

# OSQ Series

LED Area/Flood Luminaire – Large

## Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. 'S' Input power designator is a suitable upgrade for HID applications up to 750 Watts.

**Applications:** Parking lots, walkways, campuses, auto dealerships, office complexes, and internal roadways.

## Performance Summary

Utilizes BetaLED® Technology

NanoOptic® Precision Delivery Grid™ optic

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

CRI: Minimum 70 CRI (4000K & 5700K); 80 CRI (3000K)

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

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

## Accessories

Field-Installed	
<b>Backlight Shield</b> OSQ-BLSLF – Front facing optics	OSQ-BLSLR – Rotated optics

## Ordering Information

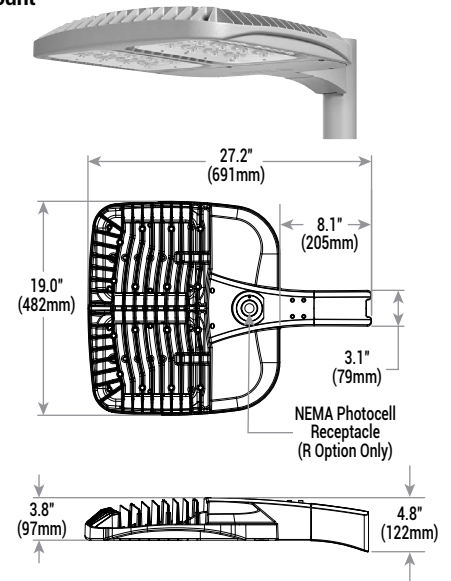
Fully assembled luminaire is composed of two components that must be ordered separately:  
Example: **Mount:** OSQ-AA SV + **Luminaire:** OSQ A NM 2ME S 40K-UL SV

Mount (Luminaire must be ordered separately)			
OSQ-			
OSQ-AA Adjustable Arm	Color Options:	SV Silver BK Black	BZ Bronze PB Platinum Bronze WH White
OSQ-DA Direct Arm			

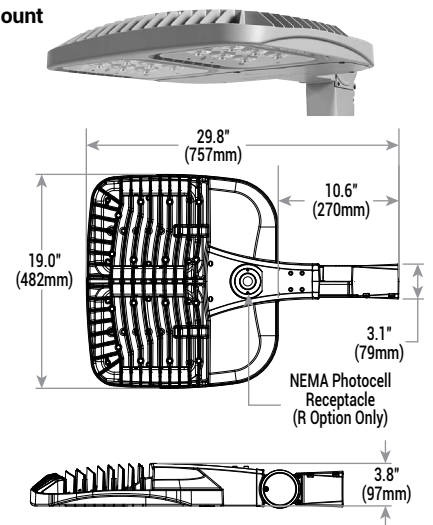
Luminaire (Mount must be ordered separately)											
OSQ	A	NM	Optic		Input Power Designator	CCT	-	Voltage	Color Options	Options	
OSQ	A	NM No Mount	2ME+ Type II Medium 3ME+ Type III Medium 4ME+ Type IV Medium 5ME Type V Medium 5SH Type V Short	15D 15' Flood 25D 25' Flood 40D 40' Flood 60D 60' Flood	S 223W	30K 3000K 40K 4000K 57K 5700K	- US * Canada	UL Universal 120-277V	SV Silver BK Black BZ Bronze PB Platinum Bronze WH White	<b>DIM 0-10V Dimming</b> - Control by others - Refer to Dimming spec sheet for details - Can't exceed wattage of specified input power designator <b>F Fuse</b> - When code dictates fusing, use time delay fuse <b>ML Multi-Level</b> - Refer to ML spec sheet for details - High: 100%, Low: 30% - Intended for downlight applications at 0° tilt	<b>Q9 Field Adjustable Output</b> - Refer to Field Adjustable Output spec sheet for details <b>R NEMA® Photocell Receptacle</b> - Intended for downlight applications at 0° tilt - Photocell by others <b>RL Rotate Left</b> - LED and optic are rotated to the left <b>RR Rotate Right</b> - LED and optic are rotated to the right

<sup>1</sup> See [www.cree.com/lighting/products/warranty](http://www.cree.com/lighting/products/warranty) for warranty terms  
 \* Available with Backlight Shield when ordered with field-installed accessory (see table above)

## DA Mount



## AA Mount



Rev. Date: 05/27/14



US: [www.cree.com/lighting](http://www.cree.com/lighting)

T (800) 236-6800 F (262) 504-5415

Canada: [www.cree.com/canada](http://www.cree.com/canada)

T (800) 473-1234 F (800) 890-7507

**Product Specifications**

**CONSTRUCTION & MATERIALS**

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high performance heat sink
- Convenient interlocking mounting method on direct arm mount. Mounting adapter is rugged die cast aluminum and mounts to 3-6" (76-152mm) square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Mounting for the adjustable arm mount adapter is rugged die cast aluminum and mounts to 2" (51mm) IP, 2.375" (60mm) O.D. tenon
- Adjustable arm mount can be adjusted 180° in 2.5° increments
- Designed for uplight and downlight applications
- 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. Silver, bronze, black, white, and platinum bronze are available
- **Weight:** 28.5 lbs. (13kg)

**ELECTRICAL SYSTEM**

- **Input Voltage:** 120-277V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

**REGULATORY & VOLUNTARY QUALIFICATIONS**

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without R option
- Consult factory for CE Certified products
- Pending certification to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- 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

Electrical Data					
Input Power Designator	System Watts 120-277V	Total Current			
		120V	208V	240V	277V
S	223	1.94	0.85	0.99	1.13

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)	S	1.04	0.99	0.94	0.88	0.84
10°C (50°F)	S	1.03	0.98	0.93	0.88	0.83
15°C (59°F)	S	1.02	0.97	0.92	0.87	0.83
20°C (68°F)	S	1.01	0.96	0.91	0.86	0.82
25°C (77°F)	S	1.00	0.95	0.90	0.85	0.81

<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)

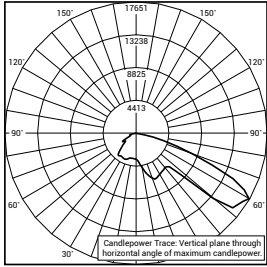
<sup>3</sup> In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)



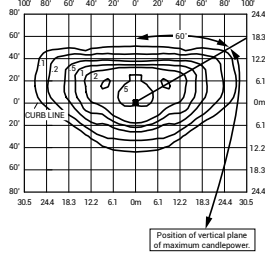
**Photometry**

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.com/lighting>.

**2ME**



RESTL Test Report #: PL03403-001  
OSQ A \*\* 2ME S 40K-UL  
Initial Delivered Lumens: 21,329

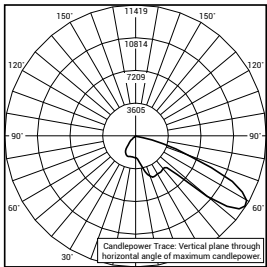


OSQ A \*\* 2ME S 40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 21,696  
Initial FC at grade

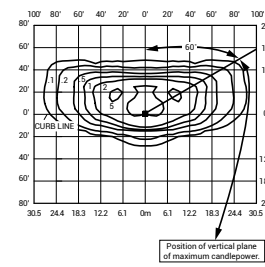
**Type II Medium Distribution**

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
S	20,046	B3-U0-G3	21,696	B3-U0-G3	23,179	B3-U0-G3

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt



RESTL Test Report #: PL03642-003  
OSQ A \*\* 2ME J 40K-UL w/OSQ-BLSMF  
Initial Delivered Lumens: 14,643



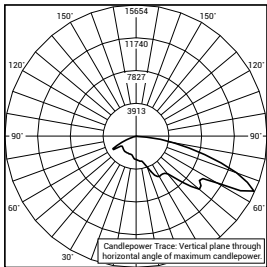
OSQ A \*\* 2ME J 40K-UL w/OSQ-BLSMF  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 18,597  
Initial FC at grade

**Type II Medium w/BLS Distribution**

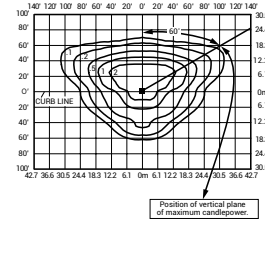
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
S	17,182	B3-U0-G2	18,597	B3-U0-G2	19,867	B3-U0-G2

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

**3ME**



RESTL Test Report #: PL03439-001  
OSQ A \*\* 3ME S 40K-UL  
Initial Delivered Lumens: 21,013

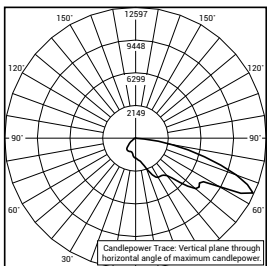


OSQ A \*\* 3ME S 40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 21,475  
Initial FC at grade

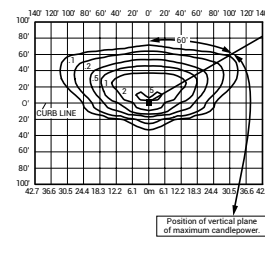
**Type III Medium Distribution**

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
S	19,841	B3-U0-G3	21,475	B3-U0-G3	22,942	B3-U0-G3

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt



RESTL Test Report #: PL03642-001  
OSQ A \*\* 3ME J 40K-UL w/OSQ-BLSMF  
Initial Delivered Lumens: 14,229



OSQ A \*\* 3ME J 40K-UL w/OSQ-BLSMF  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 18,375  
Initial FC at grade

**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
S	16,978	B2-U0-G3	18,375	B2-U0-G3	19,631	B2-U0-G3

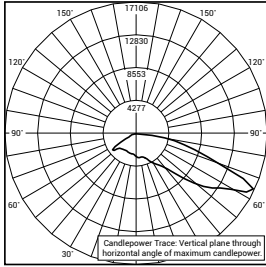
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt



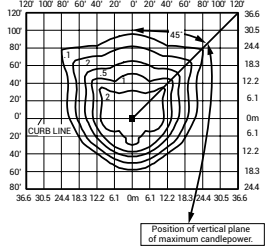
**Photometry**

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**4ME**



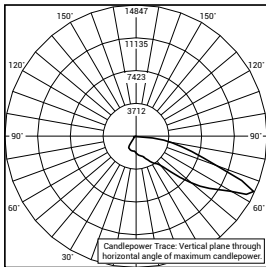
RESTL Test Report #: PL03402-001  
OSQ A \*\* 4ME S 40K-UL  
Initial Delivered Lumens: 20,830



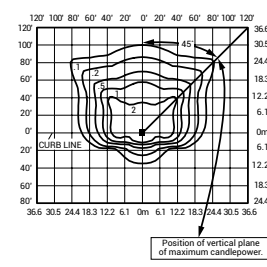
OSQ A \*\* 4ME S 40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 21,253  
Initial FC at grade

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
S	19,637	B3-U0-G3	21,253	B3-U0-G3	22,705	B3-U0-G3

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt



RESTL Test Report #: PL03642-002  
OSQ A \*\* 4ME J 40K-UL w/OSQ-BLSMF  
Initial Delivered Lumens: 13,647

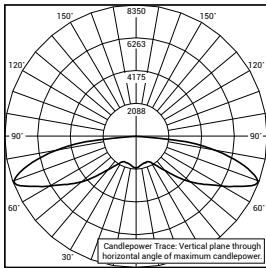


OSQ A \*\* 4ME S 40K-UL w/OSQ-BLSMF  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 18,154  
Initial FC at grade

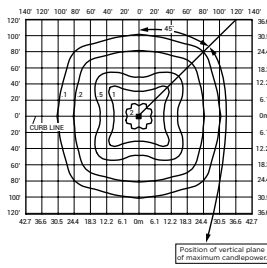
Type IV Medium w/BLS Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
S	16,773	B2-U0-G3	18,154	B2-U0-G3	19,394	B2-U0-G3

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

**5ME**



RESTL Test Report #: PL03466-001  
OSQ A \*\* 5ME S 40K-UL  
Initial Delivered Lumens: 20,709

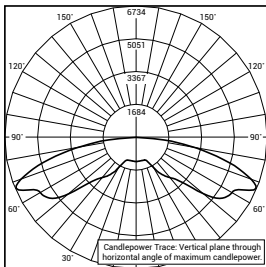


OSQ A \*\* 5ME S 40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 20,536  
Initial FC at grade

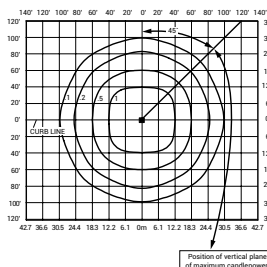
Type V Medium Distribution						
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
S	17,345	B4-U0-G5	20,536	B5-U0-G5	20,841	B5-U0-G5

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt

**5SH**



RESTL Test Report #: PL03501-001  
OSQ A \*\* 5SH S 40K-UL  
Initial Delivered Lumens: 21,066



OSQ A \*\* 5SH S 40K-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 20,982  
Initial FC at grade

Type V Short 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
S	17,722	B4-U0-G4	20,982	B5-U0-G4	21,294	B5-U0-G4

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt



**Photometry**

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15D

15° Flood Distribution			
Input Power Designator	3000K	4000K	5700K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
S	17,345	20,536	20,841

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

25D

25° Flood Distribution			
Input Power Designator	3000K	4000K	5700K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
S	16,968	20,089	20,388

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

40D

40° Flood Distribution			
Input Power Designator	3000K	4000K	5700K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
S	16,590	19,643	19,935

\* 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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**60D**

<b>60° Flood Distribution</b>			
	3000K	4000K	5700K
Input Power Designator	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
S	16,213	19,197	19,482

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

OSQ Series – Large

Luminaire EPA

Fixed Arm Mount – OSQ-DA Weight: 28.5 lbs. (13kg)							
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	3 @ 180°	4 @ 180°	4 @ 90°
0.80	1.61	1.26	2.06	1.68	3.33	4.66	4.71

Adjustable Arm Mount – OSQ-AA Weight: 28.5 lbs. (13kg)							
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	3 @ 180°	4 @ 180°	4 @ 90°

Tenon Configuration (0°-80° Tilt); If used with Cree tenons, please add tenon EPA with Luminaire EPA							
PB-1A*; PT-1; PW-1A3	PB-2A*; PB-2R**; PD-2A4(180); PT-2(180); PW-2A3	PD-2A4(90); PT-2(90)	PD-3A4(90); PT-3(90)	PT-3(120)	PB-3A*; PB-3R**	PB-4(180)	PB-4A*(90); PB-4R**; PD-4A4(90); PT-4(90)
<b>0° Tilt</b>							
0.80	1.61	1.26	2.06	1.68	3.33	4.66	4.71
<b>10° Tilt</b>							
0.81	1.61	1.62	2.42	2.32	4.40	6.08	5.43
<b>20° Tilt</b>							
1.24	1.61	2.04	2.84	3.13	5.68	7.80	6.27
<b>30° Tilt</b>							
1.64	1.64	2.44	3.24	3.97	6.88	9.40	7.07
<b>45° Tilt</b>							
2.20	2.20	3.00	3.80	5.07	8.55	11.64	8.19
<b>60° Tilt</b>							
2.63	2.63	3.43	4.23	5.73	9.84	13.36	9.05
<b>70° Tilt</b>							
2.82	2.82	3.62	4.42	5.73	10.41	14.12	9.43
<b>80° Tilt</b>							
2.58	2.58	3.32	4.06	5.11	9.71	13.16	8.83
Tenon Configuration (90° Tilt); If used with Cree tenons, please add tenon EPA with Luminaire EPA							
PB-1A*; PT-1; PW-1A3	PB-2A*; PB-2R**; PD-2A4(180); PT-2(180); PW-2A3	PB-2A*	PB-3A*	PT-3(120)	PB-3A*; PB-3R**	PB-4(180)	PB-4A*(90); PB-4R**
<b>90° Tilt</b>							
2.95	2.95	4.84	6.52	5.73	10.81	14.64	11.19

Tenon EPA

Part Number	EPA
PB-1A*	None
PB-2A*	0.82
PB-3A*	1.52
PB-4A*(180)	2.22
PB-4A*(90)	1.11
PB-2R**	0.92
PB-3R**	1.62
PB-4R**	2.32
PD Series Tenons	0.09
PT Series Tenons	0.10
PW-1A3***	0.47
PW-2A3***	0.94

\* Specify pole size  
 \*\* Specify round pole or tenon dimensions  
 \*\*\* These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height

Tenons and Brackets (must specify color)	
<b>Square Internal Mount Vertical Tenons (Steel)</b> - Mounts to 3- 6" (76-152mm) square aluminum or steel poles PB-1A* – Single PB-2A* – 180° Twin PB-3A* – 180° Triple PB-4A*(90) – 90° Quad PD-4A*(180) – 180° Quad	<b>Round Internal Mount Vertical Tenons (Steel)</b> - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons PB-2R2.375 – Twin PB-3R2.375 – Triple PB-4R2.375 – Quad
<b>Square Internal Mount Horizontal Tenons (Aluminum)</b> - Mounts to 4" (102mm) square aluminum or steel poles PD-2A4(90) – 90° Twin PD-2A4(180) – 180° Twin PD-3A4(90) – 90° Triple PD-4A4(90) – 90° Quad	<b>Round External Mount Horizontal Tenons (Aluminum)</b> - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons - Mounts to square pole with PB-1A* tenon PT-1H – Single PT-2H(90) – 90° Twin PT-2H(180) – 180° Twin PT-3H(90) – 90° Triple PT-4H(90) – 90° Quad
<b>Wall Mount Brackets</b> - Mounts to wall, roof or side of wood pole WM-2 – Standard WM-4 – L-Shape	<b>Mid-Pole Bracket</b> - Mounts to square pole PW-1A3* – Single PW-2A3* – Double

\* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") \*\* Specify pole size: 4 (4"), 5 (5"), or 6 (6")

