

LED WATTAGE CHART

DRIVE CURRENT	16L
175 milliamps	10w (1206-1273 Lumens)
400 milliamps	21w (2478-2911 Lumens)
530 milliamps	28w (3508-3776 Lumens)
700 milliamps	36w (4385-4720 Lumens)
1050 milliamps	56w (6022-6482 Lumens)

**FORM**

- Architectural Pole Mounted fixture for Pedestrian Scale applications (8ft to 12ft mounting heights).
- Matching Architectural Wall Sconce available
- Elegant Rectilinear Extruded Aluminum Housing
- Corrosion Resistant Stainless Steel External Hardware
- Sleek, Low Profile Housing
- Spec Grade Performance
- Engineered For Optimum Thermal Management

**FUNCTION**

- Micro Optics IES Distributions T2, T3, T4FTW, T5W
- 0-10V Dimming Drivers THD @ Max Load < 15% Power factor @ Max Load < 0.95
- Amber, Amber/PC, 2700K, 3000K, 3500K, 4000K, or 5000K
- 16L LED Configuration
- 10-56 Watts
- CRI 70, 80, or 90
- Extruded Aluminum Heat Sink
- 5 MILS Powder Coat

**RELIABILITY**

- Silicone Micro Optics
- 5 Year Standard Warranty
- IP67 Optics
- Reduces Energy Consumption And Costs Up To 65%

**BUY AMERICAN**

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).



Project Name:

Type:

# TWA-P ORDERING GUIDE

Cat#	Light Dist.	# of LEDs	Drive Current	Color Temp/CRI.
Trac Linear Angled Pole Mount (TWA-P)	<b>Standard Silicone Micro Optics</b>	16 LED (16L)	175mA (175)	Amber LED 585nm Dominant Wavelength Standard Turtle Friendly (AMBER) 3, 5, 6
	Type 2 (T2)		400mA (40)	
		Type 3 (T3)	530mA (53)	Amber LED Phosphor Converted (AMBER/PC) 5, 6
	<b>Performance Silicone Micro Optics</b>	700mA (7)		
	Type 4 Forward Throw Wide (For Perimeters) (T4FTW)	1050mA (1)	Custom Drive Current (CUS-MA-****)	2700K, 70 CRI (27K7)
	Type 5 Wide (For Improved Uniformity & Wider Pole Spacing) (T5W)			2700K, 80 CRI (27K8) 1
				3000K, 70 CRI (30K7)
				3000K, 80 CRI (30K8) 1
				3500K, 80 CRI (35K8)
				4000K, 70 CRI (40K7)
			4000K, 80 CRI (40K8) 1	
			5000K, 70 CRI (50K7)	
			5000K, 80 CRI (50K8) 1	

*Our New T4FTW and T5W are replacing our legacy T4 and T5 optics. For new specifications please use our T4FTW and T5W respectively where you would use our legacy Type 4 and Type 5 distributions.*

*Consult factory for availability of our legacy T4 and T5 optics or Configuration recommendations, if needed to match existing applications.*

Voltage	Mounting	Color	Controls Options	Options
120V -277V (UNV)	Architectural Sweep Arm (ASA)	Bronze Textured (BRZ)	<b>FSP-211 w/Motion Sensor/Photocell</b> (120/277VAC, 230-240VAC)	Marine Grade Finish (MGF)
347V - 480V (HV)	Direct Pole Mount Arm Single, D180 (DPS3)	White Textured (WHT)	8' Heights (FSP211-8) 8,10	Emergency Battery 8W (EM8)
	Knuckle Mount (KM)	Smooth White Gloss (SWT)	9'-12' Heights (FSP211-12) 8,10	Buy American Act (BAA) 4
	Mast Arm Mount (MA)	Silver Metallic (SVR)	<b>FSP-221 w/Motion Sensor/Photocell</b> (100/347VAC, 208/ 230/480VAC)	Trade Agreement Act (TAA) 4
	Square Pole Mount Arm D180, D90, T90, T12, Quad (SQ)	Black Textured (BLK)	8' Heights (FSP-HV-8) 11	Build America Buy American (BABA) 4
	Tennis Arm Mount (TA)	Smooth Black Gloss (SBK)	9'-12' Heights (FSP-HV-12) 11	
		Graphite Textured (GPH)	Custom Controls Integration (CCI) 2	
		Grey Textured (GRY)	FSP Remote (FSIR) 9	
		Green Textured (GRN)	Button Type Photocell (PC)	
	Hunter Green Textured (HGN)			
	Custom (CS)			

## NOTES:

1. Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
2. Please contact Factory for Custom Control Integration requests (nLight, NX, WaveLinx, Crestron, DMX/RDM, Synapse, Casambi, Dali II, Avi-On, or other control systems)
3. Turtle Safe
4. Consult factory for all BAA/TAA/BABA requests
5. Consult Factory for Lead Time
6. Not Available above 530mA
7. GFCI installed 12" from base, street side. Contact Factory for custom height
8. Universal Voltage 120-277
9. Projects with sensors require Qty. 1 FSIR per project
10. FSP-211, 120V/277V, 230-240VAC (single phase), 50/60Hz
11. FSP-221, 100-347VAC (single phase) or 208/230/480VAC (phase-to-phase)



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nlsighting.com

# PRODUCT SPECIFICATIONS

## ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver by Philips Advance
- Driver power factor at maximum load is  $\geq .95$ , THD maximum load is 15%
- LED Drivers Ambient Temp. Min is  $-40^{\circ}\text{C}$  and Ambient Temp. Max ranges from  $50^{\circ}\text{C}$  to  $55^{\circ}\text{C}$  and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All drivers, controls, and sensors housed in enclosed compartment
- CRI 70, 80, or 90
- Color temperatures: Amber, 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20KA.

## CONSTRUCTION

- Formed Aluminum
- Internal cooling fins
- Corrosion resistant external hardware
- One-piece silicone gasket ensures water tight seal for electronics compartment
- Two-piece silicone Micro Optic system ensures IP67 seal around each PCB

## OPTIONS

- MARINE GRADE FINISH (MGF)—A multi-step process creating protective finishing coat against harsh environments. Chemically washed in a 5 stage cleaning system. Pre-baked, Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- Emergency Battery Backup 8W (EM8)

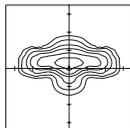
## CONTROLS

- Button Type Photo Cell (PC)
- Controls Agnostic: Please contact factory for your preferred controls option. (nLight, NX, WaveLinx, Crestron, DMX/RDM, Synapse, Casambi, DALI II, Avi-On, or other control systems)

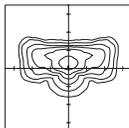
## OPTICS

Silicone optics high thermal stability and light output provide higher powered LEDs with minimized lumen depreciation. UV stability with scratch resistance increases exterior application durability. Silicone optics do not yellow, crack or brittle over time

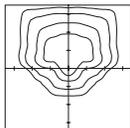
- IES Types



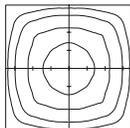
TYPE II (T2)



TYPE III (T3)



TYPE IV FORWARD (T4FTW)



TYPE V WIDE (T5W)

## FINISH

- 3-5 mils electrostatic powder coat.
- NLS Lighting standard high-quality finishes prevent corrosion and protects against extreme environmental conditions
- 10 Standard Finishes, Custom Finish and Marine Grade Finish Available

## WARRANTY

Five-year limited warranty for drivers and LEDs.

## LISTINGS

- UL Listed in compliance with UL 1598, the Standard for Safety of Luminaires, including the applicable wet location requirements
- Compliant with UL 8750 LED driver design and test safety standards
- CSA C22.2 No. 250.0
- IP67 Rated Optics
- IK10 Rated

## BUY AMERICAN OPTION

While all of the NLS Lighting products listed in this document qualify for the Buy America(n) Act of 1933, we reserve the right to change our listings without notice.

The information provided above is for general informational purposes only. We encourage you to consult legal professionals for advice particular to your projects concerning BAA, TAA, BABA or Buy America.

Additional NLS Products that meet BAA, TAA standards can be found at the following link:

<https://nslighting.com/buy-american/>



The information and specifications on this document are subject to change without any notification. All values are design, nominal, typical or prorated values when measured under internal and external laboratory conditions.

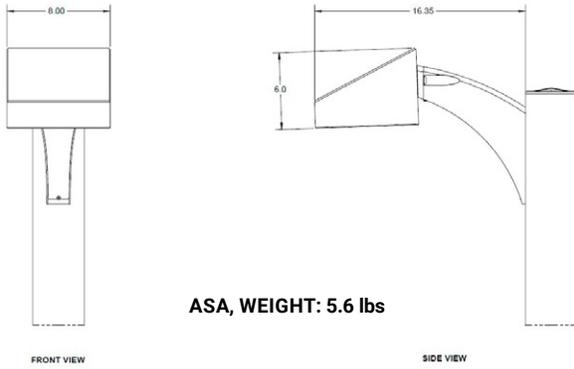


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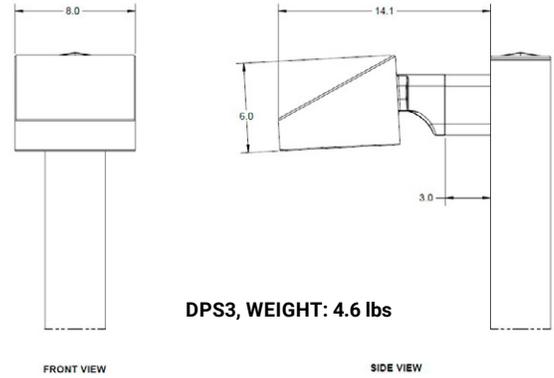
[nslighting.com](http://nslighting.com)

**PRODUCT SPECIFICATIONS**

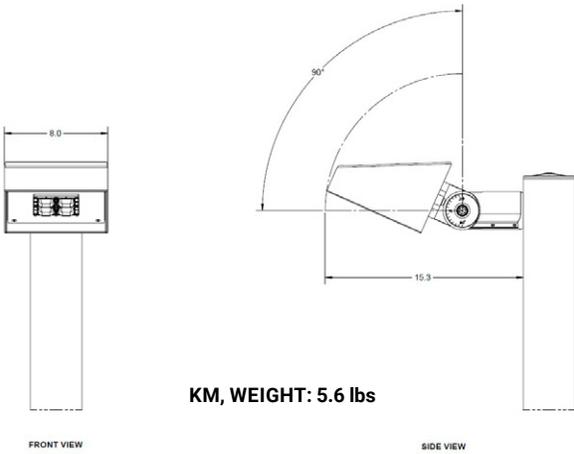
**TWA-P-ASA (ARCHITECTURAL ARM MOUNT)**



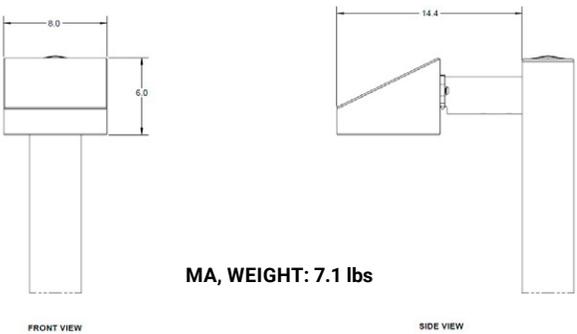
**TWA-P-DPS3 (DIRECT POLE MOUNT)**



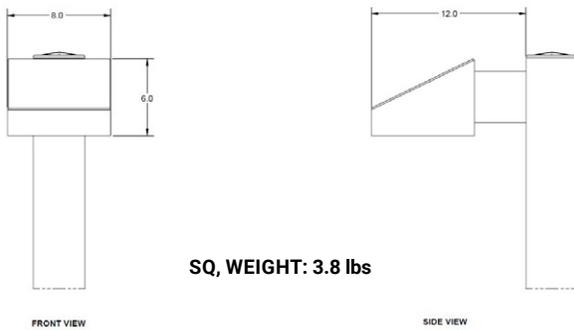
**TWA-P-KM (KNUCKLE MOUNT)**



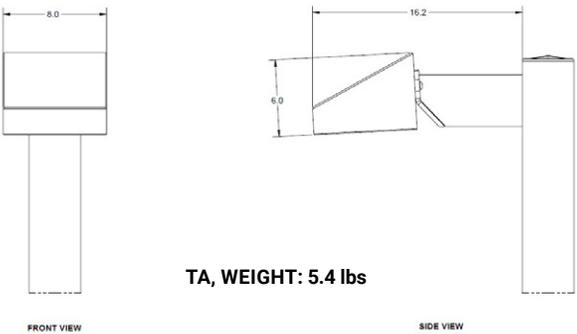
**TWA-P-MA (MAST ARM MOUNT)**



**TWA-P-SQ (SQUARE POLE MOUNT)**

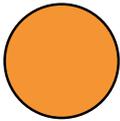


**TWA-P-TA (TENNIS ARM)**

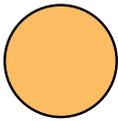


# PRODUCT SPECIFICATIONS

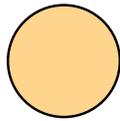
## LED KELVIN RANGE



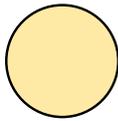
AMBER  
585-600 nm



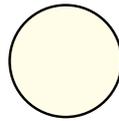
2700K 70 CRI



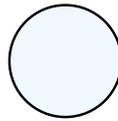
3000K 70 CRI



3500K 80 CRI



4000K 70 CRI



5000K 70 CRI

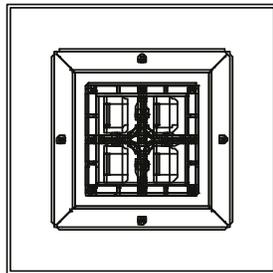
Color	Dominant or Peak Wavelength Range (nm)	
	Minimum	Maximum
Amber	585	600

Lumen Maintenance Data							
Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
	1050mA	48,000	143,000	94.3%	89.5%	87.2%	78.5%
*Reported extrapolations per IESNA TM-21				**Projected extrapolations per IESNA TM-21			

## OPTICAL CONFIGURATIONS

Rotatable Optics (ROR) Rotated Right, (ROL) Rotated Left options available. Optics field and factory rotatable.

TWL / 16L



## EPA CHART

TWA-P	ASA		DPS-3		KM		SQUARE		TA		MA	
	EPA (ft <sup>2</sup> )	lbs										
Front	0.32	5.6	0.32	4.6	0.32	5.6	0.32	3.8	0.32	5.4	0.32	7.1
Side	0.57		0.37		0.47		0.47		0.55		0.37	

# PRODUCT SPECIFICATIONS

## TWA-P LUMEN CHART

TWA-P LUMEN CHART										
PART NUMBER	T4FTW	LM/W	BUG	T5W	LM/W	BUG	T2	LM/W	BUG	WATTAGE
TWA-P-16L-175-27K7	1050	105	B0-U0-G1	1226	123	B1-U0-G1	1243	124	B0-U0-G1	10
TWA-P-16L-175-27K8	979	98	B0-U0-G1	1143	114	B1-U0-G1	1159	116	B0-U0-G1	10
TWA-P-16L-175-30K7	1219	122	B0-U0-G1	1424	142	B1-U0-G1	1443	144	B0-U0-G1	10
TWA-P-16L-175-30K8	1056	106	B0-U0-G1	1234	123	B1-U0-G1	1251	125	B0-U0-G1	10
TWA-P-16L-175-35K8	1060	106	B0-U0-G1	1238	124	B1-U0-G1	1255	126	B0-U0-G1	10
TWA-P-16L-175-40K7	1250	125	B0-U0-G1	1460	146	B1-U0-G1	1480	148	B0-U0-G1	10
TWA-P-16L-175-40K8	1125	113	B0-U0-G1	1314	131	B1-U0-G1	1332	133	B0-U0-G1	10
TWA-P-16L-175-50K7	1250	125	B0-U0-G1	1460	146	B1-U0-G1	1480	148	B0-U0-G1	10
TWA-P-16L-175-50K8	1125	113	B0-U0-G1	1314	131	B1-U0-G1	1332	133	B0-U0-G1	10
TWA-P-16L-4-27K7	2046	97	B1-U0-G1	2417	115	B2-U0-G1	2452	117	B1-U0-G1	21
TWA-P-16L-4-27K8	1907	91	B1-U0-G1	2253	107	B2-U0-G1	2286	109	B1-U0-G1	21
TWA-P-16L-4-30K7	2375	113	B1-U0-G1	2805	134	B2-U0-G1	2846	136	B1-U0-G1	21
TWA-P-16L-4-30K8	2058	98	B1-U0-G1	2431	116	B2-U0-G1	2467	117	B1-U0-G1	21
TWA-P-16L-4-35K8	2066	98	B1-U0-G1	2440	116	B2-U0-G1	2475	118	B1-U0-G1	21
TWA-P-16L-4-40K7	2436	116	B1-U0-G1	2877	137	B2-U0-G1	2919	139	B1-U0-G1	21
TWA-P-16L-4-40K8	2192	104	B1-U0-G1	2589	123	B2-U0-G1	2627	125	B1-U0-G1	21
TWA-P-16L-4-50K7	2436	116	B1-U0-G1	2877	137	B2-U0-G1	2919	139	B1-U0-G1	21
TWA-P-16L-4-50K8	2192	104	B1-U0-G1	2589	123	B2-U0-G1	2627	125	B1-U0-G1	21
TWA-P-16L-53-27K7	2493	89	B1-U0-G1	2987	107	B2-U0-G1	3034	108	B1-U0-G1	28
TWA-P-16L-53-27K8	2324	83	B1-U0-G1	2784	99	B2-U0-G1	2828	101	B1-U0-G1	28
TWA-P-16L-53-30K7	2894	103	B1-U0-G2	3467	124	B2-U0-G1	3522	126	B1-U0-G1	28
TWA-P-16L-53-30K8	2508	90	B1-U0-G1	3005	107	B3-U0-G1	3052	109	B1-U0-G1	28
TWA-P-16L-53-35K8	2517	90	B1-U0-G1	3015	108	B2-U0-G1	3063	109	B1-U0-G1	28
TWA-P-16L-53-40K7	2968	106	B1-U0-G2	3556	127	B3-U0-G1	3612	129	B1-U0-G1	28
TWA-P-16L-53-40K8	2671	95	B1-U0-G2	3200	114	B3-U0-G1	3251	116	B1-U0-G1	28
TWA-P-16L-53-50K7	2968	106	B1-U0-G2	3556	127	B3-U0-G1	3612	129	B1-U0-G1	28
TWA-P-16L-53-50K8	2671	95	B1-U0-G2	3200	114	B3-U0-G1	3251	116	B1-U0-G1	28
TWA-P-16L-7-27K7	2903	81	B1-U0-G2	3538	98	B3-U0-G1	3599	100	B1-U0-G1	36
TWA-P-16L-7-27K8	2706	75	B1-U0-G2	3298	92	B3-U0-G1	3354	93	B1-U0-G1	36
TWA-P-16L-7-30K7	3370	94	B1-U0-G2	4107	114	B3-U0-G1	4177	116	B1-U0-G1	36
TWA-P-16L-7-30K8	2920	81	B1-U0-G2	3559	99	B3-U0-G1	3620	101	B1-U0-G1	36
TWA-P-16L-7-35K8	2931	81	B1-U0-G2	3572	99	B3-U0-G1	3633	101	B1-U0-G1	36
TWA-P-16L-7-40K7	3456	96	B1-U0-G2	4212	117	B3-U0-G1	4284	119	B1-U0-G1	36
TWA-P-16L-7-40K8	3110	86	B1-U0-G2	3791	105	B3-U0-G1	3856	107	B1-U0-G1	36
TWA-P-16L-7-50K7	3456	96	B1-U0-G2	4212	117	B3-U0-G1	4284	119	B1-U0-G1	36
TWA-P-16L-7-50K8	3110	86	B1-U0-G2	3791	105	B3-U0-G1	3856	107	B1-U0-G1	36
TWA-P-16L-1-27K7	4410	79	B1-U0-G2	5406	97	B3-U0-G2	5481	98	B1-U0-G1	56
TWA-P-16L-1-27K8	4111	73	B1-U0-G2	5039	90	B3-U0-G2	5109	91	B1-U0-G1	56
TWA-P-16L-1-30K7	5119	91	B1-U0-G2	6275	112	B3-U0-G2	6362	114	B1-U0-G1	56
TWA-P-16L-1-30K8	4436	79	B1-U0-G2	5438	97	B3-U0-G2	5514	98	B1-U0-G1	56
TWA-P-16L-1-35K8	4452	80	B1-U0-G2	5458	97	B3-U0-G2	5533	99	B1-U0-G1	56
TWA-P-16L-1-40K7	5250	94	B1-U0-G2	6436	115	B3-U0-G2	6525	117	B1-U0-G1	56
TWA-P-16L-1-40K8	4725	84	B1-U0-G2	5792	103	B3-U0-G2	5873	105	B1-U0-G1	56
TWA-P-16L-1-50K7	5250	94	B1-U0-G2	6436	115	B3-U0-G2	6525	117	B1-U0-G1	56
TWA-P-16L-1-50K8	4725	84	B1-U0-G2	5792	103	B3-U0-G2	5873	105	B1-U0-G1	56

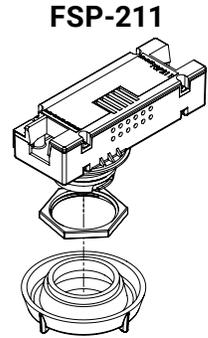
# PRODUCT SPECIFICATIONS

## CONTROL OPTIONS

- DIMMING CONTROL (FSP)—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-8 mounting heights 8 feet and below
- FSP-20 mounting heights 9-20 feet.
- FSP-40 mounting heights 21-40 feet.
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.

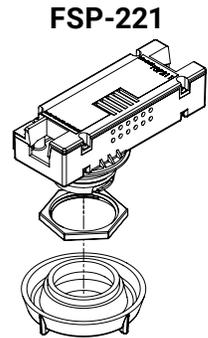
## FSP-211 WITH MOTION SENSOR (FSP-XX)

- FSP-211(FSP-X)—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- 120/277VAC, 230-240VAC
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-8 mounting heights 8 feet and below
- FSP-20 mounting heights 9-20 feet.
- FSP-40 mounting heights 21-40 feet.
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.

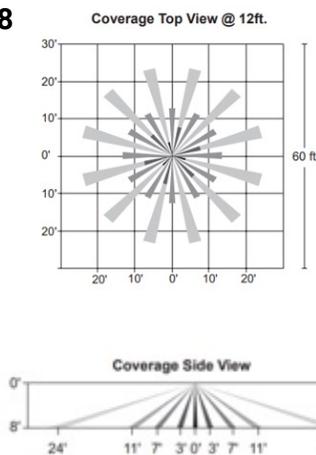


## FSP-221 WITH MOTION SENSOR (FSP-HV-XX)

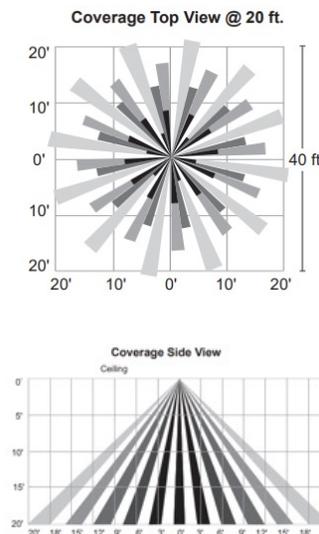
- FSP-221 (FSP-HV-X)—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- 100-347VAC 208/230/480VAC
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-8 mounting heights 8 feet and below
- FSP-20 mounting heights 9-20 feet.
- FSP-40 mounting heights 21-40 feet.
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.



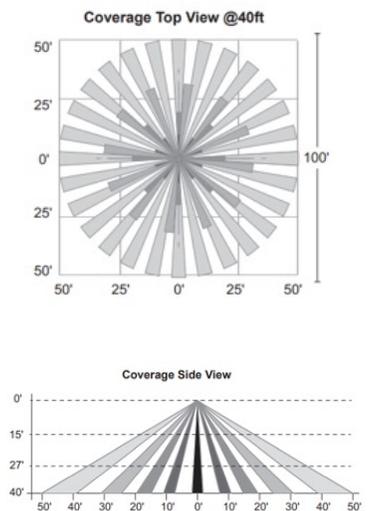
### FSP-8



### FSP-20



### FSP-40



## PRODUCT SPECIFICATIONS

### MARINE GRADE FINISH (MGF)

The **(MGF)** is a multi step process. Chemically washed in a 5 stage cleaning system. Pre-baked. Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.



#### Powder Coat Finish

3-5 mil Powder Coat

#### Primer Layer

3-5 mil Zinc Rich Super Durable Polyester Primer

#### Prepared Casting

Chemically washed in multi Step 5 stage cleaning process

### BUTTON PHOTOCELL

Photo Cell for dusk to dawn operation.

