

# Aluminum Poles



## SSA SQUARE STRAIGHT ALUMINUM

Catalog #		Type
Project		
Comments		Date
Prepared by		

### FEATURES

- Straight square shaft 6005-T6 aluminum alloy polished
- 356-T6 cast aluminum alloy base with aluminum knock-in bolt covers
- 8'-35' mounting heights
- Drilled or tenon (specify)

### DESIGN CONSIDERATIONS - VIBRATIONS AND NON-GROUND MOUNTED INSTALLATIONS

The information contained herein is for general guidance only and is not a replacement for professional judgment. Design considerations for wind-induced vibrations and non-ground mounted installations (e.g., installations on bridges or buildings) are not included in this document. Consult with a professional, and local and federal standards, before ordering to ensure product is appropriate for the intended purpose and installation location. Refer to the Cooper Lighting Solutions Light Pole White Paper for risk factors and design considerations. [Learn more.](#)

**NOTE:** The Limited Warranty for this product specifically excludes fatigue failure or similar damage resulting from vibration, harmonic oscillation or resonance.

Specifications and dimensions subject to change without notice. Consult your lighting representative at Cooper Lighting Solutions or visit [www.cooperlighting.com](http://www.cooperlighting.com) for available options, accessories and ordering information.

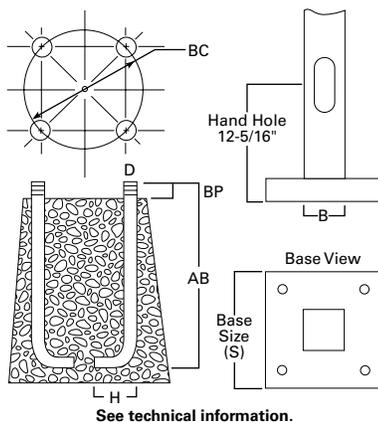
### ORDERING INFORMATION

**SAMPLE NUMBER:** SSA4T08WXM1G

Product Family	Shaft Size (Inches) <sup>1</sup>	Wall Thickness (Inches)	Mounting Height (Feet)	Base Type	Finish	Mounting Type	Number and Location of Arms	Options (Add as Suffix)
SSA=Square Straight Aluminum	4=4" 5=5" 6=6" 9=9" Steel; 6-3/4" Aluminum	T=0.125" M=0.188" X=0.250"	08=8' 10=10' 12=12' 15=15' 18=18' 20=20' 25=25' 30=30' 35=35'	W=Aluminum	A=Satin Brushed Aluminum B=Clear Anodized C=Dark Bronze Anodized D=Black Anodized E=Medium Bronze Anodized F=Dark Bronze J=Summit White K=Carbon Bronze L=Dark Platinum R=Hartford Green S=Silver T=Graphite Metallic V=Grey W=White X=Custom Color BK=Black Smooth BT=Black Textured	2=2-3/8" O.D. Tenon (4" Long) 3=3-1/2" O.D. Tenon (5" Long) 4=4" O.D. Tenon (6" Long) 9=3" O.D. Tenon (4" Long) 6=2-3/8" O.D. Tenon (6" Long) 7=4" O.D. Tenon (10" Long) A=Type A Drilling C=Type C Drilling E=Type E Drilling F=Type F Drilling G=Type G Drilling J=Type J Drilling K=Type K Drilling M=Type M Drilling N=Type N Drilling R=Type R Drilling	1=Single 2=2 at 180° 3=Triple <sup>2</sup> 4=4 at 90° 5=2 at 90° X=None	A=1/2" Tapped Hub <sup>3</sup> B=3/4" Tapped Hub <sup>3</sup> C=Convenience Outlet <sup>4</sup> E=GFCI Convenience Outlet <sup>4</sup> F=Vibration Pad G=Ground Lug H=Additional Hand Hole <sup>5</sup> V=Vibration Dampener

**NOTES:** 1. All shaft sizes nominal. 2. Square poles are 3 at 90°, round poles are 3 at 120°. 3. Tapped Hub is located 5' below the pole top and on the same side of pole as hand hole, unless specified otherwise. 4. Outlet is located 4' above base and on same side of pole as hand hole, unless specified otherwise. Receptacle not included, provision only. 5. Additional hand hole is located 12" below pole top and 90° from standard hand hole location, unless otherwise specified.

### ANCHORAGE DATA



Pole	Anchor Bolt and Template Package	Template Only	Bolt Circle (inches)	Number of Bolts	Anchor Bolt Size (inches)
SSA4TxxW	317QB404	229354D	9	4	3/4 x 17 x 3
SSA4MxxW	317QB404	229354D	9	4	3/4 x 17 x 3
SSA5TxxW	317QB405	229357D	11	4	3/4 x 17 x 3
SSA5MxxW	317QB405	229357D	11	4	3/4 x 17 x 3
SSA6MxxW	436QB406	229243D	12-1/2	4	1 x 36 x 4
SSA6XxxW	436QB406	229243D	12-1/2	4	1 x 36 x 4
SSA9XxxW	436QB468	228520D	14-1/4	4	1 x 36 x 4

**Effective Projected Area (At Pole Top)**

Mounting Height (Feet)	Catalog Number <sup>1,2</sup>	Wall Thickness (Inches)	Base Square <sup>3</sup> (Inches)	Bolt Circle Diameter (Inches)	Anchor Bolt Projection <sup>3</sup> (Inches)	Shaft Size <sup>3</sup> (Inches)	Anchor Bolt Diameter x Length x Hook (Inches)	Net Weight (Pounds)	Maximum Effective Projected Area (Square Feet) <sup>4</sup>				Max. Fixture Load - Includes Bracket (Pounds)
									70 mph	80 mph	90 mph	100 mph	
MH			S	BC	BP	B	D x AB x H						
8	SSA4T08W	0.125	10	9	3-1/8	4	3/4 x 17 x 3	23	26.6	19.9	15.2	11.9	350
12	SSA4T12W	0.125	10	9	3-1/8	4	3/4 x 17 x 3	32	16.0	11.5	8.5	6.3	260
15	SSA4T15W	0.125	10	9	3-1/8	4	3/4 x 17 x 3	39	9.1	6.2	4.2	2.8	200
15	SSA4M15W	0.188	10	9	3-1/8	4	3/4 x 17 x 3	55	14.8	10.6	7.7	5.6	200
15	SSA5T15W	0.125	11-9/16	11	3-1/4	5	3/4 x 17 x 3	52	16.0	11.3	8.1	5.8	260
18	SSA4T18W	0.125	10	9	3-1/8	4	3/4 x 17 x 3	46	6.4	4.0	2.3	1.1	100
18	SSA4M18W	0.188	10	9	3-1/8	4	3/4 x 17 x 3	66	11.0	7.4	5.0	3.3	150
18	SSA5T18W	0.125	11-9/16	11	3-1/4	5	3/4 x 17 x 3	61	11.8	7.8	5.1	3.2	150
18	SSA5M18W	0.188	11-9/16	11	3-1/4	5	3/4 x 17 x 3	85	19.2	13.5	9.6	6.8	260
20	SSA4M20W	0.188	10	9	3-1/8	4	3/4 x 17 x 3	72	8.8	5.6	3.5	1.9	150
20	SSA5T20W	0.125	11-9/16	11	3-1/4	5	3/4 x 17 x 3	66	9.5	5.9	3.5	1.7	100
20	SSA5M20W	0.188	11-9/16	11-1/8	3-1/4	5	3/4 x 17 x 3	94	16.4	11.2	7.6	5.0	150
25	SSA5M25W	0.188	11-1/2	11	3-1/4	5	3/4 x 17 x 3	115	10.2	6.0	3.2	1.1	100
25	SSA6M25W	0.188	12-3/4	12-1/2	4	6	1 x 36 x 4	140	16.6	10.6	6.5	3.5	260
30	SSA6X30W	0.250	12-3/4	12-1/2	4	6	1 x 36 x 4	215	14.8	9.0	5.0	2.1	260
30	SSA9X30W <sup>5</sup>	0.250	15-1/8	14-5/8	4-1/8	6-3/4	1 x 36 x 4	237	21.1	13.5	8.2	4.5	260
35	SSA9X35W <sup>5</sup>	0.250	15-1/8	14-5/8	4-1/8	6-3/4	1 x 36 x 4	274	14.1	7.6	3.1	--	150

**Effective Projected Area (18" Above Pole Top)**

Mounting Height (Feet)	Catalog Number <sup>1,2</sup>	Wall Thickness (Inches)	Base Square <sup>3</sup> (Inches)	Bolt Circle Diameter (Inches)	Anchor Bolt Projection <sup>3</sup> (Inches)	Shaft Size <sup>3</sup> (Inches)	Anchor Bolt Diameter x Length x Hook (Inches)	Net Weight (Pounds)	Maximum Effective Projected Area (Square Feet) <sup>4</sup>				Max. Fixture Load - Includes Bracket (Pounds)
									70 mph	80 mph	90 mph	100 mph	
MH			S	BC	BP	B	D x AB x H						
8	SSA4T08W	0.125	10	9	3-1/8	4	3/4 x 17 x 3	23	22.2	16.6	12.7	10	350
12	SSA4T12W	0.125	10	9	3-1/8	4	3/4 x 17 x 3	32	14.1	10.1	7.4	5.5	260
15	SSA4T15W	0.125	10	9	3-1/8	4	3/4 x 17 x 3	39	8.2	5.6	3.8	2.5	200
15	SSA4M15W	0.188	10	9	3-1/8	4	3/4 x 17 x 3	55	13.4	9.6	6.9	5.1	200
15	SSA5T15W	0.125	11-9/16	11	3-1/4	5	3/4 x 17 x 3	52	14.4	10.2	7.3	5.2	260
18	SSA4T18W	0.125	10	9	3-1/8	4	3/4 x 17 x 3	46	5.9	3.6	2.1	0.9	100
18	SSA4M18W	0.188	10	9	3-1/8	4	3/4 x 17 x 3	66	10.0	6.8	4.6	3.0	150
18	SSA5T18W	0.125	11-9/16	11	3-1/4	5	3/4 x 17 x 3	61	10.8	7.2	4.7	2.9	150
18	SSA5M18W	0.188	11-9/16	11	3-1/4	5	3/4 x 17 x 3	85	17.6	12.4	8.8	6.2	260
20	SSA4M20W	0.188	10	9	3-1/8	4	3/4 x 17 x 3	72	8.1	5.2	3.2	1.7	150
20	SSA5T20W	0.125	11-9/16	11	3-1/4	5	3/4 x 17 x 3	66	8.8	5.5	3.2	1.5	100
20	SSA5M20W	0.188	11-9/16	11-1/8	3-1/4	5	3/4 x 17 x 3	94	15.2	10.3	7.0	4.7	150
25	SSA5M25W	0.188	11-1/2	11	3-1/4	5	3/4 x 17 x 3	115	9.5	5.6	3.0	1.0	100
25	SSA6M25W	0.188	12-3/4	12-1/2	4	6	1 x 36 x 4	140	15.6	9.9	6.1	3.3	260
30	SSA6X30W	0.250	12-3/4	12-1/2	4	6	1 x 36 x 4	215	14.0	8.5	4.7	2.0	260
30	SSA9X30W <sup>5</sup>	0.250	15-1/8	14-5/8	4-1/8	6-3/4	1 x 36 x 4	237	20.0	12.8	7.8	4.3	260
35	SSA9X35W <sup>5</sup>	0.250	15-1/8	14-5/8	4-1/8	6-3/4	1 x 36 x 4	274	13.5	7.2	2.9	--	150

- NOTES:
1. Catalog number includes pole with hardware kit. Anchor bolts not included. Before installing, make sure proper anchor bolts and templates are obtained.
  2. Tenon size or machining for rectangular arms must be specified. Hand hole position relative to drill location.
  3. Shaft size, base square, anchor bolts and projections may vary slightly. All dimensions nominal.
  4. EPAs based on shaft properties with wind normal to flat. EPAs calculated using base wind velocity as indicated plus 30% gust factor.
  5. Factory installed vibration damper.

## VIBRATION

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Vibrations may cause damage to structures, including poles. Vibrations are unpredictable, and there are many factors and variables that can cause damaging vibrations. Many wind conditions exist that can create damaging vibrations to poles and luminaires, such as constant winds between 10-30 mph. Although all pole types can experience vibration, straight square poles seem to be most prone. Vibration dampers and/or a round tapered design may be used to mitigate damage from vibrations, but there is no guarantee damaging vibrations will be prevented. Vibration dampers are not included with this pole but can be ordered separately. Consult with a professional, and local and federal standards, to ensure this pole is appropriate for the intended purpose and installation location. Refer to Cooper Lighting Solutions' Light Pole White Paper for risk factors and design considerations.

## MAINTENANCE

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Perform inspections periodically. A prudent inspection schedule would be: one week after installation, one month after installation, yearly after installation, and following any major wind event. During the inspection, check the poles for cracks. If cracks are detected, remedial action is required. Recheck anchor bolt torques and re-tighten according to the recommended torque values. Check for missing covers and pole caps and replace as necessary. Check the pole for corrosion and deterioration of the finish. Should there be corrosion or deterioration, take remedial action to correct.

**WARNING:** Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to pole white paper WP513001EN for additional support information. Before installing, make sure proper anchor bolts and templates are obtained. The use of unauthorized accessories such as banners, signs, cameras or pennants for which the pole was not designed voids the pole warranty and may result in pole failure causing serious injury or property damage. Information regarding total loading capacity can be supplied upon request. The pole warranty is void unless poles are used and installed as a complete pole and luminaire combination. This warranty specifically excludes failure as the result of a third party act or omission, misuse, unanticipated uses, fatigue failure or similar phenomena resulting from induced vibration, harmonic oscillation or resonance associated with movement of air currents around the product.

Specifications and dimensions subject to change without notice. Consult your lighting representative at Cooper Lighting Solutions or visit [www.cooperlighting.com](http://www.cooperlighting.com) for available options, accessories and ordering information.

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