

XSP Series

XSP1™ LED Street/Area Luminaire – 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

Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

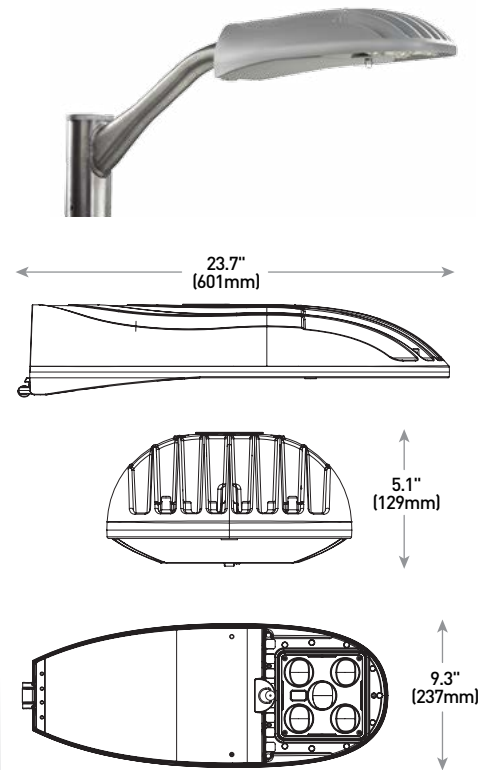
CCT: 3000K (+/- 300K); 4000K (+/- 300K); 5700K (+/- 500K)

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See <http://lighting.cree.com/warranty> for warranty terms

Accessories

Field-Installed	
Backlight Control Shield XA-SP1BLS - Provides 1/2 mounting height cutoff	Bird Spikes XA-SP1BRDSPK



Voltage	Weight
120-277V	14.5 lbs. (6.6kg)
347-480V	19.5 lbs. (8.8kg)

Ordering Information

Example: BXSP-C-HT-2ME-E-30K-UL-BZ

BXSP	C	HT		E					
Product	Version	Mounting	Optic	Input Power Designator	CCT	Voltage	Color Options	Options	
BXSP	C	HT Horizontal Tenon	2LG* Type II Long 2ME* Type II Medium 3ME* Type III Medium 4ME* Type IV Medium	E 101W	30K 3000K 40K 4000K 57K 5700K	UL Universal 120-277V UH** Universal 347-480V	BK Black BZ Bronze SV Silver WH White	G Small Four Point Mounting - Mounts to 1.25" [32mm] IP, 1.66" [42mm] O.D. horizontal tenon J Large Four Point Mounting - Mounts to 2" [51mm] IP, 2.375" [60mm] O.D. horizontal tenon N-Q9/Q8/Q7/Q6/Q5/Q4 Utility Label, NEMA® 7-Pin Photocell Receptacle & Field Adjustable Output - Must select Q9, Q8, Q7, Q6, Q5 or Q4 - Settings Q3-Q1 are not available with N option - External wattage label per ANSI C136.15 based on Q setting selected - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Photocell and shorting cap by others - Power/lumens may only be adjusted down in the field - Refer to page 6 for power and lumen values	Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1 Field Adjustable Output - Must select Q9, Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Power/lumens are fully adjustable in the field - Refer to page 6 for power and lumen values R NEMA® 7-Pin Photocell Receptacle - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Photocell and shorting cap by others UTL Utility Label - Includes exterior wattage label per ANSI C136.15 that indicates the maximum available wattage of the luminaire

* Available with Backlight Shield when ordered with field-installed accessory (see table above)
 ** 347-480V utilizes magnetic step-down transformer. For input power for 347-480V, refer to the Electrical Data table



Product Specifications

CONSTRUCTION & MATERIALS

- Die cast aluminum housing
- Tool-less entry
- Mounts on 1.25" [32mm] IP, 1.66" [42mm] O.D. or 2" [51mm] IP, 2.375" [60mm] O.D. horizontal tenon (minimum 8" [203mm] in length) and is adjustable +/- 5° to allow for fixture leveling (includes two axis T-level to aid in leveling)
- Luminaire secures with two mounting bolts standard; optional four point mounting available
- 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. Black, bronze, silver and white are available
- **Weight:** 120-277V: 14.5 lbs. [6.6kg]; 347-480V: 19.5 lbs. [8.8kg]

ELECTRICAL SYSTEM

- **Input Voltage:** 1120-277V or 347-480V, 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Class 1 driver
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- **10V Source Current:** 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- Meets CALTrans 611 Vibration testing
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT. Please refer to <http://darksky.org/fsa/fsa-products/> for most current information

Electrical Data*								
Input Power Designator	System Watts 120-277V	System Watts 347-480V	Total Current (A)					
			120V	208V	240V	277V	347V	480V
E	101	108	0.89	0.50	0.44	0.39	0.32	0.23

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%

XSP Series Version C Ambient Adjusted Lumen Maintenance ¹					
Ambient	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)	1.04	1.02	1.01	1.00	0.99
10°C (50°F)	1.03	1.01	1.00	0.99	0.98
15°C (59°F)	1.02	1.00	0.99	0.98	0.97
20°C (68°F)	1.01	0.99	0.98	0.97	0.96
25°C (77°F)	1.00	0.98	0.97	0.96	0.95

¹Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors

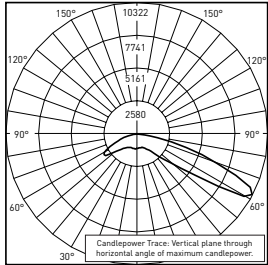
²In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ([DUT] i.e. the packaged LED chip)

³In 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)

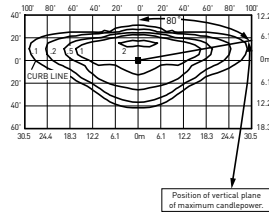
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: <http://lighting.cree.com/products/outdoor/street-and-roadway/xsp-series-1>

2LG



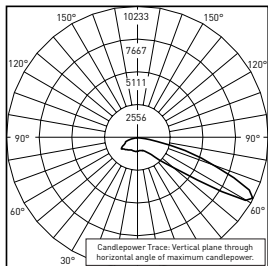
CESTL Test Report #: PL04154-001
BXSP-C--2LG-E-30K-UL**
Initial Delivered Lumens: 6,944



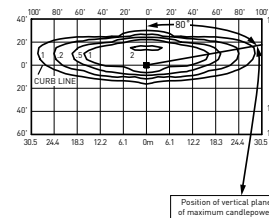
BXSP-C--2LG-E-30K-UL**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 6,816
Initial FC at grade

Type II Long Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
E	6,816	B2 U0 G2	8,315	B2 U0 G2	8,724	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>



CESTL Test Report #: PL04155-001
BXSP-C--2LG-E-30K-UL w/XA-SP1BLS**
Initial Delivered Lumens: 5,302

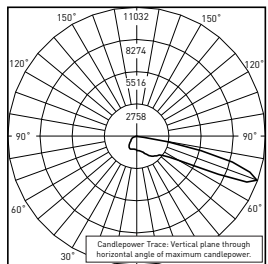


BXSP-C--2LG-E-30K-UL w/XA-SP1BLS**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 5,018
Initial FC at grade

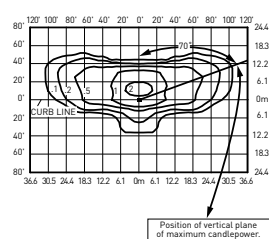
Type II Long w/BLS Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
E	5,018	B1 U0 G1	6,122	B1 U0 G1	6,423	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

2ME



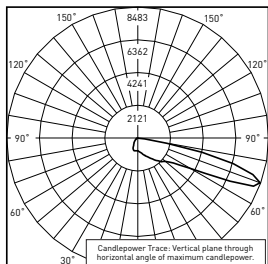
RESSL Test Report #: PL10389-001A
BXSP-C--2ME-E-40K-UL**
Initial Delivered Lumens: 8,740



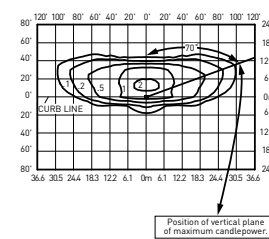
BXSP-C--2ME-E-40K-UL**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,407
Initial FC at grade

Type II Medium Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
E	6,891	B1 U0 G2	8,407	B2 U0 G2	8,820	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>



RESSL Test Report #: PL10389-002A
BXSP-C--2ME-E-40K-UL w/XA-SP1BLS**
Initial Delivered Lumens: 6,759



BXSP-C--2ME-E-40K-UL w/XA-SP1BLS**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 6,750
Initial FC at grade

Type II Medium w/BLS Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
E	5,525	B1 U0 G2	6,750	B1 U0 G2	7,075	B1 U0 G2

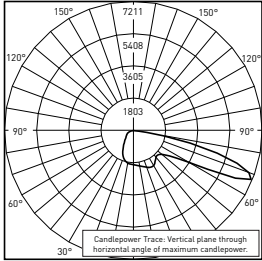
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>



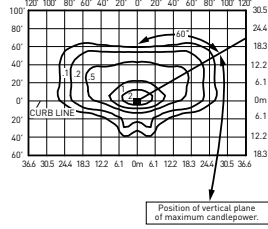
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: <http://lighting.cree.com/products/outdoor/street-and-roadway/xsp-series-1>

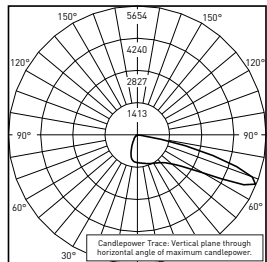
3ME



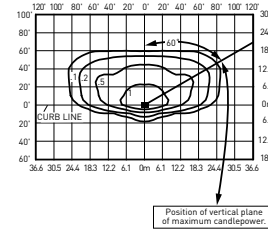
RESTL Test Report #: PL10388-001A
BXSP-C--3ME-E-40K-UL**
Initial Delivered Lumens: 8,708



BXSP-C--3ME-E-40K-UL**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,224
Initial FC at grade



RESTL Test Report #: PL10388-002A
BXSP-C--3ME-E-40K-UL w/XA-SP1BLS**
Initial Delivered Lumens: 6,086



BXSP-C--3ME-E-40K-UL w/XA-SP1BLS**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 6,100
Initial FC at grade

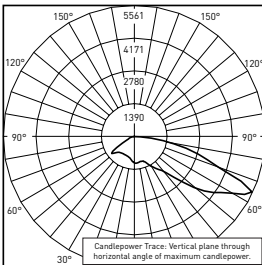
Type III Medium Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
E	6,741	B1 U0 G2	8,224	B2 U0 G2	8,628	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

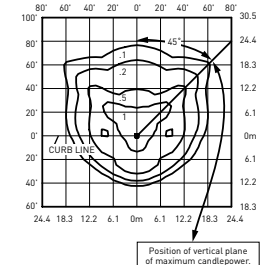
Type III Medium w/BLS Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
E	5,000	B1 U0 G2	6,100	B1 U0 G2	6,400	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

4ME



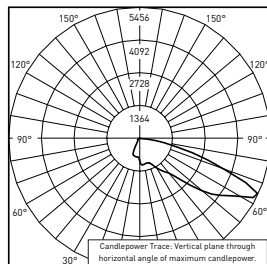
CESTL Test Report #: PL04091-001
BXSP-C--4ME-E-30K-UL**
Initial Delivered Lumens: 6,923



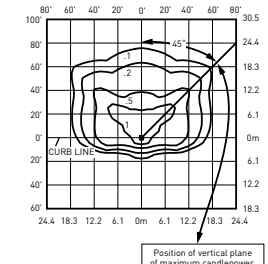
BXSP-C--4ME-E-30K-UL**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 6,816
Initial FC at grade

Type IV Medium Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
E	6,816	B2 U0 G2	8,315	B2 U0 G2	8,724	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>



CESTL Test Report #: PL04092-001
BXSP-C--4ME-E-30K-UL w/XA-SP1BLS**
Initial Delivered Lumens: 5,530








BXSP-C--4ME-E-30K-UL w/XA-SP1BLS**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 5,318
Initial FC at grade

Type IV Medium w/BLS Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
E	5,318	B1 U0 G1	6,488	B1 U0 G2	6,807	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>



Luminaire EPA

Horizontal Tenon Mount – Weight: 120-277V: 14.5 lbs. (6.6kg); 347-480V: 19.5 lbs. (8.8kg)				
Single	2 @ 90°	2 @ 180°	3 @ 90°	4 @ 90°
Tenon Configuration If used with Cree tenons, please add tenon EPA with luminaire EPA				
				
PD-1H4; PT-1H	PD-2H4(90); PT-2H(90)	PD-2H4(180); PT-2H(180)	PD-3H4(90); PT-3H(90)	PD-4H4(90); PT-4H(90)
0.71	1.02	1.43	1.74	2.04

Tenon EPA

Part Number	EPA
PD Series Tenons	0.09
PT Series Tenons	0.10
WM-2L	0.13
XA-TMDA8	0.19

Tenons and Brackets* (must specify color)	
<p>Square Internal Mount Horizontal Tenons (Aluminum) - Mounts to 4" (102mm) square aluminum or steel poles PD-1H4 – Single PD-3H4(90) – 90° Triple PD-2H4(90) – 90° Twin PD-4H4(90) – 90° Quad PD-2H4(180) – 180° Twin</p> <p>Wall Mount Brackets - Mounts to wall or roof WM-2L – Extended Horizontal</p>	<p>Round External Mount Horizontal Tenons (Aluminum) - Mounts to 2.375"-3" (60-76mm) O.D. round aluminum or steel poles or tenons - Mounts to 3" (76mm), 5" (127mm), or 6" (152mm) square pole with PB-1A* tenon PT-1H – Single PT-3H(90) – 90° Triple PT-2H(90) – 90° Twin PT-4H(90) – 90° Quad PT-2H(180) – 180° Twin</p> <p>Direct Arm Pole Adaptor Bracket - Mounts to 3-6" (76-152mm) round or square aluminum or steel poles XA-TMDA8</p>

* Refer to the [Bracket and Tenons spec sheet](#) for more details

* Specify pole size: 3 (3"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 5 (5") or 6 (6") for quad luminaire orientation

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables luminaires within the XSP Series on this page to be tuned to the exact needs of a particular application through multiple levels of adjustment. When a setting other than Q9 is specified with the N option, that setting becomes the maximum wattage of the luminaire, and a NEMA label reflecting this wattage is affixed to the luminaire. Lumen output and power consumption can only be adjusted downward from the maximum wattage.

Q Option Power & Lumen Data

Q Option Setting	CCT	System Watts†		Lumen Values							
		120-277V	347-480V	2LG	2ME	3ME	4ME	2LG w/BLS	2ME w/BLS	3ME w/BLS	4ME w/BLS
9	30K	101	108	6,816	6,891	6,741	6,816	5,018	5,525	5,000	5,318
	40K			8,315	8,407	8,224	8,315	6,122	6,750	6,100	6,488
	57K			8,724	8,820	8,628	8,724	6,423	7,075	6,400	6,807
8	30K	98	104	6,612	6,684	6,539	6,612	4,867	5,359	4,850	5,158
	40K			8,066	8,155	7,977	8,066	5,938	6,548	5,917	6,293
	57K			8,462	8,555	8,369	8,462	6,230	6,863	6,208	6,603
7	30K	92	98	6,407	6,478	6,337	6,407	4,717	5,194	4,700	4,999
	40K			7,816	7,903	7,731	7,816	5,755	6,345	5,734	6,099
	57K			8,201	8,291	8,110	8,201	6,038	6,651	6,016	6,399
6	30K	87	93	6,203	6,271	6,134	6,203	4,566	5,028	4,550	4,839
	40K			7,567	7,650	7,484	7,567	5,571	6,143	5,551	5,904
	57K			7,939	8,026	7,851	7,939	5,845	6,438	5,824	6,194
5	30K	82	88	5,862	5,926	5,797	5,862	4,315	4,752	4,300	4,573
	40K			7,151	7,230	7,073	7,151	5,265	5,805	5,246	5,580
	57K			7,503	7,585	7,420	7,503	5,524	6,085	5,504	5,854
4	30K	74	79	5,521	5,582	5,460	5,521	4,065	4,475	4,050	4,308
	40K			6,735	6,810	6,661	6,735	4,959	5,468	4,941	5,255
	57K			7,066	7,144	6,989	7,066	5,203	5,731	5,184	5,514
3*	30K	68	72	5,180	5,237	5,123	5,180	3,814	4,199	3,800	4,042
	40K			6,319	6,389	6,250	6,319	4,653	5,130	4,636	4,931
	57K			6,630	6,703	6,557	6,630	4,881	5,377	4,864	5,173
2*	30K	60	64	4,567	4,617	4,516	4,567	3,362	3,702	3,350	3,563
	40K			5,571	5,633	5,510	5,571	4,102	4,523	4,087	4,347
	57K			5,845	5,909	5,781	5,845	4,303	4,740	4,288	4,561
1*	30K	52	56	4,158	4,204	4,112	4,158	3,061	3,370	3,050	3,244
	40K			5,072	5,128	5,017	5,072	3,734	4,118	3,721	3,958
	57K			5,322	5,380	5,263	5,322	3,918	4,316	3,904	4,152

* Not available with N option

† Electrical and lumen data at 25°C (77°F). Actual wattage and lumen output may differ by +/-10% when operating between 120-480V +/-10%