



## **The Bedens Brook Club**

March 2, 2023

Cheryl L. Chrusz  
Planning Coordinator  
Township of Montgomery  
cchrusz@montgomerynj.gov

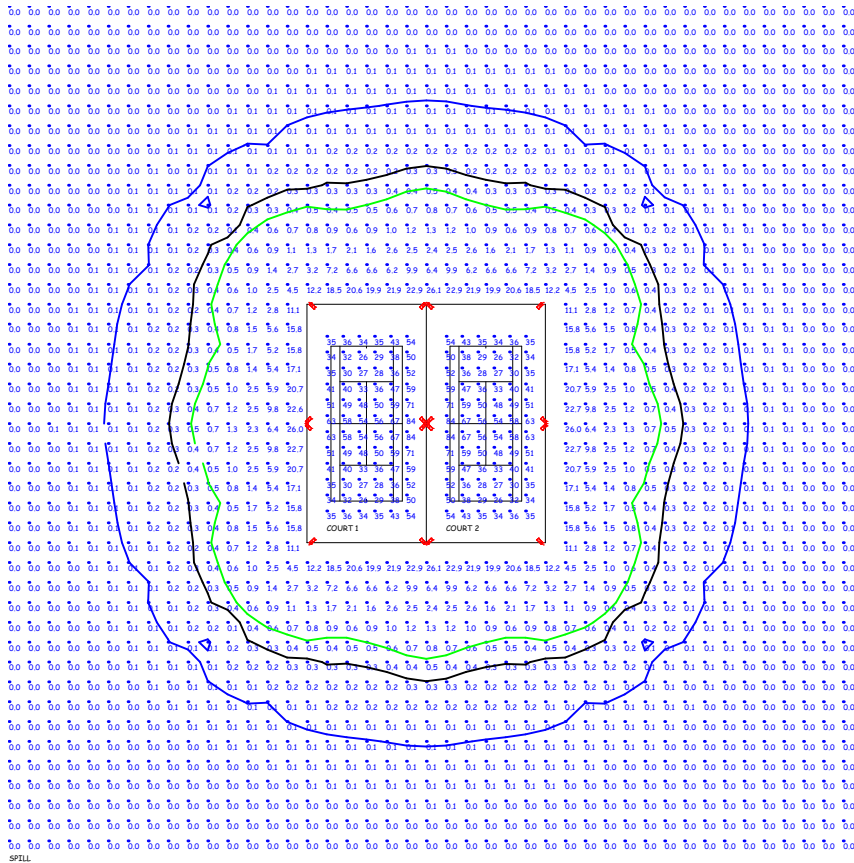
Cheryl,

Per your request from letter dated February 8, 2023 I have added the information requested for the lights. (See Attached)

Regards,

*Craig W. Campbell*

**Craig W. Campbell**  
General Manager



Luminaire Schedule								
Project: BEDENS BROOK CLUB								
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	4	A	Single	ZNL-60L-CT-50 (ZONE LARGE) @ 22' MTG. HT.	0.940	60978	448	1792
	4	C	TWIN 90	ZNL-60L-CT-50 (ZONE LARGE) @ 22' MTG. HT.	0.940	60978	448	3584
	1	D	QUAD 90	ZNL-60L-CT-50 (ZONE LARGE) @ 22' MTG. HT.	0.940	60978	448	1792

Calculation Summary					
Project: BEDENS BROOK CLUB					
Label	Calc Type	Avg	Max	Min	Max/Min
COURT 1	Illuminance	45.00	84	26	3.23
COURT 2	Illuminance	45.00	84	26	3.23
SPILL	Illuminance	0.98	26.1	0.0	N/A



The light levels shown are maintained using a .94 light loss factor (LLF). Light loss factors are used to adjust the light output of a luminaire operating in a controlled laboratory environment to the output obtained under actual field conditions. The LLF used in these calculations includes both recoverable and non-recoverable factors. Recoverable factors include luminaire dirt depreciation (LDD). Non-recoverable factors include optical system variations, and depreciation in initial luminaire lumen output. The use of the light loss factor shown requires making certain assumptions about the lighting system, the specific application, and the maintenance of the system over time. Therefore, actual light levels measured in the field may vary from the calculated values, especially in regards to individual location measurements.

Calculations use a LED Maintained Lamp Lumen factor based upon 50,000 hours of life, derived from IES TM21-11, and based upon an In-situ case temperature of 55°C.

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and / or architect must determine applicability of the layout to existing or future field conditions.

Filename: BEDENS1.AGT  
Date: 2/28/2023

The Bedens Brook Club  
Skillman, NJ

LSI Industries  
10000 Alliance Road  
Cincinnati, OH 45242  
Voice Number : 513-666-4242



Date: 2/28/2023

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# ZONE™ Large (ZNL)

## Outdoor Sports Light



IP66 IK08



# 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 CT and FT.
- 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 integral half louver (IH) options available for enhanced backlight control.

### 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™ programmable motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink wireless control system options allow for programming and group control while reducing energy and maintenance costs and optimizing light quality (see controls section 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 in poles section)

### 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.
- IK08 rated luminaire per IEC 60662 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
<b>ZNL</b> - Zone Large	<b>50L</b> - 50,000 lms <b>60L</b> - 60,000 lms <b>65L</b> - 65,000 lms <b>78L</b> - 78,000 lms Custom Lumen Packages <sup>1</sup>	<b>CT</b> - Court Optic <b>FT</b> - Forward Throw	<b>(Blank)</b> - Standard (no rotation) <b>L</b> - Optics rotated left 90° <b>R</b> - Optics rotated right 90°	<b>UNV</b> - Universal Voltage (120-277V) <b>HV</b> - High Voltage (347 - 480V)	<b>50</b> - 5,000 CCT <b>40</b> - 4,000 CCT <b>30</b> - 3,000 CCT

Controls	Finish	Options
<b>(Blank)</b> - None <b>Wireless Controls System</b> <b>ALSC</b> - AirLink Synapse Control System <b>ALSCS02</b> - AirLink Synapse Control System with 12-20' Motion Sensor <b>ALSCS04</b> - AirLink Synapse Control System with 20-40' Motion Sensor <b>ALSC B</b> - Airlink Synapse Integral Controller and Dynamic Behaviors Drivers <b>ALSC UNV TL7</b> - Airlink Synapse 7 Pin Twist Lock Controller 120V-277V <b>ALSC HV TL7</b> - Airlink Synapse 7 Pin Twist Lock Controller 347V-480V <b>ALSSM WIFI-VER-CEL</b> - AirLink Synapse Central Base Station <b>ALS RMT ACCESS</b> - AirLink Synapse Remote Access 12 month subscription <b>ALS DYN SCENE</b> - AirLink Synapse Dynamic Behavior Software <b>ALBCS1</b> - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height) <b>ALBCS2</b> - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height) <b>Stand-Alone Controls</b> <b>EXT</b> - 0-10v Dimming leads extended to housing exterior <b>CR7P</b> - 7 Pin Control Receptacle ANSI C136.41 <sup>2</sup> <b>IMSBT1</b> - Integral Bluetooth™ Motion and Photocell Sensor max 8-24' mounting height <sup>3,4</sup> <b>IMSBT2</b> - Integral Bluetooth Motion and Photocell Sensor max 25-40' mounting height <sup>3,4</sup>	<b>BRZ</b> - Bronze <b>BLK</b> - Black <b>GPT</b> - Graphite <b>MSV</b> - Metallic Silver <b>PLP</b> - Platinum Plus <b>GRN</b> - Green <b>WHT</b> - White	<b>(Blank)</b> - None <b>IH</b> - Integral Half Louver (Moderate Spill Light Cutoff) <b>IL</b> - Integral Louver (Sharp Spill Light Cutoff) <b>FMS</b> - Fixed Mounting Studs <sup>5</sup>

## 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 (208-277V) for use with CR7P	122515
Twist Lock Photocell (347V) for use with CR7P	122516
Twist Lock Photocell (480V) for use with CR7P	225180
Shorting Cap for use with CR7P <sup>7</sup>	149328

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

Shielding Options	
Zone Medium	<a href="#">See Shielding Guide</a>
Zone Large	

<sup>1</sup> Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.

<sup>2</sup> Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

<sup>3</sup> Consult factory for 347-480V.

<sup>4</sup> IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.

<sup>5</sup> For use with ZNL upswept arm only. Please see accessory table for ordering details.

<sup>6</sup> Accessories are shipped separately and field installed.

<sup>7</sup> Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.

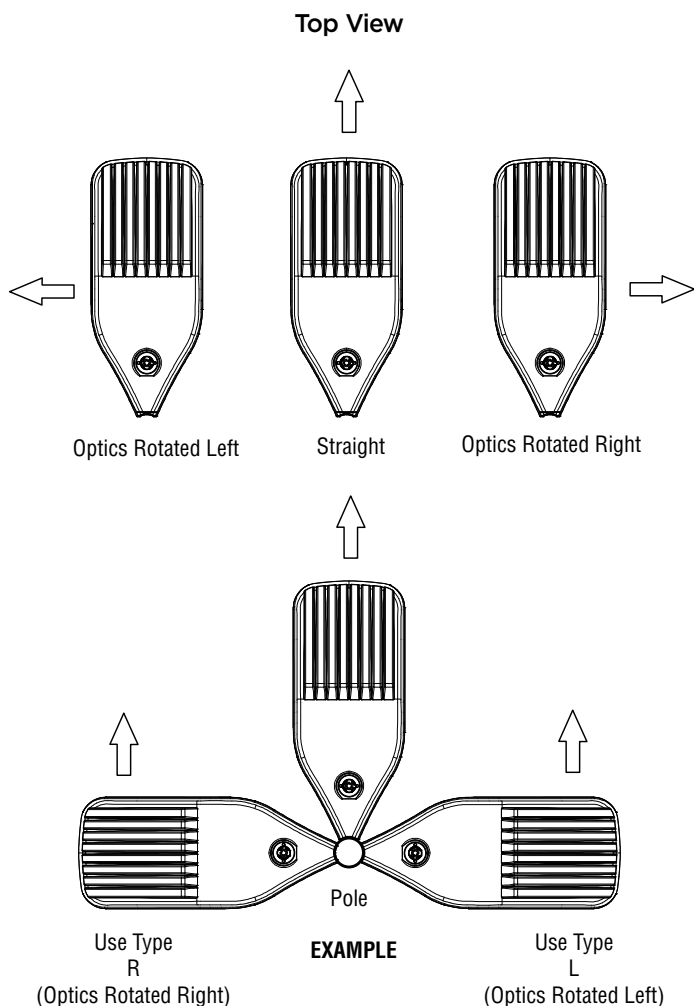
<sup>8</sup> "CLR" denotes finish. See Finish options.





# 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.

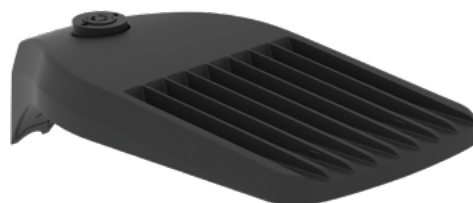
### Luminaire Shown with IMSBT & IL/IH Options



### 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	54622	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 25°C (77°F). Actual wattage may differ by +/-10%.

RECOMMENDED LUMEN MAINTENANCE <sup>10</sup>					
Ambient Temp	Lumen Multiplier				
	0 hrs. <sup>11</sup>	25K hrs. <sup>11</sup>	50K hrs. <sup>11</sup>	75K hrs. <sup>12</sup>	100K hrs. <sup>12</sup>
0 C - 40 C	100%	100%	97%	94%	92%

## 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%.

### ZNL-60L-CT-40

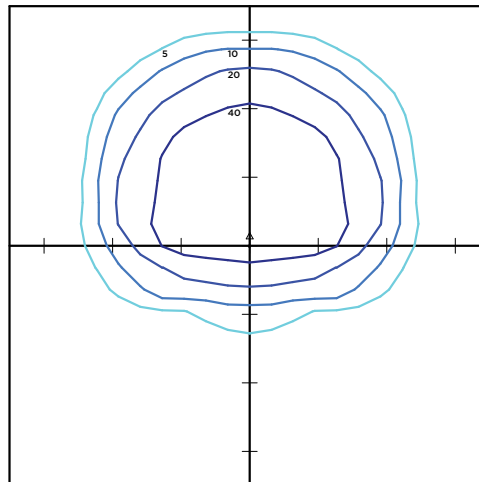
#### LUMINAIRE DATA

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

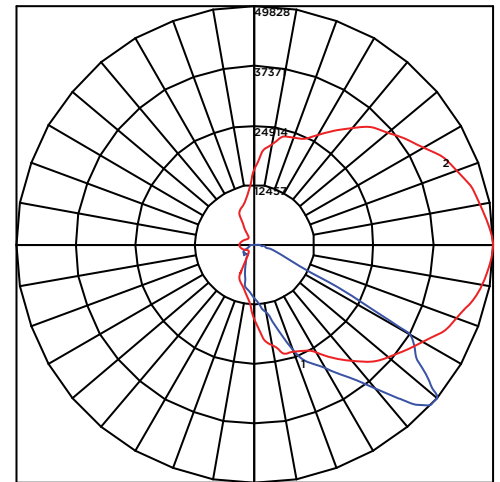
#### Zonal Lumen Summary

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



### 15' Mounting Height/10' Grid Spacing

■ 40 FC ■ 20 FC ■ 10 FC ■ 5 FC

<sup>10</sup> Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.

<sup>11</sup> In accordance with IESNA TM-21-T1, 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).

<sup>12</sup> In accordance with IESNA TM-21-T1, 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).



# ZONE Large Outdoor Sports Light

## PHOTOMETRICS

ZNL-65L-FT-40

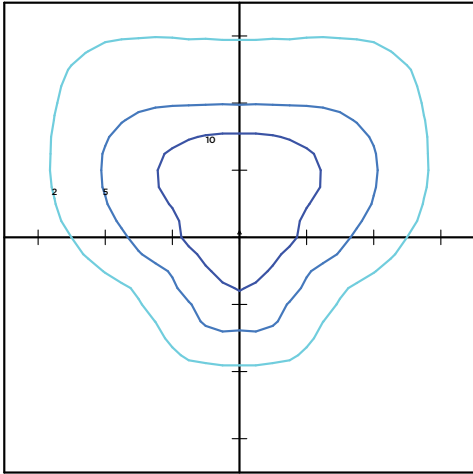
### LUMINAIRE DATA

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

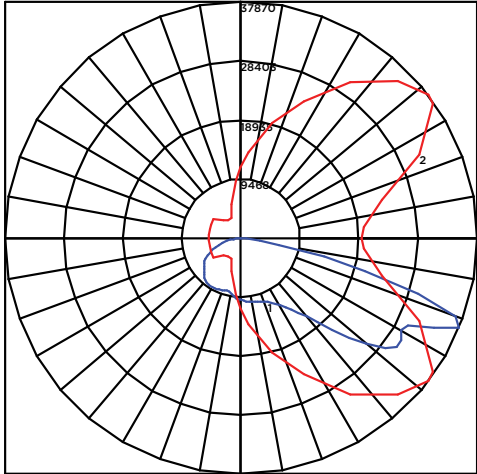
### Zonal Lumen Summary

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



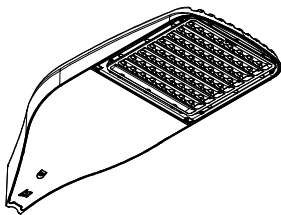
# ZONE Large Outdoor Sports Light

## ACCESSORIES/OPTIONS

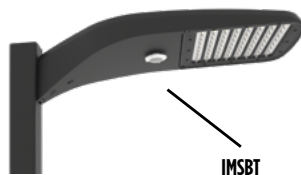
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Luminaire Shown with  
Integral Louver (IL)



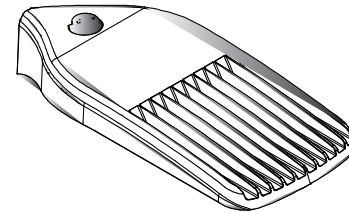
Luminaire Shown with  
IMSBT Option



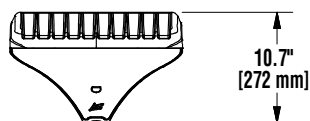
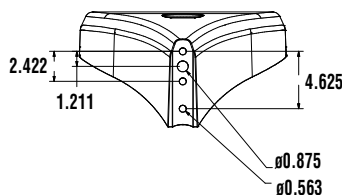
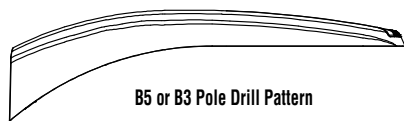
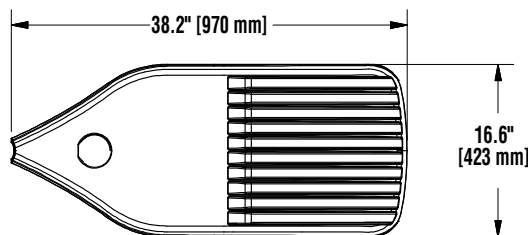
### 7 Pin Photoelectric Control

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

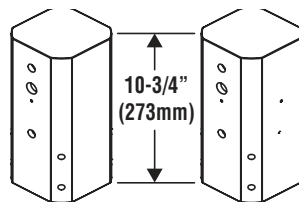
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### LUMINAIRE EPA CHART - ZNL

Tilt Degree					Tilt Degree				
		0°	30°	45°			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



Single/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

### 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.lsicorp.com/wp-content/uploads/documents/products/imsbt-specsheet.pdf>

### AirLink Wireless Lighting Controller (ALSC)

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. It also includes the ability to add Dynamic Behaviors and save scenes for specific sporting events.

Click the link below to learn more details about AirLink.

<https://www.lsicorp.com/wp-content/uploads/documents/products/airlink-outdoor-specsheet.pdf>

### AirLink Blue (ALBCS 1 & 2)

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.lsicorp.com/product/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.lsicorp.com/products/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".



#### 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

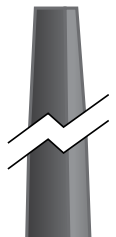
The Pole Quick Mount Bracket allows for lightning fast installation of LSI luminaires onto existing and new construction poles with LSI's B3 or B5 standard pole bolt patterns.



Square Pole  
14'-39'



Round Pole  
10'-30'



Tapered Pole  
20'-39'





Catalog # : \_\_\_\_\_ Project : \_\_\_\_\_  
Prepared By : \_\_\_\_\_ Date : \_\_\_\_\_

# Round Poles

## Round Straight



### QUICK LINKS

[Ordering Guide](#)[Configurations](#)[Dimensions](#)[EPA](#)

## FEATURES & SPECIFICATIONS

### Pole Shaft

- Steel round poles are 4" or 5" in diameter
- Pole shaft is electro-welded ASTM-A500 Grade C Steel Tubing with a minimum yield strength of 46,000 psi.
- On Tenon Mount steel poles, tenon is high-strength pipe. Tenon N option is 2-3/8" O.D. x 4-3/4" tall. Tenon 4N option is 4" O.D. x 4-7/8" tall.

### Hand-Hole

- Standard hand-hole location is 12" above pole base.
- Poles 18' and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand-hole.

### Base

- Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi.
- Two-piece square base cover is optional. Decorative base cover is also available.

### Anchor Bolts

- Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional.
- Anchor Bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 PSI.

### Ground Lug

- Ground lug is standard.

### Duplex Receptacle

- Weatherproof duplex receptacle is optional.

### Ground Fault Circuit Interrupter

- Self-testing ground fault circuit interrupter is optional.

### Finishes

- Every pole is provided with the DuraGrip® Protection System and a 5-year limited warranty:
- When the top-of-the line DuraGrip Plus Protection System is selected, in addition to the DuraGrip Protection System, a non-porous, automotive-grade corrosion coating is applied to the lower portion of the pole interior sealing and further protecting it from corrosion. This option extends the limited warranty to 7 years.

### Determining The Luminaire/Pole Combination For Your Application:

- Select luminaire from luminaire ordering information.
- Select bracket configuration if required
- Determine EPA value from luminaire/bracket EPA chart
- Select Pole Height

- Select MPH to match wind speed in the application area (See windspeed maps).
- Confirm pole EPA equal to or exceeding value of luminaire/bracket EPA
- Consult factory for special wind load requirements and banner brackets.

### Pole Vibration Damper

- A pole vibration damper is recommended in open terrain areas of the country where low steady state winds are common.
- Non-tapered poles and lightly loaded poles are more susceptible to destructive vibration if a damper is not installed.

### Listings

- UL Listed
- BAA/TAA Compliant



## ORDERING GUIDE

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: **4RPU B3 S07G 24 S PLP DGP**

Pole Series	Mounting Method	Material	Height <sup>4</sup>	Mounting Configuration	Pole Finish	Options
<b>4RP</b> - 4" Diameter Round Straight Pole (New Build)	<b>Bolt-On Mount</b> <sup>1</sup> - See pole selection guide for patterns and fixture matches.  <b>B5</b> - 5" Traditional Drilling Pattern <b>B3</b> - 3" Reduced Drilling Pattern <b>B2</b> - 2" Reduced Drilling Pattern	<b>S07G</b> - 07 Ga. Steel (5RP/5RPU Only) <b>S10G</b> - 10 Ga. Steel (4RP/4RPU Only) <b>S11G</b> - 11 Ga. Steel (5RP/5RPU Only)	8'	<b>S</b> - Single/Parallel	<b>BRZ</b> - Bronze	<b>GA</b> - Galvanized Anchor Bolts
<b>5RP</b> - 5" Diameter Round Straight Pole (New Build)			10'	<b>D180</b> - Double	<b>BLK</b> - Black	<b>SF</b> - Single Flood <sup>3</sup>
<b>4RPU</b> - 4" Diameter Round Straight Pole (Retrofit)			12'	<b>D90</b> - Double	<b>PLP</b> - Platinum Plus	<b>DF</b> - Double Flood <sup>3</sup>
<b>5RPU</b> - 5" Diameter Round Straight Pole (Retrofit)			14'	<b>DN90</b> - Double	<b>WHT</b> - White	<b>DGP</b> - DuraGrip <sup>®</sup> Plus
			15'	<b>T90</b> - Triple	<b>SVG</b> - Satin Verde Green	<b>LAB</b> - Less Anchor Bolts
			16'	<b>TN120</b> - Triple	<b>GPT</b> - Graphite	<b>CRXX</b> - Conduit Raceway <sup>4</sup>
			17'	<b>Q90</b> - Quad	<b>MSV</b> - Metallic Silver	
			17' 6"	<b>QN90</b> - Quad	<b>BZA</b> - Alternate Bronze	
			18'			
			20'	<b>N</b> - Tenon Mount (Use for Standard 2-3/8" Tenon)		
			22'	<b>4N</b> - Tenon Mount (5RPT only. For 4" poles only, use 4RPI) <sup>5</sup>		
			22' 6"	<b>4N-6</b> - Tenon Mount (5RPT only. For 4" poles use 4RPI)		
			24'			
			25'			
	26'					
	27'					
	28'	<b>(Blank)</b> - Use with I for open top pole <sup>8</sup>				
	30'					
	<b>I</b> - No Mounting Holes <sup>1</sup> - Use with: BKA-IFM4 - Flush Mount Adapter <sup>7</sup> Greenlee Lifestyle CH Mounting Style Enterprise, Lexington, Constitution PT Single Mounting <sup>2</sup>					

## Accessory Ordering Information

Description	Order Number	Description	Order Number
4" SRBC Square Base Cover	158450CLR	MH3 - Mounting Hole Plugs for use with 3" reduced drill pattern (3 sets of 3 plugs)	681126
5" SRBC Square Base Cover	158451CLR	MH2 - Mounting Hole Plugs for use with 2" reduced drill pattern (3 sets of 3 plugs)	725841
4" /5" GBC Decorative Base Cover	483859CLR	BB - Banner Brackets	Consult Factory for EPA calculations
ER2 - Weatherproof Duplex Receptacle (Poles below 18')	122557CLR		
ER2 - Weatherproof Duplex Receptacle for Reinforced Hand-hole (Poles 18' and above)	122566CLR		
GFI - Ground Fault Circuit Interrupter (Poles below 18')	122558CLR		
GFI - Ground Fault Circuit Interrupter for Reinforced Hand-hole (Poles 18' and above)	22567CLR		
MH5 - Mounting Hole Plugs for use with 5" traditional drill pattern (3 set of 3 plugs)	132336		

### FOOTNOTES:

- 1 - See Area Light Brackets - 3" Reduced Drill Pattern and Area Light Brackets - 5" Traditional Drill Pattern Spec Sheets.
- 2 - For Enterprise, Lexington, and Constitution PT mounting configuration styles, see Tenon Mount (4N) and Lifestyle Slipfit Pole Series.
- 3 - Standard Flat black pole cap provided. Domed Greenlee pole cap will ship with SA4 and SA5 Enterprise and Lexington fixtures, SA Lifestyle Fixtures, BK MPT BO, and UCL Brackets.

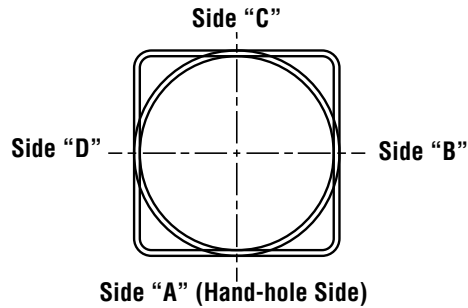
- 4 - Pole heights will have a +/- 1/2" tolerance. Max height for 4RP S10G is 24'. Max height of the 5RP S11G is 26'.
- 5 - For Enterprise and Lexington D180 or other mounting configuration styles using BK MPT BO accessories order with B3 or B5 drill pattern.
- 6 - See Flood Lighting Brackets section for choice of FBO Brackets.
- 7 - Only use with 4 inch pole.
- 8 - Use with BKA-IFM4.



## DRILLING LOCATIONS

[Back to Quick Links](#)

Sides	A	B	C	D
Hand-hole	X			
Single	X			
D180		X		X
D90	X			X
DN90 <sup>1</sup>				
T90	X	X		X
TN120 <sup>2</sup>				
Q90	X	X	X	X
QN90 <sup>3</sup>				
Single FBO	X			
Double FBO		X		X

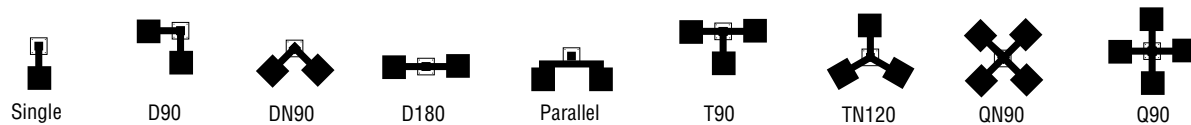


### NOTES:

- 1 - Two locations will be 45° to the left and right of Side A.
- 2 - Other two locations will be 120° to the left and right of Side A.
- 3 - Two locations will be 45° to the left and right of Side A and two locations will be 135° to the left and right of Side A.

Consult factory for custom variations. Standard SF and DF pole preparations are located 3/4 of the height of the pole from the base, except on 20' poles. Maximum height for SF and DF pole preparations on 20' poles is 13' from the base.

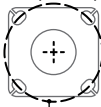
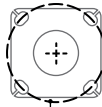
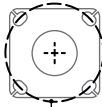
## FIXTURE CONFIGURATIONS





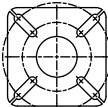
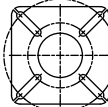
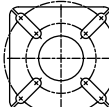
## BOLT CIRCLE

### STANDARD BASEPLATE

	<b>4" (102mm) Round</b> <b>10-1/8" (257mm) sq.</b>  <b>11" (279mm) Dia. Bolt Circle</b>	<b>5" (127mm) Round</b> <b>10-1/8" (257mm) sq.</b>  <b>11" (279mm) Dia. Bolt Circle</b>	<b>5" (127mm) Round</b> <b>10-1/8" (257mm) sq.</b>  <b>11" (279mm) Dia. Bolt Circle</b>
Bolt Circle Designator	L	L	M
Bolt Circle	Slotted 11" (279mm)	Slotted 11" (279mm)	Slotted 11" (279mm)
Anchor Bolt Size	3/4" x 30" (19mm x 762mm)	3/4" x 30" (19mm x 762mm)	1" x 36" (25mm x 914mm)
Anchor Bolt Projection	3-1/4" (83mm)	3-1/4" (83mm)	4" (102mm)
Base Plate Opening for Wireway Entry	3-5/8" (92mm)	4-3/4" (121mm)	4-5/8" (117mm)
Base Plate Dimensions	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 1" thk. (257mm x 25mm)
Pole Gauge	10	11	7

Note: Base plate illustrations may change without notice. Do not use for setting anchor bolts. Consult factory for the appropriate anchor bolt template.

### UNIVERSAL BASEPLATE

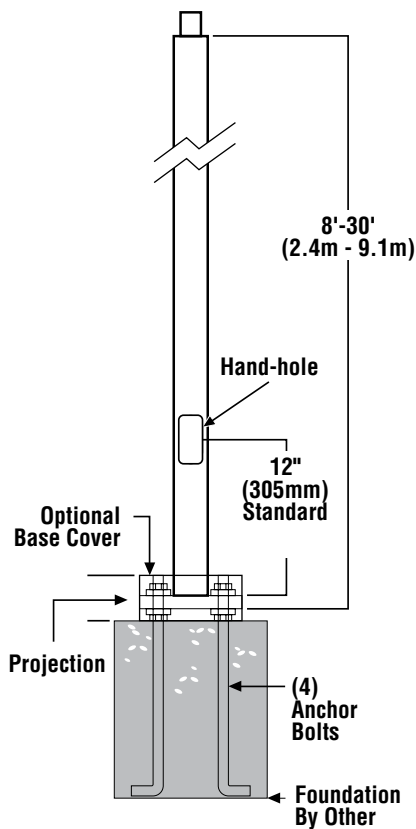
	<b>4" (102mm) Round</b> <b>10" (254mm) sq.</b>  <b>11" (279mm) Dia. Bolt Circle</b>	<b>5" (127mm) Round</b> <b>11-1/4" (286mm) sq.</b>  <b>13" (330mm) Dia. Bolt Circle</b>	<b>5" (127mm) Round</b> <b>11-3/4" (298mm) sq.</b>  <b>13" (330mm) Dia. Bolt Circle</b>
Bolt Circle Designator	K	P	R
Bolt Circle	Slotted 7" - 11" (178mm-279mm)	Slotted 7-1/2" - 13" (191mm-330mm)	Slotted 8" - 13" (203mm-330mm)
Anchor Bolt Size	3/4" x 30" (19mm x 762mm)	3/4" x 30" (19mm x 762mm)	1" x 36" (25mm x 914mm)
Anchor Bolt Projection	3-1/4" (83mm)	3-1/4" (83mm)	4" (102mm)
Base Plate Opening for Wireway Entry	3-5/8" (92mm)	4-3/4" (121mm)	4-5/8" (117mm)
Base Plate Dimensions	10" sq. x 3/4" thk. (254mm x 19mm)	11-1/4" sq. x 3/4" thk. (286mm x 19mm)	11-3/4" sq. x 1" thk. (298mm x 25mm)
Pole Gauge	10	11	7

Note: Base plate illustrations may change without notice. Do not use for setting anchor bolts. Consult factory for the appropriate anchor bolt template.

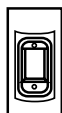


## PRODUCT DIMENSIONS

RPT –  
N = 2-3/8"(60mm) O.D. x 4-3/4"(121mm) Tenon  
4N = 4"(102mm) O.D. x 4-7/8"(124mm) Tenon  
4N6 = 4"(102mm) O.D. x 6-3/8"(162mm) Tenon

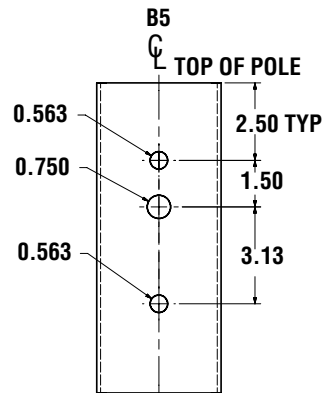
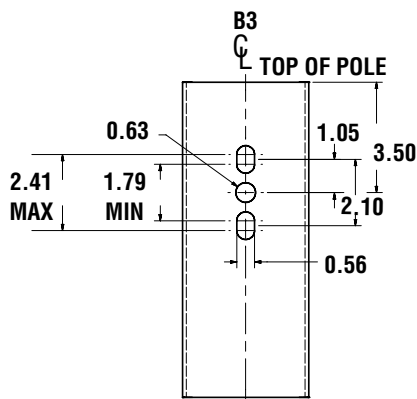
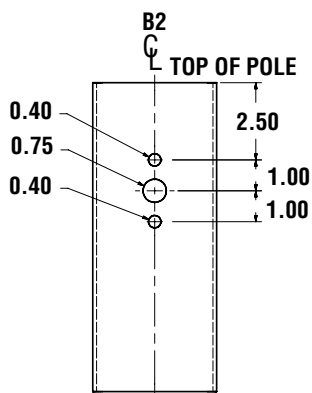


SF –  
Single Flood  
Pole Preparation



SHIPPING WEIGHTS	
4"(102mm) Dia. 10 Ga. is approximately	6.0 lbs./ft.
5"(127mm) Dia. 11 Ga. is approximately	7.0 lbs./ft.
5"(127mm) Dia. 07 Ga. is approximately	10.0 lbs./ft.
Anchor Bolts (3/4" x 30")(19mm x 762mm)	15 lbs.(7kg)/set
Anchor Bolts (1" x 36")(125mm x 914mm)	30 lbs.(14kg)/set

## Bolt-On Mount 2-Bolt Pattern





## WIND SPEED

### EPA Information

All LSI Industries' poles are guaranteed to meet the EPA requirements listed. LSI Industries is not responsible if a pole order has a lower EPA rating than the indicated wind-loading zone where the pole will be located.

**CAUTION:** This guarantee does not apply if the pole/bracket/fixture combination is used to support any other items such as flags, pennants, or signs, which would add stress to the pole. LSI Industries cannot accept responsibility for harm or damage caused in these situations.

**NOTE:** Pole calculations include a 1.3 gust factor over steady wind velocity. Example: poles designed to withstand 80 MPH steady wind will withstand gusts to 104 MPH. EPAs are for locations 100 miles away from hurricane ocean lines. Consult LSI for other areas. Note: Hurricane ocean lines are the Atlantic and Gulf of Mexico coastal areas. For applications in Florida or Canada, consult factory.

### Use ONLY with "Wind Speed Map for ASCE 7-10

POLE <sup>1</sup>	Mtg. Height Length (ft)	Wall Thick (ga)	BOLT CIRCLE			EPA								
			Designator	Dia. (in)	Anchor bolt Dia (in)	110 MPH	115 MPH	120 MPH	130 MPH	140 MPH	150 MPH	160 MPH	170 MPH	180 MPH
4" x 10-ga x 14'	14	10	L	11	0.75	6.0	5.2	4.7	3.9	3.2	2.7	2.3	2.0	1.7
4" x 10-ga x 16'	16	10	L	11	0.75	4.3	3.7	3.2	2.6	2.1	1.8	1.4	1.2	1.0
4" x 10-ga x 18'	18	10	L	11	0.75	7.7	6.8	6.0	5.0	4.2	3.5	3.0	2.5	2.2
4" x 10-ga x 20'	20	10	L	11	0.75	6.0	5.2	4.6	3.7	3.1	2.5	2.1	1.8	1.5
4" x 10-ga x 22'	22	10	L	11	0.75	4.6	3.9	3.3	2.6	2.1	1.7	1.4	1.1	0.9
4" x 10-ga x 24'	24	10	L	11	0.75	3.4	2.7	2.2	1.7	1.3	1.0	0.7	0.5	n/a
5" x 11-ga x 16'	16	11	L	11	0.75	8.7	7.9	7.2	6.0	5.0	4.3	3.7	3.2	2.8
5" x 11-ga x 18'	18	11	L	11	0.75	12.2	11.1	10.1	8.5	7.2	6.1	5.3	4.6	4.0
5" x 11-ga x 20'	20	11	L	11	0.75	10.0	9.1	8.2	6.8	5.7	4.9	4.2	3.6	3.1
5" x 11-ga x 22'	22	11	L	11	0.75	8.1	7.3	6.6	5.5	4.5	3.8	3.2	2.8	2.4
5" x 11-ga x 24'	24	11	L	11	0.75	6.5	5.9	5.3	4.3	3.5	2.9	2.4	2.0	1.7
5" x 11-ga x 26'	26	11	L	11	0.75	5.2	4.6	4.1	3.2	2.6	2.1	1.7	1.4	1.1
5" x 7-ga x 18'	18	7	M	11	1.00	19.7	17.9	16.4	13.8	11.7	10.1	8.8	7.7	6.8
5" x 7-ga x 20'	20	7	M	11	1.00	16.5	15.0	13.7	11.5	9.8	8.4	7.3	6.3	5.6
5" x 7-ga x 22'	22	7	M	11	1.00	14.0	12.7	11.5	9.6	8.1	7.0	6.0	5.2	4.6
5" x 7-ga x 24'	24	7	M	11	1.00	11.8	10.6	9.6	8.0	6.8	5.7	4.9	4.2	3.7
5" x 7-ga x 26'	26	7	M	11	1.00	9.9	8.9	8.0	6.7	5.6	4.7	4.0	3.4	2.9
5" x 7-ga x 28'	28	7	M	11	1.00	8.3	7.4	6.7	5.4	4.5	3.7	3.1	2.7	2.3
5" x 7-ga x 30'	30	7	M	11	1.00	6.8	6.1	5.4	4.4	3.6	2.9	2.4	2.0	1.7

All LSI Industries' poles are guaranteed to meet the EPA requirements listed. LSI Industries is not responsible if a pole order has a lower EPA rating than the indicated wind-loading zone where the pole will be located.

**CAUTION:** This guarantee does not apply if the pole/bracket/fixture combination is used to support any other items such as flags, pennants, or signs, which would add stress to the pole. LSI Industries cannot accept responsibility for harm or damage caused in these situations.

### Note:

1- Poles shorter than these listed here in for each gauge have EPA rating equal to or greater than what is provided in this table. To Confirm EPA ratings on shorter poles, contact LSI Industries.