

# XSP Series

XSP1™ LED Street/Area Light – Single Module – Version B

## Product Description

Designed from the ground up as a totally optimized LED street and area lighting system, the XSP Series delivers incredible efficiency without sacrificing application performance. Beyond substantial energy savings and reduced maintenance, Cree achieves greater optical control with our NanoOptic® Precision Delivery Grid™ optic when compared to traditional cobra head luminaires. The XSP Series is the better alternative for traditional street and area lighting with quick payback and improved performance.

**Applications:** Roadway, parking lots, walkways and general area spaces

## Performance Summary

Utilizes BetaLED® Technology

NanoOptic® Precision Delivery Grid™ optic

Made in the U.S.A. of U.S. and imported parts

**CRI:** Minimum 70 CRI

**CCT:** 4000K (+/- 300K); 5700K (+/- 500K)

**Limited Warranty\*:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

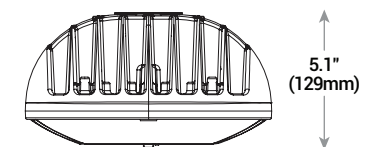
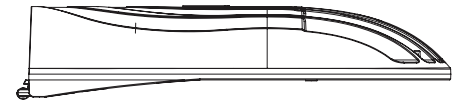
## Accessories

Field-Installed	
<b>Backlight Control Shield</b> XA-SP1BLS - Provides 1/2 mounting height cutoff	<b>Four Point Mounting Kit</b> XA-XSP4PTMNT - Includes large bracket for mounting to 2" (51mm) IP, 2.375" (60mm) O.D., small bracket for mounting to 1.25" (32mm) IP, 1.66" (42mm) O.D. tenon, and mounting bolts
<b>Bird Spikes</b> XA-SP1BRDSPK	

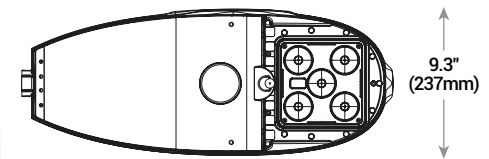


Shown with PT-1H Tenon

23.7"  
(601mm)



5.1"  
(129mm)



9.3"  
(237mm)

Shown with Type 5ME Optics

## Ordering Information

Example: XSP B HT 2ME A 40K\*UL SV

XSP	B	HT		A		*			
Product	Version	Mounting	Optic	Input Power Designator	CCT	*	Voltage	Color Options	Options
XSP	B	HT Horizontal Tenon	2ME* Type II Medium 2LG* Type II Long 3ME* Type III Medium 4ME* Type IV Medium 5ME Type V Medium 5SH Type V Short	A 53W	40K 4000K 57K 5700K	*	UL Universal 120-277V UH** 347-480V	SV Silver BK Black BZ Bronze PB Platinum Bronze WH White	F Fuse - When code dictates fusing, use time delay fuse - Not available with UH voltage G Small Four Point Mounting - Mounts to 1.25" (32mm) IP, 1.66" (42mm) O.D. horizontal tenon J Large Four Point Mounting - Mounts to 2" (51mm) IP, 2.375" (60mm) O.D. horizontal tenon ML Multi-Level - Refer to ML spec sheet for details - High: 100%, Low: 26% N Utility Label and NEMA® 3 Pin Photocell Receptacle - Includes Q9 option - Refer to Field Adjustable Output spec sheet for details Q9 Field Adjustable Output - Refer to Field Adjustable Output spec sheet for details R NEMA® 3 Pin Photocell Receptacle - Photocell by others UTL Utility - Label per ANSI C136.15 - Includes exterior wattage label that indicates the maximum available wattage of the luminaire - Includes Q9 option - Refer to Field Adjustable Output spec sheet for details

\* See [www.cree.com/canada/warranty](http://www.cree.com/canada/warranty) for warranty terms

\* Available with Backlight Shield when ordered with field-installed accessory (see table above)

\*\* 347-480V utilizes magnetic step-down transformer. For input power for 347-480V, refer to the Electrical Data table

## Product Specifications

### CONSTRUCTION & MATERIALS

- Die cast aluminum housing
- Tool-less entry
- Mounts on 1.25" (32mm) IP, 1.66" (42mm) O.D. or 2" (51mm) IP, 2.375" (60mm) O.D. horizontal tenon (minimum 8" [203mm] in length) and is adjustable +/- 5° to allow for fixture leveling (includes two axis T-level to aid in leveling)
- Luminaire secured with two mounting bolts standard; optional four point mounting available
- Designed with 0-10V dimming capabilities. Controls by others
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, black, bronze, platinum bronze and white are available
- **Weight:** 120-277V: 18 lbs. (8kg); 347-480V: 22 lbs. (9kg)

### ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Class 2 driver
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used
- Compatible with control systems; consult factory for details

### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- Meets CALTrans 611 Vibration testing
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- DLC qualified when ordered with 2ME, 3ME, 5ME and 5SH optics. Some exceptions apply. Please refer to [www.designlights.org/QPL](http://www.designlights.org/QPL) for most current information

Electrical Data*								
Input Power Designator	System Watts 120-277V	System Watts 347-480V	Total Current					
			120V	208V	240V	277V	347V	480V
A	53	59	0.44	0.25	0.22	0.20	0.17	0.15

\* Electrical data at 25°C (77°F)

Recommended Cree® Outdoor Luminaire Lumen Maintenance Factors (LMF) <sup>1</sup>						
Ambient	Input Power Designator	Initial LMF	25K hr Projected <sup>2</sup> LMF	50K hr Projected <sup>2</sup> LMF	75K hr Projected <sup>2</sup> LMF	100K hr Calculated <sup>3</sup> LMF
5°C (41°F)	A	1.04	1.02	1.01	1.00	1.00
10°C (50°F)	A	1.03	1.01	1.00	0.99	0.99
15°C (59°F)	A	1.02	1.00	0.99	0.98	0.98
20°C (68°F)	A	1.01	0.99	0.98	0.97	0.97
25°C (77°F)	A	1.00	0.98	0.97	0.96	0.96

<sup>1</sup> Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing

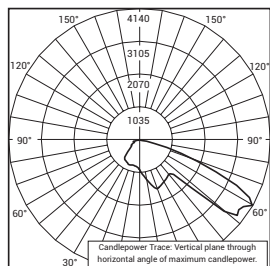
<sup>2</sup> In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

<sup>3</sup> In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed 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)

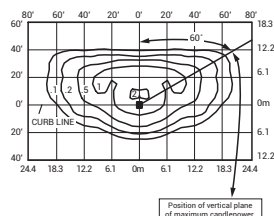
## Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP certified laboratory. To obtain an IES file specific to your project consult: <http://www.cree.com/lighting>.

### 2ME



RESTL Test Report #: PL04168-001  
BXSPB\*\*2MEA40K-UL  
Initial Delivered Lumens: 5,026



BXSPB\*\*2MEA40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 4,806  
Initial FC at grade

#### Type II Medium Distribution

Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	4,806	B1 U0 G1	5,340	B1 U0 G1

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

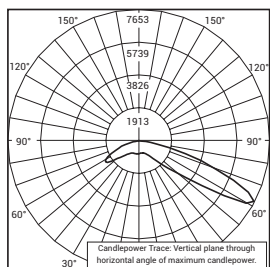
#### Type II Medium w/BLS Distribution

Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	4,133	TBD	4,592	TBD

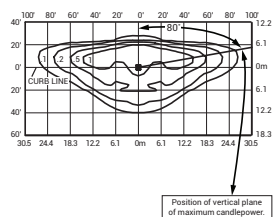
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

### 2LG



RESTL Test Report #: PL04169-001  
BXSPB\*\*2LGA40K-UL  
Initial Delivered Lumens: 4,956



BXSPB\*\*2LGA40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 4,979  
Initial FC at grade

#### Type II Long Distribution

Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	4,979	B2 U0 G1	5,329	B2 U0 G1

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

#### Type II Long w/BLS Distribution

Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	3,784	TBD	4,050	TBD

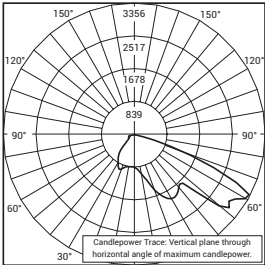
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

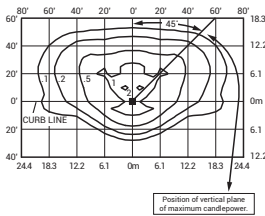
Photometry

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3ME



RESTL Test Report #: PL04170-001  
BXSPB\*\*3MEA40K-UL  
Initial Delivered Lumens: 5,085



BXSPB\*\*3MEA40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 4,806  
Initial FC at grade

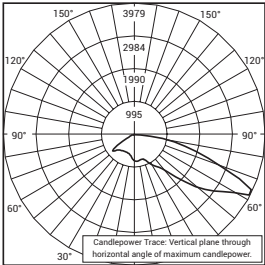
Type III Medium Distribution				
Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	4,806	B1 U0 G1	5,340	B1 U0 G1

\* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

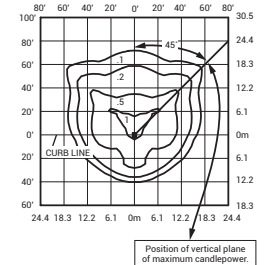
Type III Medium w/BLS Distribution				
Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	4,085	TBD	4,539	TBD

\* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

4ME



RESTL Test Report #: PL04171-001  
BXSPB\*\*4MEA40K-UL  
Initial Delivered Lumens: 4,947



BXSPB\*\*4MEA40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 4,979  
Initial FC at grade

Type IV Medium Distribution				
Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	4,979	B1 U0 G1	5,329	B2 U0 G1

\* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

Type IV Medium w/BLS Distribution				
Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	3,983	TBD	4,263	TBD

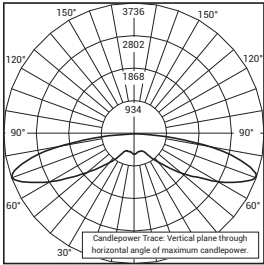
\* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt



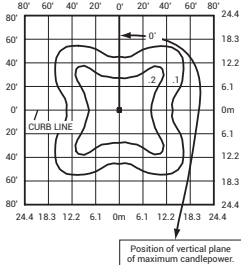
# Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP certified laboratory. To obtain an IES file specific to your project consult: <http://www.cree.com/lighting>.

## 5ME



CESTL Test Report #: 2014-0009  
BXSPB-5HA-U  
Initial Delivered Lumens: 8,714

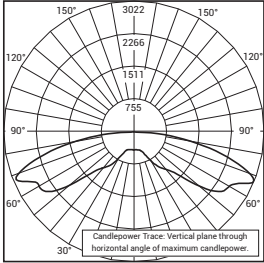


BXSPB-5ME40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 4,049  
Initial FC at grade

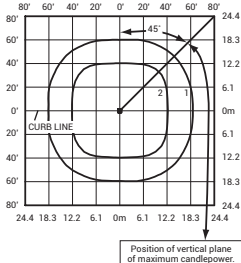
Type V Medium Distribution				
Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	4,049	B3 U1 G3	4,218	B3 U1 G3

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

## 5SH



CESTL Test Report #: 2014-0010  
BXSPB-6HA-U  
Initial Delivered Lumens: 9,321








BXSPB-5SHA40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 4,293  
Initial FC at grade

Type V Short Distribution				
Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	4,293	B3 U0 G2	4,472	B3 U0 G2

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

## Luminaire EPA

Horizontal Tenon Mount - Weight: 120-277V: 18 lbs. (8kg); 347-480V: 22 lbs. (9kg)				
Single	2 @ 90°	2 @ 180°	3 @ 90°	4 @ 90°
Tenon Configuration If used with Cree tenons, please add tenon EPA with luminaire EPA				
				
PD-1H4; PT-1H	PD-2H4(90); PT-2H(90)	PD-2H4(180); PT-2H(180)	PD-3H4(90); PT-3H(90)	PD-4H4(90); PT-4H(90)
0.71	1.02	1.43	1.74	2.04

## Tenon EPA

Part Number	EPA
PD Series Tenons	0.09
PT Series Tenons	0.10
WM-2L	0.13
XA-TMDA8	0.19

Tenons and Brackets (must specify color)	
<b>Square Internal Mount Vertical Tenons (Steel)</b> - Mounts to 4" (102mm) square aluminum or steel poles PD-1H4 - Single      PD-3H4(90) - 90° Triple PD-2H4(90) - 90° Twin      PD-4H4(90) - 90° Quad PD-2H4(180) - 180° Twin	<b>Round External Mount Horizontal Tenons (Aluminum)</b> - Mounts to 2.375"-3" (60-76mm) O.D. round aluminum or steel poles or tenons PT-1H - Single      PT-3H(90) - 90° Triple PT-2H(90) - 90° Twin      PT-4H(90) - 90° Quad PT-2H(180) - 180° Twin
<b>Wall Mount Brackets</b> - Mounts to wall, roof or side of wood pole WM-2L - Extended Horizontal	<b>Direct Arm Pole Adaptor Bracket</b> - Mounts to 3-6" (76-152mm) round or square aluminum or steel poles XA-TMDA8