

Material Standards

Revision 0 Nov 21, 2002

1. Scope

This specification applies to aluminum street light mast arms designed to support street light luminaires on underground round fiberglass street light poles.

2. Material ID Number

This specification applies to the following District Material ID number: 1000984

3. Reference Standards

Except as modified herein, these mast arms shall meet the applicable requirements of the latest revisions of ANSI C136.13, ASTM B221, B241, B429, B26, B108 and AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals".

4. Construction

Aluminum mast arms shall be of tapered elliptical-to-round construction with the long axis oriented vertically. Both the mast arms and brackets shall be manufactured from seamless 6061 or 6063 alloy aluminum tubing, heat treated after welding to T6. The luminaire attachment end shall terminate in a 2-3/8" O.D. round tube section a minimum of 8" in length with an upsweep of three to four degrees above horizontal. Pole mounting brackets shall be suitable for mounting on round fiberglass poles and shall be fabricated per Figure 2. Slight deviations in mounting plate dimensions may be acceptable with prior District approval. A set screw bonding lug designed to accommodate #8 - #4 AWG copper wire shall be securely attached to the mounting bracket. Refer to mast arm dimensions shown below. A tolerance of ± 1" in mast length and rise will be acceptable.

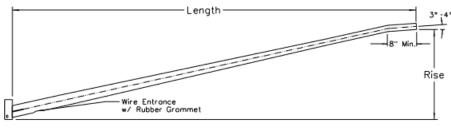


Figure 1



Material Standards

5. Loadings

Aluminum mast arm shall be designed to meet Class C loading requirements per ANSI C136.13, latest revision as follows:

Maximum Luminaire Weight = 50 lb EPA = 1.5 ft2 Equivalent Wind Load = 50 lb

Mast arms shall conform to all other applicable loading requirements of AASHTO and ANSI C136.13.

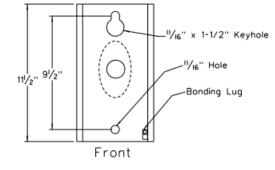


Figure 2

6. Marking

Each mast arm support bracket shall be permanently marked with the manufacturer's name or trademark and date of manufacture. Marking shall be visible after installation. Either adhesive-backed foil label or indent-printing are acceptable.

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7. Packaging

Each set screw in the bonding lug shall be secured with a single strip of masking tape to eliminate vibrating out during shipment. Aluminum mast arms shall be packaged so as to ensure safe delivery and prevent damage due to normal handling. Mast arms of different lengths may not be packaged together. Mast arms shall not be wrapped. Packaging shall be suitable for lifting with a fork-lift.