XSP SERIES
LED STREET LIGHTS

Trusted for value and performance.
XSP Series LED Street Lights

ALL ROADS LEAD TO CREE.

OUTSTANDING PERFORMANCE
Capable of reducing energy usage by 60% compared to traditional light source technologies, the XSP Series couples high efficiency with improved light quality to help make neighborhoods safer without wasting resources.

UNBEATABLE VALUE
Engineered to optimize both illumination and economic performance in roadway lighting, the XSP Series is an affordable LED solution that delivers unbeatable value to the street light market.

EXCEPTIONAL RELIABILITY
Built in our state-of-the-art ISO9001 facility, the XSP Series is designed to provide more than a decade of near-maintenance-free service. And it’s backed by our industry-leading 10-year limited warranty.

EASY INSTALLATION
With a lightweight body, tool-less entry and quick connection features, the XSP Series can be reliably installed in a few short minutes. This means less disruption to drivers and residences as well as reduced safety risks for installers.
HEAT SINK TECHNOLOGY
• Maximize LED lifetime
• Utilizes a flow through heat sink design
• Outstanding lumen maintenance and reliability throughout the life of the application

PATENTED NANOOPTIC® TECHNOLOGY
• Delivers unmatched target efficacy
• Improves uniformity ratios
• Multiple optical distribution patterns

DIMMING
• Designed with 0-10V dimming capabilities
• Added light level flexibility
• Control by others

BUILT TO TAKE OVER TRADITIONAL STREET LIGHTING.

The XSP Series is made possible by innovation in every aspect of the product to deliver outstanding illumination, lasting performance and optimum energy efficiency.
NEMA® PHOTOCELL RECEPTACLE
• 7-pin receptacle per ANSI C136.41
• Factory pre-wired for dimming controls
• Photocell or shorting cap by others

EXCLUSIVE COLORFAST DELTAGUARD® FINISH
• Resistant to corrosion, ultraviolet degradation and abrasion
• Industry-leading 10-year limited warranty

ADDITIONAL OPTIONS

BACKLIGHT SHIELD
Factory-installed or added in the field, municipalities can meet strict cut-off requirements or address back lighting concerns of residents by utilizing the backlight shield.

BIRD DETERRENT
Birds are prevented from perching on street lights by incorporating spikes on the top of the luminaire.

FIELD ADJUSTABLE OUTPUT
Tune the XSP Series Street Light to the exact needs of a particular location after it’s been installed. Plus, a single stocked replacement street light can be adjusted to a variety of outputs used throughout the city.

REMOTE MONITORING COMPATIBILITY
A perfect addition to a city-wide upgrade that includes central monitoring and control, the XSP Series street light was designed to be compatible with other control modules.
**PROVEN INNOVATION AND VALUE.**

The innovative technologies that make up Cree® products have revolutionized the lighting industry by making high-quality, sustainable LED lighting affordable and available to all. With this advantage, we remain at the forefront today, dedicated to developing new LED lighting solutions that improve both our customers’ spaces and their bottom lines, and all backed by an incredible warranty.

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**NanoOptic® Technology**

With patented NanoOptic® Technology available in multiple distributions, Cree® outdoor LED fixtures provide precise optical control for exceptional application performance and energy savings. The NanoOptic® refractor system offers superior light control with more lumens delivered in the target area, improved uniformity ratios, and controlled high-angle brightness.

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**DeltaGuard® Finish**

Cree’s exclusive Colorfast DeltaGuard® Finish protects our LED outdoor fixtures without compromise. Immersive conditioning across 18 stages delivers an e-coat epoxy primer with an ultra-durable powder topcoat, providing unmatched protection against corrosion, UV light, fading and weathering complete with a 10 year limited warranty.

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**Comparison: High Pressure Sodium Lighting vs. LED Lighting with NanoOptic® Technology**

Before: Traditional High Pressure Sodium (100W HPS)  
After: XSP™ LED Street Light (52W)

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**Cree 10-year Limited Warranty***

Cree offers a 10-year limited warranty that covers the broadest product range in the industry. As a leading innovator of LED chips, components and lighting, Cree has more than 30 years of experience in commercial LED development, bringing an unprecedented level of expertise to all facets of the LED lighting design and development process. To learn more, please visit lighting.cree.com/warranty.
**FAMILIAR SHAPE, SUPERIOR FUNCTION.**

Designed from the bottom up as a totally optimized LED street light system that looks like a street light, the XSP Series delivers incredible efficacy — almost double the lumens per dollar of previous generations of LED street lights — without sacrificing application performance. Beyond substantial energy savings and reduced maintenance, Cree achieved better optical control with our NanoOptic® Precision Delivery Grid™ optic than a traditional cobra head luminaire.

### PERFORMANCE SUMMARY

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilizes</td>
<td>NanoOptic® Precision Delivery Grid™ optic</td>
</tr>
<tr>
<td><strong>Efficacy:</strong></td>
<td>Up to 129 LPW</td>
</tr>
<tr>
<td><strong>CCT:</strong></td>
<td>2700K, 3000K, 4000K, 5000K, 5700K</td>
</tr>
<tr>
<td><strong>Color Rendering Index (CRI):</strong></td>
<td>Minimum 70 CRI</td>
</tr>
<tr>
<td><strong>Input Voltage:</strong></td>
<td>120-277V or 347-480V, 50/60Hz</td>
</tr>
<tr>
<td><strong>Limited Warranty:</strong></td>
<td>10 years on luminaire/10 years on DeltaGuard® finish</td>
</tr>
<tr>
<td>Assembled in</td>
<td>the U.S.A. of U.S. and imported parts</td>
</tr>
</tbody>
</table>

### CONSTRUCTION & MATERIALS

- Traditional cobra-head appearance with die cast aluminum housing
- 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 secures with two 410 stainless steel mounting bolts; optional four point mounting available
- 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. Black, bronze, silver and white are available for select models

### ACCESSORIES

- **Backlight Control Shield**
  - XSP-SP*BLSS
  - XA-SPR3BLSS
  - Designed to control backlight - put the light where you want it and not where you don’t. Provides one mounting height cutoff.

- **Bird Spikes**
  - XSP-SP*BRDSPK
  - Designed to prevent birds from landing or setting up a nest on the luminaire.

### OPTICAL SYSTEM

- Utilizing highly-diffused performance optics for soft, glare-free light.
- Targeted optical control with our NanoOptic® Precision Delivery Grid™ optic.
- Field Adjustable Output option offers full range lumen adjustability
- Locked Lumen Output option permanently locks the lumen output to the setting selected

### FINISH COLORS*

<table>
<thead>
<tr>
<th>Finish</th>
<th>Color</th>
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<tbody>
<tr>
<td>Black</td>
<td>BK</td>
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<tr>
<td>Bronze</td>
<td>BZ</td>
</tr>
<tr>
<td>Silver</td>
<td>SV</td>
</tr>
<tr>
<td>White</td>
<td>WH</td>
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### ELECTRICAL SYSTEM

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td><strong>Input Voltage:</strong></td>
<td>120-277V or 347-480V, 50/60Hz</td>
</tr>
<tr>
<td><strong>Power Factor:</strong></td>
<td>&gt; 0.9 at full load</td>
</tr>
<tr>
<td><strong>Total Harmonic Distortion:</strong></td>
<td>&lt; 20% at full load</td>
</tr>
<tr>
<td><strong>10V Source Current:</strong></td>
<td>0.15mA</td>
</tr>
<tr>
<td><strong>Integral 10kV surge suppression protection standard</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Designed with 0-10V dimming capabilities. Controls by others</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Tool-less access door allows for easy wiring and fast installation</strong></td>
<td></td>
</tr>
</tbody>
</table>

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* *See lighting.cree.com/warranty for warranty terms.
  
  * XSPSM is only available in silver (SV).
  
  Product specifications subject to change at any time. Visit lighting.cree.com to find the most up-to-date information.
XSP - SMALL

150W HPS Replacement

PERFORMANCE SUMMARY

NanoOptic® Precision Delivery Grid™ optic

Initial Delivered Lumens: Up to 7,825 lumens

Input Power: Up to 69 watts

CCT: 2700K, 3000K, 4000K, 5000K, 5700K

Dimensions: L: 22.3" (567mm) / W: 9.8" (249mm) / H: 5.1" (131mm)

Weight: 5L: 9.0 lbs. (4.1kg); 8L: 9.2 lbs. (4.2kg)

Replaces up to: 100W HPS (5L) or 150W HPS (8L)

APPLICATIONS

Residential Street Lighting

The XSP Series has NanoOptic® Precision Delivery Grid™ optics that provide better optical control than traditional street lighting. With a range of CCTs, the XSP Small luminaire efficiently delivers warm or cool uniform light away from windows and back on the streets for safer-feeling communities.

ORDERING INFORMATION

Example: XSPSM-D-HT-2LG-5L-27K7-UL-SV-N

<table>
<thead>
<tr>
<th>Product</th>
<th>Version</th>
<th>Mounting</th>
<th>Optic</th>
<th>Lumen Package**</th>
<th>CCT/CRI</th>
<th>Voltage</th>
<th>Color</th>
<th>Utility Label/Receptacle</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>XSPSM Small</td>
<td>D</td>
<td>HT Horizontal Tenon</td>
<td>Asymmetric 2LG* Type II Long 2ME* Type II Medium 3ME* Type III Medium 4ME* Type IV Medium</td>
<td>5L: 5,000 Lumens</td>
<td>27K7 2700K/70CRI 30K7 3000K/70CRI 40K7 4000K/70CRI 50K7 5000K/70CRI 57K7 5700K/70CRI</td>
<td>UL Universal 120-277V UH Universal 347-480V</td>
<td>SV Silver</td>
<td>N Utility Label and NEMA® 7-Pin Photocell Receptacle</td>
<td>09/08/07/06/05/04/03/02/01 Field Adjustable Output X8/X7/X6/X5/X4/X3/X2/X1 Locked Lumen Output</td>
</tr>
</tbody>
</table>

Product specifications subject to change at any time. Visit lighting.cree.com to find the most up-to-date information

* Available with Backlight Shield when ordered with field-installed accessory

** Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection.

Refer to Initial Delivered Lumen tables for specific lumen values
XSP - MEDIUM
150W to 250W HPS Replacement

PERFORMANCE SUMMARY

NanoOptic® Precision Delivery Grid™ optic

Initial Delivered Lumens: Up to 11,875 lumens

Input Power: Up to 95 watts

CCT: 2700K, 3000K, 4000K, 5000K, 5700K

Dimensions: L: 23.7” (601mm) / W: 5.8” (148mm) / H: 9.3” (237mm)

Weight: 13.9 lbs. (6.3kg)

Replaces up to: 150W to 250W HPS

APPLICATIONS

Collector Roads
Driving in a busy downtown or commercial area can be stressful. The XSP Medium luminaire ensures that you have the visibility needed to see a pedestrian in the crosswalk and an open parking spot! Plus, energy consumption is reduced up to 60% compared to HPS technologies, delivering significant cost savings over the life of the installation.

ORDERING INFORMATION

Example: XSPMD-D-HT-2LG-12L-27K7-UL-SV-N

<table>
<thead>
<tr>
<th>Product</th>
<th>Version</th>
<th>Mounting</th>
<th>Optic</th>
<th>Lumen Package**</th>
<th>CCT/CRI</th>
<th>Voltage</th>
<th>Color</th>
<th>Utility Label/Receptacle</th>
<th>Options</th>
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<tbody>
<tr>
<td>XSPMD</td>
<td>D</td>
<td>HT</td>
<td>Asymmetric 2LG* Type II Long Type II Medium Type III Medium Type IV Medium</td>
<td>12L 12,000 Lumens</td>
<td>27K7 2700K/70CRI 30K7 3800K/70CRI 40K7 4800K/70CRI 50K7 5600K/70CRI 57K7 5700K/70CRI</td>
<td>UL Universal 120-277V</td>
<td>BK Black</td>
<td>N Utility Label and NEMA® 7-Pin Photocell Receptacle</td>
<td>F Fuse</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td>Horizontal Tenon</td>
<td>Type II Medium Type III Medium Type IV Medium</td>
<td>12L 12,000 Lumens</td>
<td>27K7 2700K/70CRI 30K7 3800K/70CRI 40K7 4800K/70CRI 50K7 5600K/70CRI 57K7 5700K/70CRI</td>
<td>UL Universal 120-277V</td>
<td>BK Black</td>
<td>G Small Four Bolt Mounting</td>
<td>J Large Four Bolt Mounting</td>
</tr>
</tbody>
</table>

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* Available with Backlight Shield when ordered with field-installed accessory

** Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection.

Refer to Initial Delivered Lumen tables for specific lumen values.
XSP - LARGE
400W HPS Replacement

PERFORMANCE SUMMARY

NanoOptic® Precision Delivery Grid™ optic

Initial Delivered Lumens: Up to 23,800 lumens

Input Power: Up to 184 watts

CCT: 2700K, 3000K, 4000K, 5000K, 5700K

Dimensions: L: 26.2” (665mm) / W: 14.5” (368mm) / H: 5.3” (136mm)

Weight: 23.4 lbs. (10.6kg)

Replaces up to: 250W HPS (18L) or 400W HPS (24L)

APPLICATIONS

Major Roads & Highways
Virtually maintenance-free, the XSP Large LED Street Luminaire is designed to last 100,000 hours. Now, maintenance crews can focus on more important projects, rather than replacing burnt out lamps.

ORDERING INFORMATION

Example: XSPLG-D-HT-2LG-24L-27K7-UL-SV-N

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<th>Product</th>
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<th>Lumen Package**</th>
<th>CCT/CRI</th>
<th>Voltage</th>
<th>Color</th>
<th>Utility Label/Receptacle</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>XSPLG</td>
<td>D</td>
<td>HT</td>
<td>Asymmetric 2LG*</td>
<td>18L, 24,000 Lumens</td>
<td>27K7 2700K/70CRI</td>
<td>UL Universal</td>
<td>BK</td>
<td>N Utility Label and NEMA® 7-Pin Photocell Receptacle</td>
<td>F Fuse G Small Four Bolt Mounting J Large Four Bolt Mounting Q9/Q8/Q7/Q6/Q5 Field Adjustable Output X8/X7/X6/X5 Locked Lumen Output</td>
</tr>
<tr>
<td>Large</td>
<td></td>
<td></td>
<td>Type II Long 2ME*</td>
<td></td>
<td>20K7 3000K/70CRI</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Type III Medium 3ME*</td>
<td></td>
<td>40K7 4000K/70CRI</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Type IV Medium 4ME*</td>
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<td>50K7 5000K/70CRI</td>
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<td></td>
<td></td>
<td>Type IV Medium 5ME*</td>
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<td>57K7 5700K/70CRI</td>
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</tbody>
</table>

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* Available with Backlight Shield when ordered with field-installed accessory

** Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection.

Refer to Initial Delivered Lumen tables for specific lumen values.
Visit our website or contact a Cree lighting representative to learn more:

lighting.cree.com/xsp-street