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01	August 31, 2022	Preliminary Specification
02	October 20, 2022	Change Section 9.2 (e) and add new code: 026-83608.
03	May 17, 2023	Modified various sections.
04	December 12, 2023	Added New code: 026-85446 and 026-85447 and sections.
05	October 10, 2024	Add Sections and add new code: 026-85995.
06	September 10, 2025	Modification and addition of various sections. TOC revised. Changed Document Number (Legacy Number: 4350.042) to new Engineering Records nomenclature number 4300.50.042.
07	April 29, 2026	Modified Sections 7.2-(i), 7.3: c, f, g, and h.



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026-85447	85447	4	4/29/2026
026-01052	57609	11	4/29/2026
026-82861	82861	6	4/29/2026
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026-82862	82862	6	4/29/2026
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## **1. Introduction**

This specification describes the minimum requirements for galvanized steel poles for LUMA Energy approval. The document will serve as a basic for the manufacturing of poles to be used in the electrical distribution area with the best intention to improve the electrical system and offer better solutions to the system. The purpose of the document is to establish the basic criteria for the creation of poles and that they are in accordance with the norms, standards, and applied loads established according to Industrial Standards such as ASTM, ANSI, AWS, ISO among others.

## **2. Literature**

2.1. Descriptive and technical literature must be supplied by the vendor at time of bidding. This literature must 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.**

2.2. If required by LUMA, final drawings and documentation shall be submitted by the vendor before the manufacturing and shipping process for approval.

## **3. Markings**

3.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.

3.2. Individual package(s) shall be clearly marked with manufacturer name and item information (part number, serial number, quantity, etc.).

3.3. Packaging labels and tags shall be waterproof.

#### **4. Packaging**

- 4.1. Each manufacturer shall define the number of poles per packages depending on the shipping on open platforms or closed trailers for delivery according to LUMA requirements.
- 4.2. At the time of bidding, the bidder must submit a drawing illustrating the proposed packaging configuration for the poles, including the quantity grouped accordingly and any other relevant details that demonstrate the packaging methodology.

#### **5. Number Per Package (Logistics)**

Each manufacturer should define the number of poles per package depending on the shipping on open platforms or closed trailers for delivery according to LUMA requirements or as requested by LUMA.

#### **6. Acceptance Criteria**

- 6.1. The manufacturer shall provide a mill certificate that shows the chemical composition and properties of the steel used to manufacture each batch of poles.
- 6.2. The product shall be manufactured in accordance with the latest issue below (section 6.3). When conflicts occur between purchaser's specifications and the latest issue below, the purchaser's specification shall prevail.
- 6.3. Latest applicable codes, standards, and other regulations:

ASTM A572	Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel
ASTM A325	Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
ASTM A354	Standard Specification for Quenched and Tempered Alloy Steel Bolts, Studs, and Other Externally Threaded Fasteners
ASTM A123	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A153	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
AWS D1.1	Structural Welding Society – Steel
EN 10204	Metallic Products - Types of Inspection Documents

EN 10025	Hot Rolled Products of Structural Steels
EN 10149	Hot-Rolled Flat Products Made of High Yield Strength for Cold Forming
ISO 898	Mechanical Properties of Fasteners Made of Carbon Steel and Alloy Steel
EN ISO 10684	Fasteners – Hot Dip Galvanized Coatings
EN ISO 15614	Specification and Qualification of Welding Procedures for Metallic Materials
EN ISO 9606	Qualification Testing of Welders — Fusion Welding

6.4. If any other standards different from the ones indicated in this document are used, the supplier must provide information showing compatibility with the required ones.

6.5. Quality Certifications

International Organization Standardization: ISO-9001 and ISO-14001.

## 7. Description

7.1. The specifications are divided into two parts in the Technical Specifications and the Special Conditions. The **Technical Specifications** will include the material, welding, design, criteria of the moments, embedment length, deflection, steps and holes, fabrication of steel poles, id plate and marking, drawings, final approval before manufacture, and failure to meet specification. The **Special Conditions** will include special pole requirements, proposal summary document, design criteria, weight limit of the structures, number of sections of the structures, coatings, ground level mark, grounding connectors, full scale structure tests, and test report.

### 7.2. Technical Specifications

#### a. Material

Main structure steel shall be in accordance with ASTM A-572 grade 65 (min) or S460M EN 10.025-4 or S500MC EN 10.149 as a minimum. All material used to fabricate the structure in this specification shall be new and unused, properly certified by the manufacturer. Evidence of steel mill certifications must be presented with each shipment for LUMA Energy materials.

## **b. Welding**

1. All welding shall be performed by qualified operators using procedures in accordance with Section 5, AWS D1.1 of the American Welding Society Structural Welding Code or equivalent EN ISO 15614 and EN ISO 9606.
2. Longitudinal welds in pole section shall have 60 % minimum weld joint penetration (per ASCE 48.19 §7.2.3 and RUS 1724E-214 Sect 5.c.(5)).
3. Longitudinal seams in the female slip joint area shall be complete penetration welds.
  - a. All welding must be done prior to galvanizing.
  - b. Circumferential welding on the pole shaft is NOT permitted under any conditions.
  - c. Records of the welding procedure and welding operator test results shall be kept for five years by the supplier and shall be available for review by LUMA Energy.

## **c. Design**

The supplier is responsible for the design. The bid proposal shall include comply with the following:

1. The bidder shall submit all the design parameters; either with the runs of the program he used for his analysis (PLS-POLE) or other software to prove it. Should they do not prove their design parameters, they will be automatically disqualified.
2. All galvanized steel poles with the minimum ultimate moment at ground-level for an applied minimum ultimate force of applied 2 ft from the top of the pole.
3. The yield strength of the material used shall be equal or greater than the values in the design calculations.
4. The pole shall be designed to withstand, in addition to all other loads and their appropriate overload factors, the effect of deflection due to the loading specified including the dead load of the pole (p-delta effect).

**d. Criteria for the Moments**

Item	Description	Minimum Bending Moment of the ground level (ft.-kips)	Minimum Ultimate Force applied horizontally 2 ft. from the top. (pounds)
1	35-S3.5	96	3,500
2	40-S5.7	182	5,700
3	45-S5.7	208	5,700
4	50-S8.5	349	8,500
5	50-S10	410	10,000
6	55-S8.5	385	8,500
7	55-S10	453	10,000
8	60-S8.5	422	8,500
9	60-S10	496	10,000
10	60-S13	645	13,000
11	65-S8.5	458	8,500
12	65-S10	539	10,000
13	65-S13	701	13,000

**e. Embedment length**

1. The 35, 40, and 45 ft poles shall have a depth at 10% plus 2 ft of their total length.
2. The 50, 55, 60, and 65 ft poles shall have a depth at 14% of their total length.

**f. Deflection**

1. The 35, 40, and 45 ft poles deflections under the maximum load must not exceed 10%.
2. The 50, 55, 60, and 65 ft poles deflections under the maximum load must not exceed 8%.

**g. Steps and Holes**

1. Details of steps and holes can be found in the pole diagrams.
2. All holes must be drilled before galvanizing and the holes must be sealed with a removable plastic cap to prevent water and insect ingress.
3. Each hole shall be furnished with removable ultraviolet ray's resistant plastic caps.
4. Steps: The manufacturer shall provide standard 1/2 in UNC rivnuts, compatible with LUMA's standard lag and plate, located as per the diagrams. The rivnuts must be installed at the factory.

#### **h. Fabrication of Steel Poles**

1. The Supplier shall provide upon request procedures detailing the galvanizing process.
2. All steel work, including bolts, shall be hot-dipped galvanized in accordance with ASTM Specifications A-123, A-153 or EN ISO 10684.
3. The coating quality shall be determined as described in the ASTM A123 Standard.
4. Fabrication of steel poles, nuts and hardware shall conform to applicable ASTM, ANSI, ASCE, AWS, NEMA or EN standards, except as otherwise specified herein.
5. The steel shaft shall be high strength, low alloy, structural steel, Grade 65 (min) or equivalent EN standard.
6. The supplier shall provide upon request a detailed inspection procedure and evidence that ultrasonic test is performed on base and flange plate welds after galvanizing.
7. The 45, 50, 55, 60, and 65 ft poles shall have a minimum thickness of 3/16 in in all members.
8. The maximum bottom diameter of the pole shall be 24 in, including the bearing plate, and shall be made during the manufacturing process.
9. Bearing plates shall have a diameter not more than 2 inches greater than the maximum diameter at the pole butt.
10. LUMA will not accept any pole without the bearing plate, or the cap already installed at the moment of delivery.
11. The support plate is an important element of the poles. Its purpose is to evenly distribute the axial pull-out load of the hydraulic cylinder over the entire surface. Therefore, each proposed design will have to comply with the above-mentioned.
12. A durable metal cap that is resistant to UV rays must be placed on the poles at the time of delivery and should not exceed 1/2 inch in diameter at the top of the poles. It can be welded or secured with an adjustable screw. It is important that the poles identification is indicated clearly (for example, 35-S3.5) and engraved.
13. Drilling, burning, and punching of holes or welding shall be done before application of corrosion protection and shall be in accordance with LUMA drawing.

**i. Identification Plate and Markings**

1. Each pole shall have a legible, waterproof identification plate fabricated in conjunction with the galvanizing of the pole.
2. It shall measure 4 in x 5 in (W x H). The letters shall be at least 1/4 in high. The nameplate may be slightly resized in case it doesn't fit on a pole side surface.
3. This nameplate shall be welded on all its edges to the pole approximately 5 ft – 6 in from the ground line.
4. **In no case will partially welded nameplates be accepted. If this occurs the pole will not be accepted at the time of delivery and will be returned immediately.**
5. **LUMA will not be responsible for any costs incurred but by the supplier of the order in total.**
6. The id plate will be on the side of the 8 in holes (see Appendix-A-A Section).
7. The id plate shall contain the following minimum information:
  - a. Owner Name: PREPA
  - b. Fabrication Date: MM/YY
  - c. Warehouse Number: XXX-XXXXX
  - d. Ult. Moment Capacity: (K-ft)
  - e. Weight: (pounds)
  - f. Pole Length: (ft)
  - g. Type Class: S#
  - h. Manufacturer: Name Company

**j. Drawings**

The bid proposal drawings shall include original documents with the following information:

1. The assembled pole showing all its components and their location.
2. General dimensions of all the structural components.
3. Weight for each Pole (galvanized with all accessories installed).
4. Table of materials indicating the description, type of material, length, width, quantity, weight, and total quantity.

5. Pole grounding attachment detail.
6. Details of all accessories including rivnuts, ground pads, top cap, bearing plate, etc.

**k. Final Approval before Manufacture**

The final shop drawings shall be submitted before manufacturing begins for LUMA's approval. LUMA may request a digital copy of the final drawings in AutoCAD 3D (.DWG) from the supplier for our records. All drawings must include our purchase order number.

**l. Failure to Meet the Specification**

If any pole fails to meet the requirements of these specifications within the warranty period, the LUMA representative (Distribution Materials and Specifications Section) shall have the option to accept or reject it and instruct the manufacturer to immediately proceed with the necessary modifications or provide any new parts that may be required to meet the warranty and the requirements indicated by LUMA. **All expenses related to the supply of any replacement parts shall be borne by the manufacturer.**

**7.3. Special Conditions:**

**a. The Requirement**

The following drawings show the pole configuration to be considered to meet the requested requirements:

1. Galvanized Steel Poles: 35-S3.5, **Appendix 1**
2. Galvanized Steel Poles: 40-S5.7, and 45-S5.7: **Appendix 2**
3. Galvanized Steel Pole: 50-S8.5, and 50-S10: **Appendix 3**
4. Galvanized Steel Poles: 55-S8.5, 55-S10, 60-S8.5, 60-S10, and 60-S13: **Appendix 4**
5. Galvanized Steel Poles: 65-S8.5, 65-S10, and 65-S13: **Appendix 5**

**b. Proposal Summary Document**

The bid proposals shall include a summary table for each structure as per the template attached to this specification. The table shall be filled out in its entirety and comply with the metrics and conditions established. **BIDDER SHALL BE DECLARED NON-RESPONSIVE IF THIS TABLE IS NOT INCLUDED WITH THE PROPOSALS** (See Appendix).

**c. Design Criteria:**

1. Loading cases:
  - a. Intact: Transverse loads on cables and steel pole due to hurricane wind pressure of 160 MPH indicated wind velocity equivalent to 64 PSF on cylindrical surface.
2. Maximum operating temperature for conductors: 212 °F (100 °C).
3. Conductors Specifications:
  - a. For 13.2 kV: 927.5 kcmil / 37 strands/908 AMP Rating/1.1108 in overall diameter/864.4 lbs./1k ft.
  - b. Messenger Cable
4. Structure Attachments:
  - a. Number of Circuits: 2
  - b. Number of Conductors per phase: 1
  - c. Total number of cables 8 (6 conductors and 2 Neutrals)

**d. Weight limit for the structures**

Item	Description	Total Weight Approximately (pounds)
1	35-S3.5	680
2	40-S5.7	1,300
3	45-S5.7	1,500
4	50-S8.5	1,900
5	50-S10	2,600
6	55-S8.5	2,400
7	55-S10	3,200
8	60-S8.5	2,800
9	60-S10	3,400
10	60-S13	4,300
11	65-S8.5	3,200
12	65-S10	3,800
13	65-S13	4,100

**e. Number of Sections of the structures**

1. The 35, 40, 45, and 50 ft distribution poles shall be manufactured in a **(1)** single section.
2. The 55, 60, and 65 ft distribution poles shall be manufactured in a **(2)** two sections.
3. All poles sections shall be round or symmetrical round or dodecagonal.

**f. Coatings**

1. The 35 ft poles shall have a corrosion resistant coating covering from 2 ft below to 2 ft above the ground line for a total of 4 ft.
2. The 40, and 45 ft poles shall have a corrosion resistant coating covering from 2 ft below to 3 ft above the ground line for a total of 5 ft.
3. The 50, 55, 60, and 65 ft poles shall have a corrosion-resistant coating covering from 2 ft below to 4 ft above ground line for a total of 6 ft.
4. This coat shall be a suitable protection of galvanized surfaces and shall be applied as per the manufacturer instructions after galvanizing.
5. **The application thickness shall conform to the coating manufacturer instructions with a minimum dry film thickness (DFT) of 20 mills.**
6. The approved coatings for below-grade applications are Chemthane 3760 and Chemthane 3795, or an equivalent polyurethane coating with UV protection previously approved by LUMA. At the time of bidding, the supplier must submit the complete technical literature of the proposed product, including data sheets, certifications, and any documentation required for evaluation.  
**Failure to provide this information will result in the immediate disqualification of the supplier.**

**g. Ground Level Mark**

1. The pole shall have an additional 3 in wide yellow band painted around the pole at the ground line to indicate the depth limit to which the pole shall be installed.
2. The paint to be used can be Rust-Oleum #242258 enamel or an equivalent approved by LUMA.  
**Failure to provide this information will result in the immediate disqualification of the supplier.**

#### **h. Grounding connectors**

1. Two ground connectors shall be provided for pole 35 and 40 ft: one for the transformer ground located 8 ft-7 in from the top and the other 1 ft below the ground line.
2. Two ground connectors shall be provided for pole 45 ft: one for the transformer ground located 12 ft-6 in from the top and the other 1 ft below the ground line.
3. Grounding connectors for the pole 50 ft shall be provided at 6 ft-6 in, 17 ft-7 in and 24 ft-6 in from the top. Also, one of two-hole NEMA grounding pad shall be provided 1 ft below the ground line.
4. Ground connectors for the pole 55 ft shall be provided at 7 ft-11 in, 16 ft-11 in and 25 ft-11 in from the top. Also, one of two-hole NEMA grounding pads shall be provided at 1 ft below the ground line.
5. Grounding connectors for pole 60 ft shall be provided at 8 ft-1 in, 18 ft-1 in and 26 ft-1 in from the top. Also, one two-hole NEMA grounding pad shall be provided 1 ft below the groundline.
6. Grounding connectors for pole 65 ft shall be provided at 9 ft, 19 ft-1 in. and 27 ft from the top. Also, one of two-hole NEMA grounding pads shall be provided 1 ft below the ground line.

#### **i. Full Scale Structure Testing**

1. Poles to be subjected to full scale load tests per the attached document: **Standard Class Pole Testing Procedure** (Attached Document).
2. Details of the test procedures and methods of measuring and recording test loads and deflections shall be specified by the manufacturer prior to testing and shall be subject to review and approval by the LUMA representative.
3. Deflections shall be recorded in the transverse and longitudinal directions when applicable. Deflection measurements shall be taken under the no load condition both before and after testing.
4. Material procurement for test poles shall be identical to material procurement procedures for regular production run poles.
5. A full report listing the results shall be submitted after completion of all testing. Copies of mill

test reports shall be included in the load test report.

6. The report should also include a complete description of the load tests with diagrams and photographs.
7. The representative (s) of LUMA reserves the right to be present during testing and shall be notified approximately 3 months prior to the start of the pole test.

**j. Test Reports**

1. Certified mills test reports for all structural material.
2. Certified welding reports for each pole.
3. Impact property test reports showing that the material used in the poles meets the impact properties.
4. Test reports on coating thickness.
5. Final report of pole testing, when required, including photographs, and diagrams

**8. Delivery of Material**

- 8.1. The distribution poles will be delivered at the LUMA General Warehouse in Palo Seco (011), Puerto Rico, unless otherwise indicated and coordinated with another area provided by the LUMA.
- 8.2. Shipping will include transportation at the indicated warehouse.
- 8.3. Distribution poles shall be delivered on open platforms or closed trailers. Proponents shall present a proposal for both alternatives at the time of bidding. This requirement will be discussed upon the award of the bid in accordance with the terms and conditions of the contract as required by LUMA.
- 8.4. All poles shall be spaced to avoid damage to the galvanized surface.
- 8.5. The underside, where the coating is located, shall be adequately covered to ensure that it is not affected during delivery.
- 8.6. LUMA will provide all the labor, equipment, and materials to unload the poles at the designated warehouse or at the location indicated by LUMA.

**9. 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/material were found later to be defective.

## **10. Storage**

10.1. When storing galvanized steel poles, the aim is to minimize any deleterious effects to maintain the integrity of the poles as best as practically possible. If poles are stored outside, follow the indications noted below:

- a. If stored outside, the area should be relatively flat and free of nearby contaminants or surfaces that could potentially result in deterioration of the pole sections.
- b. Poles should be stored horizontally on timber gluts well above the surrounding ground and any grass.
- c. Any plastic wrapping should be removed from around the product.
- d. For poles with painted sections, supporting timber gluts should not be located under a painted area where possible.
- e. Poles should be inspected every three to six months and rotated on the timber gluts if there appears to be a reaction between the timber material and the galvanized steel pole surface.
- f. If debris collects on the pole sections, remove or hose debris off as required.

## **11. Proposal Information**

11.1. Submitted proposals must include:

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

## 12. Table Warehouse and Asset Suite Identification Number

Item	Pole Height	Warehouse Number	Asset Suite
1	35-S3.5	026-83045	83045
2	40-S5.7	026-82858	82858
3	45-S5.7	026-82859	82859
4	50-S8.5	026-01078	57611
5	50-S10	026-85446	85446
6	55-S8.5	026-82860	82860
7	55-S10	026-85447	85447
8	60-S8.5	026-01052	57609
9	60-S10	026-82861	82861
10	60-S13	026-83608	83608
11	65-S8.5	026-82862	82862
12	65-S10	026-82863	82863
13	65-S13	026-85995	85995

# Appendix

## Appendix 1: Table of Compliance

Line	Criteria	Description	Pass/Fail (P/F)	Comments
1	Industry Standards	The Proponent complies with the industry standards established in the specification document. (ASTM, ANSI, NEMA, NESC, NEC, ASCE)		
2	Certifications	Certified vertical and horizontal load resistance tests.		
3	Descriptions	All poles galvanized with the minimum ultimate moment at ground-level for an applied minimum ultimate force of applied 2 ft from the top of the pole.		
4	Embedment length	35/40/45: depth at 10% plus 2 feet of their total length.		
		50/55/60/65: depth at 14% of their total length.		
5	Deflection	35/40/45: deflections under the maximum load must not exceed 10%.		
		50/55/60/65: deflections under the maximum load must not exceed 8%.		
6	Holes Description	35/40/45: Holes: 11/16"		
		50/55/60/65: Holes 13/16"		
7	Fabrication	45/50/55/60/65: minimum thickness of 3/16 inches in all members.		
		All poles: maximum bottom diameter be 24 inches, including the bearing plate.		
		A metal or UV resistant plastic top cap shall be attached to the pole at the time of delivery and shall not exceed 1/2" of pole top diameter.		
8	Pole Buried Description and Amount Holes	35'/5'-6" - 18/12		
		40'/6' - 21/14		
		45'/6'-6" - 21/14		
		50'/7'- 31/21		
		55'/7'-9" - 39/26		
		60'/8'-5" - 39/26		
		65'/9'-1" - 48/32		
9	ID Plate and Markings	At approximately 5'-6" from ground line.		
		Plate: stamped with letters not less than 1/4 in height.		
		Identification plate will be on the side of the 8" holes.		
0	Minimum Bending Moment And Minimum Ultimate Force	1 35-S3.5-96 ft.-kips: 3, 500 pounds		
		2 40-S5.7-182 ft.-kips: 5,700 pounds		
		3 45-S5.7-208 ft.-kips: 5,700 pounds		
		4 50-S8.5-349 ft.-kips: 8, 500 pounds		
		5 50-S10-410 ft.-kips: 10, 000 pounds		
		6 55-S8.5-385 ft.-kips: 8, 500 pounds		
		7 55-S10-453 ft.-kips: 10, 000 pounds		
		8 60-S8.5-422 ft.-kips: 8, 500 pounds		

		<b>9</b>	60-S10-496 ft.-kips: 10, 000 pounds			
		<b>10</b>	60-S13-645 ft.-kips: 13, 000 pounds			
		<b>11</b>	65-S8.5-458 ft.-kips: 8, 500 pounds			
		<b>12</b>	65-S10-539 ft.-kips: 10, 000 pounds			
		<b>13</b>	65-S13-701 ft.-kips: 13, 000 pounds			
<b>11</b>	<b>Weight of the structures</b>	<b>1</b>	35-S3.5: 680 pounds			
		<b>2</b>	40-S5.7: 1, 300 pounds			
		<b>3</b>	45-S5.7: 1, 500 pounds			
		<b>4</b>	50-S8.5: 1, 900 pounds			
		<b>5</b>	50-S10: 2, 600 pounds			
		<b>6</b>	55-S8.5: 2, 400 pounds			
		<b>7</b>	55-S10: 3, 200 pounds			
		<b>8</b>	60-S8.5: 2, 800 pounds			
		<b>9</b>	60-S10: 3, 400 pounds			
		<b>10</b>	60-S13: 4, 300 pounds			
		<b>11</b>	65-S8.5: 3, 200 pounds			
		<b>12</b>	65-S10: 3, 800 pounds			
		<b>13</b>	65-S13: 4, 100 pounds			
<b>12</b>	<b>Number of Sections of the structures</b>	35/40/45/50: (1) one section.				
		55/60/60/65: (2) two sections.				
		Poles sections shall be round or symmetrical round or dodecagonal.				
<b>13</b>	<b>Coatings</b>	35 ft poles shall have a corrosion resistant coating covering from 2 ft below to 2 ft above the ground line for a total of 4 ft.				
		40, and 45 ft poles shall have a corrosion resistant coating covering from 2 ft below to 3 ft above the ground line for a total of 5 ft.				
		50, 55, 60, and 65 ft poles shall have a corrosion-resistant coating covering from 2 ft below to 4 ft above ground line for a total of 6 ft.				
		Minimum dry film thickness (DFT) of 20 mills.				
		The approved coatings for below-grade applications are Chemthane 3760 and Chemthane 3795, or an equivalent polyurethane coating with UV previously approved by LUMA. At the time of bidding, the supplier must submit the complete technical literature of the proposed product, including data sheets, certifications, and any documentation required for evaluation. Failure to provide this information will result in the immediate disqualification of the supplier.				
<b>14</b>	<b>Ground Level Mark</b>	The pole will have a 3" wide yellow stripe around it, the stripe will indicate the depth limit to which the pole will be installed. The paint to be used can be Rust-Oleum #242258 enamel or an equivalent approved by LUMA. Failure to provide this information will result in the immediate disqualification of the supplier.				

15	Grounding connectors	35'-40'/8'-7"/1'-0"gl		
		45'/12'-6"/1'-0"gl		
		50'/6'-6"/17'-7"/24'-6"/ 1'-0"gl		
		55'/7'-11"/16'-11"/25'-11"/ 1'-0"gl		
		60'/8'-1"/18'-1"/26'-1"/ 1'-0"gl		
		65'/9'/19'-1"/27'-0"/ 1'-0"gl		
16	Test Reports	Certified mills test reports for all structural material.		
		Certified welding reports for each pole.		
		Impact property test reports showing that the material used in the poles meets the impact properties.		
		Test reports on coating thickness.		
		Report on pole testing, when required, including photographs, and diagrams.		
Conclusion: Comply with Specification Document Num: 4300.50.042				

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



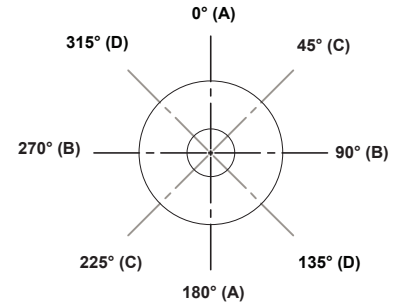
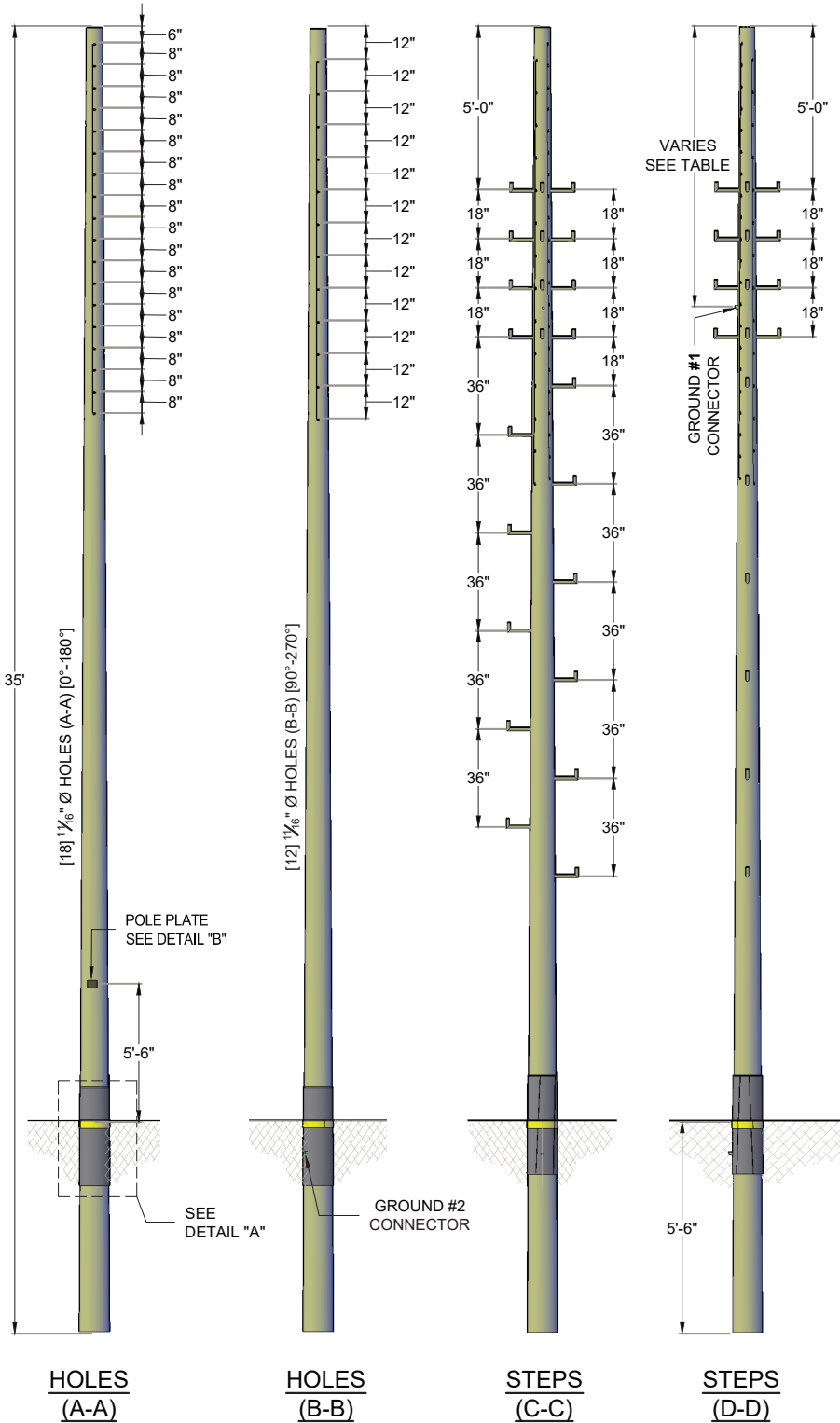
# DISTRIBUTION ENGINEERING

MATERIAL SPECIFICATIONS

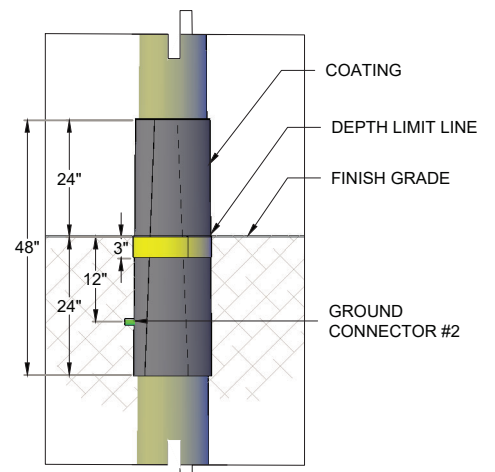
TITLE:

APPENDIX NO. 1  
DOCUMENT NO. 4300.50.042

## HOLES & STEPS PATTERN FOR GALVANIZED STEEL POLES SPECIFICATIONS 35 - S3.5

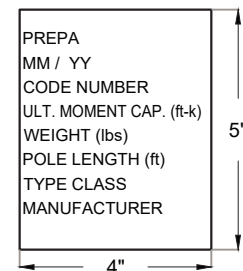


TOP VIEW



DETAIL "A"

(SEE SPECIFICATION FOR MORE DETAILS)



DETAIL "B"

SEE SPECIFICATION

POLES DESCRIPTION				
POLE FT	EMBEDMENT LENGTH	HOLES "A-A"	HOLES "B-B"	GRND #1 FROM THE TOP
35'-0"	5'-6"	18	12	8'-7"



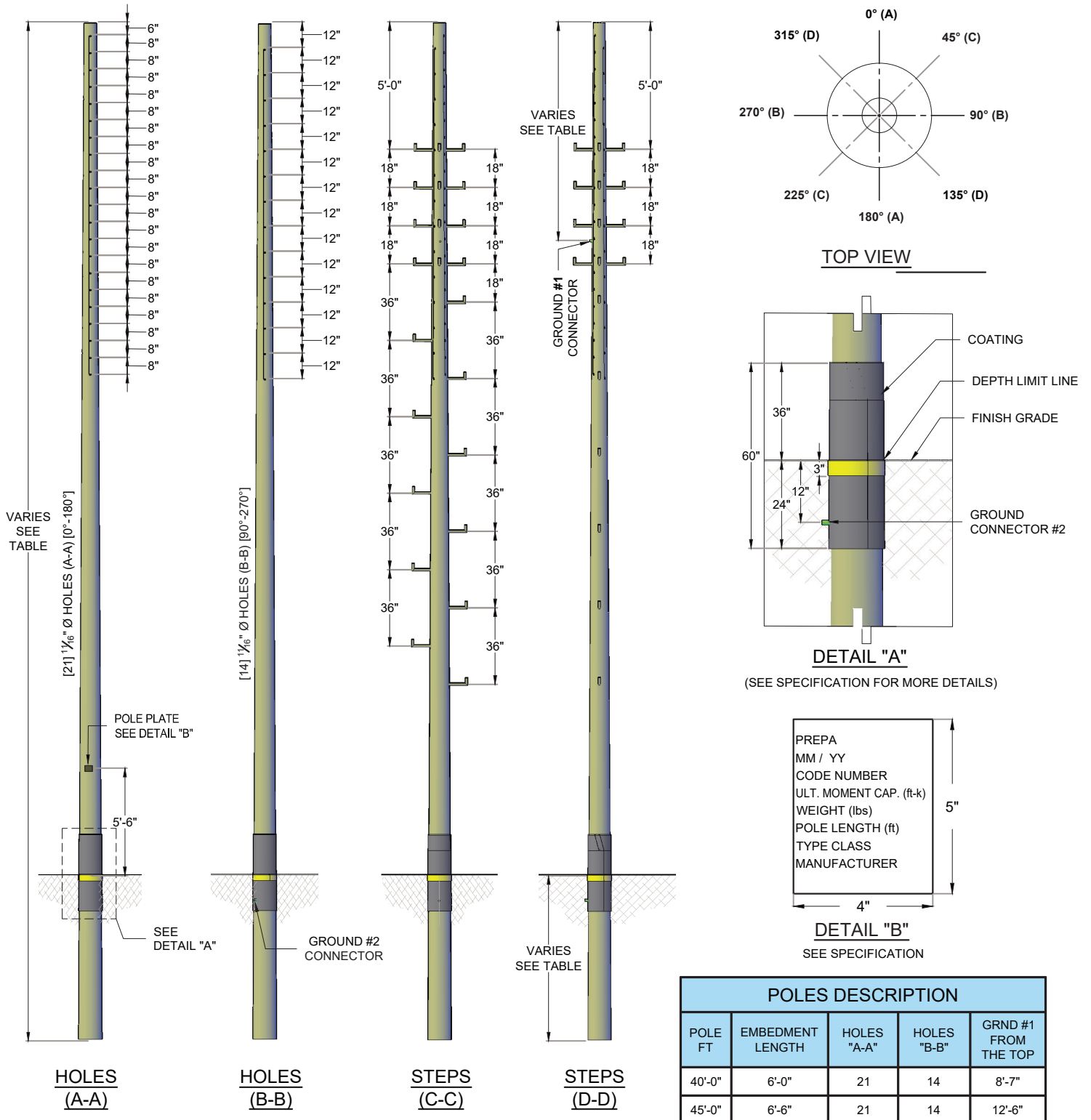
# DISTRIBUTION ENGINEERING

## MATERIAL SPECIFICATIONS

TITLE:

APPENDIX NO. 2  
DOCUMENT NO. 4300.50.042

### HOLES & STEPS PATTERN FOR GALVANIZED STEEL POLES SPECIFICATIONS 40 - S5.7 / 45 - S5.7





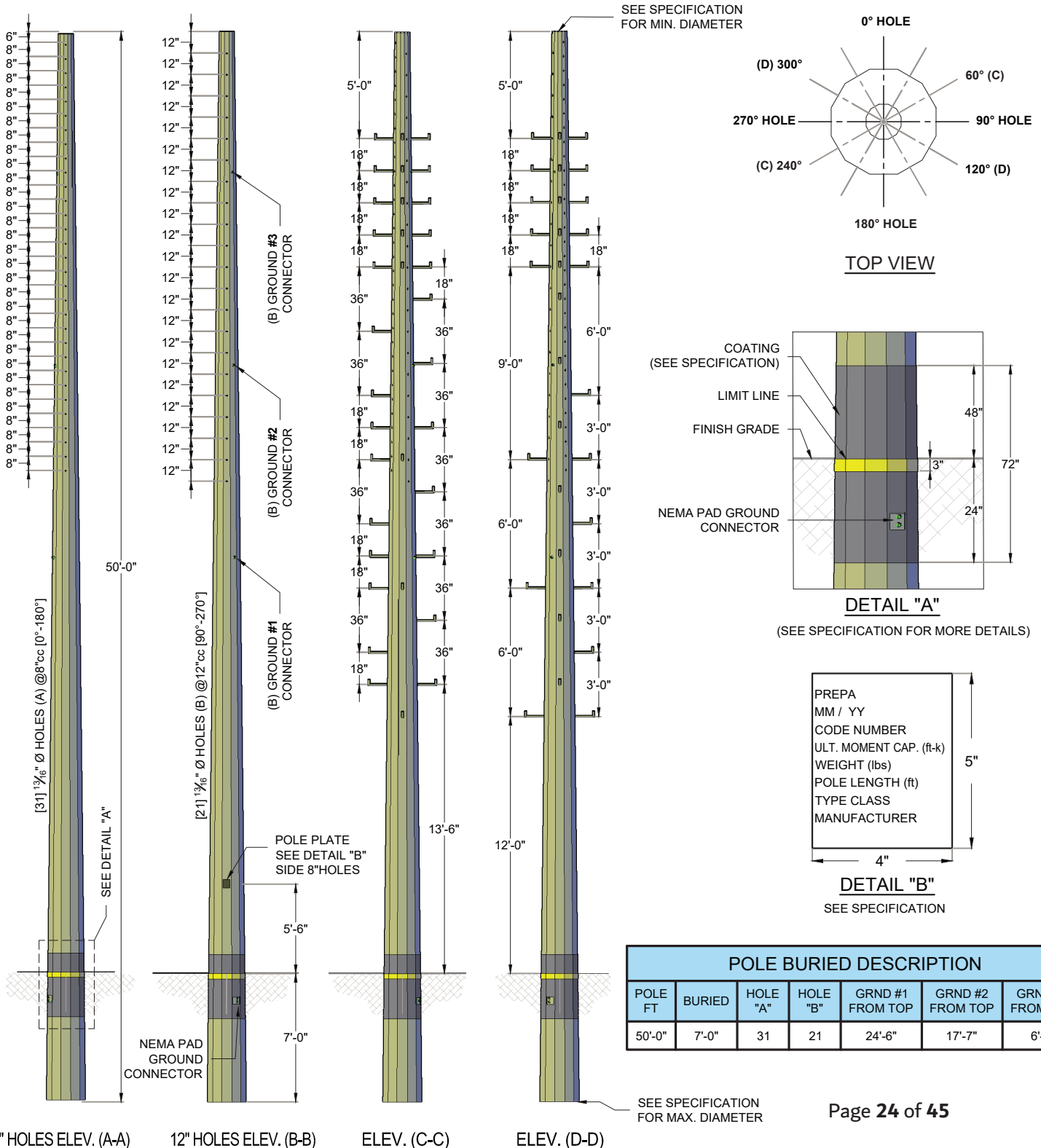
# DISTRIBUTION ENGINEERING

## MATERIAL SPECIFICATIONS

TITLE:

APPENDIX NO. 3  
DOCUMENT NO. 4300.50.042

### HOLES & STEPS PATTERN FOR GALVANIZED STEEL POLES SPECIFICATIONS 50 - S8.5 AND 50 - S10







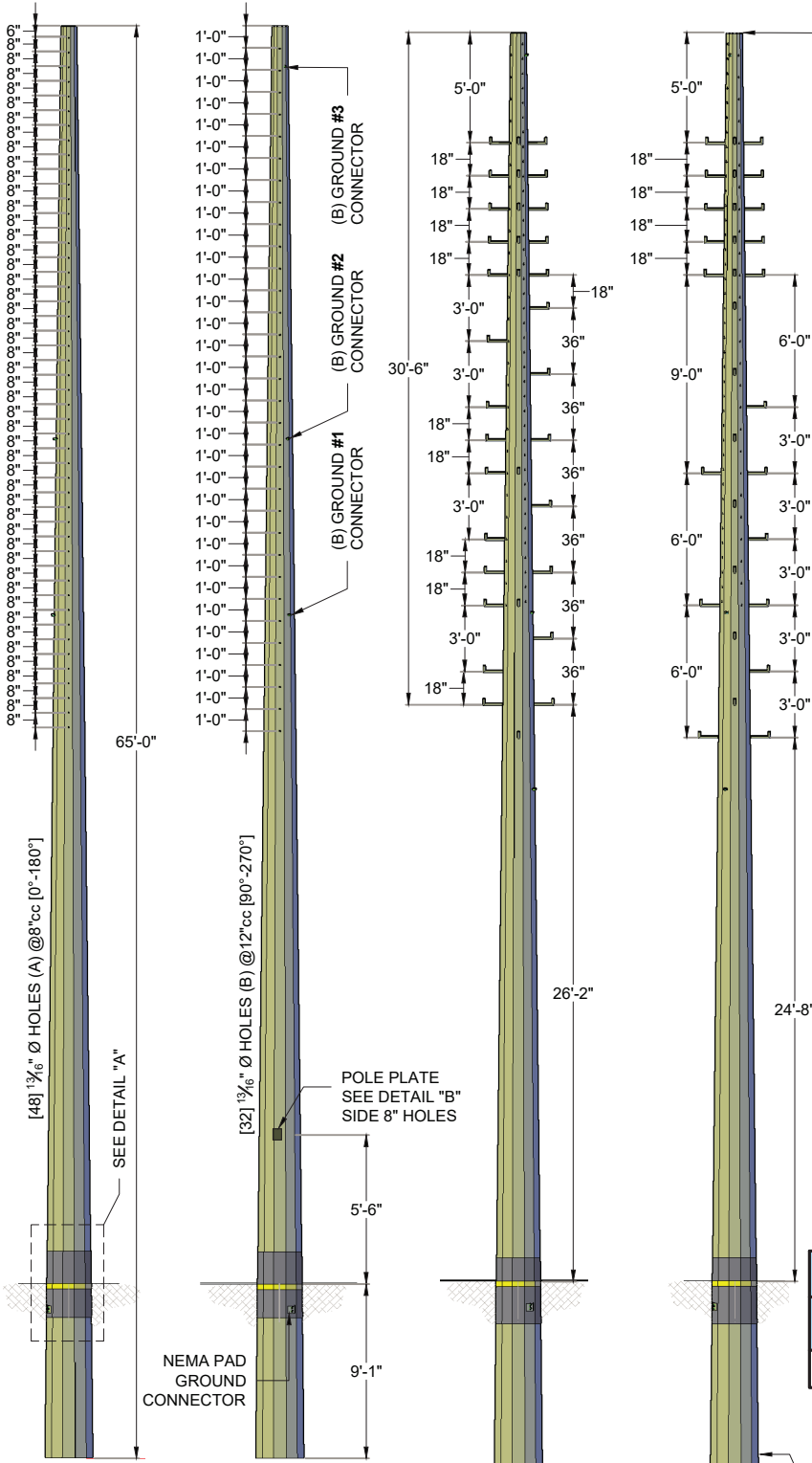
# DISTRIBUTION ENGINEERING

## MATERIAL SPECIFICATIONS

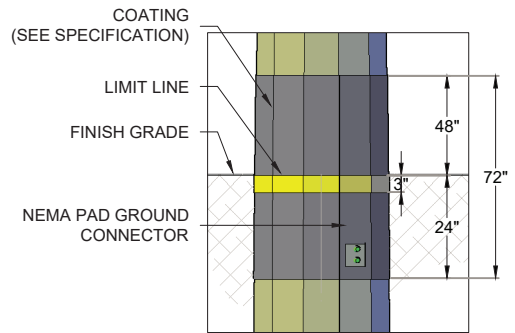
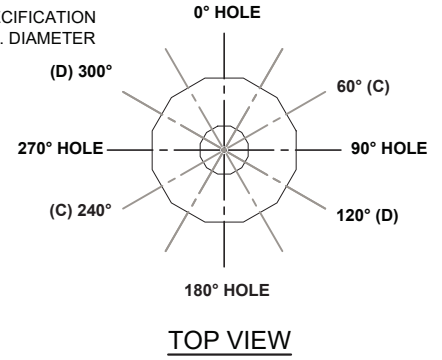
TITLE:

### HOLES & STEPS PATTERN FOR GALVANIZED STEEL POLES STANDARD SPECIFICATION 65 - S8.5, 65 - S10 AND 65 - S13

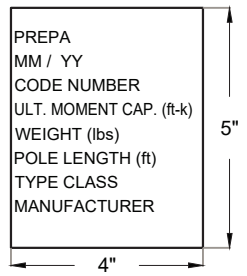
APPENDIX NO. 5  
DOCUMENT NO. 4300.50.042



SEE SPECIFICATION FOR MIN. DIAMETER



**DETAIL "A"**  
(SEE SPECIFICATION FOR MORE DETAILS)



**DETAIL "B"**  
SEE SPECIFICATION

POLE BURIED DESCRIPTION						
POLE FT	BURIED	HOLE "A"	HOLE "B"	GRND #1 FROM TOP	GRND #2 FROM TOP	GRND #3 FROM TOP
65'-0"	9'-1"	48	32	27'-0"	19'-1"	9'-0"

**8" HOLES ELEV. (A-A)**

**12" HOLES ELEV. (B-B)**

**ELEV. (C-C)**

**ELEV. (D-D)**

SEE SPECIFICATION FOR MAX. DIAMETER



**PROPOSAL SUMMARY DOCUMENT**

**MATERIAL SPECIFICATION**

Revision: August/2025

Distribution Engineering

Document No.: 4300.50.042

MANUFACTURER: \_\_\_\_\_

FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 35-S3.5**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	35'-0"	
2	EMBEDMENT LENGTH	FT.	5'-6"	
3	# OF POLE SECTION	1		
4	CROSS SECTION	DODECAGONAL		
5	GALVANIZING THICKNESS	LENGTH 1:		
6	MAXIMUM TOTAL WEIGHT	POUNDS	680	
7	MINIMUM BENDING MOMENT	FT.-KIPS	96	
8	WH NUMBER	026-83045		
9	LENGTH 1			
10	DIAMETER-1	BOTTOM/TOP-1		
11	MAXIMUM DEFLECTION	10%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT**  
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FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 40-S5.7**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	40'-0"	
2	EMBEDMENT LENGTH	FT.	6'-0"	
3	# OF POLE SECTION	1		
4	CROSS SECTION	DODECAGONAL		
5	GALVANIZING THICKNESS	LENGTH 1:		
6	MAXIMUM TOTAL WEIGHT	POUNDS	1,300	
7	MINIMUM BENDING MOMENT	FT.-KIPS	182	
8	WH NUMBER	026-82858		
9	LENGTH 1			
10	DIAMETER-1	BOTTOM/TOP-1		
11	MAXIMUM DEFLECTION	10%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT**

**MATERIAL SPECIFICATION**

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Distribution Engineering

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MANUFACTURER: \_\_\_\_\_

FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 45-S5.7**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	45'-0"	
2	EMBEDMENT LENGTH	FT.	6'-6"	
3	# OF POLE SECTION	1		
4	CROSS SECTION	DODECAGONAL		
5	MINIMUM GALVANIZING THICKNESS	LENGTH 1 - (3/16 IN):		
6	MAXIMUM TOTAL WEIGHT	POUNDS	1,500	
7	MINIMUM BENDING MOMENT	FT.-KIPS	208	
8	WH NUMBER	026-82859		
9	LENGTH 1			
10	DIAMETER-1	BOTTOM/TOP-1		
11	MAXIMUM DEFLECTION	10%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT**

**MATERIAL SPECIFICATION**

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Distribution Engineering

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MANUFACTURER: \_\_\_\_\_

FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 50-S8.5**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	50'-0"	
2	EMBEDMENT LENGTH	FT.	7'-0"	
3	# OF POLE SECTION	1		
4	CROSS SECTION	DODECAGONAL		
5	MINIMUM GALVANIZING THICKNESS	LENGTH 1 - (3/16 IN):		
6	MAXIMUM TOTAL WEIGHT	POUNDS	1,900	
7	MINIMUM BENDING MOMENT	FT.-KIPS	349	
8	WH NUMBER	026-01078		
9	LENGTH 1			
10	DIAMETER-1	BOTTOM/TOP-1		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT  
MATERIAL SPECIFICATION**

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MANUFACTURER: \_\_\_\_\_

FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 50-S10**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	50'-0"	
2	EMBEDMENT LENGTH	FT.	7'-0"	
3	# OF POLE SECTION	1		
4	CROSS SECTION	DODECAGONAL		
5	MINIMUM GALVANIZING THICKNESS	LENGTH 1 - (3/16 IN):		
6	MAXIMUM TOTAL WEIGHT	POUNDS	2,600	
7	MINIMUM BENDING MOMENT	FT.-KIPS	410	
8	WH NUMBER	026-85446		
9	LENGTH 1			
10	DIAMETER-1	BOTTOM/TOP-1		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT**  
**MATERIAL SPECIFICATION**

Revision: August/2025  
Distribution Engineering

Document No.: 4300.50.042

MANUFACTURER: \_\_\_\_\_

FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 55-S8.5**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	55'-0"	
2	EMBEDMENT LENGTH	FT.	7'-9"	
3	# OF POLE SECTION	2		
4	CROSS SECTION	DODECAGONAL		
5	MINIMUM GALVANIZING THICKNESS	THICK 1 /THICK 2: (3/16IN)		
6	MAXIMUM TOTAL WEIGHT	POUNDS	2,400	
7	MINIMUM BENDING MOMENT	FT.-KIPS	385	
8	WH NUMBER	026-82860		
9	LENGTH	L 1 /L 2:		
10	DIAMETER-1/DIAMETER-2	BOTTOM/TOP-1: BOTTOM/TOP-2		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT  
MATERIAL SPECIFICATION**

Revision: August/2025

Distribution Engineering

Document No.: 4350.042

MANUFACTURER: \_\_\_\_\_

FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 55-S10**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	55'-0"	
2	EMBEDMENT LENGTH	FT.	7'-9"	
3	# OF POLE SECTION	2		
4	CROSS SECTION	DODECAGONAL		
5	MINIMUM GALVANIZING THICKNESS	LENGTH 1 /LENGTH 2: (3/16IN)		
6	MAXIMUM TOTAL WEIGHT	POUNDS	3,200	
7	MINIMUM BENDING MOMENT	FT.-KIPS	453	
8	WH NUMBER	026-85447		
9	LENGTH	L 1 /L 2:		
10	DIAMETER-1/DIAMETER-2	BOTTOM/TOP-1: BOTTOM/TOP-2		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT**  
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MANUFACTURER: \_\_\_\_\_

FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 60-S8.5**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	60'-0"	
2	EMBEDMENT LENGTH	FT.	8'-5"	
3	# OF POLE SECTION	2		
4	CROSS SECTION	DODECAGONAL		
5	GALVANIZING THICKNESS	LENGTH 1 /LENGTH 2: (3/16IN)		
6	MAXIMUM TOTAL WEIGHT	POUNDS	2,800	
7	MINIMUM BENDING MOMENT	FT.-KIPS	422	
8	WH NUMBER	026-01052		
9	LENGTH	L 1 /L 2:		
10	DIAMETER-1/DIAMETER-2	BOTTOM/TOP-1: BOTTOM/TOP-2		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT  
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**Galvanized Distribution Steel Poles: 60-S10**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	60'-0"	
2	EMBEDMENT LENGTH	FT.	8'-5"	
3	# OF POLE SECTION	2		
4	CROSS SECTION	DODECAGONAL		
5	GALVANIZING THICKNESS	LENGTH 1 /LENGTH 2: (3/16IN)		
6	MAXIMUM TOTAL WEIGHT	POUNDS	3,400	
7	MINIMUM BENDING MOMENT	FT.-KIPS	496	
8	WH NUMBER	026-82861		
9	LENGTH	L 1 /L 2:		
10	DIAMETER-1/DIAMETER-2	BOTTOM/TOP-1: BOTTOM/TOP-2		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



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FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 60-S13**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	60'-0"	
2	EMBEDMENT LENGTH	FT.	8'-5"	
3	# OF POLE SECTION	2		
4	CROSS SECTION	DODECAGONAL		
5	GALVANIZING THICKNESS	LENGTH 1 /LENGTH 2: (3/16IN)		
6	MAXIMUM TOTAL WEIGHT	POUNDS	4,300	
7	MINIMUM BENDING MOMENT	FT.-KIPS	645	
8	WH NUMBER	026-83608		
9	LENGTH	L 1 /L 2:		
10	DIAMETER-1/DIAMETER-2	BOTTOM/TOP-1: BOTTOM/TOP-2		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



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FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 65-S8.5**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	65'-0"	
2	EMBEDMENT LENGTH	FT.	9'-1"	
3	# OF POLE SECTION	2		
4	CROSS SECTION	DODECAGONAL		
5	GALVANIZING THICKNESS	LENGTH 1 /LENGTH 2: (3/16IN)		
6	MAXIMUM TOTAL WEIGHT	POUNDS	3,200	
7	MINIMUM BENDING MOMENT	FT.-KIPS	458	
8	WH NUMBER	026-82862		
9	LENGTH	L 1 /L 2:		
10	DIAMETER-1/DIAMETER-2	BOTTOM/TOP-1: BOTTOM/TOP-2		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT  
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MANUFACTURER: \_\_\_\_\_

FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 65-S10**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	65'-0"	
2	EMBEDMENT LENGTH	FT.	9'-1"	
3	# OF POLE SECTION	2		
4	CROSS SECTION	DODECAGONAL		
5	GALVANIZING THICKNESS	LENGTH 1 /LENGTH 2: (3/16IN)		
6	MAXIMUM TOTAL WEIGHT	POUNDS	3,800	
7	MINIMUM BENDING MOMENT	FT.-KIPS	539	
8	WH NUMBER	026-82863		
9	LENGTH	L 1 /L 2:		
10	DIAMETER-1/DIAMETER-2	BOTTOM/TOP-1: BOTTOM/TOP-2		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		



**PROPOSAL SUMMARY DOCUMENT**  
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MANUFACTURER: \_\_\_\_\_

FACTORY LOCATION: \_\_\_\_\_

**Galvanized Distribution Steel Poles: 65-S13**

ITEM	DESCRIPTION	UNIT	LUMA SPECIFICATION:	PROPOSAL
1	TOTAL LENGTH	FT.	65'-0"	
2	EMBEDMENT LENGTH	FT.	9'-1"	
3	# OF POLE SECTION	2		
4	CROSS SECTION	DODECAGONAL		
5	GALVANIZING THICKNESS	LENGTH 1 /LENGTH 2: (3/16IN)		
6	MAXIMUM TOTAL WEIGHT	POUNDS	4,100	
7	MINIMUM BENDING MOMENT	FT.-KIPS	701	
8	WH NUMBER	026-85995		
9	LENGTH	L 1 /L 2:		
10	DIAMETER-1/DIAMETER-2	BOTTOM/TOP-1: BOTTOM/TOP-2		
11	MAXIMUM DEFLECTION	8%		
12	MINIMUM STEEL GRADE	65		
13	ID PLATE GROUND LEVEL DISTANCE	5'-6"		
14	WELDED PLATE	PLEASE TAKE PICTURE		

# Standard Procedure for Pole Testing



## 1. Introduction

This procedure is intended to verify the deflection performance and structural capacity of the standard class LUMA distribution poles.

## 2. Structure Testing

- 2.1. The structures which are to have full-scale load tests performed on them are listed in LUMA specification document number 4300.50.042: Galvanized Steel Poles. The specification includes **13 types** of poles: 35-S3.5, 40-S5.7, 45-S5.7, 50-S8.5, 50-S10, 55-S8.5, 55-S10, 60-S8.5, 60S10, 60-S13, 65-S8.5, 65-S10, and 65-S13. If the company does not participate in all categories, it will only be able to participate in future bids in those that are certified and approved by LUMA.
- 2.2. Details of the test procedures and methods of measuring and recording test loads and deflections shall be specified by the manufacturer prior to testing and shall be subject to the review and approval of the owner or his representative.
- 2.3. Deflections shall be recorded in the transverse and longitudinal directions when applicable. Deflection measurements shall be taken under the no load condition both before and after testing.
- 2.4. Material procurement for test poles shall be identical to material procurement procedures for regular production run poles.

- 2.5. Upon completion of all tests, a comprehensive report of the results certified by the company's assigned representative must be submitted. This report should encompass various details, including certified material test, a thorough description of the load tests, along with diagrams and photographs.
- 2.6. The owner or his representative reserves the right to be present during testing and shall be notified 2 weeks prior to the start of structure fabrication.

### **3. Safety**

- 3.1. The safety of all personnel is paramount during all stages of testing, including assembly and disassembly. Prior to commencing any test procedures, the testing supervisor shall conduct a safety briefing with all relevant personnel to review the test process, identify potential hazards and required precautions, and ensure the necessary personal protective equipment is available and used properly
- 3.2. During the testing process, at least one individual shall be designated as a spotter to warn other personnel if an impending buckling failure is observed. While failure is not expected at or below the 100% load levels, it may be possible at the 120% load level. If buckling failure occurs, it is expected to initiate as a "crunching" or "folding" of the pole cross-section at the slip joint or at the base of the pole. If reduction in the pole cross-section in the direction parallel to the application of the load is observed visually, testing personnel must be warned that a failure may be imminent. Any such failure is expected to be relatively gradual, but appropriate precautions are still required.
- 3.3. Furthermore, the testing process will result in significant deflections of the pole tip (potentially 6'-10' depending on pole height and class). This deflection could result in net tension at the slip splice, which could result in separation of the top and bottom pole section. Therefore, the top and bottom sections shall be secured to each other by a slack chain or strap of sufficient length that it will not engage during ordinary testing but will hold the sections together if a separation failure starts to occur.
- 3.4. Finally, if the testing is performed in an active area of the plant yard, one or more additional individuals shall be designated as flaggers to direct truck and forklift traffic away from the testing area.
- 3.5. Additional safety precautions beyond those described above may be required. Normal plant safety procedures shall always be followed before, during, and after the test.

### **4. Test Setup**

- 4.1. These poles will be tested horizontally for safety and ease of testing. Since standard class poles are relatively lightweight and are designed for a single horizontal load applied 2' from the pole tip, the difference in stress and deflection between the vertical and horizontal orientations is negligible for the purposes of this test.
- 4.2. The test setup consists of a rigid clamping fixture that anchors the base of the pole at the assumed groundline position. The pole tip is supported by a rolling cart that is free to move in the direction of the applied load. Additionally, one or more intermediate rolling carts shall be used to ensure the entire pole length is supported and the pole centerline is kept level during testing.
- 4.3. The test load will be applied in increments of 50%, 75%, 90%, 100%, and 120% of the standard class design load. The design load should be entered in the accompanying spreadsheet, and the test load increments will be calculated automatically for each step. The load for each step in the test will be applied horizontally, 2' below the pole tip and perpendicular to the initial centerline of the pole, using a hydraulic apparatus and a dynamometer. The test setup must accommodate significant pole tip deflections as mentioned above (potentially 6'-10' depending on pole height and class).
- 4.4. During the test setup, the pole slip joints shall be assembled in accordance with company Assembly Notes. Furthermore, the seam welds in the pole shafts shall be oriented perpendicular to the direction of applied loading. Thus, the seam welds on single-seam sections should be either up or down, and the seam welds on two-seam sections should be up and down.
- 4.5. During the load testing, the position of the rigid base fixture must be continually monitored since any displacement or rotation of that fixture may invalidate the test results. If displacement or rotation of the base fixture is observed, testing shall be stopped, and the fixture shall be repositioned and secured. The slip joint shall be continually monitored as well in case the pole sections start to separate.

## **5. Test Process**

- 5.1. The loading test may begin after the pole is properly set up in the test fixture. The load shall be applied gradually, and once the load for each testing step is reached, the hydraulic apparatus shall be stopped, and the load held for 3 minutes. The initial pole tip deflection for each step shall be measured horizontally, relative to the pole tip position prior to the commencement of testing, and perpendicular to

the initial pole centerline. After 3 minutes, the dynamometer load reading shall be recorded, and the final deflection measurement for that test step shall be taken and recorded. Note that the applied load may decrease over the 3-minute hold period due to minor slippage at the pole joint; however, if this occurs, additional load should not be applied for that test step.

- 5.2. After the load is held for 3 minutes and the required measurements are taken, the test load shall be gradually released down to zero. After 3 additional minutes, the deflection of the pole tip relative to the initial position described above shall be measured and recorded. Note that the pole tip may not return to zero deflection due to friction and minor slippage at the pole joint.
- 5.3. After the final loading test step (120%) is completed, the test pole shall be inspected for any permanent deflection, local failures, or cross-sectional distortion. The pole slip joint shall be disassembled, and any local buckling or other distortion in the joint area or at the pole groundline shall be photographed, measured, and described in the testing log.

MANUFACTURER: \_\_\_\_\_ FACTORY LOCATION: \_\_\_\_\_ DATE: \_\_\_\_\_

Galvanized Distribution Steel Poles: _____					
TEST #: _____	1	2	3	4	5
TOTAL LENGTH (ft)					
STANDARD CLASS DESIGN LOAD (pds)					
TEST PROCEDURE START TIME					
AMBIENT TEMPERATURE @ START					
TEST PROCEDURE END TIME					
AMBIENT TEMPERATURE @ END					
GENERAL WEATHER CONDITIONS DURING TEST					
1	<b>Apply 50% Design Load (pounds)</b>				
	Initial Deflection at 50% Load (in)				
	<b>Wait 3 Minutes</b>				
	Test Load After 3 Minutes (pds)				
	Final Deflection at 50% Load (in)				
	<b>Release Load &amp; Wait 3 Minutes</b>				
	Deflection at No Load (in)				
2	<b>Apply 75% Design Load (pounds)</b>				
	Initial Deflection at 75% Load (in)				
	<b>Wait 3 Minutes</b>				
	Test Load After 3 Minutes (pds)				
	Final Deflection at 75% Load (in)				
	<b>Release Load &amp; Wait 3 Minutes</b>				
	Deflection at No Load (in)				

<b>3</b>	<b>Apply 90% Design Load (pounds)</b>					
	Initial Deflection at 90% Load (in)					
	<b>Wait 3 Minutes</b>					
	Test Load After 3 Minutes (pds)					
	Final Deflection at 90% Load (in)					
	<b>Release Load &amp; Wait 3 Minutes</b>					
	Deflection at No Load (in)					
<b>4</b>	<b>Apply 100% Design Load (pounds)</b>					
	Initial Deflection at 100% Load (in)					
	<b>Wait 3 Minutes</b>					
	Test Load After 3 Minutes (pds)					
	Final Deflection at 100% Load (in)					
	<b>Release Load &amp; Wait 3 Minutes</b>					
	Deflection at No Load (in)					
<b>5</b>	<b>Apply 120% Design Load (pounds) or Maximum Break Point</b>					
	Initial Deflection at 120% or Maximum Break Point Load (in)					
	<b>Wait 3 Minutes</b>					
	Test Load After 3 Minutes (pds)					
	Final Deflection at 120% or Maximum Break Point Load (in)					
	<b>Release Load &amp; Wait 3 Minutes</b>					
	Deflection at No Load (in)					











# 4300.50.042-Galvanized Steel Poles-(4-29-2026\_V07)-final

Final Audit Report

2026-04-30

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