

Date: _____ Customer: _____

Project: _____

Type: _____ Qty: _____



Avanza 450 LED Solar



Order Code: AV4LS - - - - -

AV4LS	Series	AV4LS Avanza 450 LED Solar									
	Optics	R3W Type III Distribution (Wide)	R3N Type III Distribution (Narrow)	R5 Type V Distribution							
	Mounting	1 Single	2 Double								
	Light Engine	L17 17W	L25 25W	L35 35W	L50 50W						
	CCT	27' 2700K	30 3000K	35' 3500K	40 4000K	50' 5000K	* Consult Factory. *IDA approved with 2700K and 3000K CCT.				
*	Batteries	B1 One 12V 118 Ah	B2 Two 12V 118 Ah	B3 One 12V 146 Ah	B4 Two 12V 146 Ah	B5 One 12V 176 Ah	B6 Two 12V 176 Ah				
*	Panel	P1 110W Single	P2 110W Double	P3 160W Single	P4 160W Double						
*	Operation Profile (see page 4)	1 Hours PM Dim % Hours AM	2 XXX All night 100%	3 XXX All Night 30%	4 XXX 4 hours PM 0 hours AM	5 XXX 6 hours PM 0 hours AM	6 XXX 8 hours PM 0 hours AM	7 XXX 2 hours PM 2 hours AM	8 XXX 4 hours PM 2 hours AM	9 XXX 6 hours PM 2 hours AM	10 XX 8 hours PM 2 hours AM
*	Panel Mounting Angle	PM0 3°	PM1 15°	PM3 30°	PM4 45°	PM6 60°					
	Finish	WH White	BK Black	BL Semi-Matte Black	BZ Bronze	SV Silver	GV Galvanized	SP Specify Premium Color			
	Options	MS Motion Sensor									

*To be determined by Selux engineering for every project. For system sizing quote, please complete spec sheet and solar questionnaire (under "Additional Downloads" on Selux.us solar web pages) for submission to selux.technical@selux.com

Pole Order Code: _____
Series Height Finish Options

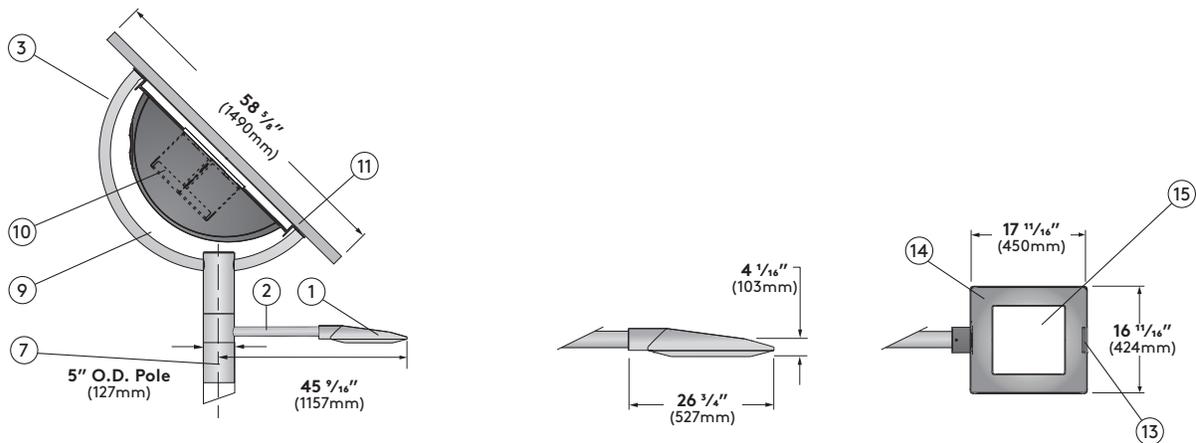
See pages 8 and 9 for details.

Approvals

Date: _____



AV4LS



Specifications

1. Luminaire Housing - High pressure die cast low-copper aluminum two-piece housing for easy access. Protection class (IP66).

2. Mounting Arm - Welded steel with powder coat finish.

3. Panel Support Frame - Steel frame supports solar panels and storage batteries. Integrated pole fitter allows orientation independent of luminaire.

4. Gasketing - (UV and ozone resistant silicone gasketing provides seal at door and glass opening.

5. Optics - High precision injection molded cross-beam technology reflectors vacuum metalized. IDA approved "Dark Sky Friendly." with 2700K or 3000K CCT.

6. Light Engine - High flux LEDs driven by high efficiency DC-DC programmable driver. LEDs mounted to PC boards and directly attached to upper housing for best thermal management. For future upgrades, light engine can be removed without tools.

7. Pole fitter - Fitter for upper assembly and luminaire secured with six stainless steel, Allen head set screws. Fitters are designed to fit 5" (127mm) poles or tenons.

8. Smart Controller - Monitors and regulates charging and discharging of batteries. Programmable to control hours of operation (in relation to dusk and dawn). Maximum power-point tracking (MPT) increases power production by up to 30%. Limited warranty by controller manufacturer for 5 years. Surge protection built in.

9. Battery Covers - Battery compartment is enclosed with molded recycled ABS with integrated UV protective outer shell. Covers are removable and lock in place.

10. Batteries - (1-2) 12 Volt 118, 146, 176 Amp Hour maintenance free, non-spillable, sealed absorbed glass matt (AGM) batteries. Battery Capacity is rated at a C-100 discharge rate. Batteries are mounted to hinged tray for easy access.

11. Solar Panels - Poly-crystalline photovoltaic modules, in (1-2) 110W or (1-2) 160W panels. Panel wattages are nominal.

12. Motion Sensor - 180° coverage, sensor mounted to pole fitter.

13. Tool-less Latch - Tool-less die cast aluminum latch for easy access to light engine.

14. Access Door - Lower casting features tempered glass lens and a built-in hinge that attaches to upper casting on mounting arm side. Other side is secured with tool-less latch for ease of maintenance.

15. Glass Lens - Tempered and screened glass lens protects and helps seal optical chamber.

Exterior Luminaire Finish - Selux utilizes a high quality Polyester Powder Coating. All Selux luminaires and poles are finished in our Tiger Drylac certified facility and undergo a five stage intensive pretreatment process where product is thoroughly cleaned, phosphated and sealed. Selux powder coated products provide excellent salt and humidity resistance as well as ultra violet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI.

Standard exterior colors are White (WH), Black (BK), Semi-Matte Black (BL), Bronze (BZ), and Silver (SV). Selux premium colors (SP) are available, please specify from your Selux color selection guide. Hot Dip Galvanized finish (GV) on all steel parts also available.

5 Year Limited LED Luminaire Warranty - Selux offers a 5 Year Limited Warranty to the original purchaser that the Avanza 450 LED Solar luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers the LED driver and LED array when installed and operated according to Selux instructions. Fixture suitable for ambient temperature of 40° C (104° F).

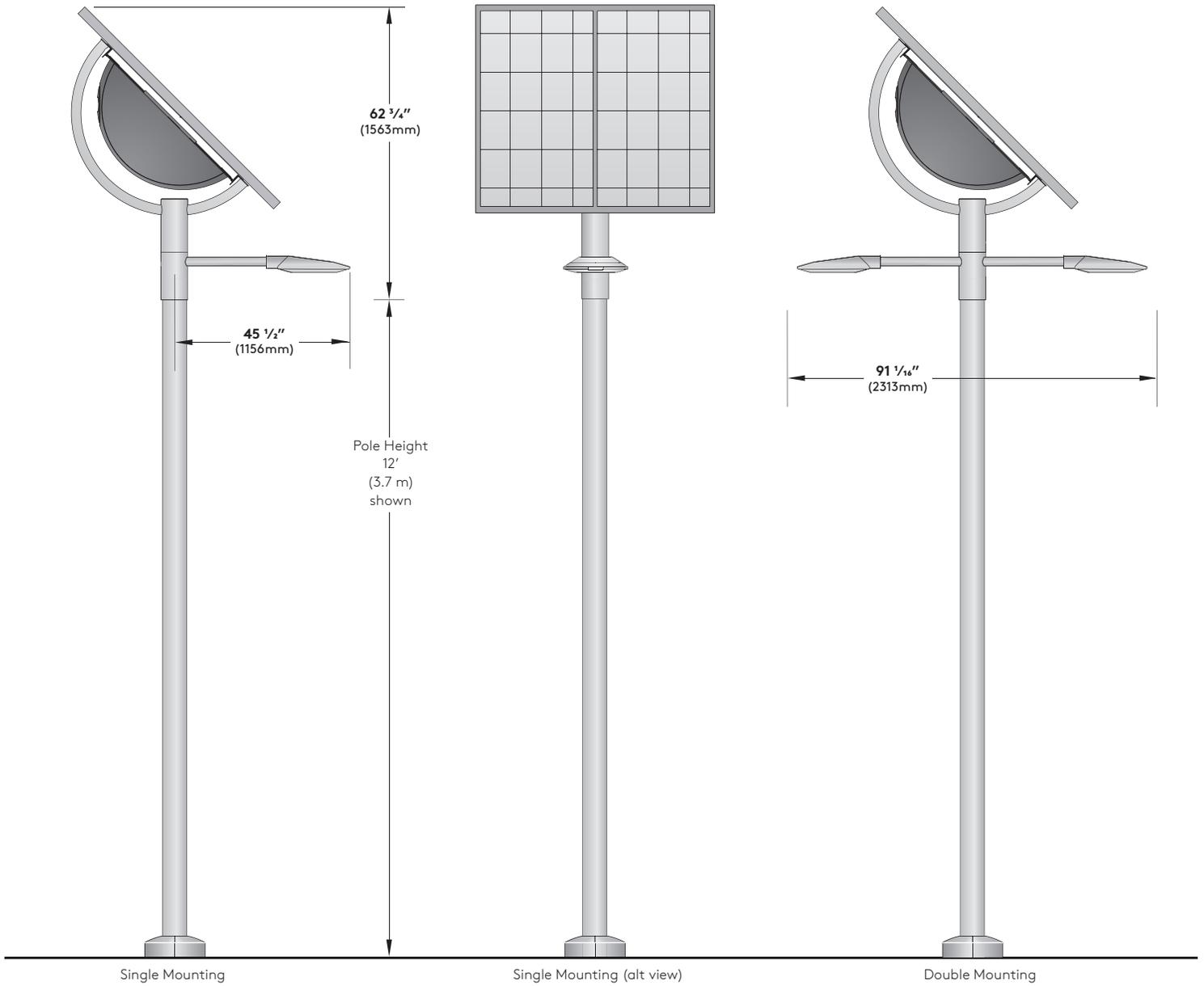
Solar Components Warranty -
 PV Panels - 20 year performance warranty
 Controller - 5 years
 Batteries - 1 year (prorated)
 For details and exclusions, see "Selux Terms and Condition of Sale."

Listings and Ratings: Tested to IESNA LM-79-08 and LM-80 test standards.

Visit selux.us for our LED End of Life recycling policy.

For Buy American compliance on poles, please consult the factory.

Mounting Details



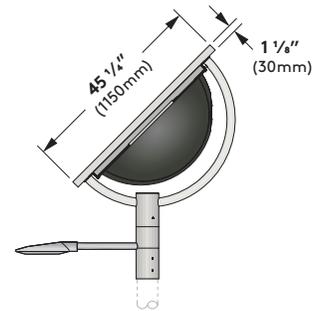
* = Dimension changes based on panel angle and size configurations.
P4 Panel with PM4 (45°) Angle shown. See page 7 for details.

Panel angle and Fixture EPA information

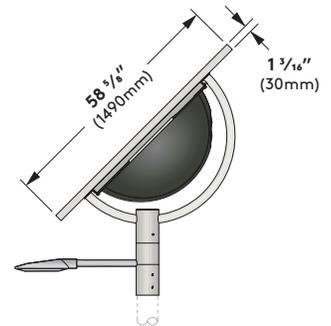
Panels must always be oriented towards the equator. Hence locations in the Northern Hemisphere should be facing SOUTH and locations in the Southern Hemisphere should be facing NORTH.



P1/P2 Detail



P3/P4 Detail



PM0 has a 3° angle to allow for drainage. Batteries, Panel, and Hours of Operation requirements to be determined by Selux engineering for every project, please consult factory. Please consult Selux for specific sizing at your geographic location.

Panel Angle	P1 (110W, Single)			P2 (220W, Double)			P3 (160W, Single)			P4 (320W, Double)		
	Height (h)	Width (w)	EPA (ft ² /m ²)	Height (h)	Width (w)	EPA (ft ² /m ²)	Height (h)	Width (w)	EPA (ft ² /m ²)	Height (h)	Width (w)	EPA (ft ² /m ²)
PM0 3°	"47 1/2" (1207mm)	"26 9/16" (675mm)	6.4/0.59	47 1/2" (1207mm)	53" (1345mm)	6.5/0.60	47 7/8" (1216mm)	26 9/16" (675mm)	6.3/0.58	47 7/8" (1216mm)	53" (1345mm)	6.5/0.60
PM1 15°	"52" (1322mm)	"26 9/16" (675mm)	6.5/0.60	52" (1322mm)	53" (1345mm)	7.4/0.69	3 19/16" (1367mm)	26 9/16" (675mm)	7.7/0.72	53 19/16" (1367mm)	53" (1345mm)	10/0.93
PM3 30°	"57" (1450mm)	"26 9/16" (675mm)	7.3/0.67	57" (1450mm)	53" (1345mm)	12.2/1.13	60 1/2" (1537mm)	26 9/16" (675mm)	10.9/1.01	60 1/2" (1537mm)	53" (1345mm)	15.3/1.42
PM4 45°	"61" (1550mm)	"26 9/16" (675mm)	9.4/0.87	61" (1550mm)	53" (1345mm)	16.4/1.5	65 7/8" (1674mm)	26 9/16" (675mm)	13.9/1.29	65 7/8" (1674mm)	53" (1345mm)	20.4/1.89
PM6 60°	"63 3/4" (1620mm)	"26 9/16" (675mm)	11.0/1.02	63 3/4" (1620mm)	53" (1345mm)	19.7/1.83	69 3/64" (1771mm)	26 9/16" (675mm)	16.3/1.51	69 3/64" (1771mm)	53" (1345mm)	24.1/2.24

Please consult Selux engineering to determine wind load requirements for your specific project. For weight information, see chart on page 6.

Weight Chart for all Configurations

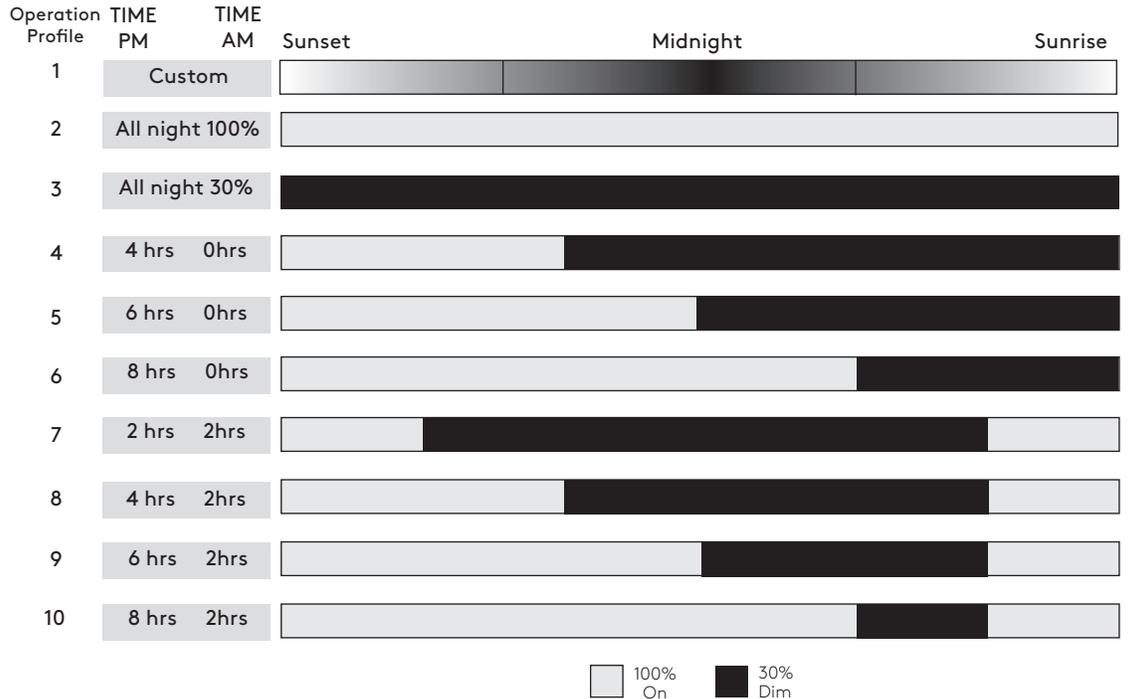
Fixture Assembly Weights				Systems
Panel	Batteries	Weights		
		lbs.	kg.	
P1 110W Single Panel (110 Watt)	B1 (1 x 118Ah)	216	98	
	B2 (2 x 118Ah)	279	127	
	B3 (1 x 146Ah)	228	103	
	B4 (2 x 146Ah)	303	137	
	B5 (1 x 176Ah)	244	111	
	B6 (2 x 176Ah)	319	145	
P2 110W Double Panels (220 Watt)	B2 (2 x 118Ah)	299	136	
	B4 (2 x 146Ah)	323	147	
	B6 (2 x 176Ah)	355	161	
P3 160W Single Panel (160 Watt)	B1 (1 x 118Ah)	223	101	
	B2 (2 x 118Ah)	286	130	
	B3 (1 x 146Ah)	235	107	
	B4 (2 x 146Ah)	310	141	
	B5 (1 x 176Ah)	251	114	
	B6 (2 x 176Ah)	342	155	
P4 160W Double Panels (320 Watt)	B2 (2 x 118Ah)	313	142	
	B4 (2 x 146Ah)	337	153	
	B6 (2 x 176Ah)	369	167	

LED Information

Operation Profile Options

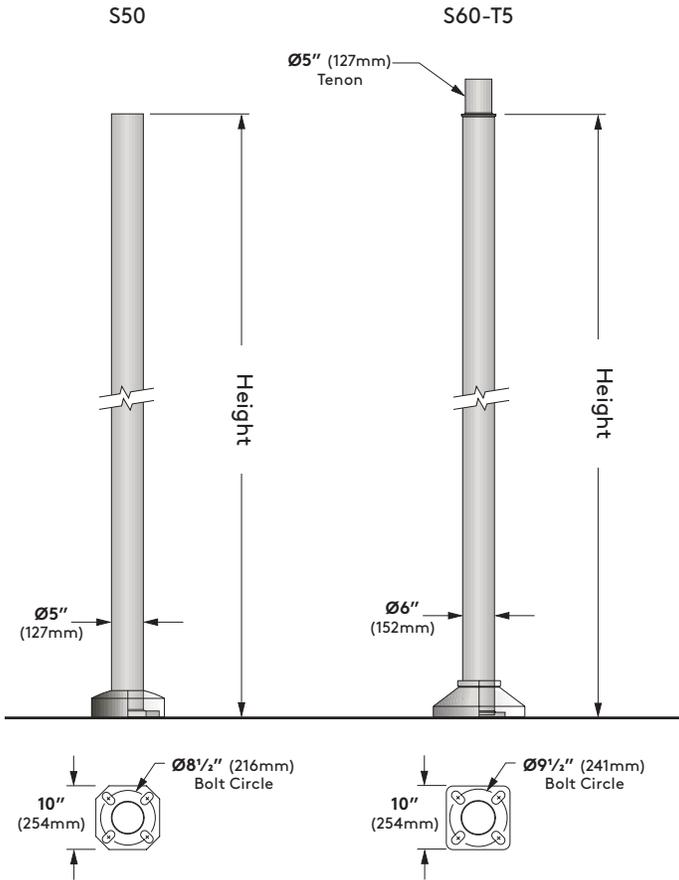
Create a (4) digit code to design your own profile. Example:

1 5 3 4
 Profile Hours Dim Hours
 PM % AM



- Profiles 3-10 dim to 30% between PM and AM hours by default.
- Profile 1 provides a custom profile. Dim level can be specified with a single number between 1 and 9. (e.g. 2 = 20% LEDs dim to 20% power)

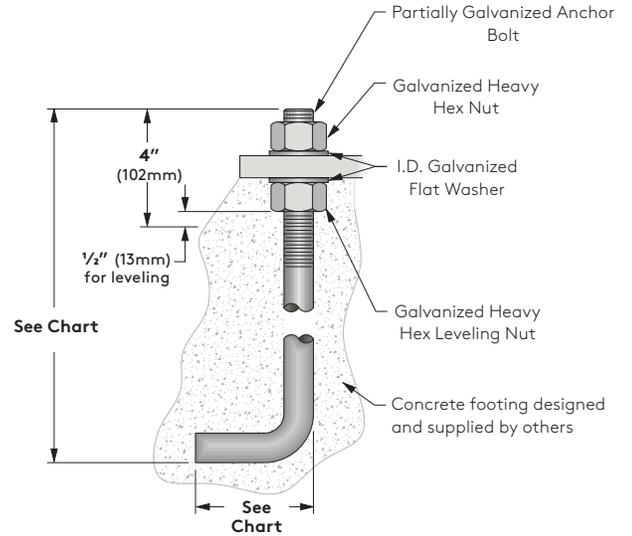
Straight Steel Pole Information



10" x 10" x .75" Base Plate for S50, and a 10" x 10" x 1" Base Plate for S60. Use caution when setting anchor bolts. Bolts must be vertical and centered on dimensions shown. A Ø5" Tenon is required for all poles over Ø5".

Straight Pole Anchor Bolt Detail

See Anchor Bolt (AB) chart below for dimensions.



Base Cover Information

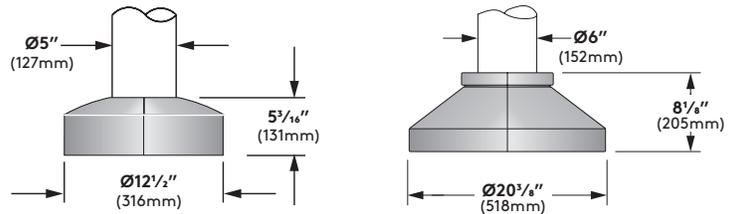
Refer to pole specification sheets for construction details, anchorage information and additional options.

BC3 Standard Base Cover for S50 poles

Two-piece die cast aluminum, field installable base cover.

BC9 Standard Base Cover for S60 poles

Two-piece die cast aluminum, field installable base cover.

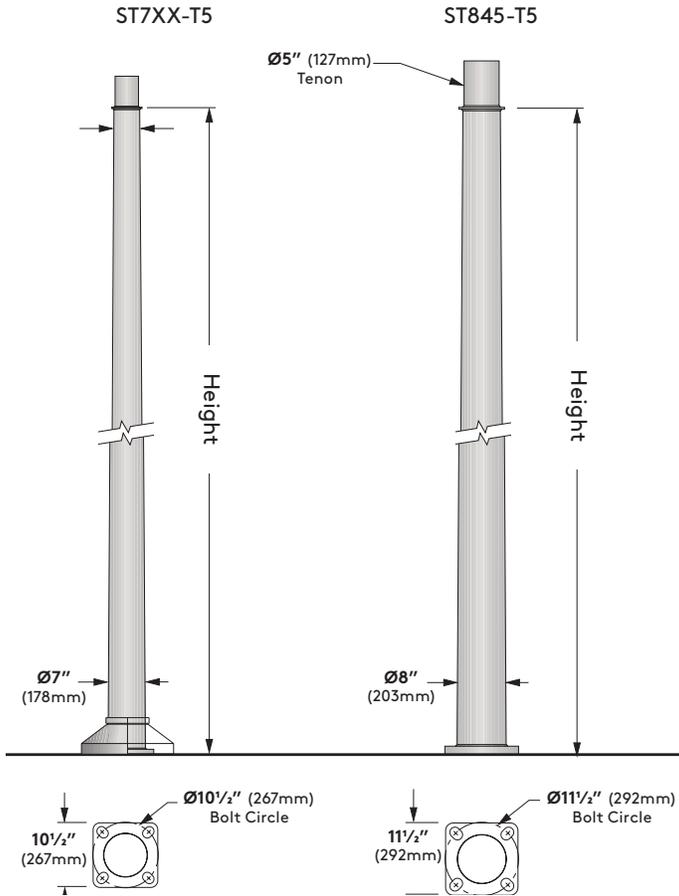


Pole Series	Bolt Circle	AB Size	EPA Information							Height	Finish	Options
			90mph	100mph	110mph	120mph	130mph	140mph	150mph			
S50 5" (127mm) Diameter Straight Steel Pole	Ø8 1/2"	1" x 36" x 4"	34.5	28	23.5	19.5	16.5	14.5	12.5	10 10 ft.	WH White	BC3 Optional Two-Piece Cast Aluminum Base Cover (for S50 poles only)
S50 5" (127mm) Diameter Straight Steel Pole	Ø8 1/2"	1" x 36" x 4"	29	23.5	19.5	16.5	14	12	10.5	12 12 ft.	BK Black	
S60 6" (152mm) Diameter Straight Steel Pole	Ø9 1/2"	1" x 36" x 4"	60	49	40.5	34.5	29	25	22	14 14 ft.	BL Semi-Mate Black	BC9 Optional Two-Piece Cast Aluminum Base Cover (for S60 poles only)
S60 6" (152mm) Diameter Straight Steel Pole	Ø9 1/2"	1" x 36" x 4"	51	42	35	29.5	25	21.5	19	16 16 ft.	BZ Bronze	
S50 5" (127mm) Diameter Straight Steel Pole	Ø8 1/2"	1" x 36" x 4"	20.75	16.5	13.75	11.5	9.75	8.25	7.25	16 16 ft.	SV Silver	BC9 Optional Two-Piece Cast Aluminum Base Cover (for S60 poles only)
S60 6" (152mm) Diameter Straight Steel Pole	Ø9 1/2"	1" x 42" x 6"	44	36	30	25	21.5	18.5	16	18 18 ft.	GV Galvanized	
S50 5" (127mm) Diameter Straight Steel Pole	Ø8 1/2"	1" x 36" x 4"	17.5	14	11.5	9.75	8.25	7	6		SP Specify Premium Color	
S60 6" (152mm) Diameter Straight Steel Pole	Ø9 1/2"	1" x 42" x 6"	38	31	26	21.5	18.5	16	13.75			

EPA calculations designed for 3 Second Gust Wind Speeds in mph at 33 ft above ground accordance with the Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, Fifth Edition, ASSHTO 2009 LTS-5-E

Please consult Selux engineering to determine wind load requirements for your specific project. See chart on p.7 for fixture and panel EPA values.

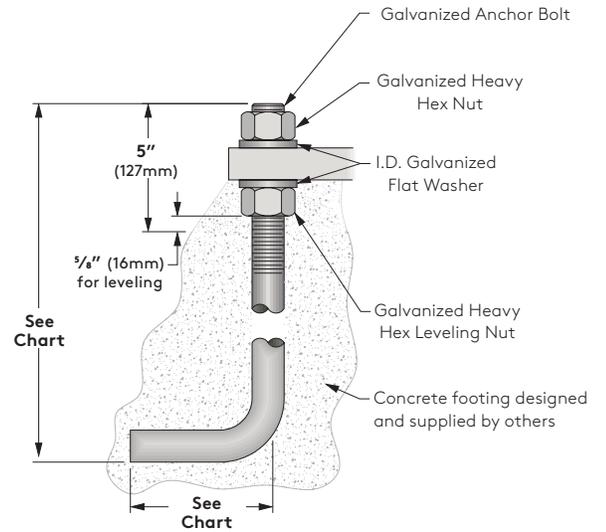
Tapered Steel Pole Information



10.5" x 10.5" x 1.25" Base Plate for ST7, and a 11.5" x 11.5" x 1.25" Base Plate for ST845. Use caution when setting anchor bolts. Bolts must be vertical and centered on dimensions shown. A Ø5" Tenon is required for all poles over Ø5".

Tapered Pole Anchor Bolt Detail

1 1/4" x 48" Anchor Bolt for all Tapered Steel Poles. For Straight Poles, see p. 8.

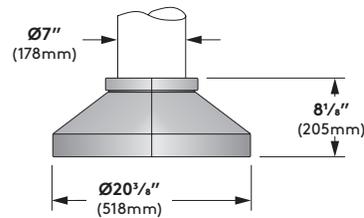


Base Cover Information

Refer to pole specification sheets for construction details, anchorage information and additional options.

BC10 Standard Base Cover for Ø7" tapered steel poles

Two-piece die cast aluminum, field installable base cover.

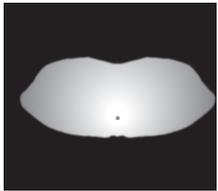


Pole Series	Bolt Circle	AB Size	EPA Information							Height	Finish	Options
			90mph	100mph	110mph	120mph	130mph	140mph	150mph			
ST75 Ø7" (178mm) - Ø5 1/8" (143mm) Tapered Steel Pole	Ø10"	1.25" x 42" x 6"	>62	51	42	35	30	26	23	12 12 ft.	WH White	BC10 Optional Two-Piece Cast Aluminum Base Cover (for ST75, ST747, ST745)
ST75 Ø7" (178mm) - Ø5 1/8" (135mm) Tapered Steel Pole	Ø10"	1.25" x 42" x 6"	>80	65	53	45	38	33	29	14 14 ft.	BK Black	
ST747 Ø7" (178mm) - Ø5 1/8" (129mm) Tapered Steel Pole	Ø10"	1.25" x 42" x 6"	>68	56	46	39	33	29	25	16 16 ft.	BZ Bronze	
ST745 Ø7" (178mm) - Ø5 1/4" (146mm) Tapered Steel Pole	Ø11"	1.25" x 42" x 6"	>74	60	50	42	36	31	27	18 18 ft.	SV Silver	
ST855 Ø8" (203mm) - Ø5 1/2" (140mm) Tapered Steel Pole	Ø11"	1.25" x 42" x 6"	>64	52	43	36	31	27	23		GV Galvanized	
EPA calculations designed for 3 Second Gust Wind Speeds in mph at 33 ft above ground accordance with the Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, Fifth Edition, ASSHTO 2009 LTS-5-E											SP Specify Premium Color	

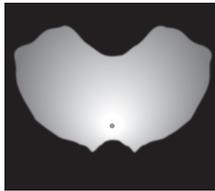
Please consult Selux engineering to determine wind load requirements for your specific project. See chart on p.7 for fixture and panel EPA values.

Photometry

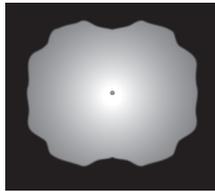
Photometric Performance - R3W, R3N & R5				
Light Engine	Lumens	CCT	Input Watts	lm/W
L17	2210	3000K	17	130
L25	3200	3000K	25	128
L35	4375	3000K	35	125
L50	6000	3000K	50	120



R3W - Type III (wide)



R3N - Type III (Narrow)



R5 - Type V

CCT Multiplier	
Amber	0.220
2700K	0.934
3000K	1.000
3500K	1.000
4000K	1.000
5000K	1.000