

# XSP Series - IP66

XSP2™ LED Street /Area Light – Double Module - Version C

## 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

NanoOptic® Precision Delivery Grid™ optic

**CRI:** Minimum 70 CRI; 80 CRI (3000K)

**CCT:** 3000K, 4000K, 5700K

**Limited Warranty†:** Class 1 – 10 years on luminaire / 10 years on Colorfast DeltaGuard® finish  
Class 2 – 5 years on luminaire / 10 years on Colorfast DeltaGuard® finish

## Accessories

Field-Installed	
KIT-XSP-AP60-48-G0 Fitter kit to mount to 48mm tenon	KIT-XSP-AP60-42-G0 Fitter kit to mount to 42mm tenon
KIT-XSP-AP60-34-G0 Fitter kit to mount to 34mm tenon	



## Ordering Information

Example: XSPC02210F30K+24SVQ#01

XSP	C	02	210	F	30K	+	24	SV	Q#	01
Product	Version	Mounting	Optic	Input Power Designator	CCT	Insulation Class	Voltage	Color Options	Options	Cable length***
XSP	C	02* horiz/vert tenon 60mm OD (+5°/-15°)	2LG Type II Long 275 Type II Short 0.75 210 Type II Short 1.0	F 136W I 116W	30K 3000K (80 CRI) 40K 4000K 57K 5700K	+ Class 1 ^ Class 2	24 220-240V	SV Silver BK Black	No code Q# Y# - Z# G# L# NEM** NQ#** NY#** NZ#** NDL** NCL** NDC**	No code Standard (w/o cable)
		03 horiz/vert tenon 76mm OD (+/- 20°)	2SH Type II Short 3SH Type III Short 3ME Type III Medium 4ME Type IV Medium							

\* horiz/vert tenon 60mm OD (+/-20°) available upon request

\*\* available only in Class 1

\*\*\* w/o connector

† See [www.cree.com/lighting/products/warranty](http://www.cree.com/lighting/products/warranty) for warranty terms

## Product Specifications

### CONSTRUCTION & MATERIALS

- Die cast aluminum housing
- Tool-less entry
- Luminaire is designed to mount directly to 76mm or 60mm outer dimension tenons or poles
- Luminaire fitter 02 can mount to vert/horizl tenons 60mm OD and can be tilted +5 /- 15°, in steps of 5°
- Luminaire fitter 03 can mount to vert/horizl tenons 76mm OD and can be tilted +/- 20°, in steps of 5°
- Luminaire will also mount to 34-42-48mm outer dimension tenon or pole with an accessory fitter kit
- 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. Standard is Silver. Black, Bronze, Silver Bronze and White are also available

### ELECTRICAL SYSTEM

- **Input Voltage:** 220-240V, 50/60Hz
- **Power Factor:** > 0.95 at full load
- **Total Harmonic Distortion:** < 10% at full load
- Integral 10kV surge suppression protection standard (Class 1)
- To address inrush current, slow blow fuse or type C/D breaker should be used

### REGULATORY & VOLUNTARY QUALIFICATIONS

- CE compliant
- RoHs compliant
- Risk group exempt in accordance with Standard CEI EN 62471 for photobiological safety
- Enclosure rated IP66 per IEC 60529
- Impact resistance IK08
- 10kV surge suppression protection tested in accordance with EN 61000-4-5
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117

Electrical Data*			
Input Power Designator	System Watts 220-240V	Total Current	Power Factor
		230V	
F	136	0.60	0.98
I	116	0.51	0.99

\* 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 Calculated <sup>3</sup> LMF	100K hr Calculated <sup>3</sup> LMF
5°C (41°F)	F	1.04	0.97	0.91	0.85	0.79
10°C (50°F)	F	1.03	0.96	0.90	0.84	0.79
15°C (59°F)	F	1.02	0.95	0.89	0.83	0.78
20°C (68°F)	F	1.01	0.94	0.88	0.82	0.77
25°C (77°F)	F	1.00	0.93	0.87	0.81	0.76

<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)

Weight and Maximum Wind Area	
Weight	Lateral Surface Wind Exposed
15.0 kg	0.090m <sup>2</sup>

**Control options**

Field Adjustable Output					
Input Power Designator (F)	System Watts	Lumen Multipliers	Nominal flux (lm)		
			5700K	4000K	3000K
Q9	136	1.00	15744	15006	12300
Q8	130	0.97	15244	14529	11909
Q7	126	0.94	14726	14036	11505
Q6	118	0.91	14357	13684	11217
Q5	113	0.86	13493	12860	10541
Q4	103	0.81	12739	12142	9952
Q3	94	0.76	11937	11377	9326
Q2	84	0.67	10520	10027	8219
Q1	74	0.61	9679	9226	7562

Lumistep / Lineswitch								
Input Power Designator (I)	System Watts (High Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
L6* / G6	116	12678	12084	9905	59	7100	6767	5547
L5* / G5	113	12442	11859	9720	57	6968	6641	5443
L4* / G4	103	11747	11196	9177	52	6578	6270	5139
L3* / G3	94	11008	10492	8600	47	6164	5875	4816
L2* / G2	84	9701	9246	7579	41	5433	5178	4244
L1* / G1	74	8926	8507	6973	37	4998	4764	3905

\* Dimming 6h or 8h

Virtual Midnight Y								
Input Power Designator (F)	System Watts (High Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
Y1	136	15744	15006	12300	102	12910	12305	10086
Y2	136	15744	15006	12300	68	8817	8403	6888
Y3	136	15744	15006	12300	34	4093	3902	3198
Y4	102	12910	12305	10086	68	8817	8403	6888
Y5	102	12910	12305	10086	34	4093	3902	3198
Y6	68	8817	8403	6888	34	4093	3902	3198

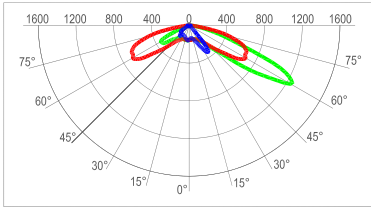
Virtual Midnight Z								
Input Power Designator (F)	System Watts (High Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
Z1	118	14484	13806	11316	94	12123	11555	9471
Z2	118	14484	13806	11316	75	9761	9304	7626
Z3	118	14484	13806	11316	48	6140	5852	4797
Z4	94	12123	11555	9471	75	9761	9304	7626
Z5	94	12123	11555	9471	48	6140	5852	4797
Z6	75	9761	9304	7626	48	6140	5852	4797

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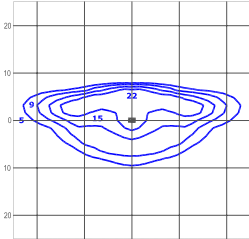
**Photometry**

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-europe.com>.

**2LG - Type II Long**



cd/klm  
— C0 - C180    — C90 - C270    — C15 - C195



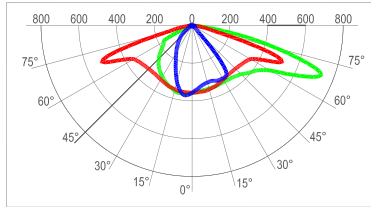
lux  
**XSPB022LGA40K**  
**Mounting Height: 8m**

Lumen Output - 2LG (Type II Long)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	14738	14047
F	14738	14047	11514
I	11868	11312	9272

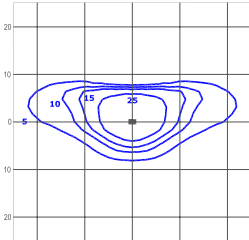
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

Test Report #: PL04154-001

**275 - Type II Short 0.75**



cd/klm  
— C0 - C180    — C90 - C270    — C15 - C195



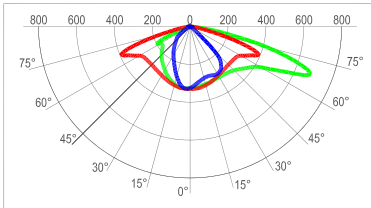
lux  
**XSPB023MEA40K**  
**Mounting Height: 8m**

Lumen Output - 275 (Type II Short 0.75)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	15168	14457
F	15168	14457	11850
I	12214	11642	9542

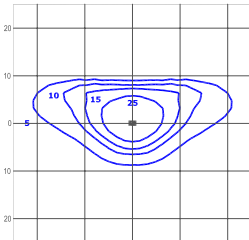
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

Test Report #: PL05965-001

**210 - Type II Short 1.0**



cd/klm  
— C0 - C180    — C90 - C270    — C15 - C195



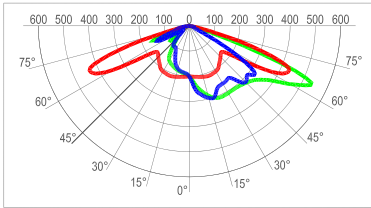
lux  
**XSPB02210A40K**  
**Mounting Height: 8m**

Lumen Output - 210 (Type II Short 1.0)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	14640	13954
F	14640	13954	11438
I	11790	11237	9211

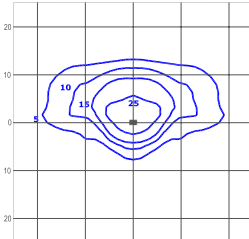
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

Test Report #: PL05774-001

**2SH - Type II Short**



cd/klm  
— C0 - C180    — C90 - C270    — C35 - C215



lux  
**XSPB022SHA40K**  
**Mounting Height: 8m**

Lumen Output - 2SH (Type II Short)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	14650	13963
F	14650	13963	11445
I	11797	11244	9217

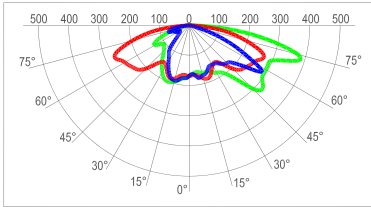
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

Test Report #: PL05775-001

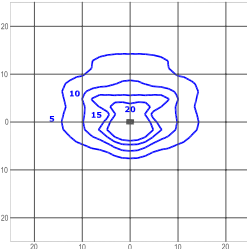
## Photometry

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-europe.com>.

### 3SH - Type III Short



cd/klm  
— C0 - C180 — C90 - C270 — C35 - C215



lux

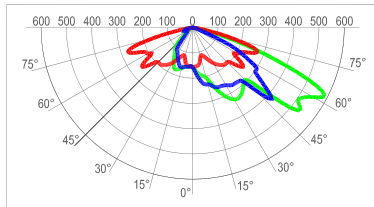
Test Report #: PL05903-001

XSPB023SHA40K  
Mounting Height: 8m

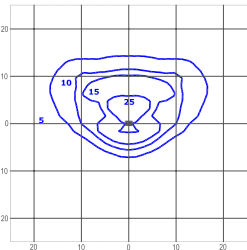
Lumen Output - 3SH (Type III Short)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*		
F	13930	13277	10883
I	11218	10692	8764

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

### 3ME - Type III Medium



cd/klm  
— C0 - C180 — C90 - C270 — C45 - C225



lux

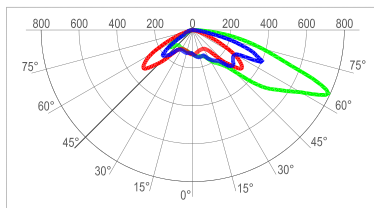
Test Report #: PL04150-001

XSPB023MEA40K  
Mounting Height: 8m

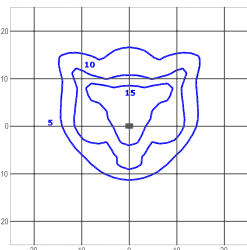
Lumen Output - 3ME (Type III Medium)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*		
F	14146	13483	11052
I	11391	10857	8900

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

### 4ME - Type IV Medium



cd/klm  
— C0 - C180 — C90 - C270 — C45 - C225



lux

Test Report #: PL05776-001

XSPB024MEA40K  
Mounting Height: 8m

Lumen Output - 4ME (Type IV Medium)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*		
F	14610	13926	11414
I	11765	11214	9192

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