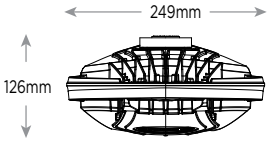
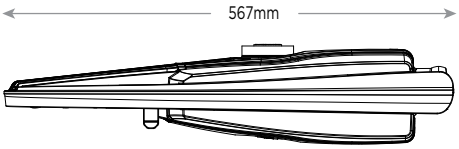
Advanced
LIGHTING TECHNOLOGIES

XSP High Output Series

XSPR™ High Output LED Street/Area Luminaire





Product Description

In addition to a low initial cost, the XSPR™ High Output LED Street Light maintains the familiar look of the traditional cobrahead design and delivers substantial energy savings while reducing maintenance time and costs. The hassle-free design of the XSPR HO luminaire includes simplified mounting solutions, horizontal tenon mount or adjustable arm, that allow for fixture leveling of +/-5°. Our NanoOptic® Precision Delivery Grid™ optic achieves better optical control than traditional street lighting fixtures and efficiently delivers white uniform light for safer-feeling communities.
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

For mounting system 07 only

KIT ADATT. PALO 34MM
Adaptor Kit for dia. 34mm poles

KIT ADATT. PALO 48MM
Adaptor Kit for dia. 48mm poles

KIT ADATT. PALO 42MM
Adaptor Kit for dia. 42mm poles

Field-Installed

Backlight Control Shield
XA-SPR3BLS
- Provides 1/2 mounting height cutoff
- For use with 60W luminaires

XA-SPRBLS
- Provides 1/2 mounting height cutoff
- For use with 80W luminaires

Ordering Information
Example: XSPRCHT210A30K^24SVDIM01

XSPR	C	HT	210	A	30K	^	24	SV	DIM	01
Product	**Version**	**Mounting**	**Optic**	**Input Power Designator**	**CCT**	**Insulation Class**	**Voltage**	**Color Options**	**Options**	**Cable length***
XSPR	**C**	**HT** Horizontal Tenon **07** Adjustable Mount (60mm) **08** Adjustable Mount (76mm)	**2LG** Type II Long **275** Type II Short 0.75 **210** Type II Short 1.0 **2SH** Type II Short **3SH** Type III Short **3ME** Type III Medium **4ME** Type IV Medium	**A** 54W **B** 41W	**30K** 3000K **40K** 4000K **57K** 5700K	**+** Class 1 **^** Class 2	**24** Universal 220-240V	**SV** Silver	**No code** **Fixed Output** Available with Input Power A: **DIM** **1-10V Dimming** - Control by others **Q#** **Field Adjustable Output** - Requires no additional wiring **C# - D#** **Virtual Midnight** - Field programmable Available with Input Power B: **CLO** **Constant Lumen Output** **DY#** **Dynadimmer**	**No code** Standard (w/o cable) **01** Exit cable 30cm **03** Exit cable 3m **06** Exit cable 6m **10** Exit cable 10m

*w/o connector

† See www.cree.com/lighting/products/warranty for warranty terms

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Product Specifications

CONSTRUCTION & MATERIALS

- Die cast aluminum housing w/ UV stabilized polymeric door for long weathering and reliability
- Mounts on horizontal tenon with O.D. from 32 mm to 60 mm (minimum 203mm in length)
- With the tenon mount system (07) it can be mounted on an arm or pole top (90°) of 60 mm O.D. and with (08) it can be mounted on an arm or pole top of 76 mm O.D. Tenon mount system can be tilt adjusted in 5° increments to keep it horizontal with the ground
- Adjustable mounting arm is rugged die cast aluminium and mounts to different outer dimension tenons or poles (with accessory adapters)
- 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 or 50/60Hz
- **Power Factor:** > 0.95 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Surge suppression protection standard up to integral 10kV
- To address inrush current, slow blow fuse or type B/C 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
- 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
		230V
A	54	0.24
B	41	0.19

* Electrical data at 25˚C (77˚F)

Recommended Cree® XSP HO 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	A	1.03	0.97	0.93	0.90	0.88
	B	1.02	0.99	0.97	0.94	0.91
10˚C	A	1.02	0.96	0.92	0.89	0.86
	B	1.01	0.98	0.96	0.93	0.90
15˚C	A	1.01	0.95	0.91	0.87	0.84
	B	1.01	0.98	0.96	0.93	0.90
20˚C	A	1.01	0.95	0.90	0.86	0.81
	B	1.00	0.97	0.94	0.91	0.88
25˚C	A	1.00	0.94	0.89	0.84	0.79
	B	1.00	0.97	0.93	0.89	0.86

[1] Lumen maintence 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
5 kg	0.05m2

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Control options

Field Adjustable Output - Input Power Designator A					
Setting	**System Watts**	**Lumen Multipliers**	**Nominal flux (lm)**		
			5700K	**4000K**	**3000K**
Q9 = Q8	54	1.00	6744	6612	6275
Q7	48	0.93	6272	6149	5836
Q6	42	0.86	5800	5686	5396
Q5	38	0.77	5193	5091	4832
Q4	32	0.69	4654	4562	4330
Q3	27	0.58	3912	3835	3639
Q2	22	0.46	3102	3042	2886
Q1	17	0.34	2293	2248	2133

Virtual Midnight C - Input Power Designator A								
Setting	**System Watts** (High Mode)	**Nominal flux (lm)**			**System Watts** (Low Mode)	**Nominal flux (lm)**		
		5700K	**4000K**	**3000K**		**5700K**	**4000K**	**3000K**
C1	54	6744	6612	6275	41	5648	5538	5255
C2	54	6744	6612	6275	27	3912	3835	3639
C3	54	6744	6612	6275	18	2455	2407	2284
C4	41	5648	5538	5255	27	3912	3835	3639
C5	41	5648	5538	5255	18	2455	2407	2284
C6	27	3912	3835	3639	18	2455	2407	2284

Virtual Midnight D - Input Power Designator A								
Setting	**System Watts** (High Mode)	**Nominal flux (lm)**			**System Watts** (Low Mode)	**Nominal flux (lm)**		
		5700K	**4000K**	**3000K**		**5700K**	**4000K**	**3000K**
D1	47	6193	6072	5762	37	5103	5003	4748
D2	47	6193	6072	5762	30	4357	4271	4054
D3	47	6193	6072	5762	18	2455	2407	2284
D4	37	5103	5003	4748	30	4357	4271	4054
D5	37	5103	5003	4748	18	2455	2407	2284
D6	30	4357	4271	4054	18	2455	2407	2284

Dynadimmer-- Input Power Designator B								
Setting	**System Watts** (High Mode)	**Nominal flux (lm)**			**System Watts** (Low Mode)	**Nominal flux (lm)**		
		5700K	**4000K**	**3000K**		**5700K**	**4000K**	**3000K**
DY1	41	5047	4948	4696	22	2700	2647	2512
DY2	38	4519	4430	4204	19	2331	2286	2169
DY3	32	4049	3970	3767	16	1963	1925	1827
DY4	27	3404	3337	3167	16	1963	1925	1827
DY5	22	2700	2647	2512	16	1936	1925	1827
DY6	41	5047	4948	4696	32	4049	3970	3767
DY7	41	5047	4948	4696	16	1963	1925	1827
DY8	32	4049	3970	3767	22	2700	2647	2512

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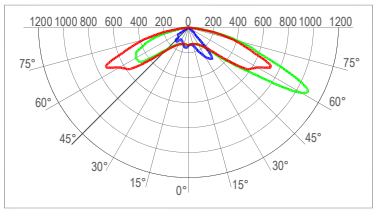
Photometry

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



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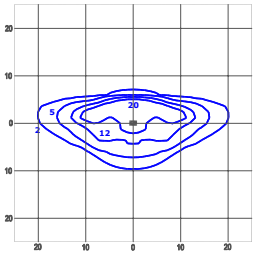
C0 - C180 C90 - C270 C05-C185

Test Report #: PL09479-001



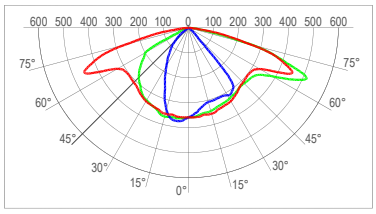
lux

XSPRCHT2LGA40K
Mounting Height: 6m

Lumen Output - 2LG (Type II Long)			
Input Power Designator	**5700K** Initial Delivered Lumens*	**4000K** Initial Delivered Lumens*	**3000K** Initial Delivered Lumens*
A	5917	5801	5505
B	4428	4341	4120

* 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



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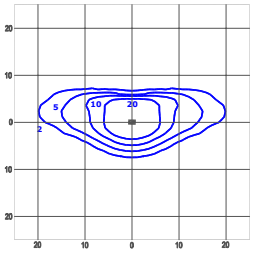
C0 - C180 C90 - C270 C15 - C195

Test Report #: PL09105-002



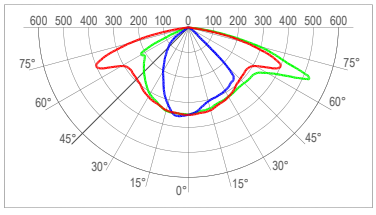
lux

XSPRCHT275A40K
Mounting Height: 6m

Lumen Output - 275 (Type II Short 0.75)			
Input Power Designator	**5700K** Initial Delivered Lumens*	**4000K** Initial Delivered Lumens*	**3000K** Initial Delivered Lumens*
A	6084	5965	5660
B	4553	4464	4236

* 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



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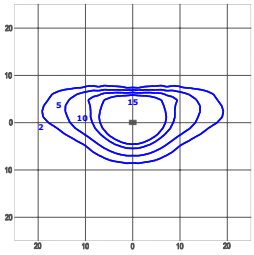
C0 - C180 C90 - C270 C15 - C195

Test Report #: PL09345-001



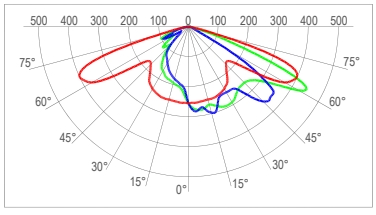
lux

XSPRCHT210A40K
Mounting Height: 6m

Lumen Output - 210 (Type II Short 1.0)			
Input Power Designator	**5700K** Initial Delivered Lumens*	**4000K** Initial Delivered Lumens*	**3000K** Initial Delivered Lumens*
A	6272	6149	5836
B	4694	4602	4367

* 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



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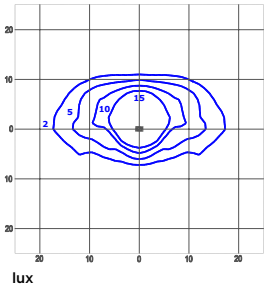
C0 - C180 C90 - C270 C45 - C225

Test Report #: PL10063-001



lux

XSPRC072SHA40K
Mounting Height: 6m

Lumen Output - 2SH (Type II Short)			
Input Power Designator	**5700K** Initial Delivered Lumens*	**4000K** Initial Delivered Lumens*	**3000K** Initial Delivered Lumens*
A	5914	5798	5502
B	4426	4339	4118

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

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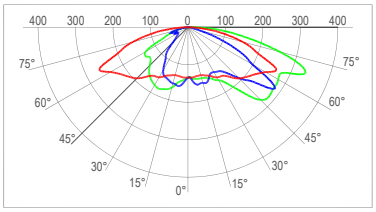
3SH - Type III Short



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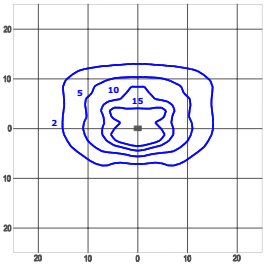
C0 - C180 C90 - C270 C45 - C225



lux

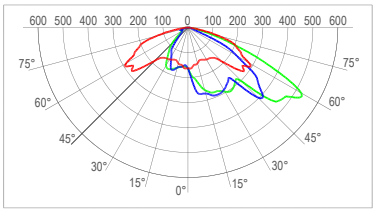
Test Report #: PL10063-002

XSPRCHT3SHA40K
Mounting Height: 6m

Lumen Output - 3SH (Type III Short)			
Input Power Designator	**5700K** Initial Delivered Lumens*	**4000K** Initial Delivered Lumens*	**3000K** Initial Delivered Lumens*
A	5406	5300	5029
B	4045	3966	3764

* 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



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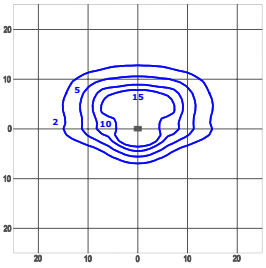


lux

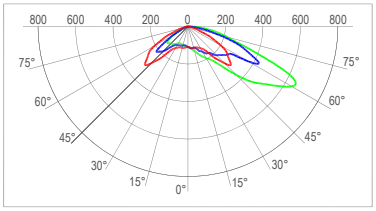
Test Report #: PL10063-004

XSPRCHT3MEA40K
Mounting Height: 6m

Lumen Output - 3ME (Type III Medium)			
Input Power Designator	**5700K** Initial Delivered Lumens*	**4000K** Initial Delivered Lumens*	**3000K** Initial Delivered Lumens*
A	5868	5753	5460
B	4391	4305	4086

* 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



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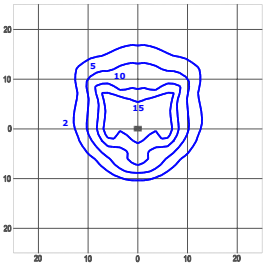
C0 - C180 C90 - C270 C15 - C195



lux

Test Report #: PL10063-003

XSPRCHT4MEA40K
Mounting Height: 6m

Lumen Output - 4ME (Type IV Medium)			
Input Power Designator	**5700K** Initial Delivered Lumens*	**4000K** Initial Delivered Lumens*	**3000K** Initial Delivered Lumens*
A	5954	5837	5539
B	4455	4368	4145

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

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