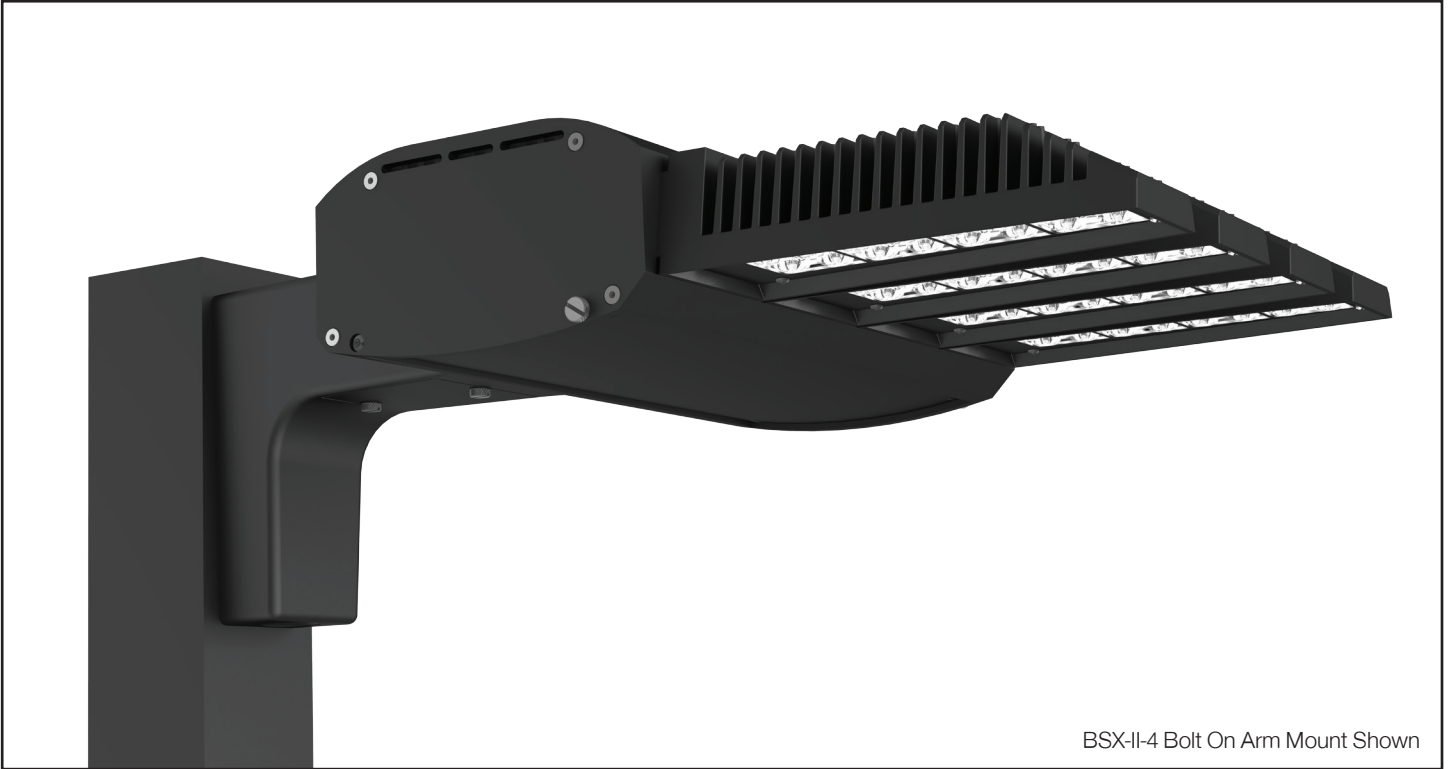


BSX-II-TS LED Specifications

Wildlife Certified

Area - Site - Commercial - Outdoor



BSX-II-4 Bolt On Arm Mount Shown

The new BSX-II Series continues the unique contemporary design inspired by the sleek styling of the BOW family. Separating the extruded aluminum driver housing and the individual die-cast aluminum linear LED engines: optimize the life of the LEDs and the Driver(s); and maximizes the lumen output of the fixture.

Each of the individual LED light engines come with 16 LEDs; for a max total of 64 LEDs. Our Turtle Safe and Wildlife Certified LEDs operates at 590nm. Sixteen optical distribution patterns are available.

The BSX-II Series offers an impressive output of up to 8,100 lumens with a wattage package reaching up to 101 watts, delivering an average efficiency of 80 lumens per watt. With integrated controls, the BSX-II ensures optimal lighting coverage while minimizing energy consumption.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The BSX-II series is an exceptional choice for shopping centers, schools, office buildings, and general area lighting.

Project Name:

Catalog Number:

Type:

Date:

Location:

The Wildlife Lighting Program was developed by the Department of the Interior's U.S. Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission to address light pollution issues in ecologically sensitive areas while ensuring human safety and security.



Wildlife Certified

LED Specifications **BSX-II-TS**

MODEL	OPTICS		LEDs	CURRENT	WAVELENGTH
BSX-II-2	T1 Type 1	T5 Type 5	32LD	3 350mA	TS 590nm
BSX-II-3	T2 Type 2	T5W Type 5 Wide	48LD	5 530mA	
BSX-II-4	T3 Type 3	T5WW Type 5 Extra Wide	64LD		
	T3R Type 3 Round	T5LG Type 5 Low Glare			
	T3W Type 3 Wide	FN Flood Narrow			
	T3LG Type 3 Low Glare	FM Flood Medium			
	T4A Type 4 Automotive	FW Flood Wide			
	T4 Type 4				
	T4LG Type 4 Low Glare				

VOLTAGE	MOUNTING	FINISH	CONTROL OPTIONS	SHIELD OPTIONS	OPTIONS
UNV 120-277V	PT Post Top	BZ Bronze	PCR-120 PCR-208 PCR-240 PCR-277 PCR-347 PCR-480 Photocell & Receptacle	CLS Backside cutoff shield	RPP-3" RPP-4" RPP-5" Round Pole Plate Adaptor
8 347V	MA Mast Arm Fitter	BK Black	7PINPER 7 Pin Photo Receptacle w/shorting cap Requires Dimming Driver	RCLS Rightside cutoff shield	DS Decorative Shroud
5 480V	KM Knuckle Mount	GY Grey	DIM 0-10v Dimming Driver No Controls	LCLS Leftside cutoff shield	UPMA-S Universal Square Pole Mount Adaptor
	BOA Bolt-On Arm	SBK Smooth Black	DTO Dim to Off Driver	BHS House shield	UPMA-R Universal Round Pole Mount Adaptor
	TM Trunnion Mount	WH White	WSP6-L2 WSP6-L3 WSP6-L7 8' Mounting Height 9-20' Mounting Height 21-40' Mounting Height		ROT-R Rotated Optics Right Side
	WM Wall Mount	SWH Smooth White	WSC-8 WSC-20 WSC-40 8' Mounting Height 9-20' Mounting Height 21-40' Mounting Height		ROT-L Rotated Optics Left Side
	AWM Adjustable Wall Mount	GP Graphite	*The WSC option will require (1) FSIR 100 remote for programming		BBG Bird Spikes
		GY Grey	TL7 7-PIN Twist-lock Wireless Control		BAA Buy America(n) Act Compliant
		SL Silver Metallic	Z10 or Z18 Zhaga 4 Pin Receptacle		BABA Build America Buy American
		ZFP Zinc-Free Primer Coat	VWC Visionaire Wireless Control		
		CC Custom Color	20kA		

Housing

The LED light engines are constructed of heavy-duty, die-cast aluminum, with external heat radiating fins.

Driver Compartment

The separate driver housing is constructed of extruded aluminum, with vented cast aluminum end covers and stainless steel fasteners; for easy access to the LED driver(s); allowing for cooler operation and longer driver life. One-piece gaskets are utilized throughout the fixture for weather tight operation.

Thermal Management

The BSX-II Series provides excellent overall thermal management by maximizing the fixture's heat sink capabilities. This enables the BOW SX Series to withstand higher ambient temperatures and drive currents without degrading LED life.

The L70 test determines the point in an LEDs life when it reaches 70 percent of its initial output. The BSX-II Series LEDs have been determined to last a minimum of 100,000 hours in 25°C environments when driven at 350 mA.

Optical System

The highest lumen output, LEDs are utilized in the BSX-II Series. Available with 16 IES distribution patterns. LED light engines come in multiples of 16 LEDs.

- LED Wavelength 590nm

Quali-Guard® Finish

The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 mils thickness. Finish is oven-baked at 400 °F to promote maximum adherence and finish hardness.

- All finishes are available in standard and custom colors.
- Optional Zinc-Free Primer - Recommended within three miles of the ocean
- Finish is guaranteed for five (5) years.

Mounting

An adjustable knuckle slip fits over a 2 3/8" Tenon, and allows for up to 50° degrees of vertical adjustment in 10° degree increments from horizontal, as well as full side to side adjustment with the knuckle mount. A round extruded 6" aluminum, Bolt -On Arm (BOA) with an in-pole nut plate. A Round Pole Plate Adapter (RPP) is required for mounting to round poles.

- A cast wall mount plate is available for wall mount applications.

Electrical Assembly

The BSX-II Series is supplied with a choice of 350, 530 mA high-performance LED drivers, that accept 120v thru 480v, 50 Hz to 60 Hz, input.

- Rated for -40 °C to +55 °C operations.
- Power factor of 90%.
- THD less than or equal to 20%
- 20 kA surge protector supplied as standard.
- 0-10v Dimming Driver supplied as standard.

Warranty

Five (5) year Limited Warranty on entire system, including finish. For full warranty information, please visit VisionaireLighting.com.

Options

- Wattstopper Plus
- Wattstopper FSP-211 Motion Sensor/Control
- Dimming Driver
- Dim To Off Driver
- Photocell & Receptacle
- 7 Pin Photo Receptacle
- Wireless Controls
- Zhaga 4 Pin Receptacle
- Round Pole Plate Adapter
- Universal Pole Mount Adapter
- Decorative Shroud
- Rotated Optics
- Cut-off Louver Shield
- Bird Spikes
- BAA / BABA

Listings

- BSX-II Series is UL listed, suitable for wet locations
- Meets ANSI C136.31-2010 3G Vibration Standards
- Powder Coated Tough™
- IP-66 Rated
- IDA Certification
- Certified Wildlife Lighting



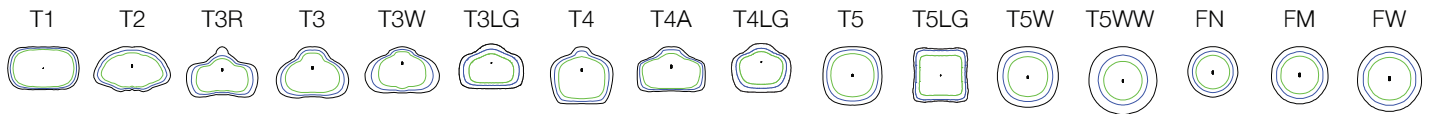
3000K or lower must be selected with a fixed mount for IDA certification.
Fixed mount must be selected for IDA dark sky certification.

Motion Sensor Default Settings

FSP - 211	High Mode	Low Mode	Time Delay	Cut Off Delay	Sensitivity	Hold Off Setpoint	Photocell On/Off	Ramp Up Time	Fade Down Time
WSC - Default	10V	1V	5 Minutes	1 Hour	Maximum	4ft	Disabled	Disabled	Disabled
WSC Range	0-10V	0-9.8V	5-30 Minutes	1-5	Low, Med, Max	1-250FC	1-250FC	1-60 Dec	1-60Dec

* Settings can be field modified with the FSIR-100 Programming remote

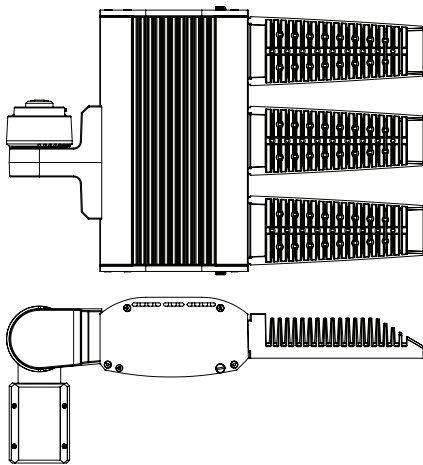
Photometric Optical Summary



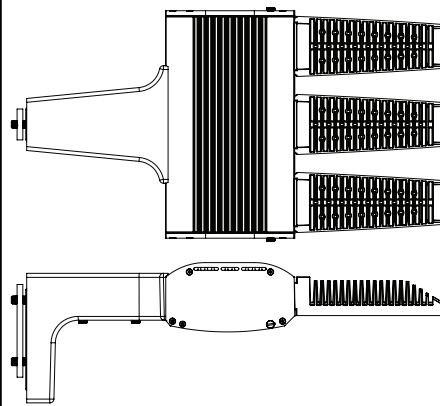
Dimensions

Knuckle Mount		Bolt-On Arm		Mast Arm		Post Top		Trunnion Mount		Adjustable Wall Mount	
Width:	BSX-II-2 15"	Width:	BSX-II-2 15"	Width:	BSX-II-2 15"	Width:	BSX-II-2 15"	Width:	BSX-II-2 15"	Width:	BSX-II-2 14"
	BSX-II-3 15"		BSX-II-3 15"		BSX-II-3 15"		BSX-II-3 15"		BSX-II-3 15"		BSX-II-3 15"
	BSX-II-4 17"		BSX-II-4 17"		BSX-II-4 17"		BSX-II-4 17"		BSX-II-4 17"		BSX-II-4 17"
Depth:	BSX-II-2 29"	Depth:	BSX-II-2 27"	Depth:	BSX-II-2 28"	Depth:	BSX-II-2 27"	Depth:	BSX-II-2 25"	Depth:	BSX-II-2 25"
	BSX-II-3 29"		BSX-II-3 27"		BSX-II-3 28"		BSX-II-3 27"		BSX-II-3 25"		BSX-II-3 25"
	BSX-II-4 29"		BSX-II-4 27"		BSX-II-4 28"		BSX-II-4 27"		BSX-II-4 25"		BSX-II-4 25"
Height:	BSX-II-2 5"	Height:	BSX-II-2 9"	Height:	BSX-II-2 5"	Height:	BSX-II-2 5"	Height:	BSX-II-2 5"	Height:	BSX-II-2 8"
	BSX-II-3 5"		BSX-II-3 9"		BSX-II-3 5"		BSX-II-3 5"		BSX-II-3 5"		BSX-II-3 8"
	BSX-II-4 5"		BSX-II-4 9"		BSX-II-4 5"		BSX-II-4 5"		BSX-II-4 5"		BSX-II-4 8"

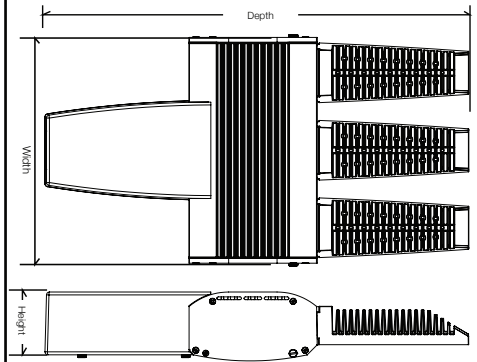
Knuckle Mount



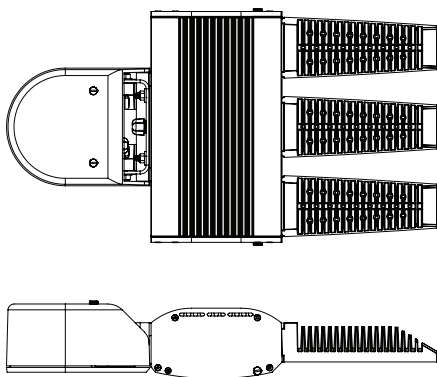
Bolt-On Arm



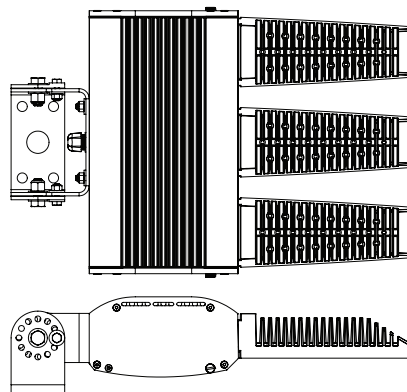
Mast Arm



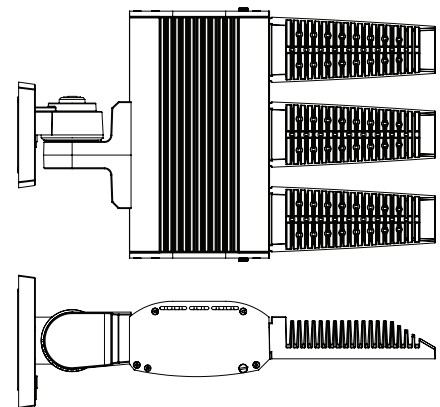
Post Top Mount



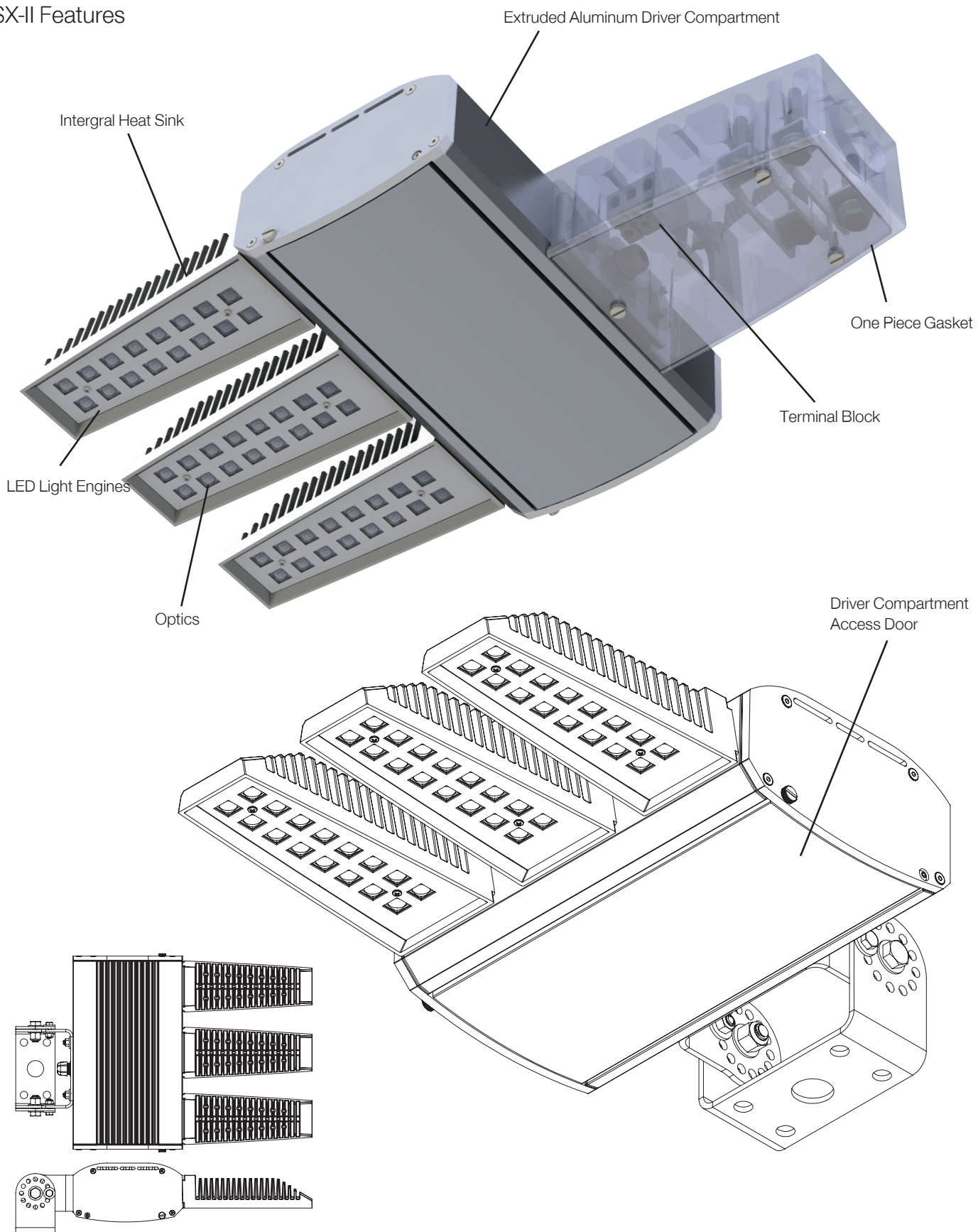
Trunnion Mount



Adjustable Wall Mount

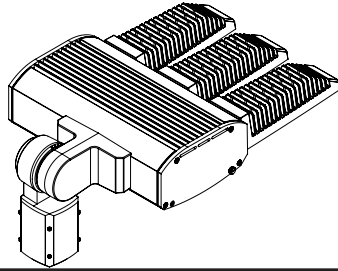


BSX-II Features



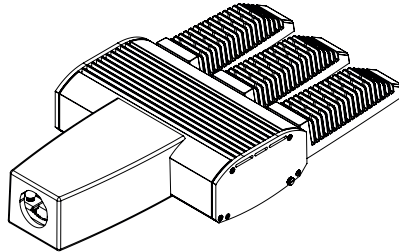
BSX-II Mounting Options

Knuckle Mount



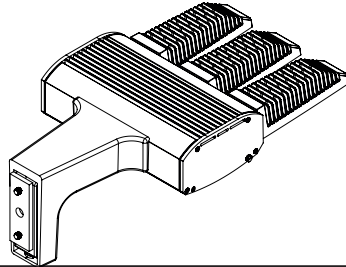
An adjustable knuckle slip fits over a 2 3/8" Tenon, and allows for up to 50° degrees of vertical adjustment in 10° degree increments from horizontal, as well as full side to side adjustment with the knuckle mount.

Mast Arm Mount



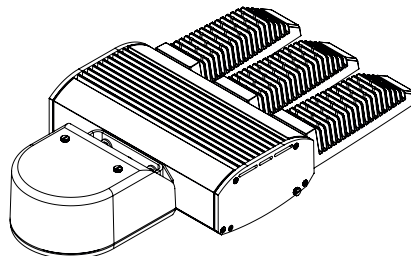
Mast Arm (MA) Fitter fits over a 2" - 2-3/8" tenon and supplied with terminal block as standard.

Arm Mount



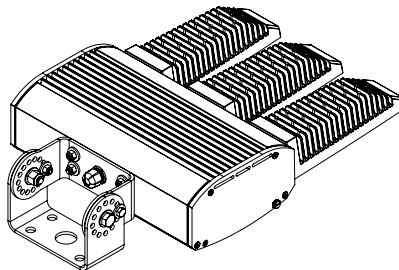
The Bolt -On Arm (BOA) utilizes a 2 piece cleat system for easy installation. A Round Pole Plate Adaptor (RPP) is required for mounting to round poles.

Post Top Mount



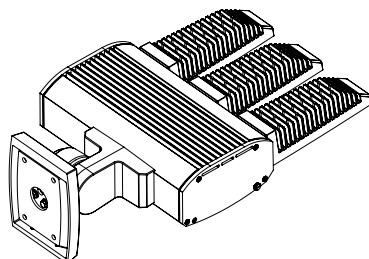
Post Top fits over a 2 3/8" tenon and is adjustable up to 45°.

Trunnion Mount



Trunnion Mount is adjustable up to 50°.

Wall Mount



Wall Mount (WM). Not supplied with terminal block.

WATTSTOPPER PLUS

FSP-600 Series

The FSP-600 series by Wattstopper PLUS is an integrated luminaire level lighting controller and sensor for indoor/outdoor lighting applications that require networked wireless control. The FSP-600 is designed to integrate directly into exterior, high bay, parking garage, and general site lighting solutions. It is a passive infrared (PIR) sensor and closed loop photosensor.

The FSP-600 series design intends to reduce installer labor time and make on-site start up easy for technicians.

Once commissioned and paired to a Wattstopper PLUS network, the devices can measure both motion and daylight contribution in order to automatically switch or dim lighting. It also provides the ability to communicate to other fixtures in the space without any front-end devices.

The Wattstopper PLUS FSP-600 series is available in a few different options including: internal, external straight nipple, and external drop nipple. Sensor lens options sold separately and should be ordered based on designed mounting height and desired finish.

FSP-621



FSP-200 Series

The FSP-200 series sensors provide multi-level control based on motion and/or daylight contribution. They control 0-10 VDC LED drivers or dimming ballasts, as well as non-dimming ballasts and, with an FSP-Lx Lens, are rated for wet and cold locations. All control parameters are adjustable via a wireless configuration tool capable of storing and transmitting sensor profiles. The FSP-200 series is available in two different voltage configurations adding flexibility to your fixture design or project.

Typically, the sensor ramps lighting On to the selected High mode level when motion is detected and the ambient light level is below the hold off setpoint. After the sensor stops detecting movement and the time delay elapses, lights fade to the Low mode level. If there is no motion during the subsequent cut off time delay, the lights will turn Off. For dusk to dawn control, the integral photocell can switch the lights On and Off based on the ambient light level so that lighting remains on overnight even without motion detection.

Initial setup and subsequent sensor adjustments are made using a Wireless Handheld Configuration Tool (FSIR-100). This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cut off and more. The FSIR-100 is also used to initiate automatic calibration of the FSP-2x1B ambient light level setpoint. The setpoint is used to hold the controlled lighting off or at a low level when there is sufficient daylight. The wireless tool stores up to six sensor parameter profiles to speed configuration of multiple sensors.

FSP-211



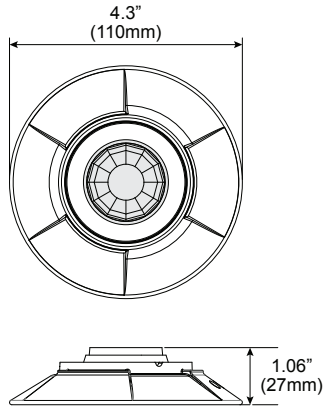
FSP-221



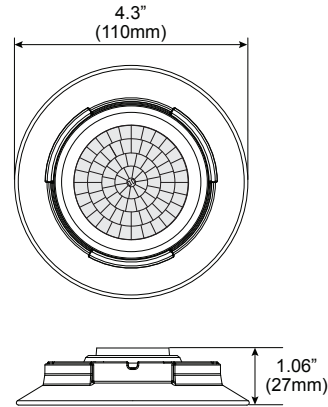
Lens with Shroud Dimensions

The FSP-Lx-S models include a shroud, which blocks high-angle light coming from the fixture, to improve photocell performance. With the shroud attached, the dimensions for all three lenses are identical

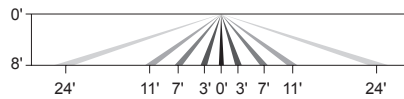
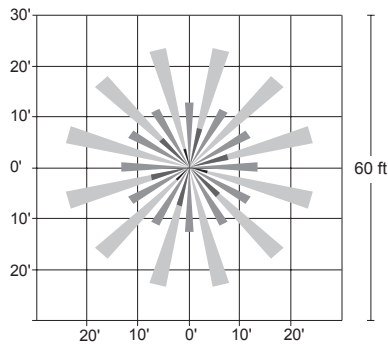
FSP-L2-S and FSP-L3-S



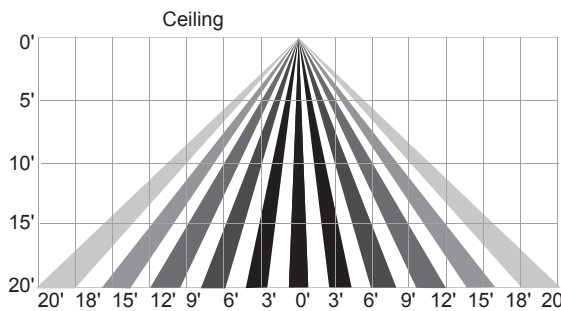
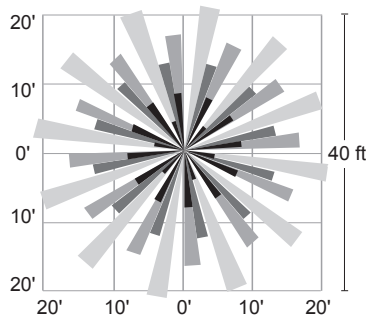
FSP-L7-S



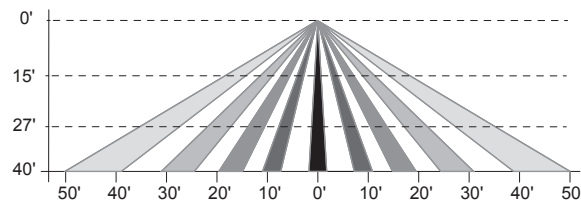
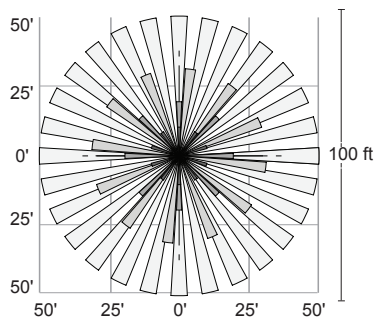
COVERAGE



FSP-L2 top and side coverage patterns



FSP-L3 top and side coverage patterns



FSP-L7 top and side coverage patterns

TS AMBER LUMENS																			
MODEL	# LEDs	Current (mA)	T1	T2	T3R	T3	T3W	T3LG	T4	T4A	T4LG	T5	T5LG	T5W	T5WW	FN	FM	FW	WATTS
BSX-II-2	32LD	350	2741	2628	2562	2529	2591	2619	2568	2735	2622	2701	2637	2485	2371	2695	2736	2810	32.9
		530	4149	3978	3878	3829	3922	3964	3887	4140	3970	4089	3991	3761	3589	4080	4142	4253	50.7
BSX-II-3	48LD	350	4050	3884	3786	3738	3829	3870	3794	4042	3876	3992	3896	3672	3504	3983	4043	4152	49.3
		530	6132	5879	5731	5659	5796	5858	5744	6118	5867	6043	5899	5559	5304	6030	6121	6285	76.0
BSX-II-4	64LD	350	5238	5023	4896	4835	4952	5005	4907	5227	5012	5163	5039	4749	4532	5151	5230	5370	65.7
		530	7930	7604	7412	7319	7497	7577	7429	7913	7588	7816	7629	7189	6860	7798	7917	8129	101.4

EFFICACY (LM/W) TS																			
MODEL	# LEDs	Current (mA)	T1	T2	T3R	T3	T3W	T3LG	T4	T4A	T4LG	T5	T5LG	T5W	T5WW	FN	FM	FW	WATTS
BSX-II-2	32LD	350	83	80	78	77	79	80	78	83	80	82	80	76	72	82	83	85	32.9
		530	82	78	77	76	77	78	77	82	78	81	79	74	71	80	82	84	50.7
BSX-II-3	48LD	350	82	79	77	76	78	78	77	82	79	81	79	74	71	81	82	84	49.3
		530	81	77	75	74	76	77	76	80	77	79	78	73	70	79	81	83	76.0
BSX-II-4	64LD	350	80	76	74	74	75	76	75	80	76	79	77	72	69	78	80	82	65.7
		530	78	75	73	72	74	75	73	78	75	77	75	71	68	77	78	80	101.4

BUG TS																																															
MODEL	# LEDs	Current (mA)	T1		T2		T3R		T3		T3W		T3LG		T4		T4A		T4LG		T5		T5LG		T5W		T5WW		FN		FM		FW														
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G									
BSX-II-2	32LD	350	2	0	2	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1						
		530	3	0	3	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1			
BSX-II-3	48LD	350	2	0	2	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1	2	0	1
		530	3	0	3	2	0	2	2	0	2	2	0	2	2	0	2	2	0	2	2	0	2	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1
BSX-II-4	64LD	350	3	0	3	2	0	2	2	0	2	2	0	2	2	0	2	2	0	2	2	0	2	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1
		530	3	0	3	2	0	2	2	0	2	2	0	2	2	0	2	2	0	2	2	0	2	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1	3	0	1

BSXII - ELECTRICAL LOAD (A)							
Ordering Nomenclature	System Watts	120	208	240	277	347	480
BSX-II-32LD-3	33	0.27	0.16	0.14	0.12	0.09	0.07
BSX-II-32LD-5	51	0.42	0.24	0.21	0.18	0.15	0.11
BSX-II-48LD-3	49	0.41	0.24	0.21	0.18	0.14	0.10
BSX-II-48LD-5	76	0.63	0.37	0.32	0.27	0.22	0.16
BSX-II-64LD-3	66	0.55	0.32	0.27	0.24	0.19	0.14
BSX-II-64LD-5	101	0.85	0.49	0.42	0.37	0.29	0.21

ELECTRICAL LOAD DATA IS ESTIMATED

