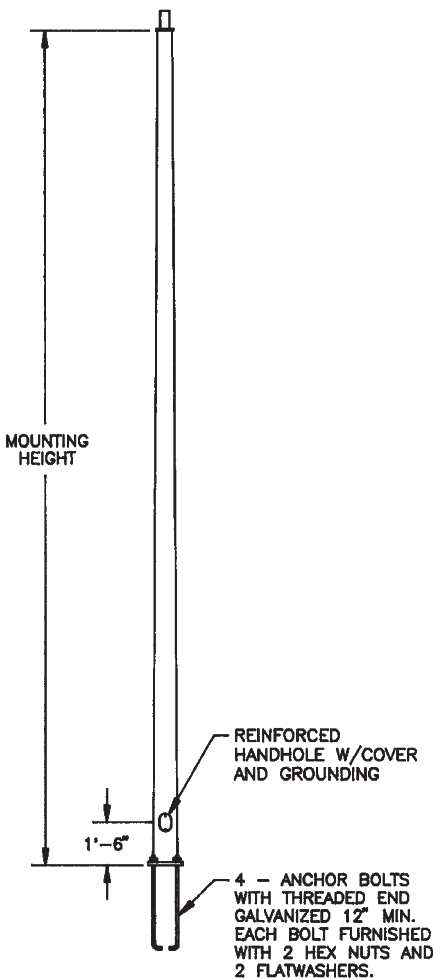


Tapered Square Steel Pole

Type:	Job:	Approvals:				
Catalog Number:						
-	-		-	-	-	BC
Series (pole type and height)	Base O.D.	Gauge (wall thickness)	Finish	Mounting Designation (arm or tenon mounting configuration)	Base Cover (standard)	Date: Page 1 of 4



Tapered Square Steel Pole (TSP)

See below for ordering example to specify a 45' Tapered Square Steel Pole, having a 7.88" pole base square O.D., 7 gauge wall thickness, Dark Bronze powder coat Finish, with a 2-3/8" O.D. x 4" tall pole top tenon, and the standard base cover.

TSP45-7.88-7-DB-T2-BC

45	Nominal Mounting Height (in Feet)
7.88	Base O.D. (in Inches)
7	0.180" Wall Thickness
DB	Dark Bronze (Powder Coat Finish)
T2	2-3/8" O.D. x 4" tall Pole Top Tenon (Option)
BC	Base Cover (standard feature)

Specifications

Anchor Bolts

Anchor bolts are fabricated from carbon steel conforming to AASHTO M314 Grade-55 or ASTM F1554 Grade-55. Bolts have an "L" bend on one end and are galvanized a minimum of 12 inches on the threaded end. Four anchor bolts are provided per pole. Each anchor bolt is furnished with two hex nuts and two flat washers.

Anchor Base

The anchor base (base plate) is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The base plate telescopes the pole shaft and is circumferentially welded top and bottom. The base is provided with a slotted anchor bolt opening that enables a range of bolt circles to be utilized. Corresponding bolt circles for each pole type are listed in the Pole Information Chart. See Pole Base Detail.

Pole Shaft

The pole shaft conforms to ASTM A595 Grade-A and is supplied in 11 gauge (0.1196") or 7 gauge (0.1793") thickness. Shafts are one-piece construction, with a full length longitudinal high frequency electric resistance weld. The shaft is square in cross section having flat sides, radiused corners, and a uniform taper of approximately 0.11 inches per foot of length.

Handhole

The reinforcing handhole rim shall consist of either a nominal 3" x 5" rectangular shaped tubing, or 4" x 6.5" oval shaped pipe material. The 3" x 5" handhole is provided with a steel attachment bar, steel cover, and one round head machine screw. The 4" x 6.5" handhole includes two tabs for mounting a steel cover with hex head attachment screws. Both handhole types are welded in the pole shaft and are located 1'-6" above the base.

Electrical Ground

A nut holder is provided near the handhole and includes a 0.5"-13 UNC hex head bolt and nut.

Full Base Cover

A full base cover is standard and is fabricated from either ABS plastic or steel. Both steel and plastic covers are a two-piece assembly secured together with two fasteners.

Pole Top Tenon

Pole top tenons are standard and are fabricated from structural quality hot rolled carbon steel with a guaranteed minimum yield strength of 30,000 psi. A pole top plate and tenon of weldable grade hot rolled commercial quality carbon steel is circumferentially welded to the top of the pole shaft. This plate provides an internal weather resistant wiring raceway into the pole top tenon. Standard tenon sizes are 2-3/8" O.D. x 4" tall (T2), 3.0" O.D. x 5-5/8" tall (T3), or 4" O.D. x 5-5/8" tall (T4) vertical pipe tenon. Bullhorn accessories are available.

Pole Top Cap and Arm Mounting

An optional removeable top cap is available to be used in conjunction with drilled pole shafts for accommodation of a direct mounted luminaire arm attachment. Specify choice of drill mounting (D1 through D6) for luminaire arm mounting configuration required. Specify appropriate Drill Template (Y) for intended luminaire mounting type.

Finish

Standard available finishes are hot-dip galvanized (GV) and polyester powder coat, electrostatically applied and oven cured, in the colors listed.

Fastening Hardware

All structural fasteners are galvanized high strength carbon steel. All other fasteners are galvanized or zinc plated carbon steel or stainless steel.

Design

Consult Wind Velocity Map to ensure suitability for location and application.

Standards (poles) are designed to withstand dead loads and theoretical dynamic loads developed by variable wind speeds as charted with an appropriate gust factor under the following conditions:

Wind velocities are based on 10 mph increments from 80 mph through 100 mph.

Note: Standards (poles) to be located in areas of known abnormal conditions require special consideration. For example: coastal areas, airports, and areas of special winds such as the Chinook Winds along the eastern slope of the Rocky Mountains.

Standards (poles) are designed for ground mounted applications. Consult factory for special consideration for mounting on structures (such as bridges and buildings). 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 into the standard.

Pole-TSP Series

Tapered Square Steel Pole

Type:	Job:	Page 2 of 4
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Series/Pole Height ⁽¹⁾	Base ⁽²⁾	Gauge	Finish	Mounting Designation Options
<input type="checkbox"/> TSP20 20' pole <input type="checkbox"/> TSP25 25' pole <input type="checkbox"/> TSP30 30' pole <input type="checkbox"/> TSP35 35' pole <input type="checkbox"/> TSP39 39' pole <input type="checkbox"/> TSP45 45' pole <input type="checkbox"/> TSP50 50' pole	<input type="checkbox"/> 5.25 <input type="checkbox"/> 5.50 <input type="checkbox"/> 6.00 <input type="checkbox"/> 6.41 <input type="checkbox"/> 6.81 <input type="checkbox"/> 7.13 <input type="checkbox"/> 7.18 <input type="checkbox"/> 7.88 <input type="checkbox"/> 8.75 <input type="checkbox"/> 8.81	<input type="checkbox"/> 11 ⁽³⁾ <input type="checkbox"/> 7 ⁽⁴⁾	<input type="checkbox"/> GV Galvanize <input type="checkbox"/> GR Gray ⁽⁵⁾ <input type="checkbox"/> SA Satin Aluminum ⁽⁵⁾ <input type="checkbox"/> DB Dark Bronze ⁽⁵⁾ <input type="checkbox"/> BLK Black ⁽⁵⁾ <input type="checkbox"/> WHT White ⁽⁵⁾	Tenon Mount Configurations ⁽⁶⁾ <input type="checkbox"/> T2 2.375" (2-3/8") O.D. x 4.0" tall tenon ⁽⁷⁾ <input type="checkbox"/> T3 3.0" O.D. x 5.625" (5-5/8") tall tenon <input type="checkbox"/> T4 4.0" O.D. x 5.625" (5-5/8") tall tenon Arm Mount Configurations ⁽⁸⁾ <input type="checkbox"/> D1-DT(Y) 1 @ 90°, specify drill template (Y) <input type="checkbox"/> D2-DT(Y) 2 @ 180°, specify drill template (Y) <input type="checkbox"/> D4-DT(Y) 4 @ 90°, specify drill template (Y) <input type="checkbox"/> D5-DT(Y) 2 @ 90°, specify drill template (Y) <input type="checkbox"/> D6-DT(Y) 3 @ 90°, specify drill template (Y)

(1) Square Tapered Steel Pole Series. Consult Pole Information Chart for exact dimensions of corresponding available base-to-top taper and material thickness (gauge).

(2) Pole base O.D. in inches across flats. See chart for pole top dimensions.

(3) 11 gauge (0.1196") pole shaft material. Not available for 39', 45' or 50' poles.

(4) 7 gauge (0.1793") pole shaft material.

(5) Powder coat finish. Consult factory for special colors or finishes.

(6) Standard Pole Top Pipe Tenon options listed. Consult factory to specify custom size.

(7) 4-1/2" tall tenon available as special order. Consult factory when specifying with PTRD or PTSQ (EAL post top mounting options).

(8) Drill Mounting patterns for Square Pole, D3 (3@120°) not available with square poles. Specify appropriate Drill Template (Y) for intended luminaire to be arm mounted.

Pole Information Chart ^(1, 2, 3)

Nominal Mounting Height (ft)	Pole Shaft					Pole Base			Anchor Bolts	80 MPH w/1.3 Gust		90 MPH w/1.3 Gust		100 MPH w/1.3 Gust		
	Catalog Number	Base O.D. (in)	Top O.D. (in)	Wall Thickness (ga)	Struct. Weight (lbs)	Bolt Circle Dia. (in)	± (in)	Square (in)		Thk. (in)	Max. EPA (ft²)	Max. Weight (lbs)	Max. EPA (ft²)	Max. Weight (lbs)	Max. EPA (ft²)	Max. Weight (lbs)
20	TSP20- 5.25 - 11 -XXX-XX-BC ⁽⁴⁾	5.25	3.05	11	155	10.75	N/A	10.75	0.75	1.00 x 36 x 4	18.0	452	13.8	345	10.7	268
	TSP20- 5.50 - 7 -XXX-XX-BC ⁽⁴⁾	5.50	3.30	7	235	11.00	N/A	11.00	1.00	1.00 x 36 x 4	30.5	764	24.0	602	19.0	477
25	TSP25- 6.00 - 11 -XXX-XX-BC ⁽⁴⁾	6.00	3.25	11	205	12.00	N/A	11.50	0.88	1.00 x 36 x 4	16.8	422	12.6	315	9.5	238
	TSP25- 6.41 - 7 -XXX-XX-BC	6.41	3.66	7	310	12.50	N/A	11.88	1.25	1.00 x 36 x 4	28.5	713	22.5	563	18.2	455
30	TSP30- 6.41 - 11 -XXX-XX-BC	6.41	3.11	11	260	12.50	N/A	11.88	0.88	1.00 x 36 x 4	13.6	340	9.8	245	7.0	175
	TSP30- 6.41 - 7 -XXX-XX-BC	6.41	3.11	7	375	12.50	N/A	11.88	1.25	1.00 x 36 x 4	23.6	590	17.9	448	13.7	343
	TSP30- 7.13 - 7 -XXX-XX-BC	7.13	3.83	7	431	13.50	N/A	12.63	1.25	1.00 x 36 x 4	27.4	687	21.6	542	17.3	434
35	TSP35- 6.81 - 11 -XXX-XX-BC	6.81	2.96	11	305	13.00	N/A	12.25	0.88	1.00 x 36 x 4	10.7	269	7.3	184	4.8	120
	TSP35- 7.13 - 7 -XXX-XX-BC	7.13	3.28	7	475	13.50	N/A	12.63	1.25	1.00 x 36 x 4	23.4	585	17.4	435	13.0	325
	TSP35- 7.88 - 7 -XXX-XX-BC	7.88	4.03	7	540	14.50	N/A	13.38	1.25	1.00 x 36 x 4	25.7	643	18.8	470	13.8	345
39	TSP39- 7.18 - 11 -XXX-XX-BC	7.18	2.92	11	345	13.50	N/A	12.63	0.88	1.00 x 36 x 4	8.6	215	5.4	135	3.0	75
	TSP39- 7.13 - 7 -XXX-XX-BC	7.13	2.87	7	500	13.50	N/A	12.63	1.25	1.00 x 36 x 4	19.3	483	14.2	355	10.4	260
	TSP39- 8.75 - 7 -XXX-XX-BC	8.75	4.49	7	670	15.75	N/A	14.25	1.50	1.25 x 42 x 6	26.1	654	20.6	517	16.2	405
45	TSP45- 7.88 - 7 -XXX-XX-BC	7.88	2.93	7	620	14.50	N/A	13.38	1.25	1.00 x 36 x 4	16.0	400	11.1	278	7.4	187
	TSP45- 8.75 - 7 -XXX-XX-BC	8.75	3.80	7	730	15.75	N/A	14.25	1.50	1.25 x 42 x 6	23.5	588	16.6	415	11.4	287
50	TSP50- 8.81 - 7 -XXX-XX-BC	8.81	3.31	7	780	16.00	N/A	15.50	1.025	1.25 x 42 x 6	19.4	485	13.2	332	8.7	218

Pole Information Chart Notes:

- (1) Structure weight is a nominal value which includes the pole shaft and base plate only.
 (2) The pole base is provided with bolt holes 0.25" larger than the anchor bolt diameter.

- (3) Maximum weight and EPA values are based on pole top tenon mounted fixtures and/or brackets having a centroid 2'-6" above the nominal mounting height. Consult factory regarding loading criteria for side mounted luminaires.

- (4) Poles provided with 3" x 5" nominal handhole; all others 4" x 6.5" nominal.

Pole-TSP Series

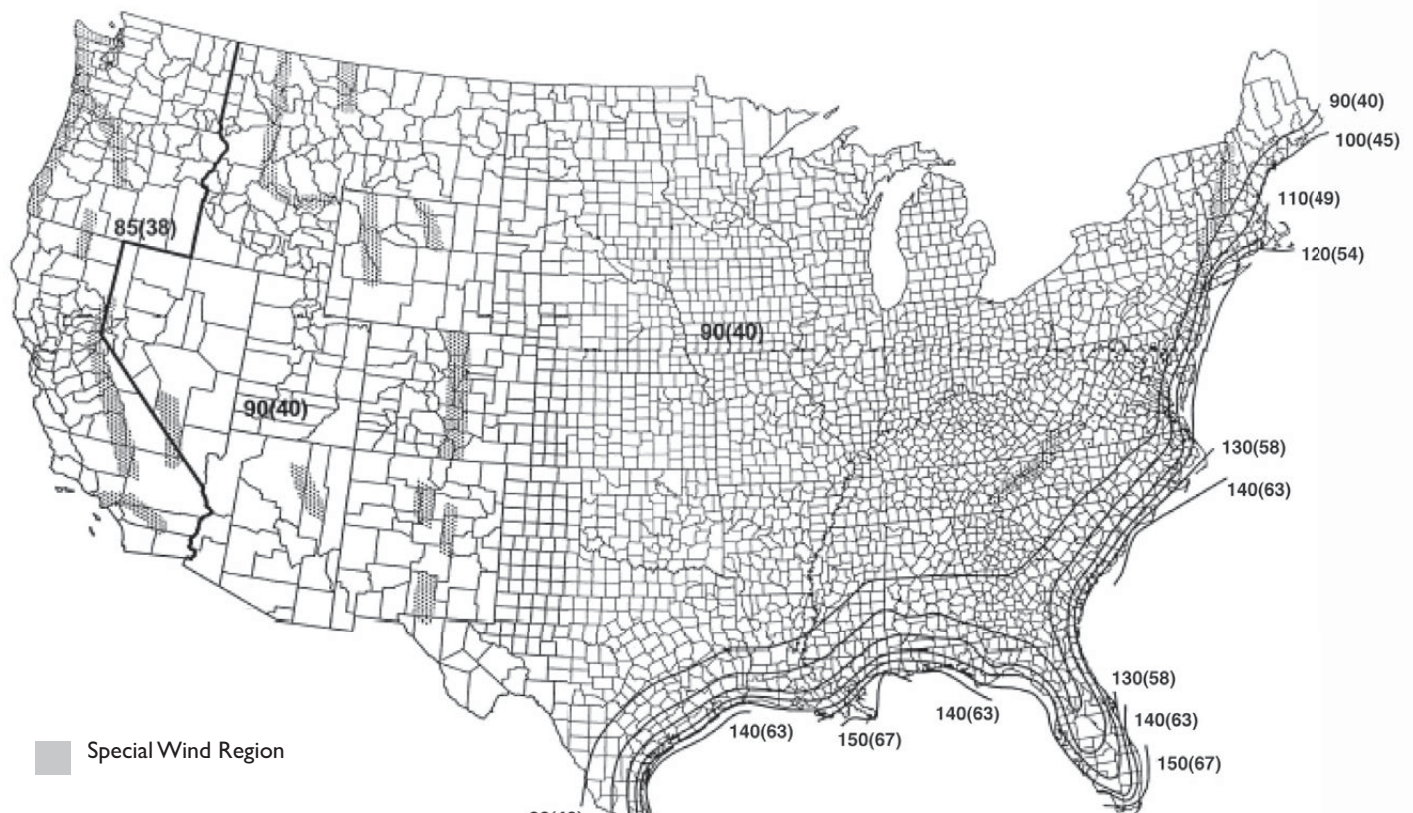
Tapered Square Steel Pole

Type:

Job:

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Wind Velocity Map



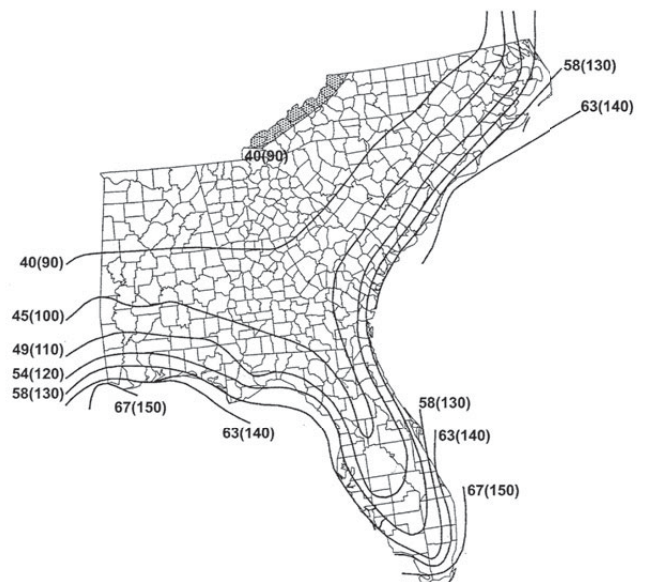
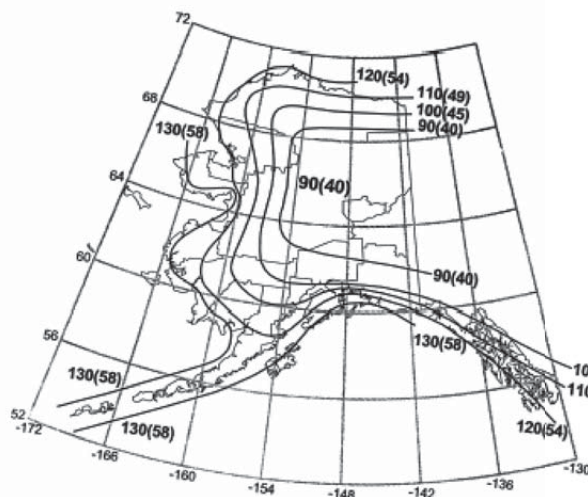
Special Wind Region

Location	V mph	(m/s)
Hawaii	105	(47)
Puerto Rico	145	(65)
Guam	170	(76)
Virgin Islands	145	(65)
American Samoa	125	(56)

90(40)
100(45)
110(49)
120(54)
130(58)
140(63)
150(67)

Notes:

1. Values are nominal design 3-second gust wind speeds in miles per hour (m/s) at 33 ft (10m) above ground for Exposure C category.
2. Linear interpolation between wind contours is permitted.
3. Island 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.



Philips Wide-Lite Professional Luminaires reserves the right to change specifications and dimensions without notice. Lamp and electrical specifications / availability subject to change by manufacturer without notice. Please refer to detailed specification sheets for additional information and spec details.

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Bulletin No. WLSP0269C0411

Pole-TSP Series

Tapered Square Steel Pole

Type:

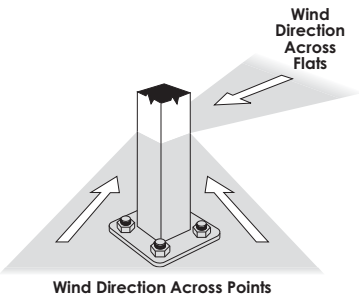
Job:

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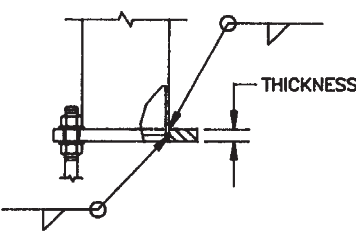
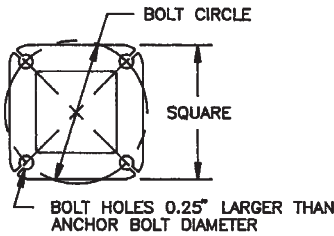
Wind Direction detail

Maximum weight and EPA values are determined by analyzing stress from two wind directions as shown.

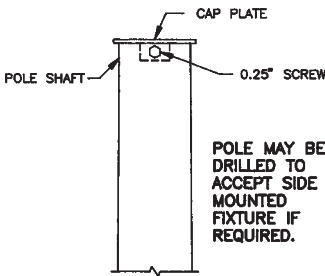
Due to the increased area and reduced section properties, stress levels across the points generally control the allowable loads.



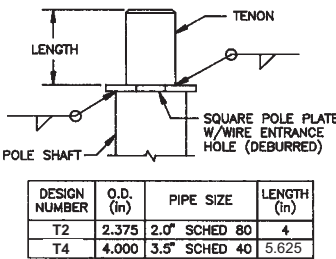
Pole Base detail



optional Pole Top Cap detail



standard Pole Top Tenon detail



Notes