

The Gardco RA straight aluminum pole consists of a one-piece round extruded aluminum lighting standard mounted to a structural quality carbon galvanized steel base tenon. This construction offers the corrosion resistance and flexibility of aluminum with the strength and integrity of steel. The poles are finished with either Architectural Class 1 anodizing or electrostatically applied TGIC polyester powdercoat.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

**Order Guide**

**example: RA4-STB-15-D1-BRP**

Prefix	Base <b>STB</b>	Height	Wind Factor Code*	Drilling	Finish	Options
RA4	STB	10	-	<b>D1</b> 1 Way <b>D2</b> 2 Way <b>D2@90</b> 2 Way at 90° <b>D3</b> 3 Way <b>D3@120</b> 3 Way at 120° <b>D4</b> 4 Way <b>T2</b> 2 3/8" OD Tenon <b>T4</b> 4" OD Tenon	<b>BRP</b> Bronze Paint <b>BLP</b> Black Paint <b>WP</b> White Paint <b>NP</b> Natural <b>OC</b> Aluminum Paint Optional Color Paint (Specify RAL designation ex: OC-RAL7024) <b>SC</b> Special Color Paint (Specify. Must supply color chip.)	<b>DR</b> Duplex Receptacle <b>GFCI</b> Ground Fault Receptacle <b>VDA</b> Vibration Dampener  <b>Nipples and Couplings</b> <b>NL</b> Nipple - External thread <b>CL</b> Coupling - Internal thread Indicate size (1/2", 3/4", 1", 1 1/4", 1 1/2". ) Indicate height above base and orientation to hand hole. See Pole Orientation Information on Page 4.  <b>Single Mount Bullhorn Brackets*</b> <b>A15BH-19</b> Single - 1.9" OD <b>A15BH-24</b> Single - 2.4" OD <b>A215BH-19</b> 2-Tenon - 1.9" OD <b>A215BH-24</b> 2-Tenon - 2.4" OD Indicate height above base and orientation to hand hole. See Pole Orientation Information on Page 4.
		12				
		15				
		20				
RA4.5	STB	10	-			
		12				
		15				
		18				
RA5	STB	15	-			
		18				
		20				
		25				
		28				
		30				

\*Refers to relative strength based on wind load factors. L = Light M = Medium H = Heavy

# Poles Straight Round Aluminum - Tenon Base

## Pole Data

Poles Specs					Normal Wind Conditions			Anchor Bolts <sup>2</sup>		
					100 MPH	90 MPH	80 MPH			
Product Catalog Number	Height (ft)	Base Tenon Height (ft.)	Pole Diameter (inches)	Wall Thickness (inches)	EPA ft <sup>2</sup>	EPA ft <sup>2</sup>	EPA ft <sup>2</sup>	Bolt Circle (inches)	Bolt Size (inches)	Max Proj. (inches)
RA4-STB-10	10.00	1.25	4	0.135	7.1	9.1	11.9	7	5/8 x 18 x 3	3
RA4-STB-12	11.67	1.25	4	0.135	5.2	6.8	9.1	7	5/8 x 18 x 3	3
RA4-STB-15	14.92	2	4	0.135	3.1	4.3	6	7	5/8 x 18 x 3	3
RA4-STB-20L	19.92	2	4	0.135	-	1.2	1.2	7	5/8 x 18 x 3	3
RA4-STB-20M	19.92	4	4	0.135	-	2.1	3.4	7	5/8 x 18 x 3	3
RA4-STB-20H	19.92	6	4	0.135	2.2	3.3	4.8	7	3/4 x 17 x 3	3
RA4.5-STB-10	9.67	1.5	4.5	0.15	12.6	15.7	20.2	7	3/4 x 17 x 3	3
RA4.5-STB-12	11.67	1.5	4.5	0.15	9.2	11.6	15	7	3/4 x 17 x 3	3
RA4.5-STB-15	14.75	1.5	4.5	0.15	5.8	7.4	9.9	7	3/4 x 17 x 3	3
RA4.5-STB-18	17.75	1.5	4.5	0.15	3.6	4.7	6.5	7	3/4 x 17 x 3	3
RA4.5-STB-20	19.75	1.5	4.5	0.15	2.4	3.2	4.7	7	3/4 x 17 x 3	3
RA5-STB-15	14.83	2.5	5	0.175	10.6	13.3	17.1	9	3/4 x 17 x 3	3
RA5-STB-18	17.75	2.5	5	0.175	7.4	9.4	12.1	9	3/4 x 17 x 3	3
RA5-STB-20	19.83	2.5	5	0.175	5.7	7.3	9.5	9	3/4 x 17 x 3	3
RA5-STB-25L	24.83	2.5	5	0.175	2.6	3.5	4.9	9	3/4 x 17 x 3	3
RA5-STB-25M	24.83	4	5	0.175	3.3	4.4	6	9	3/4 x 17 x 3	3
RA5-STB-25H	24.83	7	5	0.175	5.1	6.5	8.6	9	1 x 36 x 4.5	3
RA5-STB-28L	27.92	2.5	5	0.175	-	1.8	2.8	9	3/4 x 17 x 3	3
RA5-STB-28M	27.92	4	5	0.175	1.7	2.5	3.7	9	3/4 x 17 x 3	3
RA5-STB-28H	27.92	7	5	0.175	3.2	4.2	5.7	9	1 x 36 x 4.5	3
RA5-STB-30L	29.83	2.5	5	0.175	-	-	1.6	9	3/4 x 17 x 3	3
RA5-STB-30M	29.83	4	5	0.175	-	1.5	3	9	3/4 x 17 x 3	3
RA5-STB-30H	29.83	7	5	0.175	2.2	3	4.2	9	1 x 36 x 4.5	3

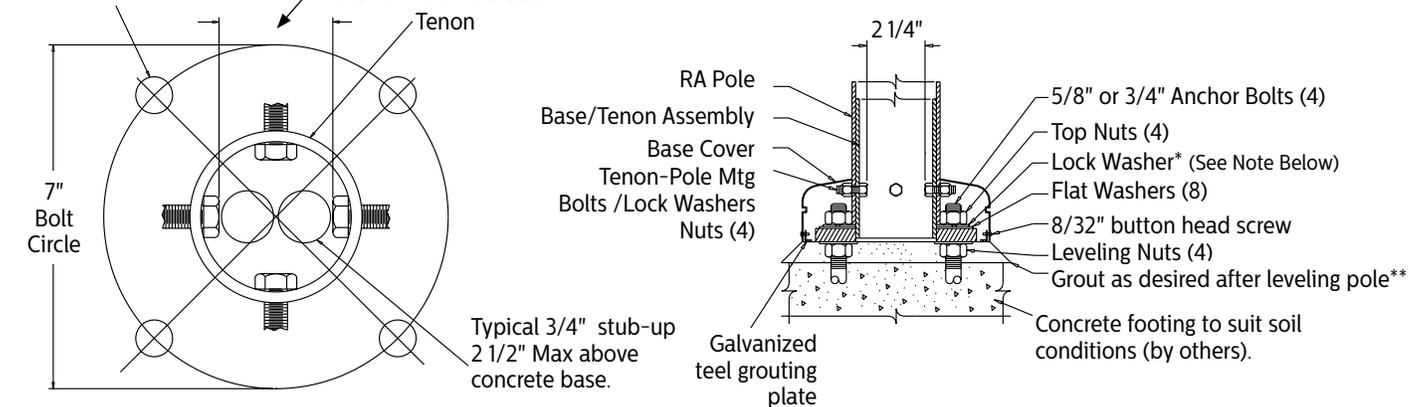
\* **Warning:** Additional wind loading, in terms of EPA, from banners, cameras, floodlights and other accessories attached to the pole, must be added to the luminaire(s) EPA before selecting the pole with the appropriate wind load capability.

\*\* Factory supplied template must be used when setting anchor bolts. Gardco will not honor any claim for incorrect anchorage placement resulting from failure to use factory supplied templates.

### Dimensions

Cut hole in template 1/16" larger than diameter of anchor bolts used.

Conduit Opening  
 RA4: ID 3.063" OD 2.25"  
 RA4.5: ID 3.25" OD 2.75"  
 RA5: ID 4.618" OD 3.25"



NOTE: Internal clearance of tenon/pole mounting bolts dictates allowable area for stub-ups.

\* Anchor Bolt Lock Washers are not normally required and are not included in standard anchor bolt sets. They are available upon request at additional cost.

\*\* Grouting should include a drainage slot or tube (by others) to permit water to drain from the base of the pole. Failure to provide drainage may weaken the pole base structure over time and may result in pole base failure, for which Gardco is not responsible.

**NOTE:** Factory supplied template must be used when setting anchor bolts. Gardco will not honor any claim for incorrect anchorage placement from failure to use factory supplied templates.

# Poles Straight Round Aluminum – Tenon Base

## Specifications

### POLE SHAFT

The pole shaft is a one-piece, seamless 6000 series extruded aluminum cylindrical tubing and is heat-treated to achieve a T6 temper with a guaranteed minimum yield strength of 31 KSI.

### BASE TENON ASSEMBLY

The tenon anchor base assembly consists of structural quality carbon steel tubing with a minimum 46 KSI yield strength welded to a structural steel base with a guaranteed minimum yield strength of 50 KSI. The base plate telescopes the pole shaft and is circumferentially welded on both top and bottom. The base is provided with slotted

bolt holes to accommodate a  $\pm .5$ " variation in the rotational flexibility. The entire assembly is hot-dipped galvanized. Four (4) mechanically galvanized fasteners secure the aluminum pole shaft to the base tenon assembly.

### ANCHOR BOLTS

Anchor bolts are fabricated from a commercial quality hot rolled carbon steel bar that meets or exceeds a minimum guaranteed yield strength of 50,000 psi. Bolts have an "L" bend on one end and threaded on the opposite end. Anchor bolts are completely hot dipped galvanized. Four (4) properly sized bolts, each furnished with two (2) regular hex nuts and two

(2) flat washers, are provided per pole (priced separately), unless otherwise specified.

### BASE COVER

A one-piece, heavy wall spun aluminum cover completely conceals the entire base plate and anchorage. The base cover is secured to the base assembly with two (2) stainless steel fasteners.

### HAND HOLE

The hand hole has a nominal rectangular 2" x 4" or 2 5/8" x 5" inside opening in the pole shaft and tenon assembly. Included is an aluminum cover plate with attachment screws. The hand hole is located 18" – 20" above the base and 180° clockwise

with respect to the luminaire arm when viewed from the top of the pole for one arm. For two arms the hand hole is located directly under one arm.

### POLE TOP CAP

Each RA pole assembly is provided with a removable composite friction-fit pole top cap.

### FINISH

Poles are available with bronze, natural or black Aluminum Association Architectural Class 1 anodized finish. Electrostatically applied, thermally cured TGIC polyester powdercoat finish or liquid polyurethane is also available.

## General Pole Information

### DESIGN

The poles as charted are designed to withstand dead loads and predicted dynamic loads developed by variable wind speeds with an additional 30% gust factor under the following conditions: The charted weights include luminaire(s) and/or mounting bracket(s). The wind velocities are based on 10 mph increments from 80 mph through 100 mph. Poles to be located in areas of known abnormal conditions may require special consideration. For example: coastal areas, airports and areas of special winds.

Poles are designed for ground mounted applications. Poles mounted on structures (such as buildings and bridges) may also necessitate special consideration requiring Gardco's recommendation. Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the pole.

### WARNING

This design information is intended as a general guideline only. The customer is solely

responsible for proper selection of pole, luminaire, accessory and foundation under the given site conditions and intended usage. The addition of any items to the pole, in addition to the luminaire, will dramatically impact the EPA load on that pole. It is strongly recommended that a qualified professional be consulted to analyze the loads given the user's specific needs to ensure proper selection of the pole, luminaire, accessories, and foundation. Gardco assumes no responsibility for such proper analysis or product selections. Failure to insure proper site analysis, pole selection, loads and installation can result in

pole failure, leading to serious injury or property damage.

### GENERAL INFORMATION

Mounting height is the vertical distance from the base of the lighting pole to the center of the luminaire arm at the point of luminaire attachment. Twin arms as charted are oriented at 180° with respect to each other. For applications of two (2) arms at 90° or other multiple arm applications, consult the factory.

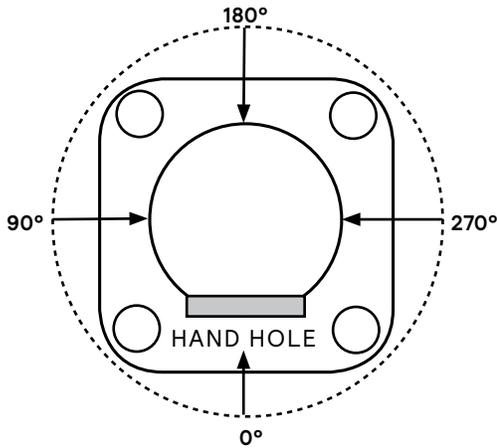
### WARRANTY

Gardco poles feature a 1 year limited warranty. See Warranty Information on [www.signify.com/warranties](http://www.signify.com/warranties) for complete details and exclusions.

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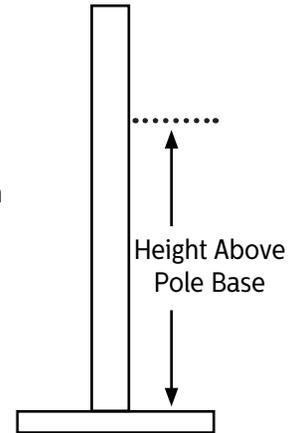
## Orientation Information

Factory installed options and accessories



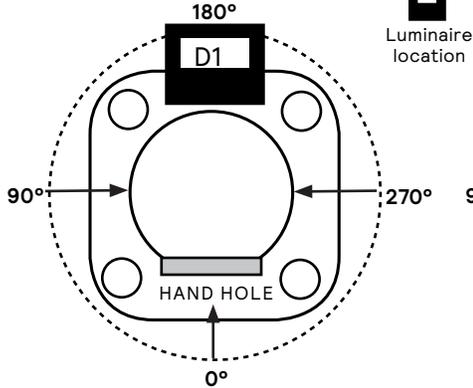
Orientation is measured clockwise from the Hand Hole Center.

For Factory Installed Options and Accessories, Specify Orientation from Hand Hole and Height Above Pole Base Where Required.

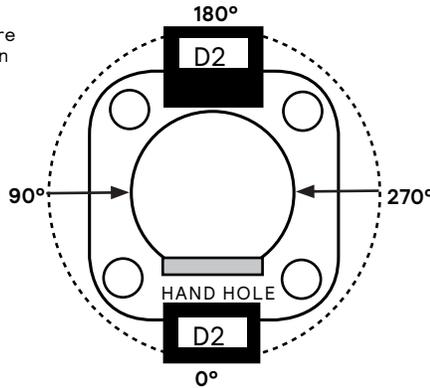


## Standard arm mount luminaire orientation

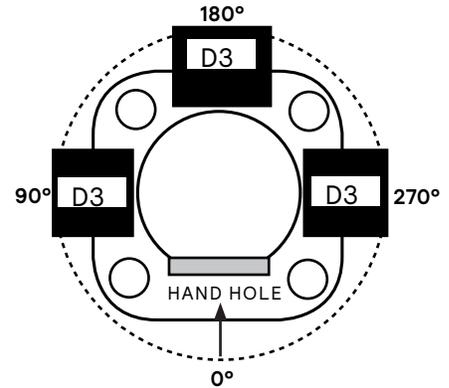
D1 Drilled for Single Luminaire



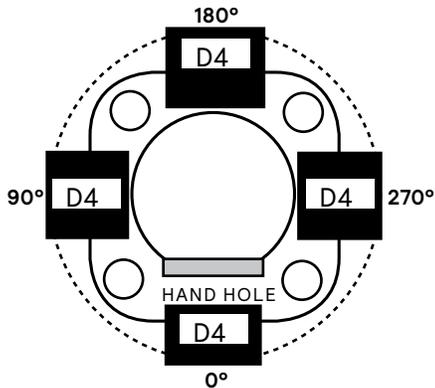
D2 Drilled for 2 Luminaires at 180°



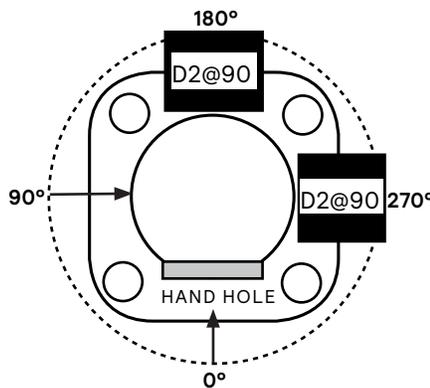
D3 Drilled for 3 Luminaires @ 90°



D4 Drilled for 4 Luminaires at 90°



D2@90 Drilled for 2 Luminaires at 90°



D3@120 Drilled for 3 Luminaires at 120°

