

# XSP Series

XSPM - LED Street/Area Luminaire

## Product Description

Designed from the ground up as a totally optimized LED street lighting system, XSPM maintains the familiar look of the traditional cobrahead design and delivers substantial energy savings while reducing maintenance time and costs. Equipped with our NanoOptic® Precision Delivery Grid™ optic, XSPM achieves better optical control than traditional street lighting fixtures and efficiently delivers white uniform light for safer-feeling communities. The luminaire is designed to mount directly to 76mm or 60mm outer dimension tenons or poles with a specific spigot (adjustable arm).

**Applications:** Roadway, parking lots, walkways and general area spaces

## Performance Summary

NanoOptic® Precision Delivery Grid™ optic

**CRI:** Minimum 70 CRI

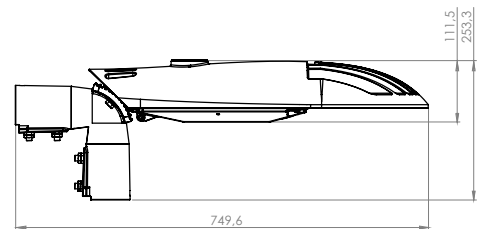
**CCT:** 3000K; 4000K; 5700K

**Initial Colour consistency:** 4 steps di MacAdam

**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: XSPM-A-02-2LG-A-30K-+24-SV-Y-S-00												
XSPM	- A	- 02	- 2LG	- A	- 30K	- +	- 24	- SV	- Y	- S	- 00	
Product	Version	Mounting	Optic	Input Power	CCT	Insulation Class	Voltage	Color	Options	Variant	Cable length	
XSPM	A	02 horiz/vert tenon 60mm OD	2LG Type II long 275 Type II short 0.75 210	A 58W B 42W C 42W	30K 3000K 40K 4000K 57K 5700K	+ Class 1 ^ Class 2	24 220-240V	SV Silver	Available with Input Power A: FX* Fixed Output Q#* Field Adjustable Output DQ Field Adjustable Dimming Y- Z Virtual Midnight  Available with Input Power B: G* Lineswitch RF* Flux regulator DY DynaDimmer DL DALI CL Constant Lumen Output DC DynaDimmer + CLO  Available with Input Power C: CR* Virtual Midnight Chronostep	S Standard F Fuse N Nema	00 Standard (w/o cable) 01 Exit cable 30cm 03 Exit cable 3m 06 Exit cable 6m 10 Exit cable 10m	

\* With variant S and F only. Nema option not available.  
† See [www.cree.com/lighting/products/warranty](http://www.cree.com/lighting/products/warranty) for warranty terms



## Product Specifications

### CONSTRUCTION & MATERIALS

- Die cast, low copper, aluminum alloy housing w/ UV stabilized polymeric door for long weathering and reliability
- 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

### ELECTRICAL SYSTEM

- **Input Voltage:** 220-240V 50Hz
- **Power Factor:** > 0.95 at full load
- **Total Harmonic Distortion:** < 10% at full load
- To address inrush current, slow blow fuse or type B/C breaker should be used

### REGULATORY & VOLUNTARY QUALIFICATIONS

- CE mark
- ENEC mark
- CD certificate
- RoHs compliant
- Risk group exempt in accordance with Standard CEI EN 62471 for photobiological safety
- Enclosure rated IP66 per IEC 60529
- Up to 10kV surge immunity according to EN 61000-4-5 and EN 61547
- 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 (W) 220-240V	Total Current (A)	Power factor
		@230V, 50Hz	
A	58	0.26	0.98
B / C	42	0.19	0.98

\* 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
-40°C	A	1.09	1.05	1.02	0.98	0.95
-30°C	A	1.08	1.04	1.01	0.97	0.94
-20°C	A	1.07	1.03	1.00	0.96	0.93
-10°C	A	1.06	1.02	0.99	0.95	0.92
0°C	A	1.05	1.01	0.98	0.94	0.91
5°C	A	1.04	1.00	0.97	0.93	0.90
10°C	A	1.03	0.99	0.96	0.92	0.89
15°C	A	1.02	0.98	0.95	0.91	0.88
20°C	A	1.01	0.97	0.94	0.90	0.87
25°C	A	1.00	0.96	0.93	0.89	0.86
30°C	A	0.99	0.96	0.92	0.88	0.84
40°C	A	0.98	0.94	0.89	0.84	0.80
50°C	A	0.86	0.91	0.83	0.76	0.70

<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> According with TM-21 the projected value can be just up to 6x time the test time

Weight and Maximum Wind Area	
Weight	Lateral Surface Wind Exposed
7 kg	0.08m <sup>2</sup>

**Control options - Input Power Designator A**

Field Adjustable Output - Input Power A					
Setting	System Watts W	Lumen Multipliers	Nominal flux (lm)		
			5700K	4000K	3000K
Q9 (Factory Set)	58	1,000	7192	7134	6815
Q8	54	0,942	6777	6723	6422
Q7	49	0,874	6287	6237	5957
Q6	44	0,797	5731	5685	5430
Q5	39	0,720	5178	5137	4907
Q4	33	0,625	4499	4462	4263
Q3	28	0,523	3760	3730	3563
Q2	22	0,405	2916	2892	2763
Q1	16	0,286	2056	2040	1948

Virtual Midnight Y - Input Power A								
Setting	System Watts W (High Mode)	Nominal flux (lm)			System Watts W (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
Y1	58	7196	7137	6821	48	5805	5758	5502
Y2	58	7196	7137	6821	30	4119	4086	3904
Y3	58	7196	7137	6821	17	2239	2221	2121
Y4	48	5805	5758	5502	30	4119	4086	3904
Y5	48	5805	5758	5502	17	2239	2221	2121
Y6	30	4119	4086	3904	17	2239	2221	2121

Virtual Midnight Z - Input Power A								
Setting	System Watts W (High Mode)	Nominal flux (lm)			System Watts W (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
Z1	51	6468	6416	6131	41	5303	5261	5026
Z2	51	6468	6416	6131	33	4377	4342	4148
Z3	51	6468	6416	6131	20	2792	2770	2646
Z4	41	5303	5261	5026	33	4377	4342	4148
Z5	41	5303	5261	5026	20	2792	2770	2646
Z6	33	4377	4342	4148	20	2792	2770	2646

**Control options - Input Power Designator B**

Lineswitch - Input Power B								
Setting	System Watts W (High Mode)	Nominal flux (lm)			System Watts W (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
G1*	42	5440	5396	5156	22	3248	3222	3078
G2*	38	5074	5033	4808	19	2870	2847	2720
G3*	32	4420	4385	4189	16	2371	2352	2247
G4*	27	3877	3845	3674	14	2011	1994	1905
G5*	24	3527	3499	3343	14	2011	1994	1905
G6*	18	2716	2694	2573	14	2011	1994	1905

\* Dimming 6h or 8h

Dynadimmer - Input Power B								
Setting	System Watts W (High Mode)	Nominal flux (lm)			System Watts W (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K
DY1	42	5440	5396	5156	22	3248	3222	3078
DY2	38	5074	5033	4808	19	2870	2847	2720
DY3	32	4420	4385	4189	16	2371	2352	2247
DY4	27	3877	3845	3674	16	2371	2352	2247
DY5	22	3248	3222	3078	16	2371	2352	2247
DY6	42	5440	5396	5156	32	4420	4385	4189
DY7	42	5440	5396	5156	16	2371	2352	2247
DY8	32	4420	4385	4189	22	3248	3222	3078

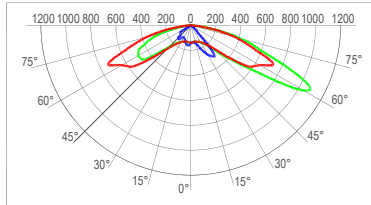
**Control options - Input Power Designator C**

Vital Midnight Chronostep - Input Power C												
Setting	System Watts W (High Mode)	Nominal flux (lm)			System Watts W (Medium Mode)	Nominal flux (lm)			System Watts W (Low Mode)	Nominal flux (lm)		
		5700K	4000K	3000K		5700K	4000K	3000K		5700K	4000K	3000K
CR1	41	5440	5396	5156					22	3335	3308	3161
CR2	38	5168	5126	4898					19	2957	2933	2802
CR3	32	4528	4492	4291					16	2466	2446	2337
CR4	27	3968	3936	3760					16	2466	2446	2337
CR5	22	3335	3308	3161					16	2466	2446	2337
CR6	41	5440	5396	5156					32	4528	4492	4291
CR7	38	5168	5126	4898					26	3793	3763	3595
CR8	32	4528	4492	4291					22	3335	3308	3161
CR9	41	5440	5396	5156					22	3335	3308	3161
CR10	38	5168	5126	4898					19	2957	2933	2802
CR11	32	4528	4492	4291					16	2466	2446	2337
CR12	27	3968	3936	3760					16	2466	2446	2337
CR13	22	3335	3308	3161					16	2466	2446	2337
CR14	41	5440	5396	5156					32	4528	4492	4291
CR15	38	5168	5126	4898					26	3793	3763	3595
CR16	32	4528	4492	4291					22	3335	3308	3161
CR17	41	5440	5396	5156	32	4528	4492	4291	22	3335	3308	3161
CR18	38	5168	5126	4898	26	3793	3763	3595	19	2957	2933	2802
CR19	32	4528	4492	4291	22	3335	3308	3161	16	2466	2446	2337

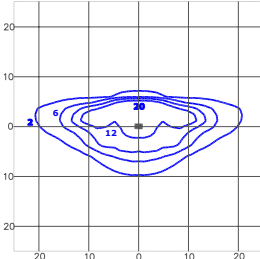
**Photometry**

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    — C05 - C185

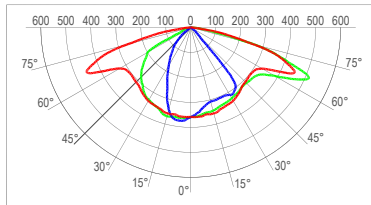


lux  
**XSPMA022LGA40K**  
**Mounting Height: 6m**

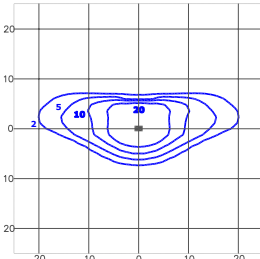
Lumen Output - 2LG (Type II Long)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
A	6347	6296	6014
B / C	4814	4775	4792

\* 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



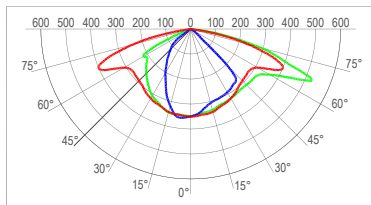
lux  
**XSPMA02275A40K**  
**Mounting Height: 6m**

Lumen Output - 275 (Type II Short 0.75)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
A	6488	6436	6148
B / C	4921	4881	4899

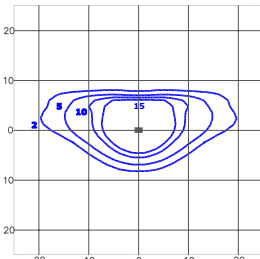
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

Test Report #: 433-QL17-R02

**210 - Type II Short 1.0**



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



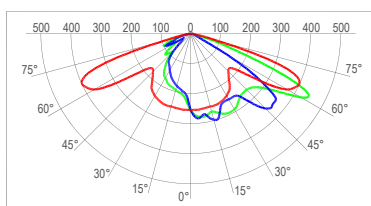
lux  
**XSPMA02210A40K**  
**Mounting Height: 6m**

Lumen Output - 210 (Type II Short 1.0)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
A	6689	6635	6338
B / C	5073	5032	4807

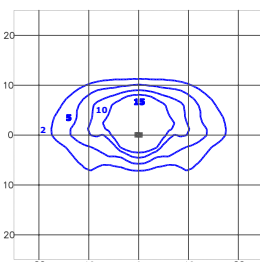
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

Test Report #: 433-QL17-R01

**2SH - Type II Short**



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



lux  
**XSPMA022SHA40K**  
**Mounting Height: 6m**

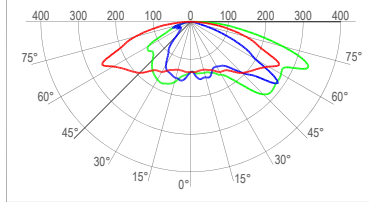
Lumen Output - 2SH (Type II Short)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
A	6304	6253	5973
B / C	4781	4742	4760

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

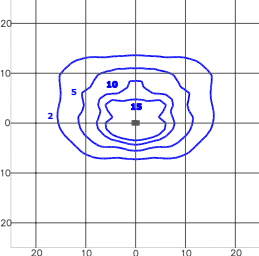
### Photometry

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#### 3SH - Type III Short



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



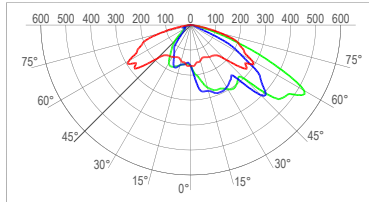
lux  
**XSPMA023SHA40K**  
**Mounting Height: 6m**

Test Report #: 745-QL17-R01

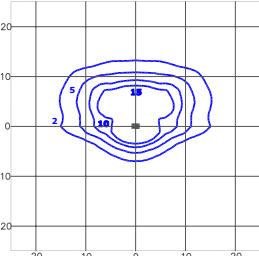
Lumen Output - 3SH (Type III Short)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
A	5915	5867	5604
B / C	4486	4450	4466

\* 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    — C15 - C195

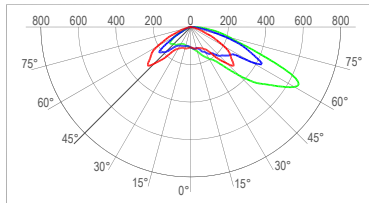


lux  
**XSPMA023MEA40K**  
**Mounting Height: 6m**

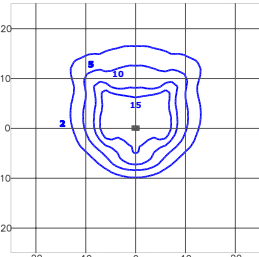
Lumen Output - 3ME (Type III Medium)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
A	6130	6081	5809
B / C	4649	4612	4629

\* 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    — C15 - C195



lux  
**XSPMA024MEA40K**  
**Mounting Height: 6m**

Lumen Output - 4ME (Type IV Medium)			
Input Power Designator	5700K	4000K	3000K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
A	6474	6422	6135
B / C	4910	4870	4888

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