

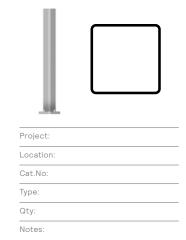
by (s) ignify

# **Poles & Brackets**

Site and Area Poles

Straight Square Steel

The Gardco SSS Straight Square Steel pole consists of a one-piece high tensile carbon steel tube welded and secured to the carbon steel base plate providing excellent strength and integrity. The poles are finished with an electrostatically applied, thermally cured polyester powdercoat. All poles include base cover, hand hole, ground lug and top cap. Anchor bolts and templates are ordered as a separate accessory.



# **Ordering Guide**

example: SSS-CB-4-11-12-D1-DT1-BK-FES

Family	Base	Pole Shaft Size (in.)	Pole Gauge/ Wall Thickness	Height (ft.)⁵	Drilling/Tenon Configuration <sup>1</sup>	Drilling Template <sup>2</sup>	Finish		Options <sup>3</sup>	
SSS	CB Carbon Steel Base w/ Base Cover	4	11 11 ga. / 0.120" 7 7 ga. / 0.180"	10 12 14 15 16 18 20 25	D1 1 Way D1@180 1 Way @ 180 D2 2 Way @ 180 D2@90 2 Way @ 90 D3 3 Way @ 90 D4 4 Way @ 90	DT1 Drill Template 1 DT2 Drill Template 2 DT3 Drill Template 3 DT4 Drill Template 4 DT5 Drill Template 5 DT6 Drill Template 6 [DTX-xxx]* Custom Template See drill template	BK BZ WH DG MG GY3 SSDGY	Black Bronze White Dark Grey Medium Grey Light Grey, Smooth SolarForm Dark Grey (RAL 7011)	FES <sup>6</sup> VDA AHH <sup>6</sup> DR <sup>6</sup> VPA GFI <sup>6</sup>	Festoon Outlet Vibration Dampener Additional Hand Hole Duplex Receptacle Vandalproof Screws DR with GFI (120V only)
		5	11 11 ga. / 0.120" 7 7 ga. / 0.180"	20 25 30 20 25 30 35	T2D4L 2-3/8" OD x 4" length  T2D6L 2-3/8" OD x 6" length  T3D4L 3" OD x 4" length  T4D6L 4" OD x 6" length	nons  N No Drilling Template (for Tenon and Plain Top Options)	FP/GV  OC  SC <sup>8</sup>	Galvanized (No Paint) Finished Textured Paint over Galvanized (Specify, ex: MG/GV) Optional Color Paint (ex: RAL7024) Special/	CL1/26 CL3/46 CL16 CL1-1/46 CL1-1/26 NL1/26 NL3/46 NL16 NL1-1/46 NL1-1/26	Coupling 1/2" Coupling 3/4" Coupling 1" Coupling 1-1/4" Coupling 1-1/2" Nipple 1/2" Nipple 3/4" Nipple 1" Nipple 1-1/4" Nipple 1-1/2"
		6	7 7 ga. / 0.180"	30 35 40	No Drilling/No Tenon P Plain Top			Custom Color (Specify, must supply color chip)	RS <sup>4</sup> For FES, AHH, options, indicabove base ar hole (ex. GFI-	RapidShip  DR, GFI, CL*, and NL* cate height in inches do rientation to hand 36@180). See page 2 3 for details.

- See Drilling Configurations on Page 3. See Luminaire Drilling Templates on Page 3
- Not all options available with all configurations. Consult factory for more details
- RapidShip service provide 14-day lead time with a maximum 10 poles per order, refer to page 2 for detailed RS offering.
- 5. Pole heights can be cut to length. Specify as a whole number in ft. (ex. 11, 13) or to the inch as a decimal (ex. 15.33 = 15' 4")
- Option must be specified by the customer before order release. Custom drill templates (DTX) require factory quote.

### **Accessories**

Service	Pole Size	12NC	Description (Diameter x Length x Hook)										
Anchor Bolts + Templates													
For shipment with the pole	4" Poles	912401597397	AB 3/4x24x3-G DEC w/ 8.5 BC ABT										
(order 1 per pole)	5" Poles	912401613107	AB 1x33x3-G DEC w/ 11 BC ABT										
	6" Poles	912401597401	AB 1x33x3-G DEC w/ 12 BC ABT										
For Pre-Ship service	4" Poles	912401597405	AB 3/4x24x3-G DEC w/ 8.5 BC ABT-RS										
(order 1 per pole)	5" Poles	912401613106	AB 1x33x3-G DEC w/ 11 BC ABT-RS										
	6" Poles	912401597408	AB 1x33x3-G DEC w/ 12 BC ABT-RS										

Part No.	Description
RLAR-1A-SQ4+ -(finish)	Cast Aluminum mounting arm, 15" long with DT6 drill pattern. (order 1 per luminaire). For use with Lumec Roadway luminaires. Specify finish to match pole.

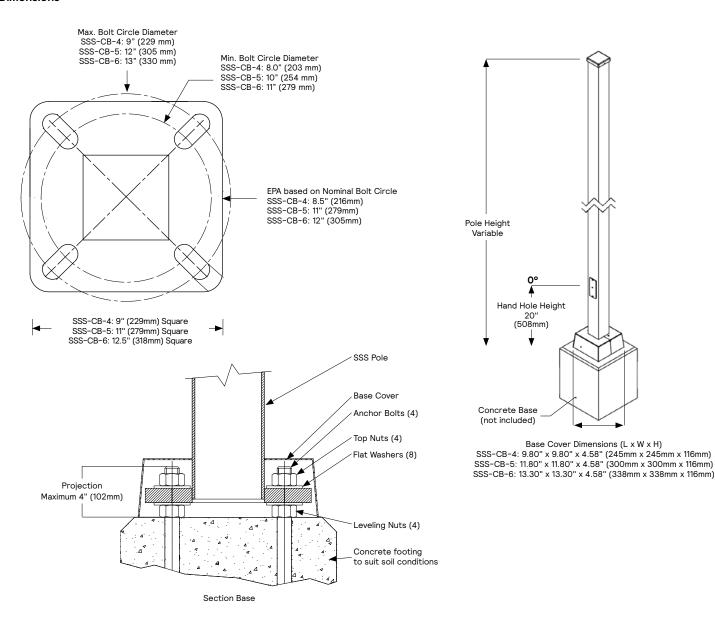


## RapidShip Ordering Guide

## example: SSS-CB-4-11-25-D1-DT5-BZ-RS

Fami	Family		e	Pole Shaft Size (in.)				emplate	Finish		Options				
SSS		СВ		4											
SSS	Straight Square Steel	СВ	Carbon Steel Base w/ Cover	4	11	11 ga. / 0.120"	12 20 25	D1 D1@180 D2 D2@90	1 Way 1 Way @ 180 2 Way @ 180 2 Way @ 90	DT5 DT6	Drill Template 5 Drill Template 6	BZ MG BK	Bronze Medium Grey Black	RS	RapidShip*
					7	7 ga. / 0.180"	25 30	D3 D4	3 Way @ 90 4 Way @ 90						

### **Dimensions**



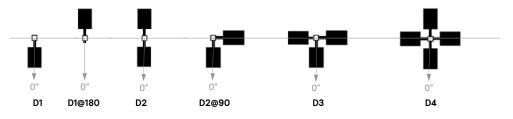
<sup>\*</sup> Anchor Bolt Lock Washers are not normally required and are not included in standard anchor bolt sets. They are available upon request at additional cost.

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.

<sup>\*\*</sup>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.

# **Drilling Configuration**

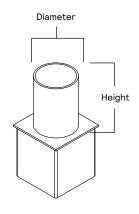
Code	Description					
D1	Single Luminaire					
D1@180	Single Luminaire @ 180					
D2	Two Luminaires @ 180					
D2@90	Two Luminaires @ 90					
D3	Three Luminaires @ 90					
D4	Four Luminaires @ 90					



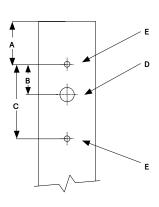
Ref. access door at 0° for all

## **Tenon Dimensions**

Tenon	Diameter	Height		
T2D4L	2.375" (60mm)	4" (102mm)		
T2D6L	2.375" (60mm)	6" (152mm)		
T3D4L	3" (76mm)	4" (102mm)		
T4D6L	4" (102mm)	6" (152mm)		



# Pole Top Drilling



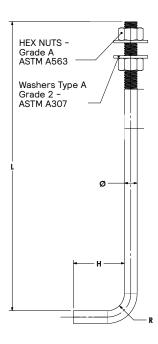
# Luminaire Drill Pattern

	Driii i decerii				Pole Drilling		
Code	Description	Luminaires	A To Pole Top	В	C Full Extent	D Wireway Hole	E Bolt Hole
DT1	Drill Template 1	Gardco SlenderForm Round SFRA	2.25" (57mm)	1.5" (38.1mm)	3" (76mm)	0.875" (22.2mm)	0.40" (10.2mm)
DT2	Drill Template 2	Gardco SlenderForm Square - SFA Gardco Gullwing - GL13, GL18 Gardco Form Ten - EH14L, EH19L, CAL17, CAL22, MAL17, MAL22	2.25" (57mm)	2.17" (55mm)	3.84" (98mm)	0.875" (22.2mm)	0.39" (9.9mm)
DT3	Drill Template 3	Gardco PowerForm PFAS	2.25" (57mm)	1.75" (44mm)	3.84" (98mm)	0.875" (22.2mm)	0.41" (10.4mm)
DT4	Drill Template 4	Gen1 Stonco/Keene AL150-G1, AL200-G1	2.5" (64mm)	1.7" (43mm)	3.5" (89mm)	0.875" (22.2mm)	0.41" (10.4mm)
DT5	Drill Template 5	Gardco EcoForm Gen2 - ECF-S, ECF-L Gardco PureForm Gen2 - P15, P20, P26, P34	3" (76mm)	1" (25mm)	3" (76mm)	1" (25mm)	0.41" (10.4mm)
DT6	Drill Template 6	Hole pattern drilled for the following: Gen2 Stonco/Keene AL70-G2 and AL150-G2, or to attach RLAR bracket accessory, suitable for use with: Lumec Capella CPLM, CPLS Lumec RoadStar GPLM, GPLS Lumec RoadFocus RFS, RFM, RFL Lumec RoadView RVM, RVS Lumec MiniView SVS Lumec StreetView SVM	2.5" (64mm)	1" (25mm)	2" (50mm)	0.875" (22mm)	0.5" (12.7mm)

#### Pole Data

l die bata												
		Pole	Specs		Anchor Bolt Data							
Product Catalog Number	Height (ft.)	Pole Diameter (in.)	Wall Thick- ness (in.)	Pole Weight (lbs)	Bolt Circle (in.)	Anchor Bolt Spec (in.)	Anchor Bolt Max Proj. (in.)					
SSS-CB-4-11-10	10	4	0.12	63	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-11-12	12	4	0.12	76	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-11-14	14	4	0.12	88	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-11-15	15	4	0.12	94	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-11-16	16	4	0.12	101	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-11-18	18	4	0.12	113	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-11-20	20	4	0.12	126	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-11-25	25	4	0.12	157	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-7-20	20	4	0.18	185	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-7-25	25	4	0.18	232	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-4-7-30	30	4	0.18	278	8.5 (+/- 0.5)	3/4 x 24 x 3	4					
SSS-CB-5-11-20	20	5	0.12	158	11 (+/- 1)	1 x 33 x 3	4					
SSS-CB-5-11-25	25	5	0.12	197	11 (+/- 1)	1 x 33 x 3	4					
SSS-CB-5-11-30	30	5	0.12	237	11 (+/- 1)	1 x 33 x 3	4					
SSS-CB-5-7-20	20	5	0.18	234	11 (+/- 1)	1 x 33 x 3	4					
SSS-CB-5-7-25	25	5	0.18	292	11 (+/- 1)	1 x 33 x 3	4					
SSS-CB-5-7-30	30	5	0.18	350	11 (+/- 1)	1 x 33 x 3	4					
SSS-CB-5-7-35	35	5	0.18	409	11 (+/- 1)	1 x 33 x 3	4					
SSS-CB-6-7-30	30	6	0.18	423	12 (+/- 1)	1 x 33 x 3	4					
SSS-CB-6-7-35	35	6	0.18	493	12 (+/- 1)	1 x 33 x 3	4					
SSS-CB-6-7-40	40	6	0.18	564	12 (+/- 1)	1 x 33 x 3	4					

### **Standard Anchor Bolt**



### Pole Data (cont.)

Tole Data (cont																	
	AASHTO 2001 - EPA ft <sup>2</sup>									CSA - EPA ft <sup>2</sup>							
Product Catalog Number	80 MPH	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH	300 Pa 79 MPH	400 Pa 91 MPH	500 Pa 102 MPH	600 Pa 111 MPH	700 Pa 120 MPH	800 Pa 129 MPH	900 Pa 136 MPH	1000 Pa 144 MPH	
SSS-CB-4-11-10	30.00	26.82	21.25	17.13	13.99	11.55	9.62	8.07	30.00	27.03	21.10	17.15	14.34	12.23	10.59	9.27	
SSS-CB-4-11-12	28.31	21.72	17.04	13.55	10.88	8.83	7.19	5.88	30.00	21.74	16.76	13.44	11.08	9.30	7.92	6.82	
SSS-CB-4-11-14	23.54	17.83	13.77	10.77	8.48	6.69	5.26	4.15	24.79	17.66	13.40	10.53	8.51	6.98	5.79	4.85	
SSS-CB-4-11-15	21.53	16.22	12.41	9.57	7.43	5.76	4.44	3.36	22.58	15.92	11.94	9.30	7.40	5.96	4.87	3.97	
SSS-CB-4-11-16	19.70	14.69	11.12	8.48	6.47	4.91	3.65	2.66	20.58	14.37	10.65	8.16	6.37	5.05	4.03	3.19	
SSS-CB-4-11-18	16.19	11.82	8.72	6.43	4.67	3.30	2.21	1.33	17.07	11.59	8.31	6.12	4.56	3.38	2.47	1.74	
SSS-CB-4-11-20	13.29	9.46	6.72	4.67	3.13	1.92	N/A	N/A	14.07	9.20	6.29	4.34	2.95	1.90	1.10	N/A	
SSS-CB-4-11-25	7.78	4.86	2.78	1.22	N/A	N/A	N/A	N/A	7.95	4.26	2.06	N/A	N/A	N/A	N/A	N/A	
SSS-CB-4-7-20	22.23	16.63	12.62	9.65	7.40	5.65	4.26	3.15	23.05	15.94	11.67	8.83	6.78	5.26	4.09	3.15	
SSS-CB-4-7-25	14.87	10.59	7.54	5.28	3.56	2.23	1.16	N/A	14.83	9.42	6.17	4.01	2.46	1.31	N/A	N/A	
SSS-CB-4-7-30	9.63	6.25	3.82	2.01	N/A	N/A	N/A	N/A	8.36	4.20	1.72	N/A	N/A	N/A	N/A	N/A	
SSS-CB-5-11-20	22.64	16.51	12.13	8.89	6.43	4.51	2.99	1.76	24.95	17.04	12.29	9.10	6.84	5.14	3.82	2.76	
SSS-CB-5-11-25	14.32	9.62	6.25	3.79	1.90	N/A	N/A	N/A	16.16	10.00	6.29	3.83	2.06	N/A	N/A	N/A	
SSS-CB-5-11-30	8.28	4.53	1.86	N/A	N/A	N/A	N/A	N/A	9.30	4.42	1.48	N/A	N/A	N/A	N/A	N/A	
SSS-CB-5-7-20	30.00	27.78	21.37	16.63	13.01	10.21	7.97	6.17	30.00	28.15	21.16	16.51	13.19	10.71	8.77	7.21	
SSS-CB-5-7-25	25.42	18.54	13.62	9.97	7.19	5.05	3.34	1.98	27.74	18.68	13.23	9.61	7.02	5.08	3.56	2.37	
SSS-CB-5-7-30	17.45	11.94	8.01	5.08	2.88	1.16	N/A	N/A	18.54	11.33	7.02	4.12	2.07	N/A	N/A	N/A	
SSS-CB-5-7-35	5.90	2.50	N/A	N/A	N/A	N/A	N/A	N/A	10.73	5.08	1.70	N/A	N/A	N/A	N/A	N/A	
SSS-CB-6-7-30	19.00	13.20	9.00	5.60	3.30	N/A	N/A	N/A	30.00	20.55	13.99	9.59	6.47	4.11	2.27	N/A	
SSS-CB-6-7-35	12.40	7.60	4.20	N/A	N/A	N/A	N/A	N/A	21.06	12.23	6.96	3.42	N/A	N/A	N/A	N/A	
SSS-CB-6-7-40	7.20	3.00	N/A	N/A	N/A	N/A	N/A	N/A	12.21	5.17	N/A	N/A	N/A	N/A	N/A	N/A	

<sup>1.</sup> 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. Specifying BAA or BAC compliant poles may result in different EPA ratings.

NOTE: Above EPA (Effective Projected Area) rating is in accordance with AASHTO 2001, with a 50 pound load (22.7 kg) placed at 1 foot (305mm) above its center.

<sup>2.</sup> 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. Exact length of anchor bolts may vary.

<sup>3.</sup> EPA ratings are based on the listed, optimal midpoint of the bolt circle. The bolt circle has limited variability but the EPA rating will change.

### **Specifications**

#### Pole shaft

The pole shaft is fabricated from a single piece of 11 ga (0.1196") or 7 ga (0.180") high tensile carbon steel. The formed steel plate is longitudinally welded providing minimum yield strength of 50 ksi. Shaft includes factory installed copper ground lug, 10–7 copper wire, and ground lug screw.

#### **Anchor Base**

The pole anchor base is fabricated from 44W structural quality carbon steel with a minimum yield strength of 44 ksi. The base plate is circumferentially welded on both top and bottom.

#### **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 55 ksi. Bolts have an "L" bend on one end and threaded on the opposite end. Anchor bolts are galvanized in accordance with ASTM A-153.6 C1.C. Four (4) properly sized bolts, each furnished with two (2) regular hex nuts and two (2) flat washers, are provided per pole (priced and ordered separately), unless otherwise specified. Conforms to AASHTO M 314 90 and ASTM F1554.

#### **Customer Specified Options**

The options, DTX, FES, DR, GFI, AHH, CL\*, and NL\* require factory quotation. Poles with custom drilling templates (DTX) are provided as a service, however Signify holds no liability for improper installation and safety when using non-Signify luminaires or attachments on Gardco poles via drilling, tenon mounting, or coupling and nipple mounting. It is the responsibility of the customer to ensure the pole is loaded and installed in a safe manner to the limitations of the pole structure. See "Warning" paragraph for more details.

#### Base Cover

A two-piece painted square aluminum base cover that completely conceals the entire base plate and anchorage. Base cover is provided standard.

#### Hand hole

The hand hole has a nominal rectangular 2"x4.5" inside opening in the pole shaft. Included is an aluminum cover plate, EPDM gasket, and captive attachment screws.

#### Pole Top Cap

Each pole assembly is provided with a removable aluminum pole top cap painted to match the specified pole and attached with two pressure screws. Legacy design is provided with a removable plastic top push cap. Finish is Black.

#### Finish

Poles are available with Gardco's standard textured color finishes - Black, White, Bronze, Dark Grey, Medium Grey, and Lumec GY3 for a match with roadway luminaire finishes. Optional Galvanized finish and custom colors also available.

## Couplings and Nipples

Couplings (NPSC standard internal threads) and Nipples (NPT standard external threads) are available to mount 3rd party objects to the pole. Lengths are as follows:

Couplings < 1" dia. = 1" length Couplings >= 1" dia. = 1.5" length Nipples < 1" dia. = 1.5" length Nipples >= 1" dia. = 2" length

See "Customer Specified Options" paragraph for more details

### **General Pole Information**

#### Design

EPA specs conform to AASHTO 2001 standard. The poles as charted are designed to withstand dead loads and predicted dynamic loads developed by variable wind pressure with an additional 2.5 gust factor under the following conditions: The charted weights include luminaire(s) and/or mounting bracket(s). Poles installed 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 ensure proper site analysis, pole selection, loads and installation can result in pole failure, leading to serious injury or property damage.

#### Warranty

Gardco Steel poles are covered by a 3-year structural and finish warranty. For more information visit **signify.com/warranties** 



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