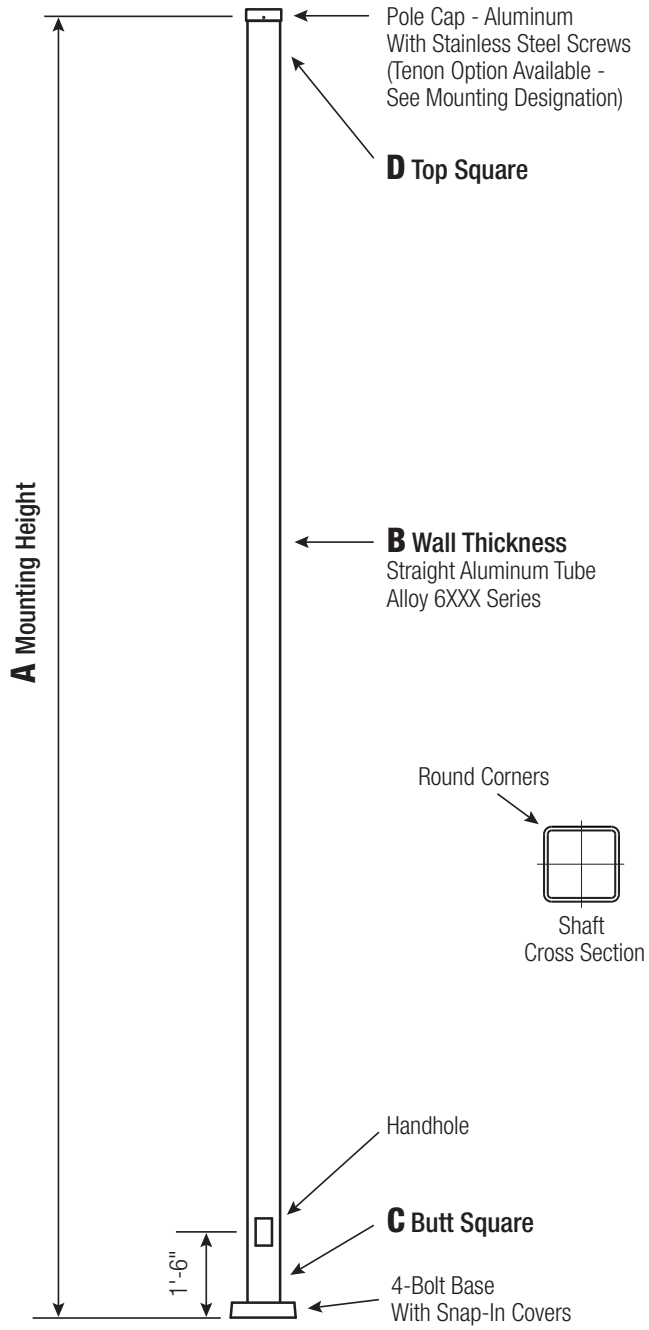
SSA

Square Straight Aluminum Pole
No Arm — 4-Bolt Base



Satin Aluminum or Powder Coated Finish per Customer Specification.

C Butt Sq.	D Top Sq.	F Bolt Cir. Dia.	G Base Sq.	H Bolt Proj.	I Bolt Size
4	4	8.5 - 9.5	9.875	1.5	.75 x 17 x 3
5	5	10.5 - 11.5	11.25	2	.75 x 30 x 3
6	6	12 - 13	12.75	2.25	1 x 36 x 4
6.625	6.625	13 - 14	13.5	2.25	1 x 36 x 4

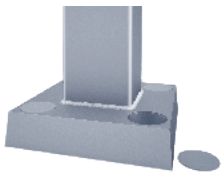
Dimensions in Inches

Pole

The pole shaft will be constructed of seamless extruded tube of 6XXX Series Aluminum Alloy per the requirements of ASTM B221. The shaft assembly shall be full-length heat treated after base weld.

Base Style

4-Bolt Cast Aluminum Base Flange of Alloy 356-T6 with Aluminum Snap-In Bolt Covers.



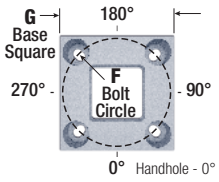
Handhole

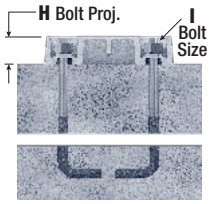
4"-5" Butt Squares -
2" x 4" Handhole with square Lap Style Aluminum Door and two (2) Stainless Steel Self-Tapping Attaching Screws. A Grounding Provision incorporating a tapped 1/4"-20NC Grounding Provision is provided opposite the Handhole.

6"+ Butt Square -
3" x 5" Handhole with square Lap Style Aluminum Door and two (2) Stainless Steel Self-Tapping Attaching Screws. A Grounding Provision incorporating a tapped 1/4"-20NC Grounding Provision is provided opposite the Handhole.

Anchorage

Anchorage Kit will include four (4) L-shaped Steel Anchor Bolts conforming to AASHTO M314-90 Grade 55. Ten inches (10") of threaded end will be galvanized per ASTM A153. Kits will contain four (4) Hex Nuts, four (4) Lock Washers, and four (4) Flat Washers (all components Galvanized Steel). A bolt circle template will be provided.



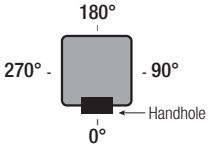


Vibration Damper

If determined necessary by Hapco, a top-mount, field installed First Mode Vibration Damper will be provided. Customer specification of the damper is available.

Mounting Designation

Side Drill Mount
For Side Drill Mount applications specify luminaire type, quantity and orientation. A luminaire drilling template must be supplied at time of order.



Tenon Mount
For Tenon Mount applications specify both Tenon diameter (2.375", 2.875", 3.5", etc.) and length (3", 4", etc.).

WARNING: *Do not install light pole without luminaire.*

A Mtg. Hgt.	B Wall Thickness	C Butt Sq.	Total Lum. Weight	Maximum EPA 120	130	140	150	160	170	180	Old Catalog Number	Catalog Number
08	0.125	4	90	10.6	8.8	7.4	6.3	5.4	4.7	4.0	11-043	SSA08B4-4-**
10	0.125	4	70	7.7	6.3	5.2	4.3	3.6	3.0	2.5	11-063	SSA10B4-4-**
10	0.188	4	100	11.6	9.7	8.1	6.8	5.8	5.0	4.3	11-064	SSA10D4-4-**
12	0.125	4	55	5.6	4.5	3.6	2.9	2.3	1.8	1.4	11-083	SSA12B4-4-**
12	0.188	4	75	8.8	7.2	6.0	4.9	4.1	3.4	2.8	11-084	SSA12D4-4-**
12	0.188	5	140	17.0	14.1	11.7	9.9	8.3	7.1	6.0	11-087	SSA12D5-4-**
14	0.125	4	45	4.0	3.1	2.3	1.7	1.2	0.8	-	11-103	SSA14B4-4-**
14	0.188	4	65	6.7	5.4	4.3	3.5	2.8	2.2	1.7	11-104	SSA14D4-4-**
14	0.188	5	115	13.4	10.9	9.0	7.4	6.1	5.0	4.1	11-107	SSA14D5-4-**
15	0.125	4	40	3.4	2.5	1.8	1.2	0.8	-	-	11-123	SSA15B4-4-**
15	0.188	4	55	5.9	4.6	3.6	2.8	2.2	1.6	1.2	11-124	SSA15D4-4-**
15	0.188	5	100	11.9	9.6	7.8	6.3	5.1	4.1	3.3	11-127	SSA15D5-4-**
16	0.125	4	40	2.7	1.9	1.3	0.8	-	-	-	11-143	SSA16B4-4-**
16	0.188	4	50	5.0	3.9	3.0	2.3	1.7	1.2	0.7	11-144	SSA16D4-4-**
16	0.188	5	90	10.5	8.4	6.7	5.3	4.2	3.3	2.5	11-147	SSA16D5-4-**
18	0.125	4	40	1.6	0.9	-	-	-	-	-	11-163	SSA18B4-4-**
18	0.188	4	45	3.6	2.6	1.9	1.2	0.7	-	-	11-164	SSA18D4-4-**
18	0.250	4	55	5.3	4.1	3.1	2.3	1.7	1.1	0.7	11-165	SSA18F4-4-**
18	0.188	5	75	8.0	6.2	4.8	3.6	2.6	1.8	1.2	11-167	SSA18D5-4-**
20	0.125	4	40	0.7	-	-	-	-	-	-	11-183	SSA20B4-4-**
20	0.188	4	40	2.4	1.6	0.9	-	-	-	-	11-184	SSA20D4-4-**
20	0.250	4	45	3.9	2.8	2.0	1.3	0.7	-	-	11-185	SSA20F4-4-**
20	0.188	5	60	6.0	4.4	3.1	2.1	1.3	0.6	-	11-187	SSA20D5-4-**
20	0.250	5	80	8.9	6.9	5.3	4.0	2.9	2.1	1.3	11-188	SSA20F5-4-**
20	0.188	6	80	8.7	6.5	4.7	3.3	2.1	1.2	-	11-190	SSA20D6-4-**
20	0.250	6	115	12.9	10.0	7.8	6.0	4.5	3.3	2.2	11-191	SSA20F6-4-**
25	0.188	5	40	2.1	0.9	-	-	-	-	-	11-247	SSA25D5-4-**
25	0.250	5	50	4.2	2.8	1.6	0.6	-	-	-	11-248	SSA25F5-4-**
25	0.188	6	45	3.4	1.8	-	-	-	-	-	11-250	SSA25D6-4-**
25	0.250	6	70	6.6	4.4	2.7	1.4	-	-	-	11-251	SSA25F6-4-**
25	0.250	6.625	95	9.9	7.1	4.9	3.1	1.6	-	-	11-254	SSA25FJ-4-**
30	0.250	6	40	2.0	-	-	-	-	-	-	11-291	SSA30F6-4-**
30	0.250	6.625	55	4.2	2.0	-	-	-	-	-	11-294	SSA30FJ-4-**

Catalog Number System

The catalog number for Hapco poles utilizes the following identification system.

MOUNTING HEIGHT | BUTT SQ. | BASE STYLE

SSA | | | | - | 4 - | |

SHAFT ASSEMBLY | WALL THICK. | TOP SQ. | FINISH

Catalog Number Example -

SSA 20 D 5 - 4 – BA

Square Straight Aluminum, 20' Mounting Height, .188" Wall Thickness, 5" Butt Square, No Taper, 4-Bolt Base, Black Powder Coat Finish.

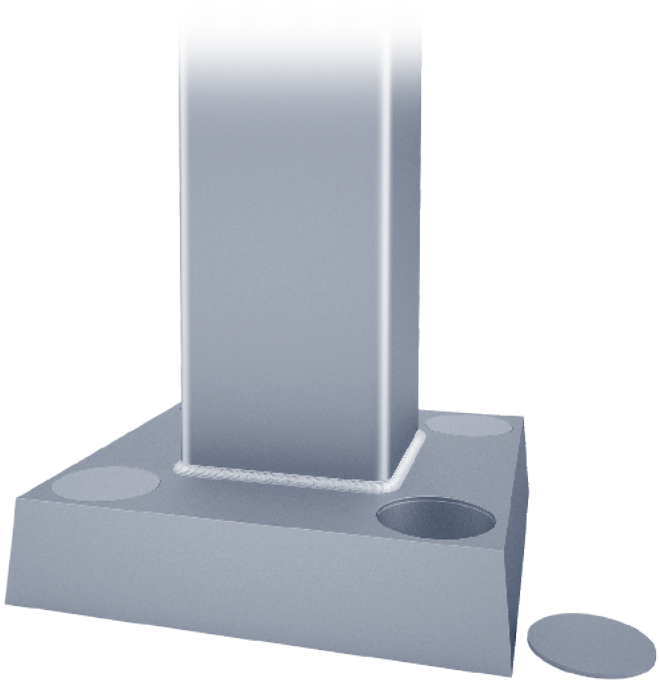
Wall Thickness
B = .125"
D = .188"
F = .250"

Butt Square
4 = 4"
5 = 5"
6 = 6"
J = 6-5/8"

Top Square
- = No Taper

Base Style
4 = 4-Bolt Base

Finish
BA = Black Powder Coat
BH = White Powder Coat
BM = Dark Bronze Powder Coat
BV = Dark Green Powder Coat
GC = Gray Powder Coat
** = Specify Finish



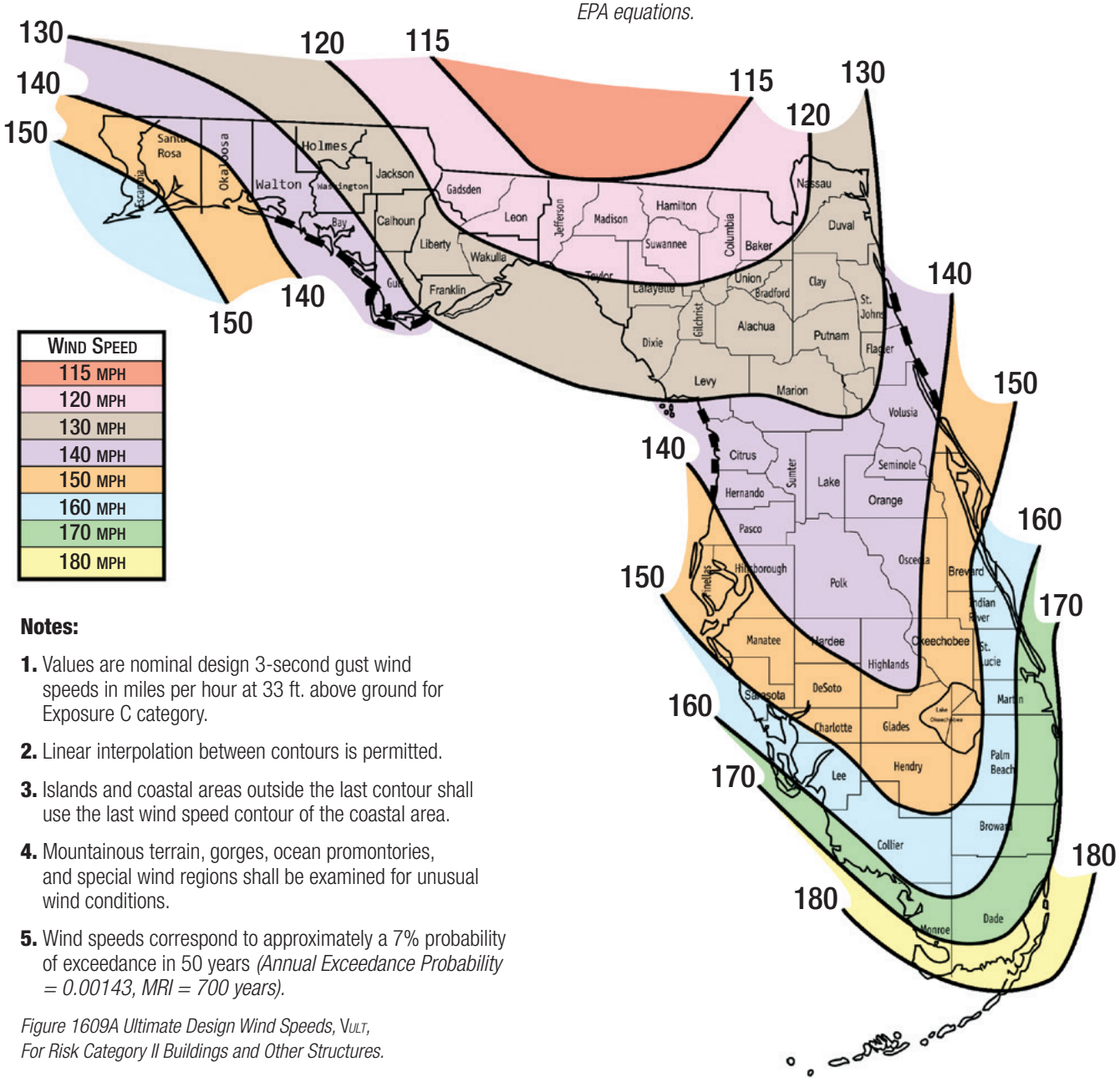
EPA Note:
EPA's based on symmetrically placed side mounted fixture(s) not exceeding height of the pole.

Florida Building Code Guide
2017 FBC EPA's

This Hapco Florida Building Code Guide has been developed to provide a quick reference for EPAs *(Effective Projected Areas) meeting the 2017 FBC.*

The EPA's in this publication are based on the 3-second gust wind map taken from the 2017 Florida Building Code *(Figure 1609A Wind Map shown below).* These EPA's cannot be used with older or newer maps.

This Wind Map is to be used in conjunction with ASCE 7-16 Wind Pressure and 2009 AASHTO Design Equations. Wind regions from maps other than the one shown below may not represent the EPA values listed in this catalog. *Please contact Hapco for more detailed information about EPA equations.*



Wind Speed
115 MPH
120 MPH
130 MPH
140 MPH
150 MPH
160 MPH
170 MPH
180 MPH

Notes:

1. Values are nominal design 3-second gust wind speeds in miles per hour at 33 ft. above ground for Exposure C category.
2. Linear interpolation between contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour of the coastal area.
4. Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.
5. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years *(Annual Exceedance Probability = 0.00143, MRI = 700 years).*

Figure 1609A Ultimate Design Wind Speeds, V_{ULT}, For Risk Category II Buildings and Other Structures.

Shielding Factor

The table shown at right will assist you in calculating the total EPA for many of the popular luminaire configurations. Using the shielding factor to calculate total EPA prevents an over-designed pole being used, resulting in cost savings.

Luminaire Configuration	EPA		Shielding Factor		Total EPA
2 @ 180°	1.5	X	2.0	=	3.0
3 @ 180°	1.5	X	3.0	=	4.5
4 @ 180°	1.5	X	4.0	=	6.0
3 @ 120°	1.5	X	2.3	=	3.45 *(Shielded)*
4 @ 90°	1.5	X	3.2	=	4.8 *(Shielded)*

Example assumes a single luminaire EPA of 1.5.

ASCE 7-16 Wind Load Design Assumptions:

- Risk Cat. II, MRI = 700 yrs., Exp. and Surface Roughness Cat. "C"
- $K_{zt} = 1.0$, $K_d = 1.0$, $G = 1.14$, $V_{ASD} = \sqrt{0.6}*V_{ULT}$ *(FBC 2017 1609.3.1)*
- C_f= drag coefficients calculated per AASHTO LTS-6 *(ASCE 7-16 C29.4)*
- Strength Equations per AASHTO LTS-6 Allowable Stress Increase = 1.33

Florida Building Code Guide
2017 FBC EPA's