

# XSP High Output Series

XSP2™ High Output LED Street/Area Luminaire - Double Module

## Product Description

Designed from the ground up as a totally optimized LED street and area lighting system, the XSP High Output 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 High Output 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

**CCT:** 3000K (+/- 300K), 4000K (+/- 300K); 5700K (+/- 500K)

**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: XSPD02210F30K+24SVQ901

XSP	D	02	210	F	30K	+	24	SV	Q9	01
Product	Version	Mounting	Optic	Input Power Designator	CCT	Insulation Class	Voltage	Color Options	Options	Cable length**
XSP	D	02 horiz/vert tenon 60mm OD	2LG Type II Long 275 Type II Short 0.75 210	F 138W I 116W	30K 3000K 40K 4000K 57K 5700K	+ Class 1 ^ Class 2	24 220-240V	SV Silver BK Black BZ Bronze SB Silver Bronze WH White	No code <b>Fixed Output</b>  Available with Input Power E:  Q# <b>Field Adjustable Output</b> - Requires no additional wiring Y# - Z# <b>Virtual Midnight</b> - Field programmable NEM* Nema 7 pin + DIM 1-10V NQ#* Nema 7 pin + Q# option NY#* Nema 7 pin + Y# option NZ#* Nema 7 pin + Z# option  Available with Input Power I:  G# Lineswitch L# Lumistep DL DALI CL Constant Lumen Output DY# DynaDimmer DCL DynaDimmer + CLO NDL* Nema 7 pin + DALI NCL* Nema 7 pin + CLO NDC* Nema 7 pin + DALI + CLO	No code Standard (w/o cable) 01 Exit cable 30cm 03 Exit cable 3m 06 Exit cable 6m 10 Exit cable 10m 12 Exit cable 12m

\* 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

## XSP2™ High Output LED Street/Area Luminaire - Double Module

### 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 and can be tilted +/- 20°, in steps of 5°
- Luminaire fitter 02 can mount to 60mm OD tenons and fitter 03 to 76mm
- 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 Listed
- ENEC Listed
- 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	138	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					
Setting	System Watts	Lumen Multipliers	Nominal flux (lm)		
			5700K	4000K	3000K
Q9	138	1.00	18700	18342	17407
Q8	132	0.97	18106	17759	16854
Q7	123	0.92	17204	16875	16015
Q6	118	0.89	16643	16324	15492
Q5	108	0.82	15334	15040	14274
Q4	98	0.76	14212	13940	13229
Q3	87	0.69	12903	12656	12011
Q2	78	0.62	11594	11372	10792
Q1	69	0.56	10472	10272	9748

Lumistep / Lineswitch - Input Power Designator I								
Setting	System Watts (High Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
L6* / G6	116	15904	15599	14804	59	8260	8102	7689
L5* / G5	113	15301	15008	14243	57	7947	7795	7398
L4* / G4	103	14182	13910	13201	52	7366	7225	6856
L3* / G3	94	12875	12629	11985	47	6687	6559	6225
L2* / G2	84	11569	11348	10769	41	6009	5894	5593
L1* / G1	74	10450	10249	9727	37	5427	5323	5052

\* Dimming 6h or 8h

Virtual Midnight Y - Input Power Designator F								
Setting	System Watts (High Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
Y1	138	18700	18342	17407	104	14886	14600	13856
Y2	138	18700	18342	17407	69	10472	10272	9748
Y3	138	18700	18342	17407	35	5312	5210	4945
Y4	104	14886	14600	13856	69	10472	10272	9748
Y5	104	14886	14600	13856	35	5312	5210	4945
Y6	69	10472	10272	9748	35	5312	5210	4945

Virtual Midnight Z - Input Power Designator F								
Setting	System Watts (High Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
Z1	120	16868	16544	15701	95	13855	13590	12897
Z2	120	16868	16544	15701	76	11345	11087	10522
Z3	120	16868	16544	15701	48	7285	7145	6781
Z4	95	13855	13590	12897	76	11345	11087	10522
Z5	95	13855	13590	12897	48	7285	7145	6781
Z6	76	11345	11087	10522	48	7285	7145	6781

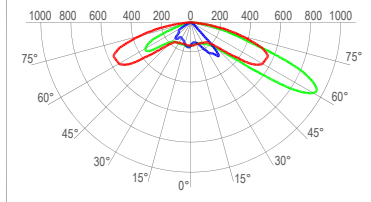
Dynadimmer - Input Power Designator I												
Setting	System Watts (High Mode)	Nominal flux (lm)			System Watts (Medium Mode)	Nominal flux (lm)			System Watts (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K		5700K	4000K	3000K
DY6	116	15904	15599	14804	87	12087	11855	11251	59	8260	8102	7689
DY5	113	15301	15008	14243	85	11518	11406	10721	57	7947	7795	7398
DY4	103	14182	13910	13201	77	10675	10572	9937	52	7366	7225	6856
DY3	94	12875	12629	11985	70	9692	9598	9021	47	6687	6559	6225
DY2	84	11569	11348	10769	63	8709	8624	8106	41	6009	5894	5593
DY1	74	10450	10249	9727	55	7866	7715	7322	37	5427	5323	5052

# XSP2™ High Output LED Street/Area Luminaire - Double Module

## Photometry

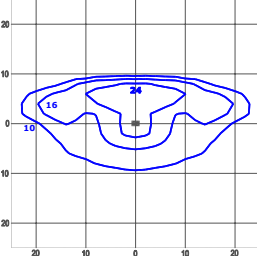
All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP certified laboratory. To obtain an IES file specific to your project consult: <http://www.cree-europe.com>.

### 2LG - Type II Long



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

Test Report #: PL09478-001

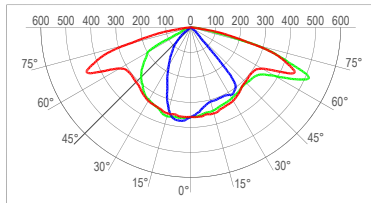


XSPD022LGF40K  
 Mounting Height: 10m

Lumen Output - 2LG (Type II Long)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
F	16598	16280	15451
I	14116	13846	13140

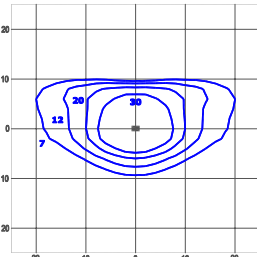
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

### 275 - Type II Short 0.75



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

Test Report #: PL09105-002

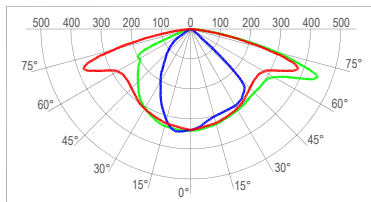


XSPD02275F40K  
 Mounting Height: 10m

Lumen Output - 275 (Type II Short 0.75)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
F	16870	16546	15703
I	14347	14072	13355

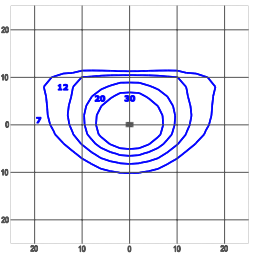
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

### 210 - Type II Short 1.0



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

Test Report #: PL09124-001

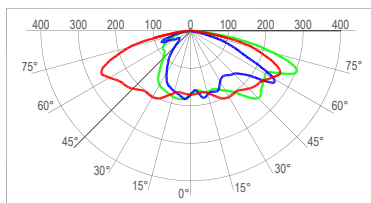


XSPD02210F40K  
 Mounting Height: 10m

Lumen Output - 210 (Type II Short 1.0)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
F	17391	17058	16189
I	14791	14507	13768

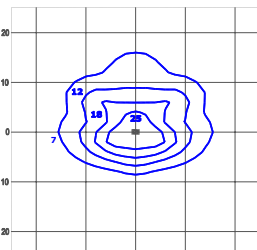
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

### 3SH - Type III Short



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

Test Report #: PL09478-002



XSPD023SHF40K  
 Mounting Height: 10m

Lumen Output - 3SH (Type III Short)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
F	15658	15358	14575
I	13316	13061	12395

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