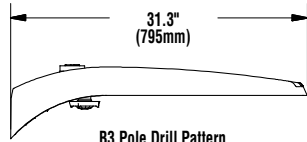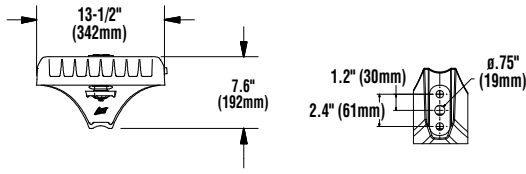
Bottom View

Top View

LUMINAIRE EPA CHART - ZNM

Tilt Degree		0º	30º	45º		Tilt Degree	0º	30º	45º
	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).

10-3/4" (273mm)
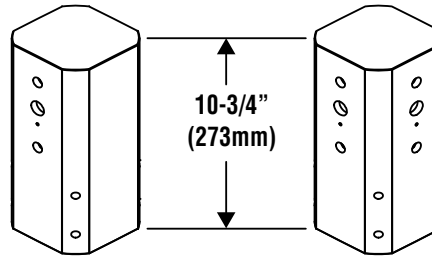
BKA-XNM-S or D180-*-CLR
Single/D180
(Drilled 2 Sides)

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".

BKA ASF CLR

The adjustable Slip Fitter is a 3G rated rugged die cast aluminum adapter to mount LSI luminaires onto a 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.
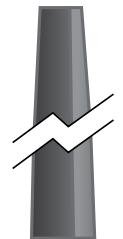
BKS PQMH CLR

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'