

Poles - Straight Square Aluminum

► Poles

GENERAL SPECIFICATIONS

POLE SHAFT: The pole shafts shall be extruded from all new 6000 series alloy aluminum tubing. The square straight shafts shall be longitudinally polished, resulting in a high quality brushed finish. After finishing, each pole shall be fully wrapped with neutral PH crinkle/kraft paper for protection in shipment. The shaft is uniformly square in cross section with flat side, sharp corners, and no taper.

ANCHOR BASE: The anchor base (base plate) is fabricated from mold casting from A356 alloy aluminum. The shaft shall be inserted into the base casting and joined by a continuous circumferentially weld at the outside top and inside bottom of the anchor base. The base is provided with a slotted anchor bolt opening that enables a range of bolt circles to be utilized. The pole chart information lists bolt circle ranges for each pole type.

ANCHOR BOLTS: The anchor bolts are fabricated from carbon steel bar conforming to AASHTO M314 Grade-55 or ASTM F1554 Grade-55 that meets or exceeds a minimum strength of 50,000 psi. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end. Four anchor bolts are provided per pole. Each anchor bolt is furnished with (2) each - regular hex nuts and flat washers, unless otherwise specified.

HANDHOLE: The reinforcing handhole has a nominal rectangular 2-1/2" X 4-1/2" inside opening in the pole shaft. It is provided with a cover plate, attachment bar, and machine screw. The handhole is welded in the pole shaft and is located 16 inches above base plate and on the same side with respect to the luminaire arm. For two arms with 180° arrangement, handhole is located on the side of the pole with no luminaire arm.

ELECTRICAL GROUND: Grounding bolt is welded inside the pole shaft on the opposite side of the handhole and includes 3/8"-16 UNC hex head bolt and nut.

BASE COVER: The standard two-piece base cover completely conceals the entire base plate and anchorage.

POLE TOP CAP: A removable top cap is provided and is used in conjunction with drilled pole shafts for accommodation of a direct mounted luminaire attachment.

POLE TOP TENON (OPTIONAL): Pole top tenons are fabricated from all new 6000 series alloy extruded aluminum tubing. A pole top plate and tenon is circumferentially welded to the top of the pole shaft. This plate provides an internal weather resistant wire way into the pole top tenon. Standard size is 2-7/8" O.D. X 5-1/2" long aluminum tubing.

STANDARD FINISH: Poles are finished with electrostatically applied and thermally cured TGIC polyester powdercoat. For other coating systems beyond the standard finish, please consult factory.

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

The wind velocities are based on 10 mph increments from 70 mph to 110 mph. Poles standards to be located in areas of known abnormal conditions require special consideration. For example, coastal areas, airports, and areas of special winds such as canyons and mountains.

Standards are designed for ground mounted applications. Poles mounted on structures (such as buildings and bridges) may also necessitate special consideration.

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 standard. However, for any scope beyond the standard application, please consult governing agency and qualified professional.

WARNING:

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

The standard 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. Newport Lighting assumes no responsibility for such proper analysis or product selections.

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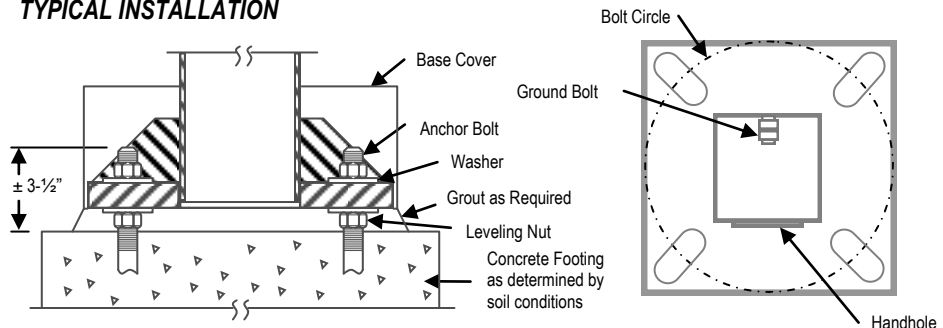
FEATURES

Straight square aluminum poles are extruded from all new seamless 6000 series alloy. The anchor base shall be mold casting from A356 alloy aluminum. The shaft is inserted into the base casting and joined by a continuous circumferential weld on the top and inside the bottom of the base. Grounding bolt is conveniently welded opposite of the handhole. The poles are finished with an electrostatically applied, thermally cured TGIC polyester powdercoat. All poles typically includes anchor bolts, base cover, handhole cover and pole cap.

DIMENSIONS / WEIGHT ANCHOR BOLTS / BOLT PATTERN						ALLOWABLE EPA MAXIMUM WEIGHT					
MOUNTING HEIGHT (ft)	SHAFT SIZE O.D. (in)	WALL THK (in)	STRUCT. WEIGHT (lbs)	ANCHOR BOLTS Dia x Lngth x Rt (in)	BOLT CIRCLE Diameter (in)	LUMI- NAIRE WEIGHT	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
						Weight (lbs)	EPA (ft ²)	EPA (ft ²)	EPA (ft ²)	EPA (ft ²)	EPA (ft ²)
8	4	.125	25	3/4 x 24 x 4	10 ± 1/2	350	26.6	19.9	15.2	11.9	9.5
10	4	.125	30	3/4 x 24 x 4	10 ± 1/2	260	20.6	15.2	11.4	8.8	6.8
12	4	.125	35	3/4 x 24 x 4	10 ± 1/2	260	16.0	11.5	8.5	6.3	4.6
14	4	.125	40	3/4 x 24 x 4	10 ± 1/2	200	12.9	9.0	6.4	4.5	3.1
16	4	.125	45	3/4 x 24 x 4	10 ± 1/2	200	7.9	5.3	3.4	2.1	1.1
16	4	.188	60	3/4 x 24 x 4	10 ± 1/2	200	13.3	9.4	6.7	4.7	3.3
18	4	.125	50	3/4 x 24 x 4	10 ± 1/2	100	6.4	4.0	2.3	1.1	-
18	4	.188	65	3/4 x 24 x 4	10 ± 1/2	150	11.0	7.4	5.0	3.3	2.0
18	5	.188	85	3/4 x 30 x 4	12 ± 1/2	260	19.2	13.5	9.6	6.8	4.7
20	4	.125	55	3/4 x 30 x 4	10 ± 1/2	150	4.5	2.3	-	-	-
20	4	.188	75	3/4 x 30 x 4	10 ± 1/2	150	8.8	5.6	3.5	1.9	-
20	5	.188	95	1 x 36 x 4	12 ± 1/2	150	16.4	11.2	7.6	5.0	3.2
20	6	.188	110	1 x 36 x 4	14 ± 1/2	150	26.1	18.3	13.0	9.2	6.4
20	6	.250	140	1 x 36 x 4	14 ± 1/2	260	35.4	25.4	18.6	13.7	10.1
25	5	.188	115	1 x 36 x 4	12 ± 1/2	100	10.2	6.0	3.2	1.1	-
25	6	.188	140	1 x 36 x 4	14 ± 1/2	260	16.6	10.6	6.5	3.5	1.3
25	6	.250	175	1 x 36 x 4	14 ± 1/2	260	24.4	16.5	11.2	7.3	4.5
30	6	.250	210	1 x 36 x 4	14 ± 1/2	260	14.8	9.0	5.0	2.1	-
35	6	.250	250	1 x 36 x 4	14 ± 1/2	100	9.4	4.3	-	-	-

Note: 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. Maximum weight and EPA values are determined by analyzing stress from two wind directions, across flats and across points. The design information is intended as a general guideline only. Consult governing agency and qualified professional.

TYPICAL INSTALLATION



ORDER GUIDE

POLE	SIZE	SHAPE	MATERIAL	WALL THK	LENGTH	HARDWARE	COLOR
P	4"	SQ	ALUM	120	20 FT	HRDWR	DB
OPTIONS	TN = TENON DTB = DIRECT BURIAL			CP = COUPLING (1/2" OR 3/4") CC = CUSTOM COLOR			

