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**Threaded Thimble Eye Galvanized Anchor**

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**Version History**

Version	Date	Revision Comments
01	Dec. 15, 2021	Modified from PREPA to LUMA format
02	April 13, 2022	Added Table of Compliance (TOC)
03	Sept. 26, 2024	Modified sections 3-5, 8-9 and TOC, rearranged sections 4-5 and added sections 11-12



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Eye Galvanized Anchor  
Document No.: 4350.123  
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## Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
002-07761	57599	07	09/26/2024



## 1. Introduction

This is a general specification that covers the minimum requirements for the Threaded Thimble Eye Galvanized Anchor to be used in the distribution system in Puerto Rico. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site specific conditions, quantity, and other requirements. This document includes the general electrical and mechanical characteristics of the equipment/material.

## 2. Special Requirements

Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this equipment/material to LUMA on previous orders will not have to furnish samples at bid opening. The equipment/material will be received at LUMA's general warehouse (011) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.

## 3. Literature

- 3.1. Descriptive and technical literature must be supplied by the vendor at time of bidding. This literature may include, but is not limited to details of material, drawings, documented testing, and instructions for use and installation. **The literature must be an official document from, and certified by, the manufacturer.** Failure to submit documents on time and duly certified by the manufacturer will cause bidder disqualification.
- 3.2. If required by LUMA, final drawings and documentation shall be submitted by the vendor before the manufacturing and shipping process for approval.

## 4. Compatible with

For compatible manufacturers and models, see Table 1. These models are examples of the equipment/materials described in this document and do not represent a preference. LUMA will evaluate equally any models not listed here during any acquisition event.

## 5. Markings

- 5.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 5.2. Package(s) to be delivered at warehouse shall be clearly marked with manufacturer and item information (part number, serial number, quantity, etc.)
- 5.3. Packaging labels and tags shall be waterproof.

## 6. Packaging

All equipment/material shall be packaged and marked in such a way as to facilitate handling and protection from damage and that the receiving warehouse can readily identify it and send it, in one complete unit, to a field location without opening crates or boxes to sort items and/or parts.

## 7. Number Per Package (Logistics)

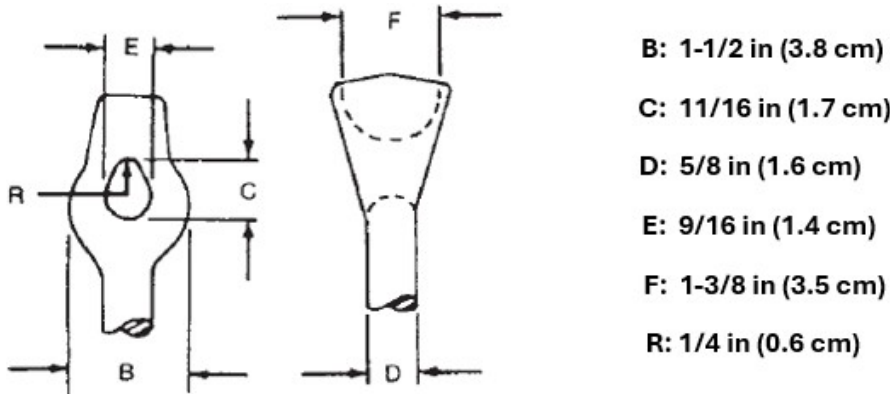
Standard Package: One (1) unit per box or as requested by LUMA.

## 8. Acceptance Criteria

- 8.1. Test required: certified by external qualified laboratories.
- 8.2. Product shall be manufactured in accordance with the latest issue below (section 8.3). When conflicts occur between purchaser's specifications and the latest issue below, the purchaser's specification shall prevail.
- 8.3. Latest applicable codes, standards, and other regulations:
  - a. **ASTM A153**: covers standards for zinc coatings applied through hot-drip process on iron and steel hardware. The hot dip galvanizing process shall form layers of Zn/Fe alloy adhering to the steel surface. This specification is applicable to steel hardware items of Classes A, B, C, and D. The thickness or weight/mass of zinc coating shall conform to specified values for various classes of materials. The coated articles shall be free from uncoated areas, blisters, flux deposits, dross inclusions, and other defects. The coating shall be smooth and reasonably uniform in thickness.
  - b. **ASTM A123**: covers the standard requirements for hot-dip galvanized zinc coatings on iron and steel products made from rolled pressed and forged shapes, castings, plates, bars, and strips. This specification deals with both unfabricated products and fabricated products, for example, assembled steel products, structural steel fabrications, large tubes already bent or welded before galvanizing, and wire work fabricated from uncoated steel wire. Also covered here are steel forgings and iron castings incorporated into pieces fabricated before galvanizing or those too large to be centrifuged.
  - c. **ASTM A283/A283M**: covers four grades of carbon steel plates of structural quality for general application. Heat and product analysis shall be performed wherein steel materials shall conform to required chemical compositions of carbon, manganese, phosphorus, sulfur, silicon, and copper. Steel specimens shall also undergo tensile tests and shall conform to required values of tensile strength, yield point, and elongation.
- 8.4. If any other standard different from the ones indicated in this document are used, the supplier must provide information showing compatibility with the required ones.

## 9. Description

- 9.1. The threaded thimble eye galvanized anchor is used on single strand guys for pole mechanical support with expanding and cross-plate anchors. The thimble eye design distributes pulling stresses uniformly over individual strands of guy wire and keep the guy wire from spreading, kinking, or bending.
- 9.2. Shall be furnished with one (1) square nut already assembled as a complete unit.
- 9.3. Material: hot dip galvanized steel per ASTM A153 (ASTM A123 considered acceptable).
- 9.4. Anchor Rod requirements:
- Shall have a 3-1/2 in (8.9 cm) minimum threaded end
  - Length: 7 ft (2.1 m)
  - Diameter: 5/8 in (1.6 cm)
  - Weight: 8 lb (3.6 kg) approx.
  - Ultimate strength: 16,000 lbf (71.2 kN)
- 9.5. Eye-nut requirements:
- Style: thimble eye forged to the rod
  - Approximate dimensions:



- 9.6. The anchor shall be aligned within 5° with the guy load to comply with the specified tensile strength.

## 10. Inspection

The acceptance of any equipment/material shall in no way relieve the vendor from his responsibility to meet all the requirements of this specification, and it would not prevent subsequent rejection if such equipment/materials were found later to be defective.



## 11. Proposal Information

11.1. Submitted proposals must include:

- a. Technical information, tests, and drawings.
- b. Table of Compliance completed by the bidder with reference (see Appendix 1).

## 12. Table 1: Warehouse and Asset Suite Identification Number

Item	Warehouse Catalog #	Asset Suite #	Compatible Manufacturers/Models	
Threaded Thimble Eye Galvanized Anchor	002-07761	57599	Hubbell 5317	MacLean J7417

— End of Specification —



## Appendix

## Appendix 1: Table of Compliance

Criteria/Description		Pass/Fail	Comments
Complies with Industry Standards (ASTM A153 / ASTM A123 / A283 / A283M)			
Tech. info., tests & drawings provided			
Material: Hot dip galvanized steel			
Anchor Rod Requirements	3-1/2" (8.9 cm) minimum threaded end		
	Weight: 8 lb. (3.6 kg) approx.		
	Ultimate strength: 16,000 lbf (71.2 kN) minimum		
	Dimensions	Length: 7 ft (2.1 m)	
		Diameter: 5/8" (1.6 cm)	
Eye-Nut Requirements	Style: thimble eye forged to the rod		
	Dimensions (See fig. in section 9.5)	B: 1-1/2" (3.8 cm)	
		C: 11/16" (1.7 cm)	
		D: 5/8" (1.6 cm)	
		E: 9/16" (1.4 cm)	
		F: 1-3/8" (3.5 cm)	
		R: 1/4" (0.6 cm)	
<b>Conclusion</b>	<b>Complies with the Specification (Doc. No. 4350.123)</b>		

**NOTE: This table is only a checklist for reference. The compliance shall be with the complete document. Marking a PASS in the table won't be accepted as a compliance without the technical information required to certify it.**











# 4350.123 Threaded Thimble Eye Galvanized Anchor

Final Audit Report

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