

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

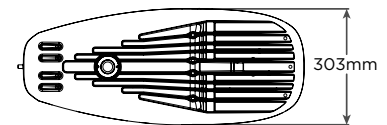
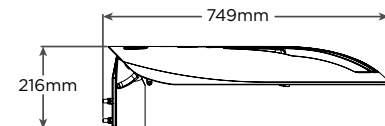
CRI: Minimum 70 CRI; 80 CRI (3000K)

CCT: 3000K, 3500K, 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
XA-XSPFTRKIT – Fitter kit to mount to 42mm tenon



Ordering Information										
Example: XSPC02210E30K+24SVQ#01										
XSP	C	02	210	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 Horizontal / Vertical Tenon 60mm OD	2LG Type II Long 275 Type II Short 0.75 210 Type II Short 1.0 2SH	E 98W H 67W	30K 3000K (80 CRI) 35K 3500K 40K 4000K 57K 5700K	+ Class 1 ^ Class 2	24 220-240V	SV Silver BK Black BZ Bronze SB Silver Bronze WH White	Q# Field Adjustable Output - Requires no additional wiring (Available with input power E) Y# Virtual Midnight - Field programmable (Available only with input power E) Z# Virtual Midnight - Field programmable (Available only with input power E) G# Lineswitch (Available only with input power H) L# Lumistep (Available only with input power H)	No code Standard (w/o cable w/o connector) 01 Exit cable 30cm (w/o connector) 03 Exit cable 3m (w/o connector) 06 Exit cable 6m (w/o connector) 10 Exit cable 10m (w/o connector)

* See 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 will also mount to 42mm outer dimension tenon or pole with XA-XSPFTRKIT accessory
- Fitter is capable of mounting to both vertical and horizontal tenons and can be tilted +/- 5°
- 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) ¹						
Ambient	Input Power Designator	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ 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

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

² 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)

³ 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 ²

Control options

Field Adjustable Output						
Input Power Designator (E)	System Watts	Lumen Multipliers	Nominal flux (lm)			
			5700K	4000K	3500K	3000K
Q9	98	1.00	9495	9050	8457	7418
Q8	92	0.97	9193	8762	8188	7182
Q7	89	0.94	8881	8465	7910	6939
Q6	84	0.91	8659	8253	7712	6765
Q5	80	0.86	8137	7756	7247	6357
Q4	73	0.81	7683	7323	6842	6002
Q3	67	0.76	7199	6862	6412	5624
Q2	59	0.67	6345	6047	5651	4957
Q1	53	0.61	5838	5564	5199	4561

Lumistep / Lineswitch										
Input Power Designator (H)	System Watts (High Mode)	Nominal flux (lm)				System Watts (Low Mode)	Nominal flux (lm)			
		5700K	4000K	3500K	3000K		5700K	4000K	3500K	3000K
L6* / G6	67	7327	6984	6526	5725	34	4103	3911	3655	3206
L5* / G5	59	6458	6155	5751	5045	30	3616	3447	3221	2825
L4* / G4	53	5942	5663	5292	4642	27	3327	3171	2963	2599
L3* / G3	45	5056	4819	4503	3950	22	2831	2699	2522	2212
L2* / G2	37	4103	3911	3655	3206	22	2831	2699	2522	2212
L1* / G1	29	3297	3143	2937	2576	22	2831	2699	2522	2212

* Dimming 6h or 8h

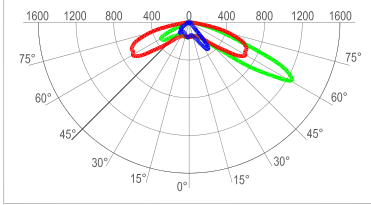
Virtual Midnight Y										
Input Power Designator (E)	System Watts (High Mode)	Nominal flux (lm)				System Watts (Low Mode)	Nominal flux (lm)			
		5700K	4000K	3500K	3000K		5700K	4000K	3500K	3000K
Y1	98	9495	9050	8457	7418	74	7786	7421	6934	6083
Y2	98	9495	9050	8457	7418	49	5317	5068	4736	4154
Y3	98	9495	9050	8457	7418	25	2469	2353	2199	1929
Y4	74	7786	7421	6934	6083	49	5317	5068	4736	4154
Y5	74	7786	7421	6934	6083	25	2469	2353	2199	1929
Y6	49	5317	5068	4736	4154	25	2469	2353	2199	1929

Virtual Midnight Z										
Input Power Designator (E)	System Watts (High Mode)	Nominal flux (lm)				System Watts (Low Mode)	Nominal flux (lm)			
		5700K	4000K	3500K	3000K		5700K	4000K	3500K	3000K
Z1	85	8735	8326	7780	6825	68	7311	6969	6512	5712
Z2	85	8735	8326	7780	6825	54	5887	5611	5243	4599
Z3	85	8735	8326	7780	6825	34	3703	3530	3298	2893
Z4	68	7311	6969	6512	5712	54	5887	5611	5243	4599
Z5	68	7311	6969	6512	5712	34	3703	3530	3298	2893
Z6	54	5887	5611	5243	4599	34	3703	3530	3298	2893

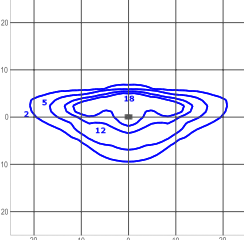
Photometry

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



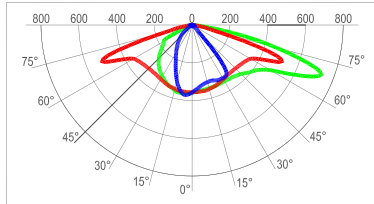
lux
XSPB022LGA40K
Mounting Height: 6m

Test Report #: PL04154-001

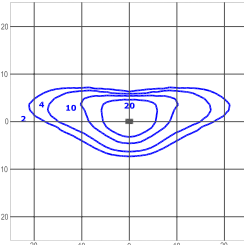
Lumen Output - 2LG (Type II Long)				
Input Power Designator	5700K	4000K	3500K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	8888	8472	7916	6944
H	6859	6538	6109	5359

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

275 - Type II Short 0.75



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



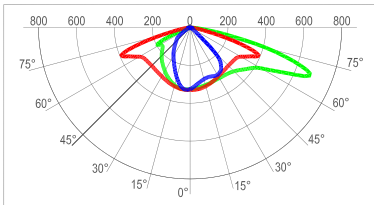
lux
XSPB023MEA40K
Mounting Height: 6m

Test Report #: PL05965-001

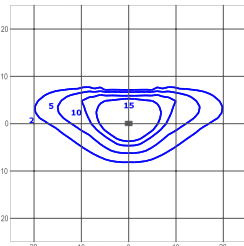
Lumen Output - 275 (Type II Short 0.75)				
Input Power Designator	5700K	4000K	3500K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	9148	8719	8147	7147
H	7059	6728	6287	5515

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

210 - Type II Short 1.0



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



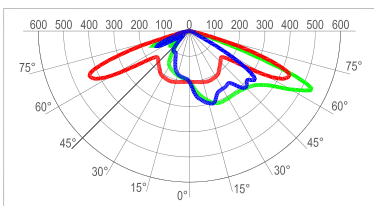
lux
XSPB02210A40K
Mounting Height: 6m

Test Report #: PL05774-001

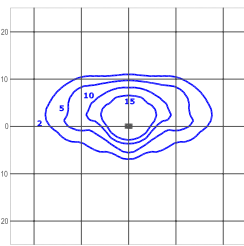
Lumen Output - 210 (Type II Short 1.0)				
Input Power Designator	5700K	4000K	3500K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	8829	8416	7864	6898
H	6814	6494	6069	5323

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

2SH - Type II Short



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



lux
XSPB022SHA40K
Mounting Height: 6m

Test Report #: PL05775-001

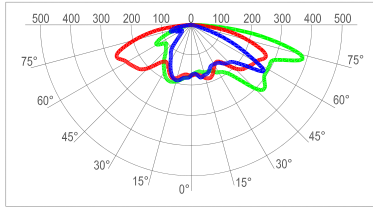
Lumen Output - 2SH (Type II Short)				
Input Power Designator	5700K	4000K	3500K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	8835	8421	7869	6902
H	6818	6499	6072	5327

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

Photometry

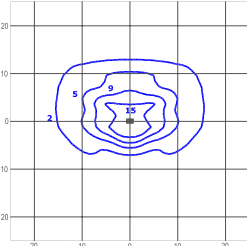
All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP certified laboratory. To obtain an IES file specific to your project consult: <http://www.cree-europe.com>.

3SH - Type III Short



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

Test Report #: PL05903-001

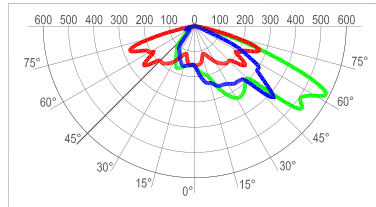


lux
 XSPB023SHA40K
 Mounting Height: 6m

Lumen Output - 3SH (Type III Short)				
Input Power Designator	5700K	4000K	3500K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	8401	8007	7482	6563
H	6483	6179	5774	5065

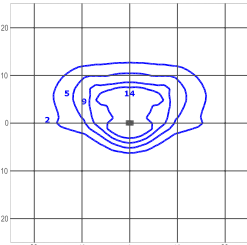
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

3ME - Type III Medium



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

Test Report #: PL04150-001

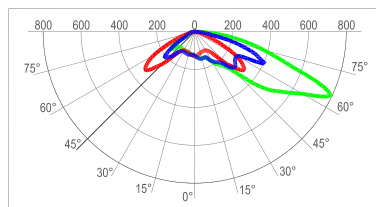


lux
 XSPB023MEA40K
 Mounting Height: 6m

Lumen Output - 3ME (Type III Medium)				
Input Power Designator	5700K	4000K	3500K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	8531	8131	7598	6665
H	6584	6275	5864	5144

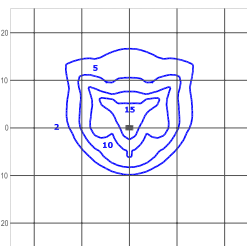
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

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	3500K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
E	8811	8398	7848	6884
H	6800	6481	6056	5312

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