

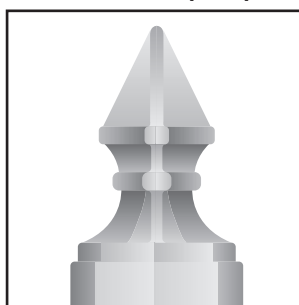
8-Flute Steel Tapered with Cast Base and Pipe Luminaire Arm



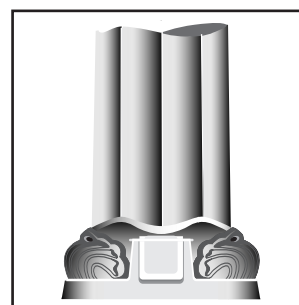
Available with or without the channel scroll.

Standard Components

Cast Pole Top Cap

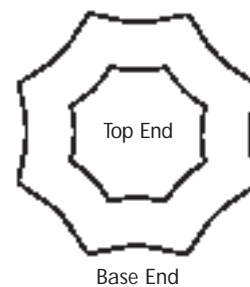


Steel Cast Base



Cross-Section

8-Sharp Flute



Nominal Mounting Height (Ft.)	Pole Tube			Base Casting		Anchor Bolts		
	Base O.D. (In.)	Gauge	Length (Ft.)	Bolt Circle (In.)	Square (In.)	Diameter (In.)	Length (In.)	Hook (In.)
21	6.50	11	20	9.5	10.00	1.00	36	4
31	8.00	11	30	11.00	11.50	1.00	36	4
41	9.50	11	40	13.00	13.50	1.25	36	6

FLC30 Fluted Pole Specification

General

The FLC30 fluted pole shall consist of a tapered pole, non-tapered luminaire arm, scroll (if required), anchor bolts, and cast steel base. The pole shall have an 8 sharp (octaflute) cross-section as specified in the contract documents.

Pole

The fluted pole shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistance Weld (ERW), and shall be smooth with no visual appearance. The flutes shall run the entire length of the shaft and be oriented to accept the cast steel base. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base. Each pole shall be provided with a decorative cap secured in place with set screws.

Fluting Process

The pole shall be cold rolled over a precision hardened steel mandrel to form an 8 sharp flute shaft. The fluted shaft shall have uniform, equally spaced Doric flutes. The flutes shall be formed with 3" diameter rollers in full contact with the material from the top of the crest, through the valley of the flute, to the top of the next crest. All 8 rollers shall be engaged at the same time so as to produce a consistent, near perfect cross-section. Individually rolled flutes or round poles with a separate fluted sheathing are not permitted.

Luminaire Arm

The luminaire arm(s) shall be made from 2.375" diameter tubing with a minimum yield strength of 36,000 psi. The arm spans can be 4', 6' or 8' in length and will have a 1' upsweep rise above the top of the pole. The pole and arm simplex components shall be made of cast steel and welded to their respective members. The arm and pole castings shall mate together to allow the luminaire arm to be erected and held in place by gravity while being secured by a single 0.5" - 13 UNC high strength hex head hub bolt. Twin luminaire arm applications are oriented at 180 degrees with respect to each other.

Scroll (Optional)

The decorative scroll is a formed steel channel attached to the side of the pole and to the underside of the arm with hex head bolts.

Anchor Bolts and Cast Steel Base

Anchor bolts shall conform to the requirements of AASHTO M314 Grade 55. The upper 12" of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. The cast steel base shall be the style as shown in the contract documents and conform to ASTM A27, 65-35. The base shall be integrally welded to the tubes with a telescopic welded joint.

Decorative Nut Covers and Pole Cap

The decorative nut covers shall be a sandcast alloy 356.2 and be attached to the cast steel base using stainless steel, tamper resistant, allen head screws. The decorative pole cap shall be made from the same alloy and attached to the pole using three set screws.

Finish

The finish shall be hot dip galvanized to ASTM A123 (in accordance with Valmont's F1 spec.), painted using TGIC polyester powder (in accordance with Valmont's F264 spec.), or provided with a combination coating using a TGIC polyester powder directly over hot dip galvanized (in accordance with Valmont's F283 spec.).

Calculations

Calculations, if required, shall include luminaire arm, pole, base plate, and anchor bolt analysis. Tube drag coefficients shall be increased to include the effects of fluted shapes. Maximum loads and stresses shall be determined for the most critical wind direction. The pole shall be analyzed in its final deflected position, at the arm to pole connection(s) and pole base. Maximum arm and pole loads, stresses and combined stress ratios (CSR) shall be provided for the specified loading combinations, as well as maximum top of pole dead load rotation. Dead load stresses at welded connections shall be limited to 20 ksi. Shaft dimensions shall be equivalent in strength for the loads shown on the drawings.