

Pole-ARTP Series

Round Tapered Aluminum Pole

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



Round Tapered Aluminum Pole (ARTP)

See below for ordering example to specify a 30' Round Tapered Aluminum Pole, having a 8.00" O.D. Base dimension, 0.156" wall thickness, Dark Bronze powder coat Finish, drilled for mounting 3 luminaires @ 120° using Wide-Lite Drill Template 4.

ARTP30-8-15-DB-D3-DT4	
30	Nominal Mounting Height (in Feet)
8	Base O.D. (in Inches)
15	0.156" Wall Thickness
DB	Dark Bronze (Powder Coat Finish)
D3-DT4	2-3/8" O.D. x 4" tall Pole Top Tenon (Arm Mount Drilling Configuration)

Specifications

All aluminum alloys shall comply with metallurgical and mechanical properties set forth in the Aluminum Association Standards.

Anchor Bolts

Each anchor base shall include four steel hot dip galvanized anchor bolts. Each anchor bolt is furnished with two hex nuts and two flat washers.

Anchor Base

The anchor base is cast from A356 alloy aluminum. The anchor base casting and shaft shall be joined by a continuous circumferential weld at the inside bottom of the anchor base. The assembly shall be heat treated to a T6 temper after all structural welding has been completed. A356 nut covers shall be included with each anchor base unless otherwise specified. See Anchor Base and Bolt Detail.

Pole Shaft

The pole shaft shall be spun tapered from seamless 6063 alloy aluminum and shall be heat treated to produce a T6 temper. Each shaft shall have a minimum 6" long straight section at the top to accommodate the center hub of an appropriate flood light bracket or tapered arm. Alternately, the straight section may be drilled for arm mounted luminaires.

Handhole

All round poles shall include a peripherally reinforced flush covered handhole centered 18" above the bottom of the pole. The opening shall be rectangular in shape with the major dimensions along the vertical axis. The opening in the 4" base diameter poles shall be 2-3/8" x 4-1/2". The opening in the 5" and 6" base diameter poles shall be 3" x 5". The opening in the 7", 8", and 10" base diameter poles shall be 4" x 6". An optional 4" x 8" opening is available for 8" and 10" base diameter poles.

Pole Top Cap and Arm Mounting

Round shafts shall be supplied with a top cap when the shafts are to be drilled for side mounting of luminaires. Specify choice of drill mounting (D1 through D6) for luminaire arm mounting configuration required. Specify appropriate Drill Template (Y) for intended luminaire mounting type.

Pole Top Tenon

Aluminum pole top tenons may be specified. 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 tubing. Bullhorn accessories are available.

Finish

Standard available finishes are Satin Brushed finish (SBF) and polyester powder coat, electrostatically applied and oven cured, in the colors listed. Poles with the Satin Brushed finish shall be longitudinally polished, resulting in a high quality brushed finish. After finishing, each pole shall be fully wrapped with neutral PH wrinkle/kraft paper for protection in shipment.

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-ARTP Series

Round Tapered Aluminum Pole

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Series/Pole Height ⁽¹⁾	Base ⁽²⁾	Wall Thickness ⁽³⁾	Finish	Mounting Designation Options
☐ ARTP08 8' pole	☐ 4	☐ 12 0.125"	☐ SBF Satin Brushed Finish	Arm Mount Configurations ⁽⁵⁾ ☐ D1-DT(Y) 1 @ 90°, specify drill template (Y)
☐ ARTP10 10' pole	☐ 5	☐ 15 0.156"	☐ GR ⁽⁴⁾ Gray	☐ D2-DT(Y) 2 @ 180°, specify drill template (Y)
☐ ARTP12 12' pole	☐ 6	☐ 18 0.188"	☐ SA ⁽⁴⁾ Satin Aluminum	☐ D3-DT(Y) 3 @ 120°, specify drill template (Y)
☐ ARTP14 14' pole	☐ 7	☐ 25 0.250"	☐ DB ⁽⁴⁾ Dark Bronze	☐ D4-DT(Y) 4 @ 90°, specify drill template (Y)
☐ ARTP16 16' pole	☐ 8		☐ BLK ⁽⁴⁾ Black	☐ D5-DT(Y) 2 @ 90°, specify drill template (Y)
☐ ARTP18 18' pole	☐ 10		☐ WHT ⁽⁴⁾ White	☐ D6-DT(Y) 3 @ 90°, specify drill template (Y)
☐ ARTP20 20' pole				Tenon Mount Configurations ⁽⁶⁾
☐ ARTP23 23' pole				☐ T2 2.375" (2-3/8") O.D. x 4.0" tall tenon ⁽⁷⁾
☐ ARTP25 25' pole				☐ T3 3.0" O.D. x 5.625" (5-5/8") tall tenon
☐ ARTP30 30' pole				☐ T4 4.0" O.D. x 5.625" (5-5/8") tall tenon

(1) Round Tapered Aluminum Pole Series. Consult Pole Information Chart for available base-to-top taper and wall thickness.

(2) In inches.

(3) See chart for availability with desired pole height.

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

(5) Drill Mounting patterns for Round Pole. Specify appropriate Drill Template (Y) for intended luminaire to be arm mounted.

(6) T2 suitable for use with all poles.

T3 suitable for poles with pole top O.D. of 4" or more.

T4 suitable for use with 6" pole top O.D. only. 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).

Pole Information Chart ^(1,2)

Nominal Mounting Height (ft)	Pole Shaft				Max. Allowable Luminaire Weight (lbs)	Maximum Allowable Luminaire EPA (ft ²)				
	Catalog Number	Pole Height	Base O.D. (in)	Top O.D. (in)	Wall Thickness (in)	70 MPH w/1.3 Gust	80 MPH w/1.3 Gust	90 MPH w/1.3 Gust	100 MPH w/1.3 Gust	110 MPH w/1.3 Gust
8	ARTP08- 4 -12-XXX-XX	7' 8"	4.00	3.00	0.125	75	18.9	14.2	10.9	8.6
10	ARTP10- 4 -12-XXX-XX	9' 8"	4.00	3.00	0.125	75	14.0	10.4	7.9	6.1
	ARTP10- 5 -12-XXX-XX	9' 8"	5.00	3.00	0.125	75	23.2	17.3	13.4	10.6
12	ARTP12- 4 -12-XXX-XX	11' 8"	4.00	3.00	0.125	75	10.7	7.8	5.6	4.2
	ARTP12- 5 -12-XXX-XX	11' 8"	5.00	3.00	0.125	75	18.1	13.4	10.2	8.0
	ARTP12- 5 -15-XXX-XX	11' 8"	5.00	3.00	0.156	75	22.8	16.9	13.1	10.2
	ARTP12- 5 -18-XXX-XX	11' 8"	5.00	3.00	0.188	150	27.1	20.2	15.6	12.4
14	ARTP14- 4 -12-XXX-XX	13' 8"	4.00	3.00	0.125	75	8.1	5.8	4.0	2.8
	ARTP14- 5 -12-XXX-XX	13' 8"	5.00	3.00	0.125	75	14.5	10.5	7.8	6.0
	ARTP14- 5 -15-XXX-XX	13' 8"	5.00	3.00	0.156	75	18.4	13.4	10.1	7.9
	ARTP14- 5 -18-XXX-XX	13' 8"	5.00	3.00	0.188	150	21.9	16.2	12.4	9.6
16	ARTP16- 4 -12-XXX-XX	15' 8"	4.00	3.00	0.125	75	6.2	4.1	2.7	1.8
	ARTP16- 5 -12-XXX-XX	15' 8"	5.00	3.00	0.125	75	11.5	8.1	5.9	4.5
	ARTP16- 5 -15-XXX-XX	15' 8"	5.00	3.00	0.156	75	14.8	10.7	8.0	6.1
	ARTP16- 5 -18-XXX-XX	15' 8"	5.00	3.00	0.188	150	17.8	12.9	9.8	7.5
	ARTP16- 6 -15-XXX-XX	15' 8"	6.00	4.00	0.156	150	22.4	16.6	12.7	10.1
	ARTP16- 6 -18-XXX-XX	15' 8"	6.00	4.00	0.188	150	27.3	20.0	15.8	12.6
18	ARTP18- 5 -12-XXX-XX	17' 8"	5.00	3.00	0.125	150	8.7	3.5	4.1	2.9
	ARTP18- 5 -15-XXX-XX	17' 8"	5.00	3.00	0.156	150	11.6	6.5	5.9	4.4
	ARTP18- 5 -18-XXX-XX	17' 8"	5.00	3.00	0.188	150	14.6	8.2	7.6	5.8
	ARTP18- 6 -15-XXX-XX	17' 8"	6.00	4.00	0.156	150	18.5	13.5	10.2	8.1
	ARTP18- 6 -18-XXX-XX	17' 8"	6.00	4.00	0.188	150	22.8	16.8	12.9	10.2
	ARTP18- 7 -15-XXX-XX	17' 8"	7.00	4.00	0.156	150	27.3	20.2	15.6	12.5
20	ARTP20- 5 -12-XXX-XX	19' 8"	5.00	3.00	0.125	150	7.1	4.6	2.9	1.9
	ARTP20- 5 -15-XXX-XX	19' 8"	5.00	3.00	0.156	150	9.8	6.6	4.6	3.2
	ARTP20- 5 -18-XXX-XX	19' 8"	5.00	3.00	0.188	150	12.5	8.7	6.1	4.5
	ARTP20- 6 -15-XXX-XX	19' 8"	6.00	4.00	0.156	150	15.9	11.3	8.4	6.6
	ARTP20- 6 -18-XXX-XX	19' 8"	6.00	4.00	0.188	150	19.9	14.4	10.8	8.5
	ARTP20- 7 -15-XXX-XX	19' 8"	7.00	4.00	0.156	150	23.9	17.6	13.4	10.6
23	ARTP23- 6 -15-XXX-XX	22' 8"	6.00	4.00	0.156	150	11.8	8.0	5.6	4.4
	ARTP23- 6 -18-XXX-XX	22' 8"	6.00	4.00	0.188	150	14.2	10.6	7.8	6.0
	ARTP23- 7 -15-XXX-XX	22' 8"	7.00	4.00	0.156	150	17.7	13.4	10.0	7.8
	ARTP23- 8 -15-XXX-XX	22' 8"	8.00	4.50	0.156	150	26.5	19.5	15.1	11.9
	ARTP23- 8 -18-XXX-XX	22' 8"	8.00	4.50	0.188	150	32.8	24.4	18.8	15.1
25	ARTP25- 6 -15-XXX-XX ⁽³⁾	24' 8"	6.00	4.00	0.156	150	9.5	6.2	4.2	3.1
	ARTP25- 6 -18-XXX-XX	24' 8"	6.00	4.00	0.188	150	12.7	8.6	6.1	4.6
	ARTP25- 7 -15-XXX-XX	24' 8"	7.00	4.00	0.156	150	15.8	11.2	8.2	6.4
	ARTP25- 8 -15-XXX-XX	24' 8"	8.00	4.50	0.156	150	22.8	16.7	12.8	10.0
	ARTP25- 8 -18-XXX-XX	24' 8"	8.00	4.50	0.188	150	28.5	21.2	16.2	12.8
30	ARTP30- 7 -15-XXX-XX ⁽³⁾	29' 8"	7.00	4.00	0.156	150	10.0	6.5	4.5	3.2
	ARTP30- 8 -15-XXX-XX ⁽³⁾	29' 8"	8.00	4.50	0.156	150	15.5	11.1	8.2	6.2
	ARTP30- 8 -18-XXX-XX	29' 8"	8.00	4.50	0.188	150	20.2	14.6	11.1	8.6
	ARTP30- 8 -25-XXX-XX	29' 8"	8.00	4.50	0.250	150	28.8	21.2	16.2	12.8
	ARTP30- 10 -18-XXX-XX	29' 8"	10.00	6.00	0.188	200	37.3	28.0	21.5	16.8
	ARTP30- 10 -25-XXX-XX	29' 8"	10.00	6.00	0.250	300	50.7	38.2	29.6	23.5

Pole Information Chart Notes:

(1) Nominal handhole sizes as follows: 4" poles: 2-3/8" x 4-1/2";

5" and 6" poles: 3" x 5", 7", 8"; and 18" poles: 4" x 6".

(2) Chart shows allowable weight and size (cumulative EPA) of

luminaires (and any brackets) suitable for pole.

(3) Pole includes factory installed vibration dampener.

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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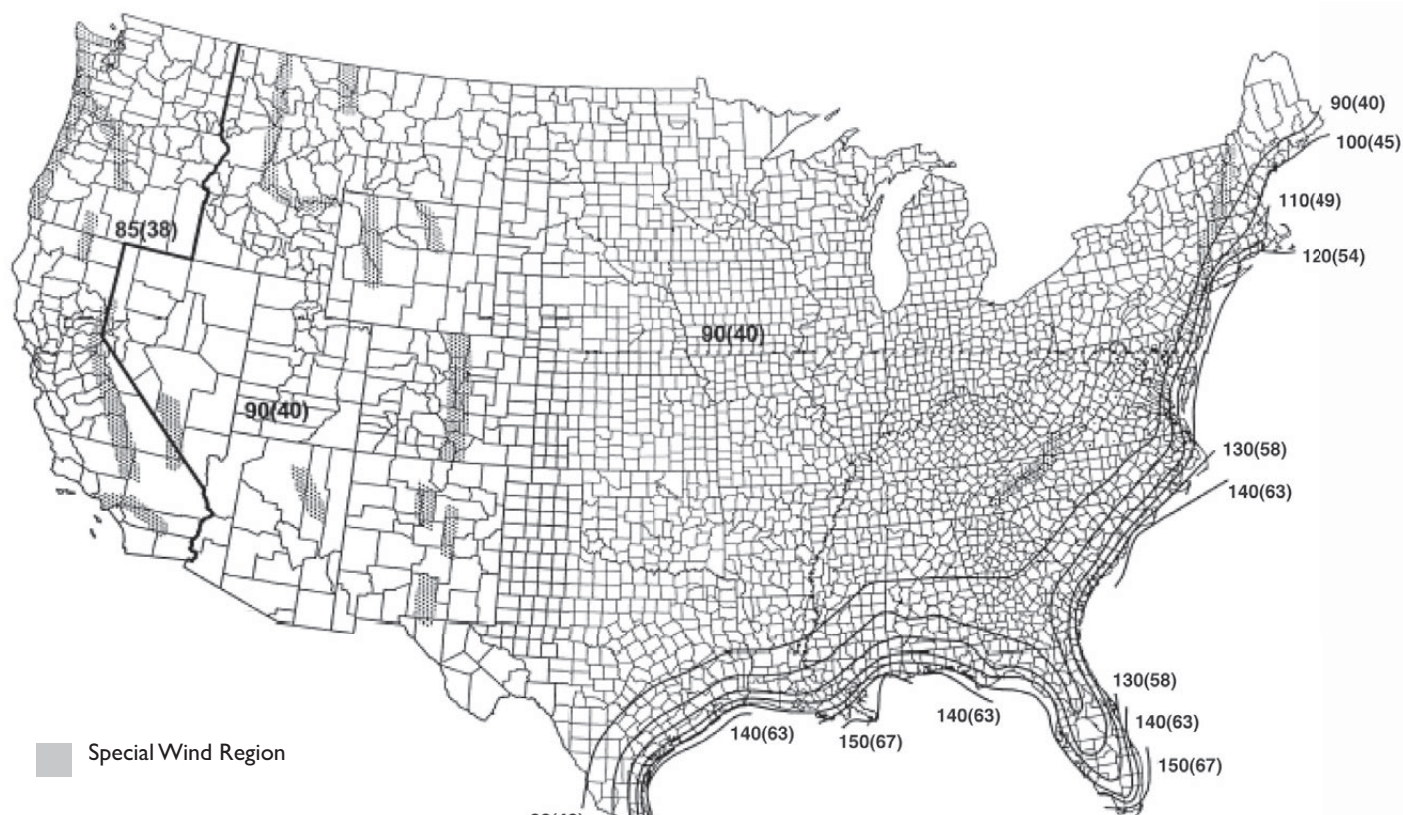
Round Tapered Aluminum Pole

Type:

Job:

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Wind Velocity Map

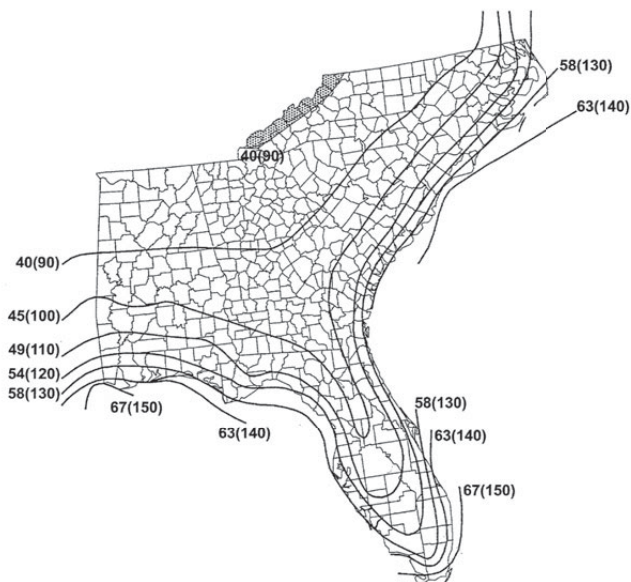


Special Wind Region

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

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.



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Pole-ARTP Series

Round Tapered Aluminum Pole

Type:

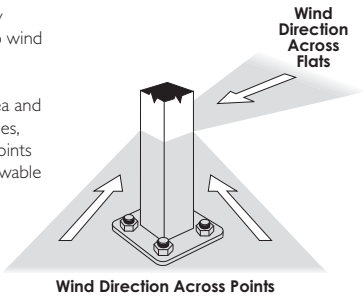
Job:

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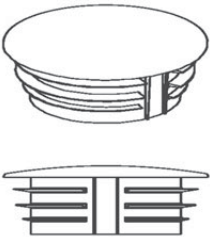
Wind Direction detail

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.



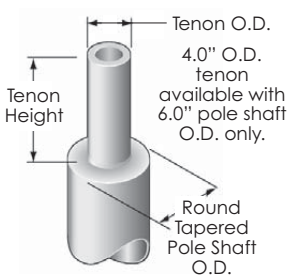
Pole Top Cap detail



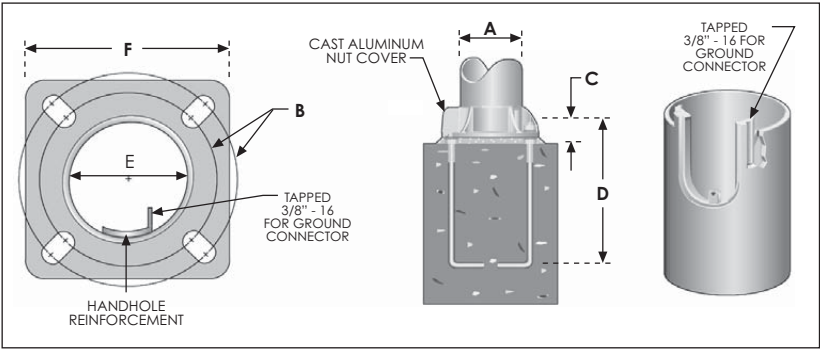
Black plastic pole top caps are standard with drilled poles.

Cast caps with screws are available as an adder.

Round Pole Tenon detail



Anchor Base and Bolt detail



A Pole O.D.	B Bolt Circle	C Bolt Projection	D Bolt Size	E Conduit Opening	F Base Size
4"	6-1/2" - 8-1/4"	3-1/4"	3/4" x 17"	3-3/4"	8-3/4"
5"	7-1/2" - 9-1/2"	3-1/4"	3/4" x 17"	4-1/2"	9-1/4"
6"	8-3/4" - 10-1/4"	3-1/2"	3/4" x 17"	5-1/2"	10-1/4"
7"	9-7/8" - 11-1/4"	4-1/8"	1" x 36"	6-1/2"	10-5/8"
8"	11" - 12-1/8"	4-1/4"	1" x 36"	7-1/2"	11-5/8"
10"	14-1/2"	4-1/2"	1" x 36"	9-1/2"	14-1/2"

Notes