

FORM AND FUNCTION

- Sleek, low profile housing
- Engineered for optimum thermal management
- Low depreciation rate
- Optical system designed for:
 - Parking Lots
 - Commercial Applications
- Spider Mount or Direct Pole mount

CONSTRUCTION

- Spun Aluminum
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP-65 seal for electronics compartment
- Two-piece silicone Micro Optic system ensures IP-67 level seal around each PCB

FINISH

- 5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion protects against extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.



LISTINGS

- Certified to UL 1598
- CSA C22.2 No. 250.0
- DesignLights Consortium® (DLC)
- DesignLights Consortium Premium® (DLCP)
- IP65/ IP67 Rated



LED WATTAGE CHART

	16L	32L	48L	64L	80L	96L
350 milliamps	18w	-	-	-	-	-
530 milliamps	28w	56w	-	-	-	-
700 milliamps	36w	71w	104w	136w	-	-
1050 milliamps	56w	106w	156w	205w	263w	316w

VSR-S

VSR-1

VSR-2

Project Name:

Type:

Cat #	Micro Optics	No. of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
Value Series Round Small (VSR-S)	Type 2 (T2)	VSR-S 16 (16L) 32 (32L)	350 (35) <i>*VSR-S Only</i>	3000K (30K)	120-277 (UNV)	Direct Pole <i>For Size Small: Single, D180</i> Square (DPS3) Round (DPR3)	Bronze (BRZ) White (WHT)	Bird Spikes (BS) Marine Grade Finish (MGF) Surge Protector (10K) Nema 7-Pin Receptacle (PE7) Photocell (PC) <i>*Universal Voltage 120-277</i> Motion Sensor (MS)
Value Series Round 1 (VSR-1)	Type 3 (T3)	VSR-1 32 (32L)	530 (53) <i>*VSR-S Only</i>	4000K (40K)	340-480 (HV)	<i>For Sizes 1 & 2: Single, D180</i> Square (DPS6) Round (DPR6)	Silver (SVR)	<i>FSP-211 with Motion Sensor (UNV Voltage)</i> <i>For 8' + Below (FSP-8)</i> <i>For 9' to 20' (FSP-20)</i> <i>For 21' to 40' (FSP-40)</i> <i>* Motion Sensor and FSP-211 are integral to the fixture</i>
Value Series Round 2 (VSR-2)	Type 4 (T4)	48 (48L) 64 (64L)	700 (7) <i>*16L-64L Only</i>	5000K (50K)		<i>D90, T90, T120, Quads</i> Square (DPS10) Round (DPR10) <i>*Arm Configurations - Page</i> Spider Mount (4-Bar) Over 2 3/8" Tenon (SPM2) Over 3" Tenon (SPM3) <i>*VSR-1, VSR-2 Only</i> Yoke Mount (2-Bar) Over 2 3/8" Tenon (YM2) Over 3" Tenon (YM3) <i>*VSR-S Only</i> Wall Mount (WM) <i>*Includes 6" Bolt on Arm</i>	Hunter Green (HGN) Black (BLK) Graphite (GPH) Grey (GRY) Custom (CS)	Quick Mount Bracket (QMB) Retrofit Quick Mount Bracket (RQMB) Internal Microwave Motion Sensor (IMMS) House Side Shield (HSS) Rotate Optic Right (ROR) Rotate Optic Left (ROL) Round Pole Adaptor 3' - 4' Pole (RPA4) Round Pole Adaptors 5' - 6' Pole (RPA5)

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%
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP-65 compartment
- Lumileds Luxeon MX LED's
- CRI >70
- Color temperatures: 3000K, 4000K, 5000K

OPTIONS

- **BIRD DETERRANT (BD)**—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)**—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.
 - 1-2 feet inside pole coverage top and bottom.
 - Oven Baked.
 - Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- **HOUSE SIDE SHIELD (HSS)**—Micro Optics' House Side Shield (HSS) is designed for full property line cut-off.
- **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.

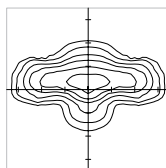
CONTROLS

- **FSP-211 (FSP-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.
 - FSP-8 mounting heights 8 feet and below.
 - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, reprogrammable in the field.
- **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.
- **INTERNAL MICROWAVE MOTION SENSOR (IMMS)**—IMMS is an innovative motion sensor, switch on light on movement detection, switch off after hold time if no motion detected. Built-in daylight sensor reads brightness value, the sensor does not switch on if sufficient natural light.
 - **DETECTION AREA** —Detection area can be reduced by selecting DIP switches for each application precisely
 - **HOLD TIME** —Time period lamp remains at 100% illumination after no motion detected.
 - **DAYLIGHT SENSOR** —Sensor can be set to restrict lamp illumination below specific ambient brightness threshold. When set to Disable Mode, daylight sensor switches lamp on, when motion detected regardless of ambient light levels.
 - **MODE**— When set to Disable, microwave sensor function is inactive, lights turned on or off manually. When set to Sensor, microwave sensor function is active.

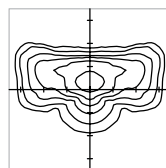
OPTICS

Silicone optics high photothermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life. UV and thermal stability with scratch resistance increases exterior application durability.

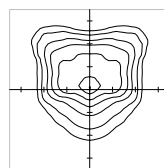
- IES Types



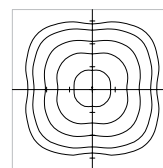
TYPE II (T2)



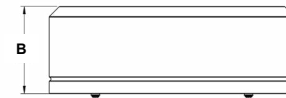
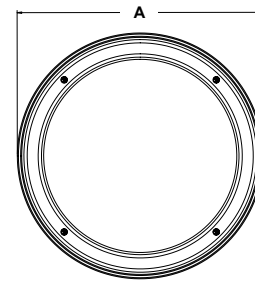
TYPE III (T3)



TYPE IV (T4)

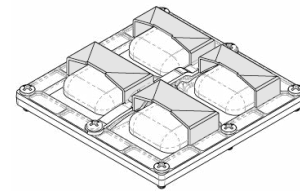


TYPE V (T5)

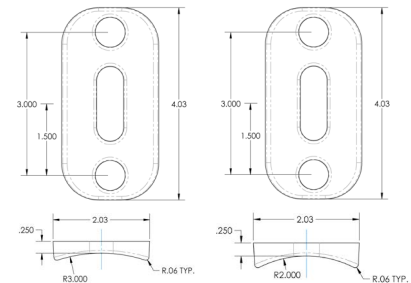
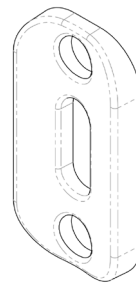


DIMENSION	VSR-S	VSR-1	VSR-2
A	14 in.	17 in.	21.5
B	4 in.	6 in.	6.5
Weight	9lbs	20lbs	26lbs

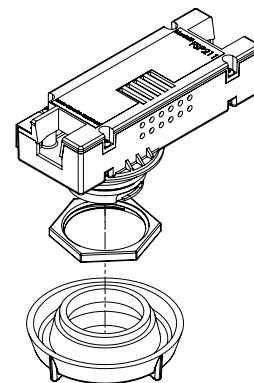
HOUSE SIDE SHIELD



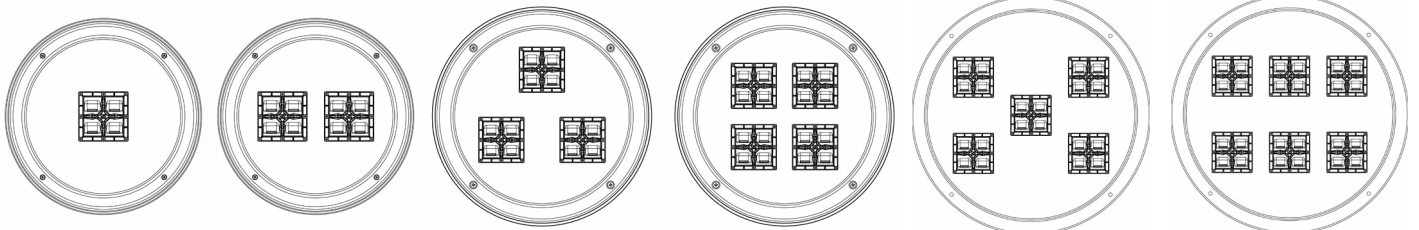
RPA4 / RPA5



FSP-211



OPTICAL CONFIGURATIONS



VSR-S / 16L

VSR-S / 32L

VSR-1 / 48L

VSR-1 / 64L

VSR-2 / 80L

VSR-2 / 96L

LUMENS

PART NUMBER	T2 LUMENS LM/W	DLC	BUG	T3 HSS LUMENS LM/W	BUG	T3 LUMENS LM/W	DLC	BUG	T4 HSS LUMENS LM/W	BUG	T4 LUMENS LM/W	DLC	BUG	T5 LUMENS LM/W	DLC	BUG	W
VSR-S-16L-35-30K	2142 (119)	P	B1-U0-G1	1044 (58)	B1-U0-G0	2088 (116)	S	B1-U0-G1	1026 (57)	B0-U0-G0	2070 (115)	S	B1-U0-G1	2160 (120)	P	B2-U0-G1	18
VSR-S-16L-35-40K	2305 (128)	P	B1-U0-G1	1116 (62)	B1-U0-G0	2247 (125)	P	B1-U0-G1	1098 (61)	B0-U0-G0	2227 (124)	P	B1-U0-G1	2322 (129)	P	B2-U0-G1	18
VSR-S-16L-35-50K	2356 (131)	P	B1-U0-G1	1188 (66)	B1-U0-G0	2297 (128)	P	B1-U0-G1	1170 (65)	B0-U0-G0	2277 (127)	P	B1-U0-G1	2376 (132)	P	B2-U0-G1	18
VSR-S-16L-53-30K	3275 (117)	P	B1-U0-G1	1624 (58)	B0-U0-G0	3192 (114)	S	B1-U0-G1	1596 (57)	B0-U0-G1	3165 (113)	S	B1-U0-G1	3304 (118)	P	B2-U0-G1	28
VSR-S-16L-53-40K	3524 (126)	P	B1-U0-G1	1736 (62)	B0-U0-G0	3435 (123)	P	B1-U0-G1	1708 (61)	B0-U0-G1	3406 (122)	P	B1-U0-G1	3556 (127)	P	B2-U0-G1	28
VSR-S-16L-53-50K	3603 (129)	P	B1-U0-G1	1848 (66)	B0-U0-G1	3511 (125)	P	B1-U0-G1	1820 (65)	B0-U0-G1	3482 (124)	P	B1-U0-G1	3640 (130)	P	B2-U0-G1	28
VSR-S-16L-7-30K	4100 (114)	S	B1-U0-G1	2088 (58)	B0-U0-G1	3996 (111)	S	B1-U0-G1	2052 (57)	B0-U0-G1	4003 (111)	S	B1-U0-G1	4176 (116)	S	B3-U0-G1	36
VSR-S-16L-7-40K	4411 (123)	P	B1-U0-G1	2232 (62)	B0-U0-G1	4300 (119)	P	B1-U0-G1	2196 (61)	B0-U0-G1	4308 (120)	P	B1-U0-G1	4500 (125)	P	B3-U0-G1	36
VSR-S-16L-7-50K	4510 (125)	P	B1-U0-G1	2376 (66)	B0-U0-G1	4396 (122)	P	B1-U0-G1	2340 (65)	B0-U0-G1	4404 (122)	P	B1-U0-G1	4608 (128)	P	B3-U0-G1	36
VSR-S-16L-1-30K	5858 (105)	S	B1-U0-G1	3248 (58)	B0-U0-G1	5712 (102)	S	B1-U0-G1	3192 (57)	B0-U0-G1	5661 (101)	S	B1-U0-G2	5880 (105)	S	B3-U0-G1	56
VSR-S-16L-1-40K	6303 (113)	S	B1-U0-G1	3472 (62)	B0-U0-G1	6146 (110)	S	B1-U0-G1	3416 (61)	B0-U0-G1	6091 (109)	S	B1-U0-G2	6328 (113)	S	B3-U0-G1	56
VSR-S-16L-1-50K	6443 (115)	S	B1-U0-G1	3696 (66)	B0-U0-G1	6283 (112)	S	B1-U0-G2	3640 (65)	B0-U0-G1	6227 (111)	S	B1-U0-G2	6496 (116)	S	B3-U0-G1	56
VSR-S-32L-53-30K	5858 (105)	S	B1-U0-G1	3248 (58)	B0-U0-G1	5712 (102)	S	B1-U0-G1	3192 (57)	B0-U0-G1	5661 (101)	S	B1-U0-G2	5880 (105)	S	B3-U0-G1	56
VSR-S-32L-53-40K	6303 (113)	S	B1-U0-G1	3472 (62)	B0-U0-G1	6146 (110)	S	B1-U0-G1	3416 (61)	B0-U0-G1	6091 (109)	S	B1-U0-G2	6328 (113)	S	B3-U0-G1	56
VSR-S-32L-53-50K	6443 (115)	S	B1-U0-G1	3696 (66)	B0-U0-G1	6283 (112)	S	B1-U0-G2	3640 (65)	B0-U0-G1	6227 (111)	S	B1-U0-G2	6496 (116)	S	B3-U0-G1	56
VSR-S-32L-7-30K	8086 (114)	S	B2-U0-G2	4118 (58)	B0-U0-G1	7881 (111)	S	B2-U0-G2	4047 (57)	B0-U0-G1	7896 (111)	S	B2-U0-G2	8236 (116)	S	B3-U0-G2	71
VSR-S-32L-7-40K	8700 (123)	P	B2-U0-G2	4402 (62)	B0-U0-G1	8480 (119)	P	B2-U0-G2	4331 (61)	B0-U0-G1	8496 (120)	P	B2-U0-G2	8875 (125)	P	B3-U0-G2	71
VSR-S-32L-7-50K	8894 (125)	P	B2-U0-G2	4686 (66)	B0-U0-G1	8669 (112)	P	B2-U0-G2	4615 (65)	B0-U0-G2	8685 (122)	P	B2-U0-G2	9088 (128)	P	B3-U0-G2	71
VSR-S-32L-1-30K	11088 (105)	S	B2-U0-G2	6148 (58)	B0-U0-G2	10812 (102)	S	B2-U0-G2	6042 (57)	B0-U0-G2	10715 (101)	S	B2-U0-G2	11130 (105)	S	B3-U0-G2	106
VSR-S-32L-1-40K	11930 (113)	S	B2-U0-G2	6572 (62)	B0-U0-G2	11634 (110)	S	B2-U0-G2	6466 (61)	B0-U0-G2	11529 (109)	S	B2-U0-G2	11978 (113)	S	B3-U0-G2	106
VSR-S-32L-1-50K	12196 (115)	S	B2-U0-G2	6996 (66)	B0-U0-G2	11893 (112)	S	B2-U0-G2	6890 (65)	B0-U0-G2	11787 (111)	S	B2-U0-G2	12296 (116)	S	B3-U0-G2	106
VSR-1-32L-7-30K	7427 (105)	S	B2-U0-G2	3248 (58)	B0-U0-G1	7881 (111)	S	B2-U0-G2	4047 (57)	B0-U0-G1	7896 (111)	S	B2-U0-G2	8236 (116)	S	B3-U0-G2	71
VSR-1-32L-7-40K	7991 (113)	S	B2-U0-G2	3472 (62)	B0-U0-G1	8480 (119)	P	B2-U0-G2	4331 (61)	B0-U0-G2	8496 (120)	P	B2-U0-G2	8875 (125)	P	B3-U0-G2	71
VSR-1-32L-7-50K	8169 (115)	S	B2-U0-G2	3696 (66)	B0-U0-G1	8669 (112)	P	B2-U0-G2	4615 (65)	B0-U0-G2	8685 (122)	P	B2-U0-G2	9088 (128)	P	B3-U0-G2	71
VSR-1-32L-1-30K	11088 (105)	S	B2-U0-G2	4118 (58)	B0-U0-G2	10812 (102)	S	B2-U0-G2	6042 (57)	B0-U0-G2	10715 (101)	S	B2-U0-G2	11130 (105)	S	B4-U0-G2	106
VSR-1-32L-1-40K	11930 (113)	S	B2-U0-G2	4402 (62)	B0-U0-G2	11634 (110)	S	B2-U0-G2	6466 (61)	B0-U0-G2	11529 (109)	S	B2-U0-G2	11978 (113)	S	B4-U0-G2	106
VSR-1-32L-1-50K	12196 (115)	S	B2-U0-G2	4686 (66)	B0-U0-G2	11893 (112)	S	B2-U0-G2	6890 (65)	B0-U0-G2	11787 (111)	S	B2-U0-G2	12296 (116)	S	B4-U0-G2	106
VSR-1-48L-7-30K	11844 (114)	S	B2-U0-G2	6148 (58)	B0-U0-G2	11544 (111)	S	B2-U0-G2	5928 (57)	B0-U0-G2	11648 (112)	S	B2-U0-G2	12068 (116)	S	B4-U0-G2	104
VSR-1-48L-7-40K	12744 (123)	P	B2-U0-G2	6572 (62)	B0-U0-G2	12421 (119)	P	B2-U0-G2	6344 (61)	B0-U0-G2	12444 (120)	P	B2-U0-G2	12985 (125)	P	B4-U0-G2	104
VSR-1-48L-7-50K	13028 (125)	P	B2-U0-G2	6996 (66)	B0-U0-G2	12698 (122)	P	B2-U0-G2	6760 (65)	B0-U0-G2	12792 (123)	P	B2-U0-G2	13275 (128)	P	B4-U0-G2	104
VSR-1-48L-1-30K	16318 (105)	S	B3-U0-G3	6032 (58)	B0-U0-G2	15912 (102)	S	B3-U0-G3	8892 (57)	B1-U0-G2	15769 (101)	S	B3-U0-G3	16455 (105)	S	B4-U0-G2	156
VSR-1-48L-1-40K	17558 (113)	S	B3-U0-G3	6448 (62)	B0-U0-G2	17121 (110)	S	B3-U0-G3	9516 (61)	B1-U0-G2	16968 (109)	S	B3-U0-G3	17705 (113)	S	B4-U0-G2	156
VSR-1-48L-1-50K	17950 (115)	S	B3-U0-G3	6864 (66)	B1-U0-G2	17503 (112)	S	B3-U0-G3	10140 (65)	B1-U0-G2	17346 (111)	S	B3-U0-G3	18100 (116)	S	B4-U0-G2	156
VSR-1-64L-7-30K	15488 (114)	S	B3-U0-G3	9048 (58)	B0-U0-G2	15096 (111)	S	B2-U0-G2	7752 (57)	B0-U0-G2	15124 (111)	S	B3-U0-G3	15781 (116)	S	B4-U0-G2	136
VSR-1-64L-7-40K	16665 (123)	P	B3-U0-G3	9672 (62)	B0-U0-G2	16243 (119)	P	B2-U0-G2	8296 (61)	B0-U0-G2	16273 (120)	P	B3-U0-G3	16981 (125)	P	B4-U0-G2	136
VSR-1-64L-7-50K	17037 (125)	P	B3-U0-G3	10296 (66)	B0-U0-G2	16606 (122)	P	B2-U0-G2	8840 (65)	B1-U0-G2	16728 (123)	P	B3-U0-G3	17359 (128)	P	B4-U0-G2	136
VSR-1-64L-1-30K	21443 (105)	S	B3-U0-G3	7888 (58)	B1-U0-G2	20910 (102)	S	B3-U0-G3	11685 (57)	B1-U0-G2	20722 (101)	S	B3-U0-G3	21623 (105)	S	B5-U0-G3	205
VSR-1-64L-1-40K	23073 (113)	S	B3-U0-G3	8432 (62)	B1-U0-G2	22499 (110)	S	B3-U0-G3	12505 (61)	B1-U0-G2	22297 (109)	S	B3-U0-G3	23267 (113)	S	B5-U0-G3	205
VSR-1-64L-1-50K	23588 (115)	S	B3-U0-G3	8976 (66)	B1-U0-G2	23001 (112)	S	B3-U0-G3	13325 (65)	B1-U0-G3	22795 (111)	S	B3-U0-G4	23785 (116)	S	B5-U0-G3	205
VSR-2-80L-1-30K	27510 (105)	S	B3-U0-G3	11890 (58)	B1-U0-G3	26826 (102)	S	B3-U0-G4	14991 (57)	B1-U0-G3	26585 (101)	S	B3-U0-G4	27741 (105)	S	B5-U0-G4	263
VSR-2-80L-1-40K	29601 (113)	S	B3-U0-G3	12710 (62)	B1-U0-G3	28865 (110)	S	B3-U0-G4	16043 (61)	B1-U0-G3	28606 (109)	S	B3-U0-G4	29850 (113)	S	B5-U0-G4	263
VSR-2-80L-1-50K	30261 (115)	S	B3-U0-G3	13530 (66)	B1-U0-G3	29509 (112)	S	B3-U0-G4	17095 (65)	B1-U0-G3	29244 (111)	S	B3-U0-G4	30515 (116)	S	B5-U0-G4	263
VSR-2-96L-1-30K	33054 (105)	S	B3-U0-G4	15254 (58)	B1-U0-G3	32232 (102)	S	B3-U0-G4	18012 (57)	B1-U0-G3	31943 (101)	S	B3-U0-G4	33332 (105)	S	B5-U0-G4	316
VSR-2-96L-1-40K	35566 (113)	S	B3-U0-G4	16306 (62)	B1-U0-G3	34682 (110)	S	B4-U0-G4	19276 (61)	B1-U0-G4	34371 (109)	S	B3-U0-G4	35865 (113)	S	B5-U0-G4	316
VSR-2-96L-1-50K	36359 (115)	S	B4-U0-G4	17358 (66)	B1-U0-G4	35455 (112)	S	B4-U0-G4	20540 (65)	B1-U0-G4	35137 (111)	S	B3-U0-G4	36665 (116)	S	B5-U0-G4	316

*DLC S= Standard P= Premium

EPA

EPA	SGL	D90	D180	T90	T120	QD
VSR-S	0.65	0.99	1.3	1.5	1.39	1.5
VSR-1	1.05	1.66	2.1	2.48	2.26	2.48
VSR-2	1.36	2.17	2.73	3.18	2.91	3.18

DPX ARM LENGTH

DPX ARM LENGTH	SGL	D90	D180	T90	T120	QD
VSR-S	3"	6"	3"	6"	6"	6"
VSR-1	6"	20"	6"	10"	10"	10"
VSR-2	6"	10"	6"	10"	10"	10"

L70/L90 DATA

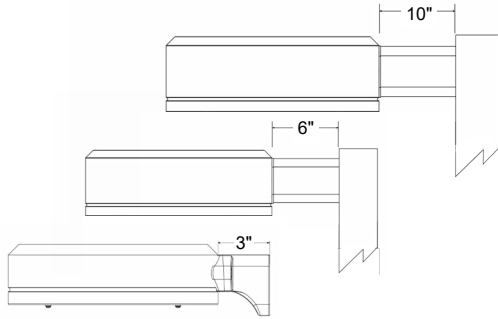
TEMP.	VSR-S				VSR-1		VSR-2	
	L70 (16L)	L90 (16L)	L70 (32L)	L90 (32L)	L70	L90	L70	L90
25°C	550,000	180,000	190,000	>60,000	180,000	>60,000	180,000	>60,000



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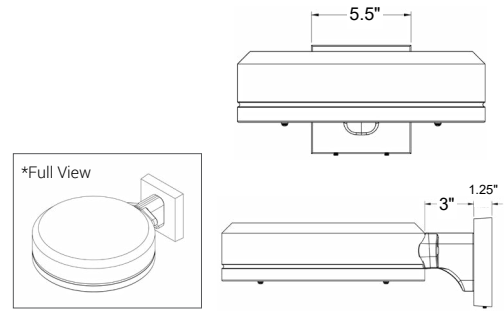
MOUNTING OPTIONS



*VSR-S only (Single/D180)

DIRECT POLE MOUNT (DPX)

Standard mounting arm is extruded aluminum in lengths of 3", 6", And 10"
*Arm lengths may vary depending on configuration



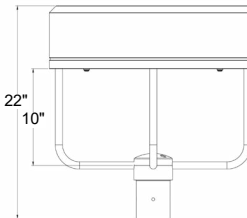
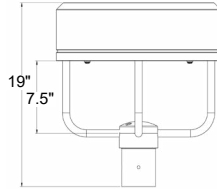
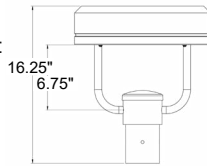
WALL MOUNT (WM)

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

YOKE MOUNT (YMX)

Aluminum, 2-bar arms mount over round tenon at two outer dimensions:

- Over 2-3/8" (YM2)
- Over 3" (YM3)



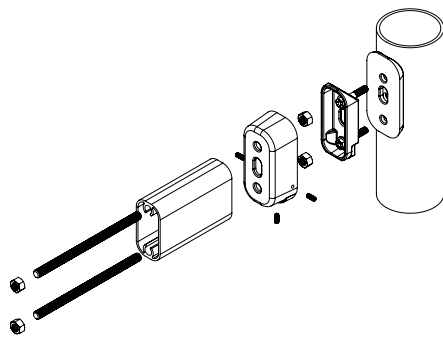
SPIDER MOUNT (SPMX)

Aluminum, 4-bar spider arm mounts over round tenon at two outer dimensions:

- Over 2-3/8" (SPM2)
- Over 3" (SPM3)

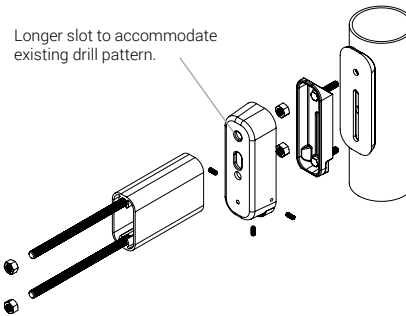
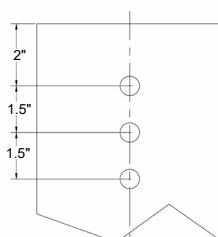
OPTIONAL

Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures.



QUICK MOUNT BRACKET (QMB) DIRECT POLE (DP6/DP10)

DRILL PATTERN



Longer slot to accommodate existing drill pattern.

RETROFIT QUICK MOUNT BRACKET (RQMB)

RQMB DRILL PATTERN

