

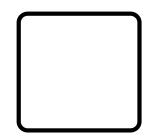
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## Pole/Bracket

Site and Area Poles

Straight Square Steel

The Gardco GSSS 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 are ordered as a separate accessory.



Project:	
Location:	
Cat.No:	
Type:	
Lamps:	Qty:
Notos:	

**Ordering Guide** 

example: GSSS-411-20-2@180-DT5-BK(G)

Orderi	ng Guide								<b>example</b> : 65	55-411-2	0-2@180-D15-BK(G)	
Prefix		Pole Sha	ıft	Drilling	Drilling Configuration <sup>1</sup>		Luminaire Drill Pattern <sup>2</sup>		Options		Finish	
GSSS	Gardco Straight Square Steel	411-10 411-12 411-14 411-15 411-16 411-18 411-20 411-25	4" Square, 11 ga steel, 10 ft 4" Square, 11 ga steel, 12 ft 4" Square, 11 ga steel, 14 ft 4" Square, 11 ga steel, 15 ft 4" Square, 11 ga steel, 16 ft 4" Square, 11 ga steel, 18 ft 4" Square, 11 ga steel, 20 ft 4" Square, 11 ga	1 2@180 2@90 3@90 4@90	Single Luminaire Two Luminaires @ 180° Two Luminaires @ 90° Three Luminaires @ 90° Four Luminaires @ 90° 2 3/8" OD Tenon 3" OD Tenon		Drill Template 1 Drill Template 2 Drill Template 3 Drill Template 4 Drill Template 5 Drill Template 6 Custom Drill Template (must specify and supply template) ve blank if T2 or T3 on option is ordered	G VPA DR GFI	Galvanized Finished (specify color if powder over galvanized is required) Vandalproof Screws Duplex Receptacle (120V only) DR with Ground Fault Interrupter (120V only) Vibration Dampener	BK(G) WH(G) BZ(G) DGY MGY GY3 NF	Gardco Black Textured Gardco White Textured Gardco Bronze Textured Gardco Dark Grey Textured Gardco Medium Grey Textured Light Grey, Smooth Not Finished (only with Galvanized Option) ustomer Specified Special Color: Specify optional color or RAL (ex: RAL7024)	
		511-25 511-30	steel, 25 ft 5" Square, 11 ga steel, 25 ft 5" Square, 11 ga steel, 30 ft									

See Drilling Configurations on below
 See Luminaire Drill Patterns on Page 2

### Accessories

12NC	Part No.	Description
912400710142	3/4x27-8 1/2-DEC	Non-Galvanized anchor bolts, 3/4 x 27 - 8 1/2 (use with 411 poles)
912400710178	3/4X27-G-8 1/2-DEC	Galvanized anchor bolts, 3/4 x 27 - 8 1/2 (use with 411 poles)
912400710313	1X36-12 1/2-DEC	Non-Galvanized anchor bolts, 1 x 36 - 12 1/2 (use with 511 poles)
912400710263	1X36-G-12 1/2-DEC	Galvanized anchor bolts, 1 x 36 - 12 1/2 (use with 511 poles)

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.



Drilling Configuration<sup>1</sup>

Code	Description
1	Single Luminaire
2@180	Two Luminaires @ 180
2@90	Two Luminaires @ 90
3@90	Three Luminaires @ 90
4@90	Four Luminaires @ 90
T2	2 3/8" OD Tenon
T3	3" OD Tenon



## Straight Square Steel **Poles**

#### Pole Data

		Pole Spe	ecs		Max Wind Loading				
Ordering Code	Pole Size (in)	Wall Thickness (in)	Height (ft)	Weight (lbs/kg)	EPA @ 300 Pa = 80 mph (ft²)	EPA @ 400 Pa = 90 mph (ft²)	EPA @ 500 Pa = 100 mph (ft²)	EPA @ 800 Pa = 130 mph (ft²)	Std Anchor Bolts
GSSS-411-10	4	0.12	10	76 / 34	33.6	24.6	19.2	11.0	3/4 x 27 - 8 1/2
GSSS-411-12	4	0.12	12	88 / 40	27.6	19.9	15.3	8.39	3/4 x 27 - 8 1/2
GSSS-411-14	4	0.12	14	101 / 46	22.9	16.2	12.2	6.20	3/4 x 27 - 8 1/2
GSSS-411-15	4	0.12	15	107 / 49	21.0	14.7	11.0	5.39	3/4 x 27 - 8 1/2
GSSS-411-16	4	0.12	16	114 / 52	19.2	13.3	9.85	4.52	3/4 x 27 - 8 1/2
GSSS-411-18	4	0.12	18	126 / 57	16.2	10.9	7.80	3.06	3/4 x 27 - 8 1/2
GSSS-411-20	4	0.12	20	139/63	13.60	8.90	6.04	1.75	3/4 x 27 - 8 1/2
GSSS-411-25	4	0.12	25	170/77	7.64	4.02	1.86	N/A	3/4 x 27 - 8 1/2
GSSS-511-25	5	0.12	25	223/101	15.70	9.64	6.01	0.56	1 x 36 - 12 1/2
GSSS-511-30	5	0.12	30	263/119	8.74	3.99	1.13	N/A	1 x 36 - 12 1/2

- 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.

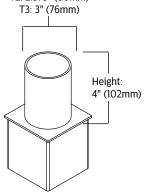
Note: Above EPA (Effective Projected Area) rating is in accordance with CSA-S6-14 standard, with 25-year return period, with a 50 pound load (22.7 kg) placed at 1 foot (305mm) above its

#### Luminaire Drill Pattern

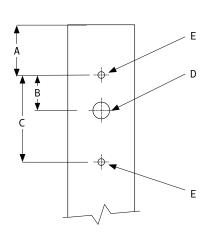
			Pole Drilling					
Code	Description	Luminaires	A To Pole Top	В	C Full Extent	D Wireway Hole	E Bolt Hole	
DT1	Drill Template 1	Gardco SlenderForm Round SFRA	2.25" (57mm)	1.5" (38.1mm)	3" (76mm)	0.875" (22.2mm)	0.40" (10.2mm)	
DT2	Drill Template 2	Gardco SlenderForm Square - SFA Gardco Gullwing - GL13, 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 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 Keene AL70-G2 and AL150-G2, or to attach RLAR bracket accessory, suitable for use withs: Lumec Capella CPLM, CPLS 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)	

## **Tenon Dimensions**

Diameter T2: 2.375" (60mm)

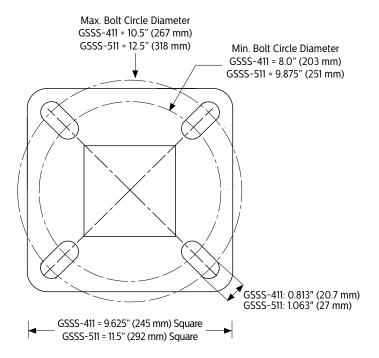


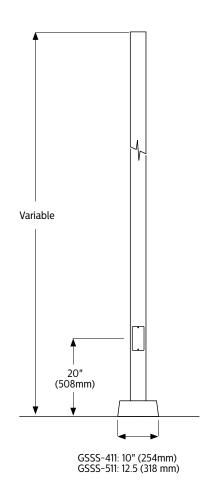
## **Pole Top Drilling**

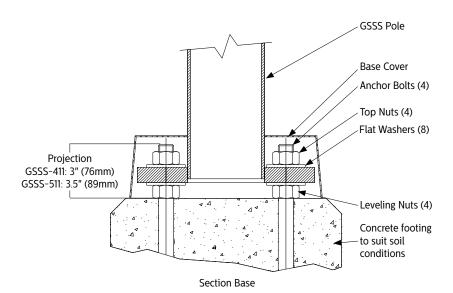


# Poles Straight Square Steel

#### **Dimensions**







- \* 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 Square Steel

#### Specifications

#### **POLE SHAFT**

The pole shaft is fabricated from a single-piece of 11 ga (0.1196") high tensile carbon steel. The formed steel plate is longitudinally welded providing minimum yield strength of 50 ksi.

#### **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 a minimum of 7.5" on the threaded end. 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.

#### **BASE COVER**

A two-piece base cover completely conceals the entire base plate and anchorage.

#### HAND HOLE

The reinforced hand hole has a nominal rectangular 2" X 4.5" inside opening in the pole shaft. Included is a cover plate with attachment screws. The hand hole is located 20" above the base and 0° 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 pole assembly is provided with a removable pole top cap.

#### 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.

#### **General Pole Information**

#### DESIGN

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 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.

#### WARRANTY

Gardco GSSS series pole is covered by a 5 year structural and finish warranty.

