

### TENNIS & PICKLEBALL / SPORTS VENUES / PARKS



#### **UNMATCHED PERFORMANCE**

The VUE-12X has been designed to achieve American Sports Builder Association "Class III" Tennis Court Lighting Standards and ASBA/ USA Pickleball "Category II" Pickleball Court Lighting Standards with 50 foot-candle average with less-than 2.0 Maximum to Minimum Uniformity in the extended Primary Playing Area. The 426-watt VUE-12X efficiently achieves club-quality performance using only eight fixtures per regulation tennis court or 8 fixtures per 4 regulation pickleball courts. Designed specifically for court lighting, the VUE-12X replaces legacy 1,000-watt metal halide traditional court fixtures and achieves 1.5 times-to-double existing light levels with over 60% energy savings. VUE-12X quickly installs over any existing fixture arm or pole configuration.

#### **GLARE & LIGHT TRESPASS SENSITIVITY**

The VUE-12X fixture creates one of the most environmentally sensitive courts in the nation. VUE-12X's innovative construction recesses and conceals its light source 2-3 inches above the bottom plane of the fixture, reducing disability glare and meeting complex site lighting requirements. The fixture performance enables players to compete at their highest level.

#### TRACK RECORD

The VUE fixture is one of America's most prolific court fixtures, having been installed in over 500 of the most prestigious tennis/pickleball multi-court facilities around the nation.

#### RELIABILITY

VUE-12X is Made in America. The product is Die Cast, L70 Depreciation is estimated at 189,000 hours, Low Iron Safety Glass Lens, 20kA Surge Protection standard and includes a textured powder coated finish.

VUE-12X uses NLS Lighting's Star Power Optical System, which uses low-iron glass lenses to output crisp and clear light for the long haul. Star Power Optics are resistant to the yellowing and chalking that characterize inferior plastic, acrylic, and polycarbonate-lensed fixtures.

#### SERVICE

Cost Competitive, Supply Chain Friendly, and short Shipping Lead Times in Days & Weeks.

#### **PRODUCT & SPECIFICATION FEATURES**

- Ideal for outdoor courts at Tennis & Pickleball Clubs, Universities, High Schools, Parks, Community Centers, and Private Homes
- · Die-Cast Aluminum Housing
- VUE-12X uses the Star Power Optic System for reduced glare and improved uniformity
- 3000K, 4000K or 5000K CCT Multichip High Power 70 CRI LED's standard
- 20kA Surge Protection Standard (120V-480V)
- Highest quality 0-10V Programmable, Dimming LED Drivers
- · Driver Compartment physically separated from LED Light Source
- Easy to retrofit VUE-12X can slip over existing tennis arms or bolt to existing poles
- Available with Straight Rectangular Tennis Arm, Radius Davit Arm, Bolt-on Architectural Sweep Arm, Knuckle Mount and Trunnion Mount are available with the same finish
- 10 Standard Finishes, Marine Grade Finish, and Custom Finish available
- · Available with Step Dimming and Motion Sensing Controls
- L70 Lifetime Estimate: 189,000 Hours
- VUE-12X concealed optical system is hidden from sight of neighbors, wildlife, and the sky, while providing the least glare for players to compete under
- Experienced in-house Tennis & Pickleball design team will provide layouts and photometric design at no charge based on USTA and National Pickleball Association Published Lighting Criteria



# **VUE-12X ORDERING GUIDE**

Cat#	Light Dist.	# of LEDs	Watts	Kelvin
VUE-12X <b>(VUE-12X)</b>	Type SP <b>(SP)</b>	128 <b>(128L)</b>	256W <b>(25)</b>	3000K, 70 CRI <b>(30K7) 4</b>
			341W <b>(34)</b>	4000K, 70 CRI <b>(40K7) </b> 4
			426W <b>(42)</b>	5000K, 70 CRI <b>(50K7) <sup>4</sup></b>

Volts	Mounting	Color	Controls Options	Options
120-277 <b>(UNV)</b>	Tennis Arm Mount ( <b>TA</b> )	Bronze Textured (BRZ)	Photocell + Receptacle (PCR)	Bird Spikes <b>(BS)</b>
347-480 <b>(HV)</b>	Davit Arm Mount <b>(DAM)</b>	White Textured (WHT)	Nema 7-Pin Receptacle <b>(PE7)</b>	Marine Grade Finish (MGF)
	Knuckle Mount <b>(KM)</b>	Smooth White Gloss (SWT)	Receptacle + Shorting Cap (PER)	Round Pole Adapter 3"- 4" Pole (RPA4) 3
	Trunnion Mount (TM) 1  Architectural Sweep Arm (ASA)  Direct Pole 6" Arm Single, D180 (DPS6) 2  Direct Pole 11" Arm D90, T90, T120, Quad (DPS11) 2  Wall Mount (WM)	Silver Metallic (SVR)  Black Textured (BLK)  Smooth Black Gloss (SBK)  Graphite Textured (GPH)  Grey Textured (GRY)  Green Textured (GRN)  Hunter Green Textured	FSP-211 with Motion Sensor/Photocell 9'-20' Heights (FSP211-20) 6.9 21'-40' Heights (FSP211-40) 6.9 FSP-221 with Motion Sensor/Photocell 9'-20' Heights (FSP221-20) 7 21'-40' Heights (FSP221-40) 7 FSP Remote (FSIR) 8	Round Pole Adapter 5"- 6" Pole (RPA5) 3 Front Side Shield (FSS) House Side Shield (HSS)
		(HGN) Custom (CS)		

#### NOTES:

- 1. Standard finish is stainless steel. Can be painted to match fixture
- 2. For Round Pole Specify RPA4 or RPA5
- 3. Direct Pole Mount only
- 4. Consult Factory for other CCT options
- 5. One remote is required per site
- 6. FSP-211, 120V/277V, 230-240VAC (single phase), 50/60Hz
- 7. FSP-221, 100–347VAC (single phase) or 208/230/480VAC (phase-to-phase)
- 8. Projects with sensors require Qty. 1 FSIR per project
- 9. Universal Voltage 120-277



#### **ELECTRICAL**

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- · 0-10V dimming driver
- Driver power factor at maximum load is ≥ .95, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it
- All internal wiring UL certified for 600 VAC and 105°C
- · All drivers, controls, and sensors housed in separate IP66 compartment
- CRI 70
- · Color temperature: 3000K, 4000K, and 5000K available
- · Surge Protection: 20kA supplied as standard

#### CONSTRUCTION

- · Die Cast Aluminum
- · External cooling fins
- · Corrosion resistant external hardware
- One-piece silicone gasket ensures IP66 seal for electronics compartment

#### OPTICS

Recessed Star Power™ Optical System is 95% reflective material. Utilizes a linear diffused pattern, softening the light distribution and eliminating any dark shadows or striations.

#### **CONTROL OPTIONS**

- <u>FSP-211 w/Motion Sensor/Photocell (120/277VAC, 230-240VAC)</u> (FSP-X) - Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- FSP-221 w/Motion Sensor/Photocell (100-347VAC, 208/230/480VAC)
   (FSP-HV-X) 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
  - Party Setting Available (10% output) Consult Factory
  - · FSP-8 mounting heights 8 feet and below
  - FSP-20 mounting heights 9-20 feet.
  - · FSP-40 mounting heights 21-40 feet.
  - Can maintain constant foot candles over time. Consult Factory
  - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field. Programmable remote must be purchased separately
  - FSIR-100 commissioning remote is required to change sensor settings.
     Please contact factory for ordering
- Controls Agnostics: Please contact factory for your preferred controls option
- NEMA 7-PIN RECEPTACLE (PE7) An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect
- RECEPTACLE + SHORTING CAP (PER) 7-Pin Receptacle and Shorting Cap

#### OPTIONS

- BIRD SPIKES (BS) Offer an effective and humane deterrent for larger bird species and provide a cost-effective long-term solution to nuisance bird infestations and to protect your property.
- MARINE GRADE FINISH (MGF) A multi-step process creating a 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
- ROUND POLE ADAPTER (RPA) When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles
- · House Side Shield (HSS) is designed for full property line cutoff.
- · Front Side Shield (FSS) is designed to reduce glare.

#### FINISH

- · 3-5 mil electrostatic powder coat.
- NLS Lighting standard high-quality finishes prevent corrosion, and protects against extreme environmental conditions.

#### WARRANTY

- · Five-year limited warranty for drivers and LEDs.
- · Consult Factory for 7 or 10 year warranty.

#### 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







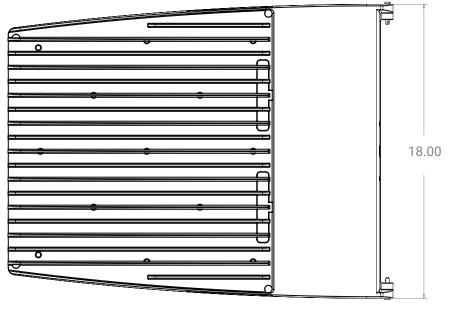


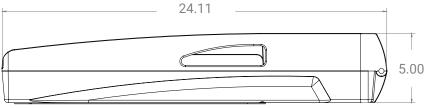




The information and specifications on this document are subject to change without any notification. All values are design, nominal, or typical or prorated values when measured under internal and external laboratory conditions.



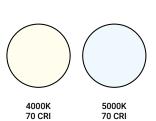


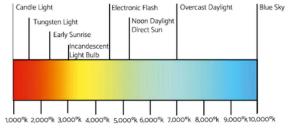


Weight: 41 lbs

### **LED KELVIN**

4000K or 5000K, is the ideal color temperature range for Tennis / Pickleball applications. The brightness is several times higher than traditional HID, also you can save up to 50-80% energy consumption and provide farther irradiation distance with more focused lighting with less fixtures.





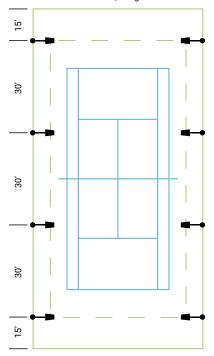
Lumen Maintenance Data										
Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,00 Hours*	100,000 Hours**			
25°C	Up to 700mA	72,000	575,000	98.7%	98.3%	98.3%	98.1%			
	1050mA	49,000	189,000	98.5%	97.6%	97.3%	96.8%			
*Reported extrapolations per IESNA TM-21 **Projected extrapolations per IESNA TM-21										

	LUMENS									
PART NUMBER	SP Optic	LM/W	BUG Rating	Wattage						
VUE-12X-SP-128L-630-27K7	27574	108	B3-U0-G3	256						
VUE-12X-SP-128L-630-27K8	25818	101	B3-U0-G3	256						
VUE-12X-SP-128L-630-30K8	27681	108	B3-U0-G3	256						
VUE-12X-SP-128L-630-30K7	29812	116	B3-U0-G3	256						
VUE-12X-SP-128L-630-35K8	27681	108	B3-U0-G3	256						
VUE-12X-SP-128L-630-40K8	29812	116	B3-U0-G3	256						
VUE-12X-SP-128L-630-40K7	32212	126	B3-U0-G3	256						
VUE-12X-SP-128L-630-50K8	29812	116	B3-U0-G3	256						
VUE-12X-SP-128L-630-50K7	32212	126	B3-U0-G3	256						
VUE-12X-SP-128L-840-27K7	36765	108	B3-U0-G3	341						
VUE-12X-SP-128L-840-27K8	34424	101	B3-U0-G3	341						
VUE-12X-SP-128L-840-30K8	36908	108	B3-U0-G3	341						
VUE-12X-SP-128L-840-30K7	39750	117	B3-U0-G4	341						
VUE-12X-SP-128L-840-35K8	36908	108	B3-U0-G3	341						
VUE-12X-SP-128L-840-40K8	39750	117	B3-U0-G4	341						
VUE-12X-SP-128L-840-40K7	42950	126	B3-U0-G4	341						
VUE-12X-SP-128L-840-50K8	39750	117	B3-U0-G4	341						
VUE-12X-SP-128L-840-50K7	42950	126	B3-U0-G4	341						
VUE-12X-SP-128L-1050-27K7	45956	108	B3-U0-G4	426						
VUE-12X-SP-128L-1050-27K8	43030	101	B3-U0-G4	426						
VUE-12X-SP-128L-1050-30K8	46135	108	B3-U0-G4	426						
VUE-12X-SP-128L-1050-30K7	49687	117	B4-U0-G4	426						
VUE-12X-SP-128L-1050-35K8	46135	108	B3-U0-G4	426						
VUE-12X-SP-128L-1050-40K8	49687	117	B4-U0-G4	426						
VUE-12X-SP-128L-1050-40K7	53687	126	B4-U0-G4	426						
VUE-12X-SP-128L-1050-50K8	49687	117	B4-U0-G4	426						
VUE-12X-SP-128L-1050-50K7	53687	126	B4-U0-G4	426						

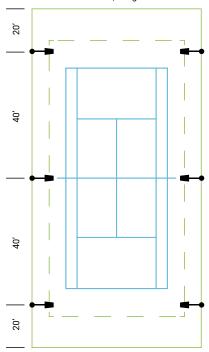
### **RECOMMENDED POLE / FIXTURE LAYOUTS**

### **TENNIS COURT LAYOUTS**

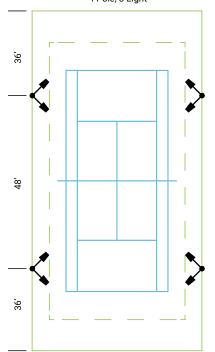
Recommended New Court Spacing 8 Pole, 8 Light



Recommended New Court Spacing 6 Pole, 6 Light



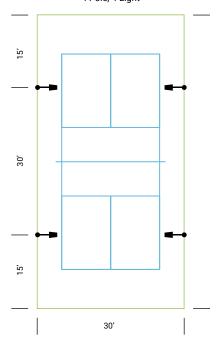
Recommended New Court Spacing 4 Pole, 8 Light



USTA Level (2) 600W USTA Level (3) 450W

### **PICKLEBALL COURT LAYOUTS**

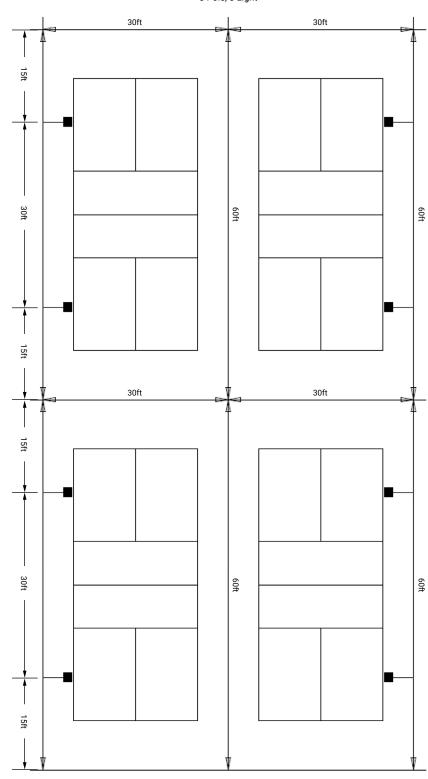
Recommended New Court Spacing 4 Pole, 4 Light



### **RECOMMENDED POLE / FIXTURE LAYOUTS**

### **PICKLEBALL COURT LAYOUTS**

Recommended New Court Spacing 8 Pole, 8 Light

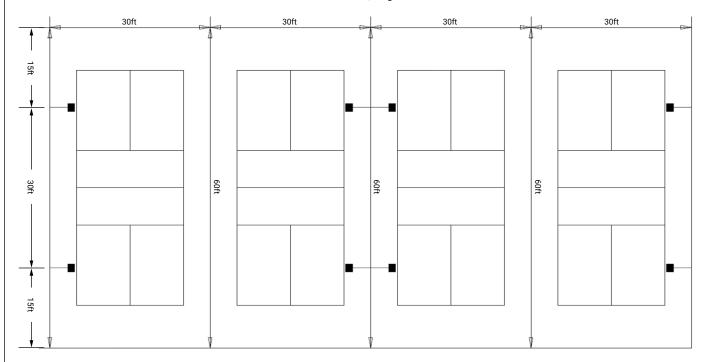




### **RECOMMENDED POLE / FIXTURE LAYOUTS**

### **PICKLEBALL COURT LAYOUTS**

# Recommended New Court Spacing 6 Pole, 8 Light



## **DP VUE-12X EPA DATA**

Direct Pole Mount	=							
SIDE	S	GL	D90	D180		T90	T120	QD
VUE-12X	0	.86	1.54	1.72		2.40	1.43	2.40
	6" DPS	11" DPS	11" DPS	6" DPS	11" DPS	11" DPS	11" DPS	11" DPS
Total EPA (ft^2)	1.02	1.14	1.82	2.03	2.27	2.96	1.99	2.40

Direct Pole Mount	<b>=</b>							
SIDE	S	GL	D90	D.	180	T90	T120	QD
VUE-12X-FSS	1	.06	2.15	2	.13	3.22	2.14	3.22
	6" DPS	11" DPS	11" DPS	6" DPS	11" DPS	11" DPS	11" DPS	11" DPS
Total EPA (ft^2)	1.22	1.34	2.43	2.44	2.68	3.77	2.69	3.22
Direct Dale Mount						-		

Direct Pole Mount	=							
SIDE	S	GL	D90	D	180	Т90	T120	QD
VUE-12X-HSS	1	.02	3.00	2	.04	4.02	3.13	4.02
	6" DPS	11" DPS	11" DPS	6" DPS	11" DPS	11" DPS	11" DPS	11" DPS
Total EPA (ft^2)	1.18	1.30	3.28	2.36	2.60	4.58	3.68	4.02

## **TA VUE-12X EPA DATA**

Tennis Arm (4ft)									<	<b>✓</b> >
SIDE	SGL	D90	D180	T90	T120	T135	Q90	Q120	U-ARM	H-ARM
VUE-12X	0.86	1.54	1.72	2.40	1.43	1.43	2.40	1.43	1.36	1.72
TA	1.40	1.40	2.80	2.80	1.40	1.07	2.80	1.40	2.80	2.80
Total EPA (ft^2)	2.26	2.94	4.52	5.20	2.83	2.50	5.20	2.83	4.16	4.52

Tennis Arm (4ft)									<	<b>✓</b> ≻
SIDE	SGL	D90	D180	T90	T120	T135	Q90	Q120	U-ARM	H-ARM
VUE-12X-FSS	1.06	2.15	2.13	3.22	2.14	2.14	3.22	2.14	2.18	2.13
TA	1.40	1.40	2.80	2.80	1.40	1.07	2.80	1.40	2.80	2.80
Total EPA (ft^2)	2.46	3.55	4.93	6.02	3.54	3.21	6.02	3.54	4.98	4.93

Tennis Arm (4ft)									< <u></u>	<b>✓</b> ≻
SIDE	SGL	D90	D180	T90	T120	T135	Q90	Q120	U-ARM	H-ARM
VUE-12X-HSS	1.02	3.00	2.04	4.02	3.13	3.13	4.02	3.13	3.95	2.04
TA	1.40	1.40	2.80	2.80	1.40	1.07	2.80	1.40	2.80	2.80
Total EPA (ft^2)	2.42	4.40	4.84	6.82	4.53	4.20	6.82	4.53	6.75	4.84

### **DAVIT VUE-12X EPA DATA**

Davit Arm (3ft)				
SIDE	SGL	D180	D90	Q90
VUE-12X	0.86	1.72	1.54	2.40
DA	0.77	1.58	1.58	2.33
Total EPA (ft^2)	1.63	3.65	3.12	4.73

Davit Arm (3ft)				
SIDE	SGL	D180	D90	Q90
VUE-12X-FSS	1.06	2.13	2.15	3.22
DA	0.77	1.93	1.58	2.33
Total EPA (ft^2)	1.83	4.06	3.73	5.54

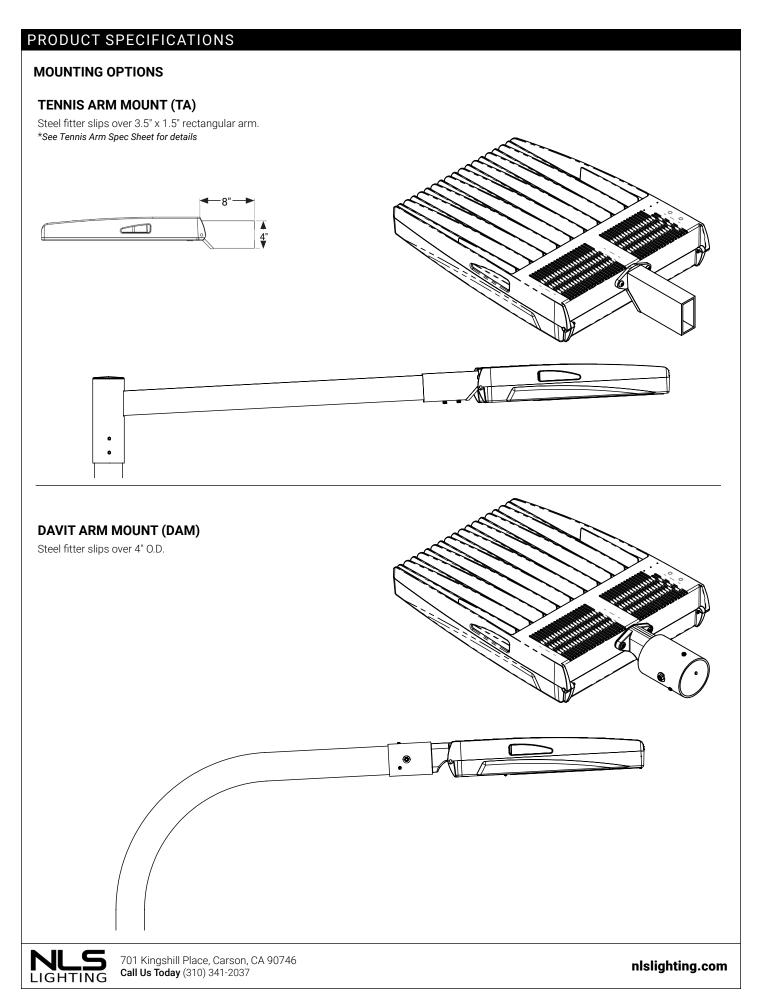
Davit Arm (3ft)				
SIDE	SGL	D180	D90	Q90
VUE-12X-HSS	1.02	2.04	3.00	4.02
DA	0.77	1.93	1.58	2.33
Total EPA (ft^2)	1.79	3.97	4.58	6.35

## **ASA VUE-12X EPA DATA**

Architectural Sweep Arm		
SIDE	SGL	D180
VUE-12X	0.86	1.72
ASA	0.27	0.57
Total EPA (ft^2)	1.15	2.29

Architectural Sweep Arm		
SIDE	SGL	D180
VUE-12X-FSS	1.06	2.13
ASA	0.29	0.57
Total EPA (ft^2)	1.35	2.70

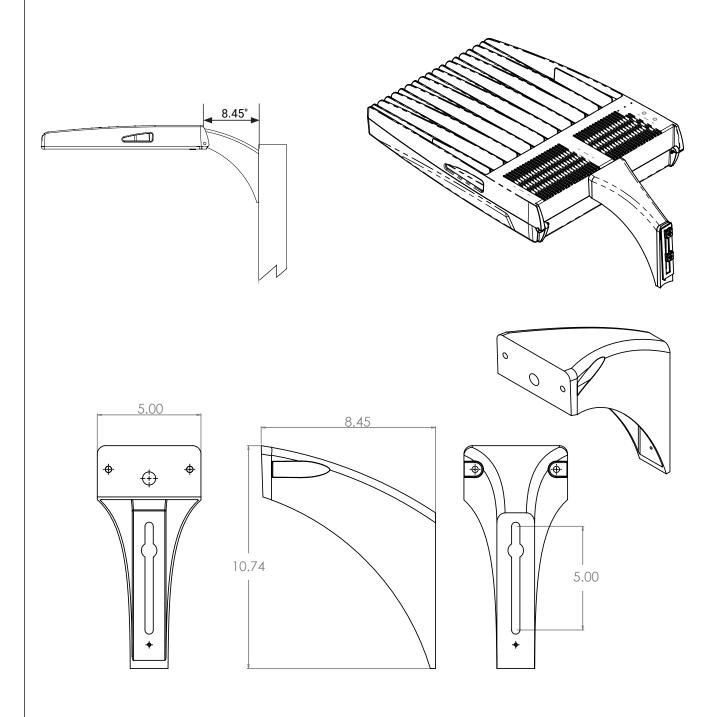
Architectural Sweep Arm		
SIDE	SGL	D180
VUE-12X-HSS	1.02	2.04
ASA	0.29	0.53
Total EPA (ft^2)	1.31	2.62



### **MOUNTING OPTIONS**

### **ARCHITECTURAL SWEEP ARM (ASA)**

Cast Sweep Arm includes (as standard) Internal Quick Mount Bracket. Round Pole Adapter included.

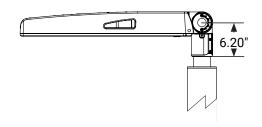


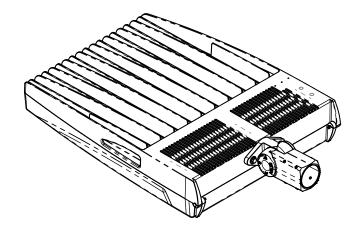
### **MOUNTING OPTIONS**

### **KNUCKLE MOUNT (KM)**

Die Cast Knuckle great for adjustable installation on 2-3/8" OD vertical or horizontal tenon.

- Max Uplift of 70 degrees
- Adjustable in 6 degree increments

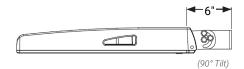


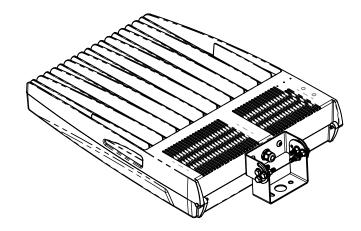




### **TRUNNION MOUNT (TM)**

Steel, bolt-on-mounting for adjustable installation with a maximum uplift of 70 degrees. \*Unpainted stainless steel is standard





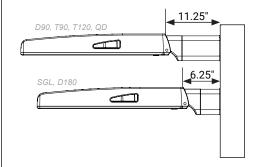


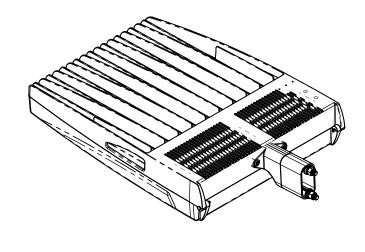


### **MOUNTING OPTIONS**

### **DIRECT POLE (DP)**

Standard mounting arm is extruded aluminum in lengths of 6.25" and 11.25". \*Arm lengths may vary depending on configuration

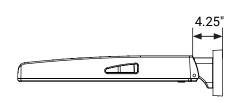


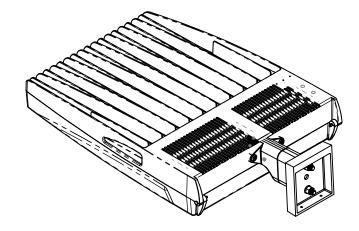




## WALL MOUNT (WM)

Cast Aluminum Plate for direct wall mount. 3" extruded aluminum arm mounts directly to a cast wall mount box.





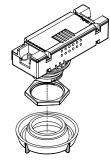
#### **CONTROL OPTIONS**

- 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.

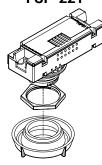
#### **FSP-211**



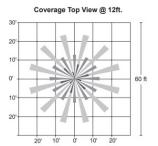
### **FSP-221 WITH MOTION SENSOR (FSP-HV-XX)**

- 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.

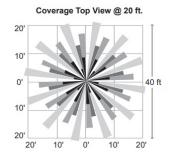
### FSP-221



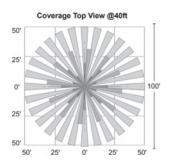
FSP-8



FSP-20



FSP-40



Coverage Side View

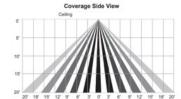
7

8

24'

11' 7' 3' 0' 3' 7' 11'

24'



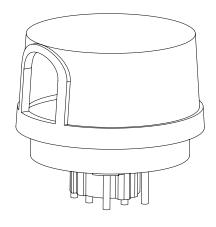
NLS LIGHTING

701 Kingshill Place, Carson, CA 90746 **Call Us Today** (310) 341-2037

nlslighting.com

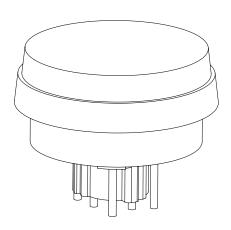
## PHOTOCELL + RECEPTACLE (PCR)

7-Pin Receptacle and Electronic Twist Lock Photocell for dusk to dawn operation.



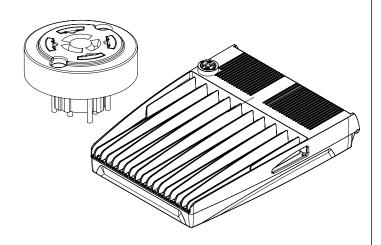
### **RECEPTACLE + SHORTING CAP (PER)**

7-Pin Receptacle and Shorting Cap.



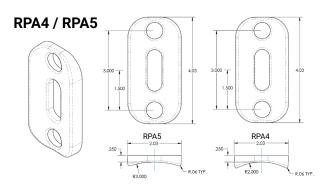
### **NEMA 7-PIN RECEPTACLE (PE7)**

An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.



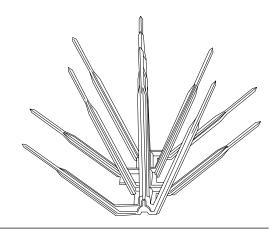
### **ROUND POLE ADAPTER OPTIONS (RPA4) (RPA5)**

When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.



### **BIRD SPIKES (BS)**

Bird Deterrent offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations and protect your property.



### MARINE GRADE FINISH (MGF)

The  $(\mathbf{MGF})$  is a multi step process. Chemically washed in a 5 stage cleaning system.

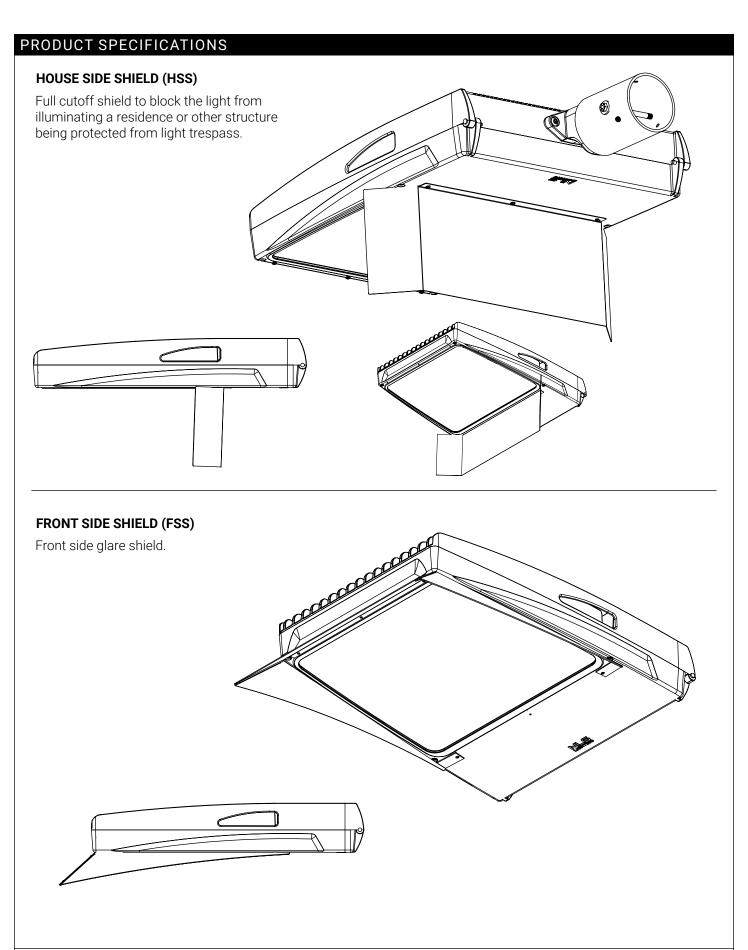
Pre-baked. Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.



## **Sensor Specification**







NLS LIGHTING

701 Kingshill Place, Carson, CA 90746 **Call Us Today** (310) 341-2037

nlslighting.com