



SMX-LL5

LED ROADWAY LIGHTING



107WiE-166WiE
250W - 400W HPS

SMX-LL5 LED ROADWAY LIGHTING

Project Name:

107 WiE - 166 WiE COBRA HEAD

250W - 400W HPS EQUIVALENT

Date:

Project Number:

Note:

Features

HPS EQUIVALENT

250W HPS to 400W HPS

CONSTRUCTION

Die cast aluminum housing ASTM A380 (default) & A360 (optional)
Tool-less entry/access
Terminal block for Class 1 connections (6AWG -14AWG)
Bubble level included
4-bolt Slip Fitter mounts to 1-5/8" to 2-3/8" O.D. arm
ANSI C136.31 3G Vibration compliant
Standard RAL Gray color
Operating Temperature -40°C to +50°C
ANSI C136.41 7-pins rotatable receptacle included
ANSI C136.15 NEMA label included

ELECTRICAL

Input voltage 120-277 VAC, 50/60 Hz
20KV/10KA Surge Protection included
0-10V dimmable
IP-66 rated LED driver
Power Factor > 0.9
Total Harmonic Distortion (THD) < 15%
EMC complies with FCC 47 CFR Part 15
LED driver expected life > 100,000 hours @ 25°C ambient
ANSI C136.22 labels included
Optional fuse

FIELD ADJUSTABLE

Optional field wattage/lumen output adjustments

CONTROLS

7-pins receptacle with shorting cap (default)
7-pins receptacle with photocell
7-pins receptacle with Smart control node
Luminaire with No Receptacle

CERTIFICATIONS & COMPLIANCES

UL-1598, suitable for wet location
DLC V5.1 Premium
Dark-Sky approved (CCT 3000K and lower)
ISO 9001
ANSI C136.2, C136.3, C136.10, C136.13, C136.15, C136.22, C136.25, C136.31, C136.37, C136.41, C78.377, C82.77

APPLICATION

Local, Collector, Arterial Roadways & Intersections

FINISH

Corrosion Resistant Polyester Powder Coating ≥ 2mil Nominal Thickness
ASTM B117 5,000 Hours Salt Spray Scribe Creepage Rating of 7 per ASTM D1654
ASTM D523 Coating Gloss Retention Compliant
ASTM G154 QUV Compliant
Optional Coastal Finish per AAMA 2604
Standard RAL Gray Color
Optional Black, Dark Bronze, and White Color

OPTICAL

Standard CCT 2700K, 3000K, 4000K, and 5000K
Dark-sky approved CCT 3000K and lower
Optional CCT 2200K and 5700K
No uplight, U = 0 per IESNA TM-15
Color Rendering Index (CRI) > 70
IESNA TYPE II, III, and IV
IP-66 rated LED light module
RoHS compliant LEDs
Photometri performance is tested per IESNA LM-79, LM-63
LED light engine, L₇₀ > 100,000 hours @ 25°C ambient per LM-80/TM-21
16,000 to 26,000 Lumens
145 to 165 Lumens per Watt

TM21 Maintenance per IES TM-21 @ 25°C Calculation

Note: Calculations based on LM-80 (>10,000 hours testing)

Models	60,000 hours	80,000 hours	100,000 hours
107 WiE - 166 WiE	> 98 %	> 97 %	> 96 %

LIGHT SHIELD

House-side shield
Left-side shield
Right-side shield
Cul-de-sac shield
Street-side shield

WARRANTY

7-year product warranty, standard
10-year product warranty, optional



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107 WiE - 166 WiE COBRA HEAD

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Ordering Information

EXAMPLE: SMX-107WIE-HV-LL5-00-3070-T202-P-DB-10-HSS

SMX - WiE - - LL5 - - - - - - - -

Wattage		Voltage		Control		CCT / CRI		Distribution	
107	107WiE	NV	120-277VAC	00	7-pin Receptacle & Shorting Cap	2270	2200K / CRI 70	T202	Type II B
111	111WiE	HV	347-480VAC			2770	2700K / CRI 70	T212	Type II F
120	120WiE	XV	120-480VAC	PH	7-pin Receptacle & Photo Electric	3070	3000K / CRI 70	T302	Type III
126	126WiE		Only applies to 134W	WC	7-pin Receptacle & Wireless Control	4070	4000K / CRI 70	T402	Type IV
130	130WiE					5070	5000K / CRI 70		
134	134WiE					5770	5700K / CRI 70		
139	139WiE			NR	No receptacle	TF	Turtle Friendly 590nm		
140	140WiE								
142	142WiE								
149	149WiE								
158	158WiE								
166	166WiE								

Mounting		Finish		Warranty		Accessories	
P	Arm Mount, No Bracket	Blank	Gray	Blank	7-Year Limited Warranty	Blank	ANSI C136.15 NEMA Label
MAS	Mast Arm, Square Pole	DB	Dark Bronze	10	10-Year Limited Warranty	HSS	House-side Shield
MAR	Mast Arm, Round Pole	BK	Black			CSS	Cul-de-sac Shield
SAS	Straight Arm, Square Pole	WH	White			SSS	Street-side Shield
SAR	Straight Arm, Round Pole	X	Customize			LSS	Left-side Shield
VMT	Vertical Mount with Tilt	CF	Coastal Finish, AAMA 2604			RSS	Right-side Shield
VMSB	Vertical Mount Spoke Bracket					FA	Field Adjustment
AP	Aluminum Plate Plate for 2" tenon					FS	Fusing
						CUL	Customized Utility Label
						P7TL	7-pin Receptacle Toolless type



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107 WiE - 166 WiE COBRA HEAD

250W - 400W HPS EQUIVALENT

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Note:

Performance Data 110-277VAC NV

Models	CCT	T202				T212				T302				T402			
		Watts	Lumen	Efficacy	BUG	Watts	Lumen	Efficacy	BUG	Watts	Lumen	Efficacy	BUG	Watts	Lumen	Efficacy	BUG
107WiE	2700K	108W	16954	157	B3U0G3	108W	16839	157	B3U0G3	109W	16928	156	B3U0G3	108W	15974	149	B2U0G3
	3000K	108W	17145	160	B3U0G3	108W	16986	158	B3U0G3	108W	17042	158	B3U0G3	108W	16045	149	B2U0G3
	4000K/5000K	108W	17863	165	B3U0G3	108W	18060	167	B3U0G3	107W	17946	168	B3U0G3	108W	17095	158	B2U0G3
111WiE	2700K	110W	17319	157	B3U0G3	112W	17483	157	B3U0G3	111W	17273	156	B3U0G3	111W	16505	148	B2U0G3
	3000K	112W	17838	159	B3U0G3	111W	17494	158	B3U0G3	111W	17396	157	B3U0G3	111W	16594	149	B2U0G3
	4000K/5000K	112W	18428	164	B3U0G3	110W	18438	167	B3U0G3	112W	18749	168	B3U0G3	111W	17527	158	B2U0G3
120WiE	2700K	120W	18678	156	B3U0G3	121W	18720	155	B3U0G3	120W	18591	154	B3U0G3	120W	17693	147	B2U0G4
	3000K	119W	18849	158	B3U0G3	121W	18837	156	B3U0G3	120W	18753	156	B3U0G3	120W	17857	149	B2U0G4
	4000K/5000K	121W	19716	163	B3U0G3	120W	19840	166	B3U0G3	117W	19456	167	B3U0G3	120W	18944	158	B2U0G4
126WiE	2700K	127W	19679	155	B3U0G3	127W	19576	154	B3U0G3	128W	19580	153	B3U0G3	126W	18235	145	B2U0G4
	3000K	126W	19898	158	B3U0G3	127W	19683	155	B3U0G3	127W	19756	155	B3U0G3	127W	18534	146	B2U0G4
	4000K/5000K	126W	20560	163	B3U0G3	127W	20931	165	B3U0G3	126W	20990	167	B3U0G3	126W	19784	157	B2U0G4
130WiE	2700K	129W	20027	155	B3U0G3	131W	20098	154	B3U0G3	130W	19907	153	B3U0G3	130W	18747	144	B2U0G4
	3000K	131W	20573	157	B3U0G3	130W	20116	155	B3U0G3	130W	20088	155	B3U0G3	130W	18977	146	B2U0G4
	4000K/5000K	130W	21100	163	B3U0G3	130W	21304	164	B3U0G3	131W	21731	166	B3U0G3	131W	20439	156	B2U0G4
134WiE	2700K	134W	20689	154	B3U0G3	133W	20579	155	B3U0G3	135W	20568	152	B3U0G3	134W	19272	144	B2U0G4
	3000K	133W	20874	157	B3U0G3	134W	20670	154	B3U0G3	134W	20753	154	B3U0G3	134W	19493	146	B2U0G4
	4000K/5000K	135W	21827	162	B3U0G3	134W	21880	164	B3U0G3	136W	22456	166	B3U0G3	134W	20995	156	B2U0G4
139WiE	2700K	139W	21333	154	B3U0G3	139W	21290	153	B3U0G3	140W	21209	152	B3U0G3	139W	19423	140	B2U0G4
	3000K	139W	21389	154	B3U0G3	139W	21414	154	B3U0G3	139W	21406	154	B3U0G3	139W	19784	143	B2U0G4
	4000K/5000K	139W	22444	161	B3U0G3	138W	22456	163	B3U0G3	141W	23193	165	B3U0G3	140W	21608	155	B2U0G4
140WiE	2700K	141W	21428	152	B3U0G3	142W	21683	153	B3U0G3	140W	21241	152	B3U0G3	140W	20011	143	B3U0G4
	3000K	141W	21683	154	B3U0G3	141W	21703	154	B3U0G3	140W	21460	154	B3U0G3	140W	20231	145	B3U0G4
	4000K/5000K	139W	22517	162	B3U0G3	140W	22771	162	B3U0G3	141W	23204	165	B3U0G3	141W	21789	155	B3U0G4
142WiE	2700K	143W	21765	152	B3U0G3	143W	21446	150	B3U0G3	143W	21652	151	B3U0G3	142W	20088	141	B3U0G4
	3000K	143W	21851	153	B3U0G3	143W	21463	151	B3U0G3	143W	21905	153	B3U0G3	142W	20458	144	B3U0G4
	4000K/5000K	143W	23045	161	B3U0G3	143W	23248	162	B3U0G3	144W	23703	164	B3U0G3	143W	21987	154	B3U0G4
149WiE	2700K	150W	22559	151	B3U0G3	150W	22653	151	B3U0G3	150W	22511	150	B3U0G3	149W	21151	142	B3U0G4
	3000K	149W	22680	152	B3U0G3	150W	22774	152	B3U0G3	149W	22747	152	B3U0G3	149W	21309	144	B3U0G4
	4000K/5000K	151W	24022	160	B3U0G3	149W	24196	162	B3U0G3	151W	24662	164	B3U0G3	150W	22705	152	B3U0G4
158WiE	2700K	159W	23804	149	B3U0G3	159W	23638	149	B3U0G3	160W	23705	149	B3U0G3	159W	22251	140	B3U0G4
	3000K	159W	23921	151	B3U0G3	159W	23756	150	B3U0G3	159W	23989	151	B3U0G3	158W	22464	142	B3U0G4
	4000K/5000K	157W	24893	159	B3U0G3	156W	25276	162	B3U0G3	160W	26020	162	B3U0G3	159W	23906	150	B3U0G4
166WiE	2700K	166W	24629	148	B3U0G3	166W	24469	148	B3U0G3	166W	24546	148	B3U0G3	166W	23174	140	B3U0G4
	3000K	165W	24721	150	B3U0G3	167W	24829	149	B3U0G3	165W	24791	150	B3U0G3	166W	23420	141	B3U0G4
	4000K/5000K	165W	25997	157	B3U0G3	167W	26661	160	B3U0G3	166W	26703	161	B3U0G3	168W	24915	149	B3U0G4



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Note:

Performance Data 347-480VAC HV

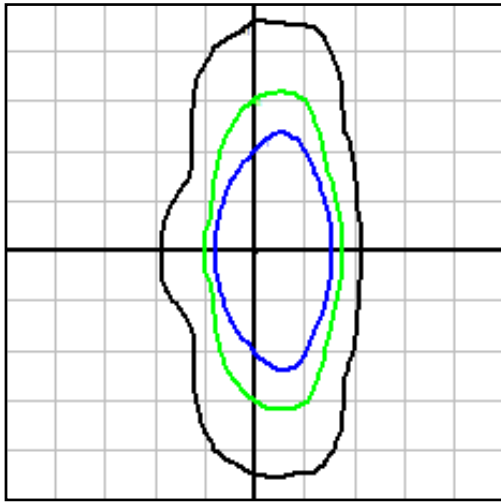
Models	CCT	T202				T212				T302				T402			
		Watts	Lumen	Efficacy	BUG	Watts	Lumen	Efficacy	BUG	Watts	Lumen	Efficacy	BUG	Watts	Lumen	Efficacy	BUG
107WiE	2700K	107W	16912	159	B3U0G3	107W	16906	158	B3U0G3	109W	16807	155	B3U0G3	107W	16326	152	B2U0G3
	3000K	108W	17131	159	B3U0G3	107W	17020	159	B3U0G3	108W	17112	159	B3U0G3	108W	16479	153	B2U0G3
	4000K/5000K	107W	17905	168	B3U0G3	107W	18132	169	B3U0G3	107W	18213	170	B3U0G3	107W	17365	162	B2U0G3
111WiE	2700K	111W	17582	158	B3U0G3	112W	17688	159	B3U0G3	112W	17396	156	B3U0G3	112W	16958	152	B2U0G3
	3000K	111W	17681	159	B3U0G3	112W	17749	159	B3U0G3	110W	17541	159	B3U0G3	111W	16981	153	B2U0G3
	4000K/5000K	111W	18762	169	B3U0G3	111W	18899	170	B3U0G3	111W	18962	170	B3U0G3	109W	17578	161	B2U0G3
120WiE	2700K	120W	18894	158	B3U0G3	120W	18922	158	B3U0G3	120W	18604	155	B3U0G3	120W	18106	151	B2U0G4
	3000K	120W	19012	158	B3U0G3	121W	19014	157	B3U0G3	121W	19052	157	B3U0G3	121W	18448	152	B2U0G4
	4000K/5000K	120W	20189	168	B3U0G3	120W	20374	169	B3U0G3	120W	20437	170	B3U0G3	120W	19784	165	B2U0G4
126WiE	2700K	126W	19768	157	B3U0G3	126W	19781	157	B3U0G3	127W	19654	155	B3U0G3	126W	18889	150	B2U0G4
	3000K	126W	19825	158	B3U0G3	126W	19784	158	B3U0G3	126W	19840	157	B3U0G3	126W	19027	151	B2U0G4
	4000K/5000K	126W	20999	167	B3U0G3	126W	21246	169	B3U0G3	126W	21280	170	B3U0G3	127W	20240	160	B2U0G4
130WiE	2700K	130W	20372	156	B3U0G3	130W	20373	157	B3U0G3	130W	20141	154	B3U0G3	130W	19393	149	B2U0G4
	3000K	130W	20430	157	B3U0G3	131W	20445	157	B3U0G3	130W	20432	157	B3U0G3	130W	19523	150	B2U0G4
	4000K/5000K	131W	21843	167	B3U0G3	130W	21924	168	B3U0G3	130W	21927	169	B3U0G3	131W	20910	160	B2U0G4
134WiE	2700K	134W	20890	156	B3U0G3	135W	20994	156	B3U0G3	135W	20556	153	B3U0G3	134W	20053	149	B2U0G4
	3000K	134W	20988	157	B3U0G3	135W	21151	157	B3U0G3	134W	20985	156	B3U0G3	134W	20187	150	B2U0G4
	4000K/5000K	135W	22430	167	B3U0G3	134W	22543	168	B3U0G3	133W	22437	169	B3U0G3	134W	21228	159	B2U0G4
139WiE	2700K	139W	21547	155	B3U0G3	139W	21556	156	B3U0G3	138W	21186	153	B3U0G3	139W	20619	148	B2U0G4
	3000K	138W	21646	156	B3U0G3	140W	21798	156	B3U0G3	138W	21566	156	B3U0G3	139W	20759	149	B2U0G4
	4000K/5000K	139W	23137	166	B3U0G3	139W	23417	168	B3U0G3	140W	23470	168	B3U0G3	139W	21762	157	B2U0G4
140WiE	2700K	140W	21785	155	B3U0G3	140W	21815	155	B3U0G3	140W	21619	154	B3U0G3	141W	20717	147	B3U0G4
	3000K	140W	21959	157	B3U0G3	140W	21878	156	B3U0G3	140W	21827	156	B3U0G3	141W	20788	148	B3U0G4
	4000K/5000K	140W	23213	166	B3U0G3	141W	23556	167	B3U0G3	141W	23589	168	B3U0G3	140W	22249	159	B3U0G4
142WiE	2700K	142W	22128	156	B3U0G3	143W	22105	155	B3U0G3	142W	21814	153	B3U0G3	143W	20961	147	B3U0G4
	3000K	142W	22192	156	B3U0G3	143W	22220	156	B3U0G3	142W	22143	156	B3U0G3	142W	20995	147	B3U0G4
	4000K/5000K	141W	23391	166	B3U0G3	142W	23729	167	B3U0G3	142W	23742	167	B3U0G3	141W	22363	158	B3U0G4
149WiE	2700K	149W	23093	155	B3U0G3	149W	22961	154	B3U0G3	148W	22695	153	B3U0G3	149W	21694	146	B3U0G4
	3000K	149W	23103	155	B3U0G3	150W	23189	155	B3U0G3	149W	23130	155	B3U0G3	149W	21897	147	B3U0G4
	4000K/5000K	148W	24479	165	B3U0G3	149W	24771	167	B3U0G3	149W	24810	167	B3U0G3	149W	23449	157	B3U0G4
158WiE	2700K	158W	24236	154	B3U0G3	156W	23977	153	B3U0G3	158W	23742	151	B3U0G3	157W	22728	145	B3U0G4
	3000K	158W	24346	154	B3U0G3	159W	24433	154	B3U0G3	159W	24406	153	B3U0G3	157W	23021	146	B3U0G4
	4000K/5000K	158W	25875	164	B3U0G3	159W	26306	165	B3U0G3	158W	26214	166	B3U0G3	159W	24734	156	B3U0G4
166WiE	2700K	166W	25287	153	B3U0G3	167W	25278	152	B3U0G3	166W	24991	151	B3U0G3	166W	23717	143	B3U0G4
	3000K	166W	25423	154	B3U0G3	167W	25488	153	B3U0G3	166W	25394	153	B3U0G3	166W	24009	145	B3U0G4
	4000K/5000K	163W	26141	160	B3U0G3	167W	27190	163	B3U0G3	164W	26664	164	B3U0G3	165W	25617	155	B3U0G4



Photometric Plots

TYPE II B - T202

26,000 lumens, CCT 4000K

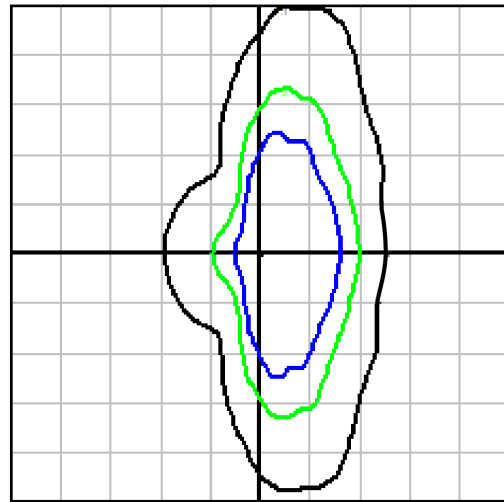


The plot is in units of mounting height of 30'.
 Black 0.1 fc Green 0.5 fc Blue 1 fc

TYPE II F - T212

26,000 lumens, CCT 4000K

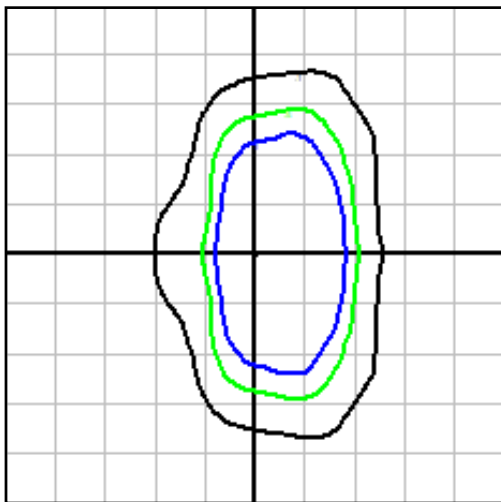
Controlled Backlight



The plot is in units of mounting height of 30'.
 Black 0.1 fc Green 0.5 fc Blue 1 fc

TYPE III - T302

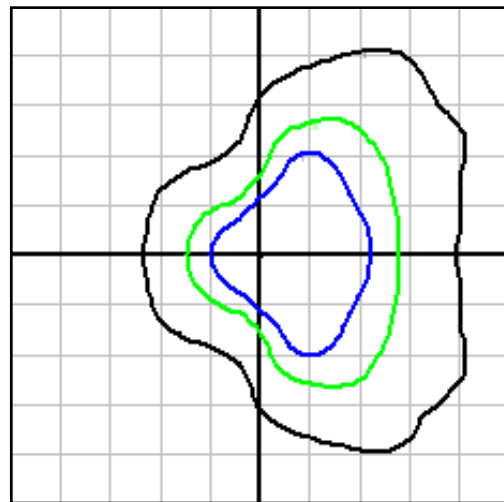
26,000 lumens, CCT 4000K



The plot is in units of mounting height of 30'.
 Black 0.1 fc Green 0.5 fc Blue 1 fc

TYPE IV - T402

26,000 lumens, CCT 4000K



The plot is in units of mounting height of 30'.
 Black 0.1 fc Green 0.5 fc Blue 1 fc

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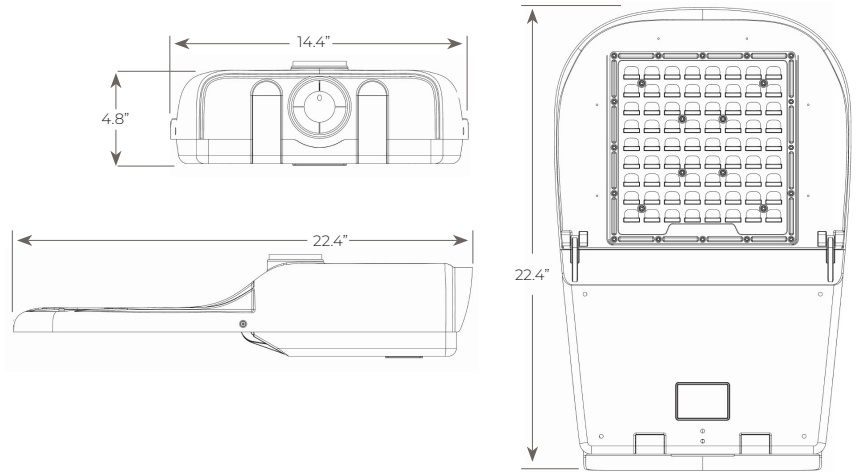
Note:

107 WIE - 166 WIE COBRA HEAD

250W - 400W HPS EQUIVALENT

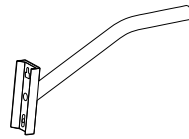
Product Dimensions

Effective Projected Area (EPA)	0.57 sq. ft.
Luminaire Weight	12 lbs.
Internal Leveling Adjustments	-5°, -2.5°, 0°, +5°, +10°
Mounting	Horizontal Mount Adjustable for 1.25" to 2" Nominal Mounting Pipe

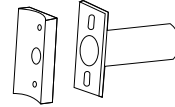


Mounting Bracket Options

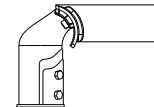
Mast Arm <i>MAS/MAR</i>	Square, Round Poles
Straight Arm <i>SAS/SAR</i>	Square, Round Poles
Vertical Pole Mount <i>VMT</i>	Fits 2-3/8" O.D. Pole Top Aluminum Alloy 0-45° tilting, 5° increment Weight approx. 5 lbs
Vertical Pole Mount Spoke Bracket <i>VMSB</i>	Steel No Tilt



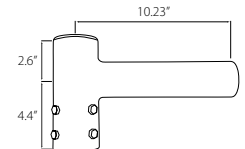
Mast Arm



Straight Arm



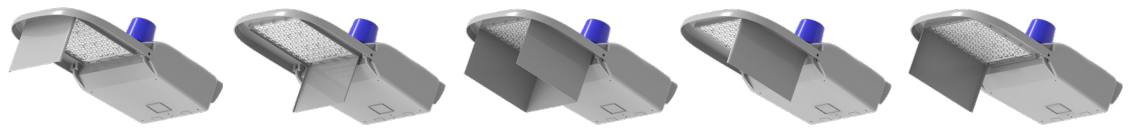
Vertical Pole Mount



Vertical Pole Mount Spoke Bracket

Light Shield Options

- Street-side Shield
- House-side Shield
- Cul-de-sac Shield
- Right-side Shield
- Left-side Shield



Street-side Shield

House-side Shield

Cul-de-sac Shield

Right-side Shield

Left-side Shield

Control Options

- Shorting Cap
- Photocell
- Smart Control Node
- No Receptacle



Shorting Cap



Photocell



Smart Control Node



No Receptacle

