

# XSP1™

XSP Series LED Street Light – Horizontal Tenon – Type II

## Product Description

Designed from the ground up as a totally optimized LED street light system, the XSP Series delivers incredible efficiency and is designed to provide L70 lifetime over 100,000 hours without sacrificing application performance. Beyond substantial energy savings and reduced maintenance, Cree achieves better optical control with our NanoOptic® Precision Delivery Grid™ optic than a traditional cobra head luminaire. The Cree XSP Series LED Street Light is the best alternative for traditional street lighting with better payback and better performance.

## Performance Summary

Utilizes BetaLED® Technology

NanoOptic Precision Delivery Grid optic

CRI: Minimum 70 CRI

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

Warranty: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

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

## Accessories

### Field Installed Accessories

#### XA-SP1BLS

Backlight Control Shield  
- Provides 1/2 Mounting Height Cutoff

#### XA-SP1BRDSPK

Bird Spikes

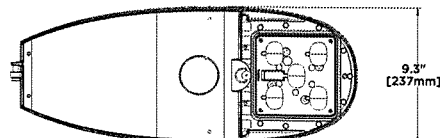
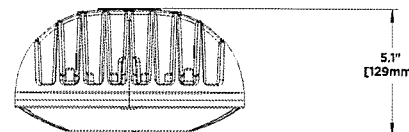
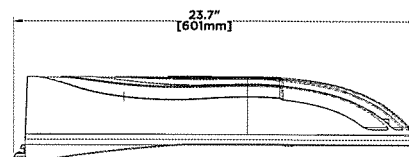
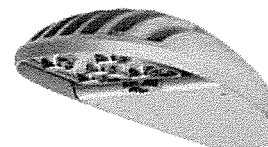
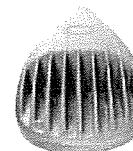
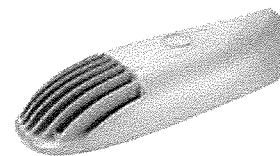
## Ordering Information

Example: BXSPA021A-USF

| BXSP    | A       | O                     |                                     |                                                                                                      | A           | - |                                                      |                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------|---------|-----------------------|-------------------------------------|------------------------------------------------------------------------------------------------------|-------------|---|------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product | Version | Mounting              | Optic                               | Modules                                                                                              | Input Power | - | Voltage                                              | Color Options                                                                                | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| BXSP    | A       | O<br>Horizontal Tenon | 2<br>Type II<br>G<br>Type II w/ BLS | 1<br>Standard 4000K<br>A<br>Standard 5700K<br>G<br>High Efficacy 4000K*<br>N<br>High Efficacy 5700K* | A<br>53W    | - | U<br>Universal 120-277V<br>V<br>Universal 347-480V** | S<br>Silver (Standard)<br>T<br>Black<br>Z<br>Bronze<br>B<br>Platinum<br>Bronze<br>W<br>White | <b>A ROAM® Controls</b><br>- Installation of ROAM dimming control module only. Services provided by others.<br>- Includes R option<br><b>F Fuse</b><br>- When code dictates fusing, use time delay fuse<br>- Not available with V voltage<br><b>K Occupancy Control</b><br>- Refer to Occupancy Control spec sheet for details<br><b>N Utility Label and NEMA Photocell Receptacle</b><br>- Includes Q option<br>- Refer to Field Adjustable Output spec sheet for details<br><b>Q Field Adjustable Output</b><br>- Refer to Field Adjustable Output spec sheet for details<br><b>R NEMA Photocell Receptacle</b><br>- Photocell by others<br><b>U Utility</b><br>- Includes exterior wattage label that indicates the maximum available wattage of the luminaire<br>- Includes Q option<br>- Refer to Field Adjustable Output spec sheet for details |

\* Available Q3 2012. Preliminary data shown.

\*\* 347-480V utilizes magnetic step-down transformer. For input power for 347-480V, refer to the Lumen Output, Electrical, and Lumen Maintenance data table below.



Rev. Date: 9/14/2012



## XSP Series LED Street Light – Horizontal Tenon – Type II

### Product Specifications

#### CONSTRUCTION & MATERIALS

- Die cast aluminum housing
- Tool-less entry
- Mounts on 1.25" IP (1.66" [42mm] O.D.) or 2" 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)
- Designed with 0-10V dimming capabilities. Controls by others
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Standard is silver. Black, bronze, platinum bronze and white are also available

#### ELECTRICAL SYSTEM

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

#### REGULATORY & VOLUNTARY QUALIFICATIONS

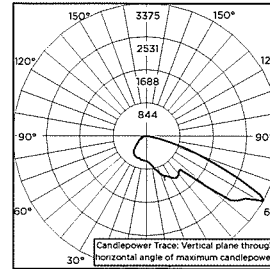
- cULus Listed
- Suitable for wet locations
- Product qualified on the DesignLights Consortium ("DLC") Qualified Products List ("QPL"). Exceptions apply when N, U, or Q options are ordered - see Field Adjustable Output spec sheet for details.
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets CALTrans 611 Vibration testing and GR-63-CORE Section 4.4.1/5.4.2 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
- RoHS Compliant
- Meets Buy American requirements within ARRA

#### PATENTS

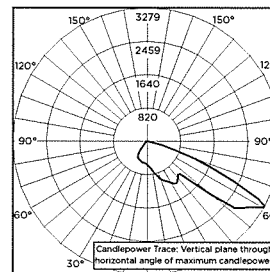
- Visit website for patents that cover these products:  
Patents <http://www.cree.com/patents>

### Photometry

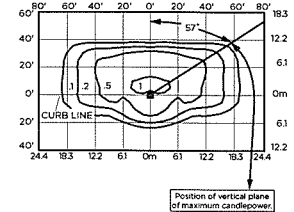
All published luminaire photometric testing performed to IESNA LM-79-08 standards by Independent Testing Laboratories, a NVLAP certified laboratory.



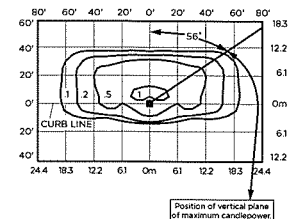
ITL Test Report #: 72723  
BXSPA\*21A-U  
Initial Delivered Lumens: 3,954



ITL Test Report #: 72722  
BXSPA\*G1A-U  
Initial Delivered Lumens: 3,427



BXSPA\*21A-U  
Mounting Height: 25' (7.6m)  
Initial Delivered Lumens: 3,500  
Initial FC at grade.



BXSPA\*G1A-U  
Mounting Height: 25' (7.6m)  
Initial Delivered Lumens: 3,065  
Initial FC at grade.

### Lumen Output, Electrical, and Lumen Maintenance Data

| Type 2 Distribution |                        |                          |                            |                          |                            |                       |               |      |      |      |                       |               |      |                                                                |
|---------------------|------------------------|--------------------------|----------------------------|--------------------------|----------------------------|-----------------------|---------------|------|------|------|-----------------------|---------------|------|----------------------------------------------------------------|
| Module              | Input Power Designator | 4000K                    |                            | 5700K                    |                            | System Watts 120-277V | TOTAL CURRENT |      |      |      | System Watts 347-480V | TOTAL CURRENT |      | 50K Hours Calculated Lumen Maintenance Factor @ 15°C (59°F)*** |
|                     |                        | Initial Delivered Lumens | BUG Ratings** Per TM-15-11 | Initial Delivered Lumens | BUG Ratings** Per TM-15-11 |                       | 120V          | 208V | 240V | 277V |                       | 347V          | 480V |                                                                |
| Standard            | A                      | 3,500                    | B1 U0 G1                   | 3,850                    | B1 U0 G1                   | 53                    | 0.44          | 0.26 | 0.23 | 0.20 | 57                    | 0.16          | 0.12 | 91%                                                            |
| High Efficacy*      | A                      | 4,806                    | B1 U0 G1                   | 5,340                    | B1 U0 G1                   | 53                    | 0.44          | 0.26 | 0.23 | 0.20 | 57                    | 0.16          | 0.12 | 91%                                                            |

| Type 2 Distribution w/ BLS |                        |                          |                            |                          |                            |                       |               |      |      |      |                       |               |      |                                                                |
|----------------------------|------------------------|--------------------------|----------------------------|--------------------------|----------------------------|-----------------------|---------------|------|------|------|-----------------------|---------------|------|----------------------------------------------------------------|
| Module                     | Input Power Designator | 4000K                    |                            | 5700K                    |                            | System Watts 120-277V | TOTAL CURRENT |      |      |      | System Watts 347-480V | TOTAL CURRENT |      | 50K Hours Calculated Lumen Maintenance Factor @ 15°C (59°F)*** |
|                            |                        | Initial Delivered Lumens | BUG Ratings** Per TM-15-11 | Initial Delivered Lumens | BUG Ratings** Per TM-15-11 |                       | 120V          | 208V | 240V | 277V |                       | 347V          | 480V |                                                                |
| Standard                   | A                      | 3,065                    | B1 U0 G1                   | 3,371                    | B1 U0 G1                   | 53                    | 0.44          | 0.26 | 0.23 | 0.20 | 57                    | 0.16          | 0.12 | 91%                                                            |
| High Efficacy*             | A                      | 4,209                    | B1 U0 G1                   | 4,674                    | B1 U0 G1                   | 53                    | 0.44          | 0.26 | 0.23 | 0.20 | 57                    | 0.16          | 0.12 | 91%                                                            |

\* Available Q3 2012. Preliminary data shown.

\*\* 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)

\*\*\* Projected L<sub>70</sub> (6K) Hours: >36,000. For recommended lumen maintenance factor data see TD-13

### EPA and Weight

| Input Power Designator | Weight 120-277V | Weight 347-480V | EPA   |       |       |       |       |
|------------------------|-----------------|-----------------|-------|-------|-------|-------|-------|
|                        |                 |                 | 1@90  | 2@90  | 2@180 | 3@90  | 4@90  |
| A                      | 18 lbs (8kg)    | 22 lbs (9kg)    | 0.714 | 1.021 | 1.428 | 1.735 | 2.041 |

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