

# XSP Series - IP66

XSP1™ LED Street /Area Light – Single 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

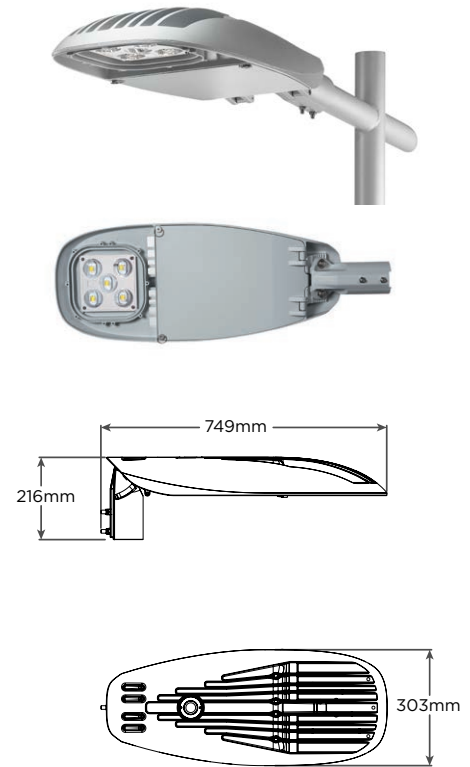
**CRI:** Minimum 70 CRI; 80 CRI (3000K)

**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: XSPC022LGE30K+24SVQ#01

XSP	C	02	2LG	E	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	E 98W H 67W	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**	Fixed Output Field Adjustable Output - Requires no additional wiring (Available with input power E) Virtual Midnight - Field programmable (Available with input power E) Lineswitch (Available with input power H) Lumistep (Available with input power H) Nema 7 pin + DIM 1-10V (available with input power E) Nema 7 pin + Q# option (available with input power E) Nema 7 pin + Y# option (available with input power E) Nema 7 pin + Z# option (available with input power E) Nema 7 pin + DALI (available with input power H)	No code Standard (w/o cable)

\* 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

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### 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	
E	98	0.44	0.96
H	67	0.30	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)	E	1.04	0.97	0.91	0.85	0.79
10°C (50°F)	E	1.03	0.96	0.90	0.84	0.79
15°C (59°F)	E	1.02	0.95	0.89	0.83	0.78
20°C (68°F)	E	1.01	0.94	0.88	0.82	0.77
25°C (77°F)	E	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
10.5 kg	0.090m <sup>2</sup>

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**Control options**

Field Adjustable Output					
Input Power Designator (E)	System Watts	Lumen Multipliers	Nominal flux (lm)		
			5700K	4000K	3000K
Q9	98	1.00	9495	9050	7418
Q8	92	0.97	9193	8762	7182
Q7	89	0.94	8881	8465	6939
Q6	84	0.91	8659	8253	6765
Q5	80	0.86	8137	7756	6357
Q4	73	0.81	7683	7323	6002
Q3	67	0.76	7199	6862	5624
Q2	59	0.67	6345	6047	4957
Q1	53	0.61	5838	5564	4561

Lumistep / Lineswitch								
Input Power Designator (H)	System Watts (High Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
L6* / G6	67	7327	6984	5725	34	4103	3911	3206
L5* / G5	59	6458	6155	5045	30	3616	3447	2825
L4* / G4	53	5942	5663	4642	27	3327	3171	2599
L3* / G3	45	5056	4819	3950	22	2831	2699	2212
L2* / G2	37	4103	3911	3206	22	2831	2699	2212
L1* / G1	29	3297	3143	2576	22	2831	2699	2212

\* Dimming 6h or 8h

Virtual Midnight Y								
Input Power Designator (E)	System Watts (High Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
Y1	98	9495	9050	7418	74	7786	7421	6083
Y2	98	9495	9050	7418	49	5317	5068	4154
Y3	98	9495	9050	7418	25	2469	2353	1929
Y4	74	7786	7421	6083	49	5317	5068	4154
Y5	74	7786	7421	6083	25	2469	2353	1929
Y6	49	5317	5068	4154	25	2469	2353	1929

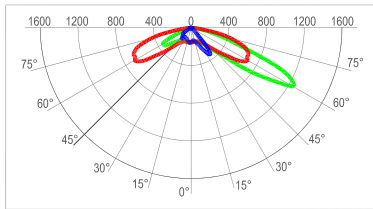
Virtual Midnight Z								
Input Power Designator (E)	System Watts (High Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
Z1	85	8735	8326	6825	68	7311	6969	5712
Z2	85	8735	8326	6825	54	5887	5611	4599
Z3	85	8735	8326	6825	34	3703	3530	2893
Z4	68	7311	6969	5712	54	5887	5611	4599
Z5	68	7311	6969	5712	34	3703	3530	2893
Z6	54	5887	5611	4599	34	3703	3530	2893

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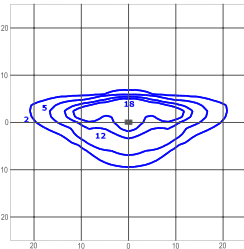
**Photometry**

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



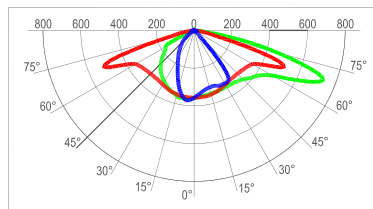
lux  
**XSPB022LGA40K**  
**Mounting Height: 6m**

Lumen Output - 2LG (Type II Long)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	8888	8472	6944
H	6859	6538	5359

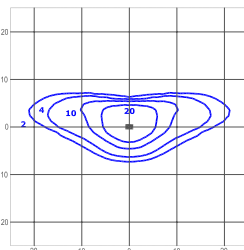
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

Test Report #: PL04154-001

**275 - Type II Short 0.75**



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



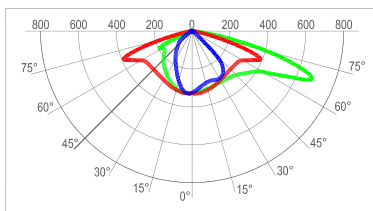
lux  
**XSPB023MEA40K**  
**Mounting Height: 6m**

Lumen Output - 275 (Type II Short 0.75)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	9148	8719	7147
H	7059	6728	5515

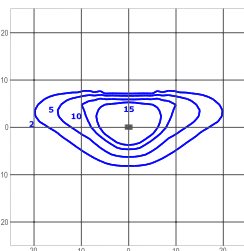
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

Test Report #: PL05965-001

**210 - Type II Short 1.0**



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



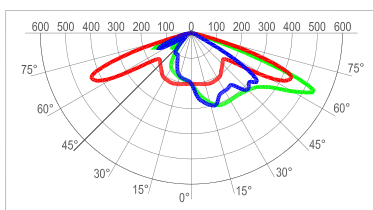
lux  
**XSPB02210A40K**  
**Mounting Height: 6m**

Lumen Output - 210 (Type II Short 1.0)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	8829	8416	6898
H	6814	6494	5323

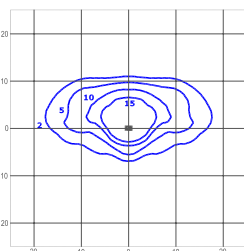
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

Test Report #: PL05774-001

**2SH - Type II Short**



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



lux  
**XSPB022SHA40K**  
**Mounting Height: 6m**

Lumen Output - 2SH (Type II Short)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	8835	8421	6902
H	6818	6499	5327

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

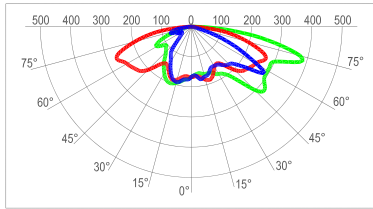
Test Report #: PL05775-001

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**Photometry**

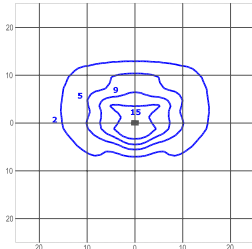
All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP certified laboratory. To obtain an IES file specific to your project consult: <http://www.cree-europe.com>.

**3SH - Type III Short**



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

Test Report #: PL05903-001



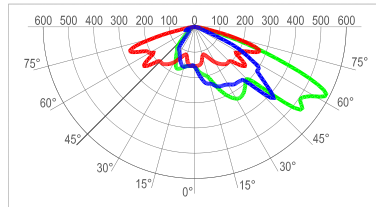
lux

XSPB023SHA40K  
Mounting Height: 6m

Lumen Output - 3SH (Type III Short)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	8401	8007
E	8401	8007	6563
H	6483	6179	5065

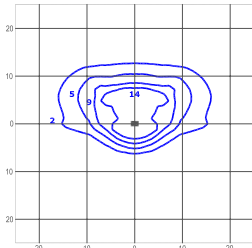
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

**3ME - Type III Medium**



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

Test Report #: PL04150-001



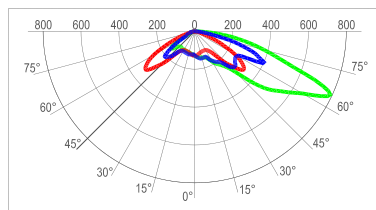
lux

XSPB023MEA40K  
Mounting Height: 6m

Lumen Output - 3ME (Type III Medium)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	8531	8131
E	8531	8131	6665
H	6584	6275	5144

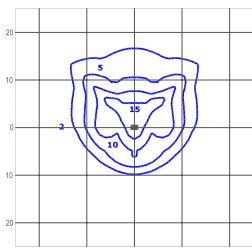
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

**4ME - Type IV Medium**



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

Test Report #: PL05776-001



lux

XSPB024MEA40K  
Mounting Height: 6m

Lumen Output - 4ME (Type IV Medium)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	8811	8398
E	8811	8398	6884
H	6800	6481	5312

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