

# 5 Easy Pieces™

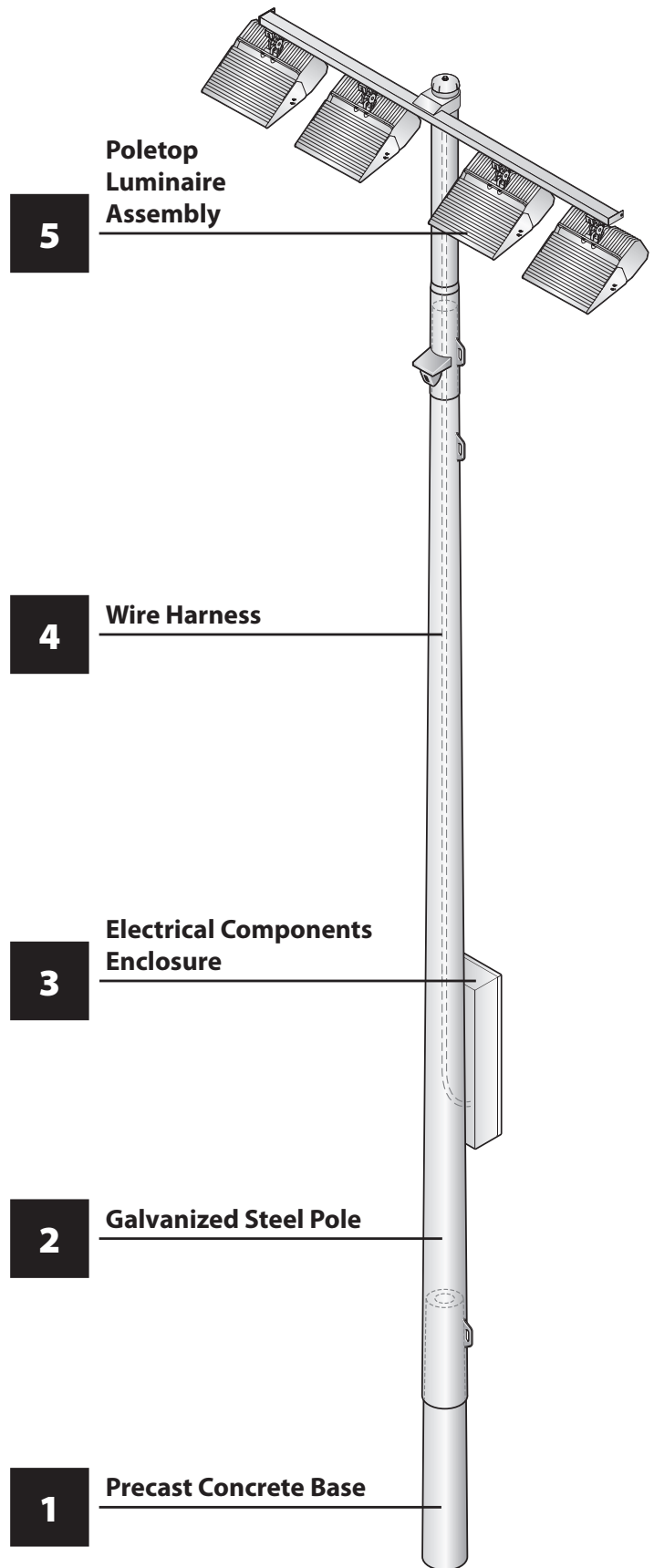
## Complete System from Foundation to Poletop

Factory wired, aimed, and tested

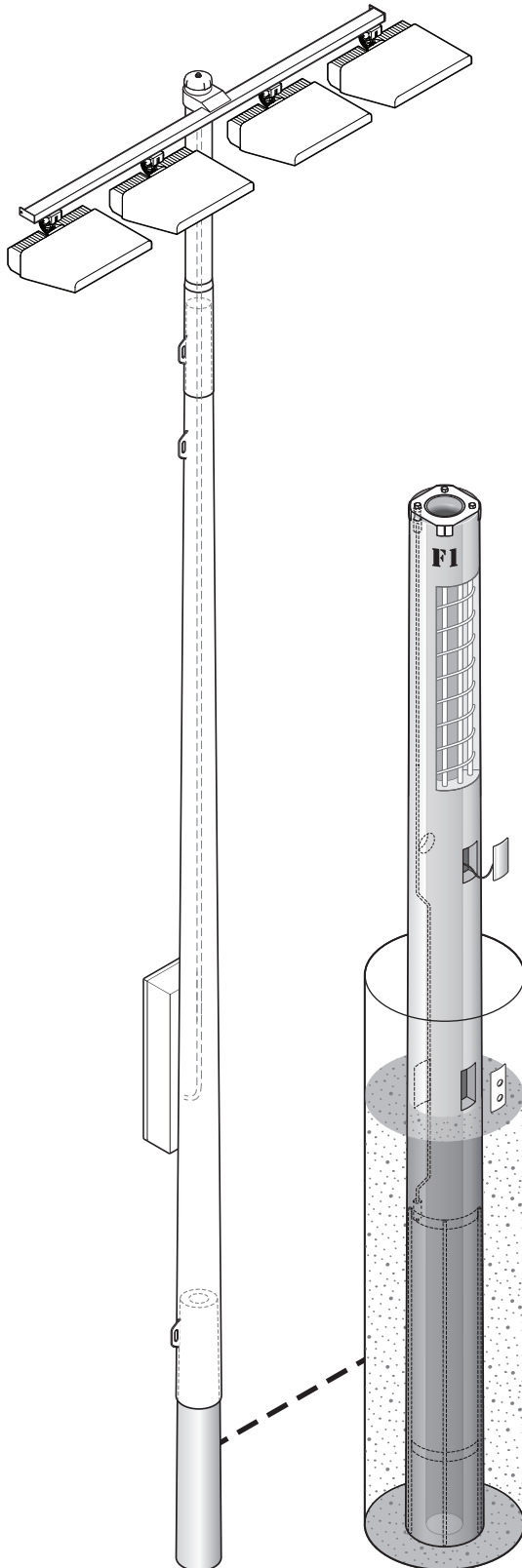
Fast, trouble-free installation

Comprehensive corrosion package

Integrated lightning ground



**TLC for LED® – Precast Concrete Base**



**Overview**

The precast concrete base is set directly into the ground and backfilled with concrete. The base includes an integrated lightning ground system.

**Features**

**Base**

- Set pole on base in 24 hours
- Tapered upper section for slip-fit steel pole
- Access holes for wire entry
- Epoxy-coated ends prevent water intrusion
- Lifting hole accepts load-rated steel rod provided by Musco

**Integrated Lightning Ground System**

- Complies with NFPA 780, UL 96A, and EN 62305 standards when installed per Musco installation instructions
- UL Listed, Class II Lightning Protection, file number E337467
- Tested up to 100 kA by independent laboratory
- Steel pole interfaces with integrated grounding system by means of the pole grounding connector
- 2/0 AWG (crosssectional area of 67.4 mm<sup>2</sup>) grounding electrode conductor
- Concrete-encased grounding electrode, 20 feet (6.1 m) total length, ½ inch (12.7 mm) diameter

**Technical Specifications**

Base dimensions vary. For measurements refer to project-specific *Foundation and Pole Assembly* drawing.

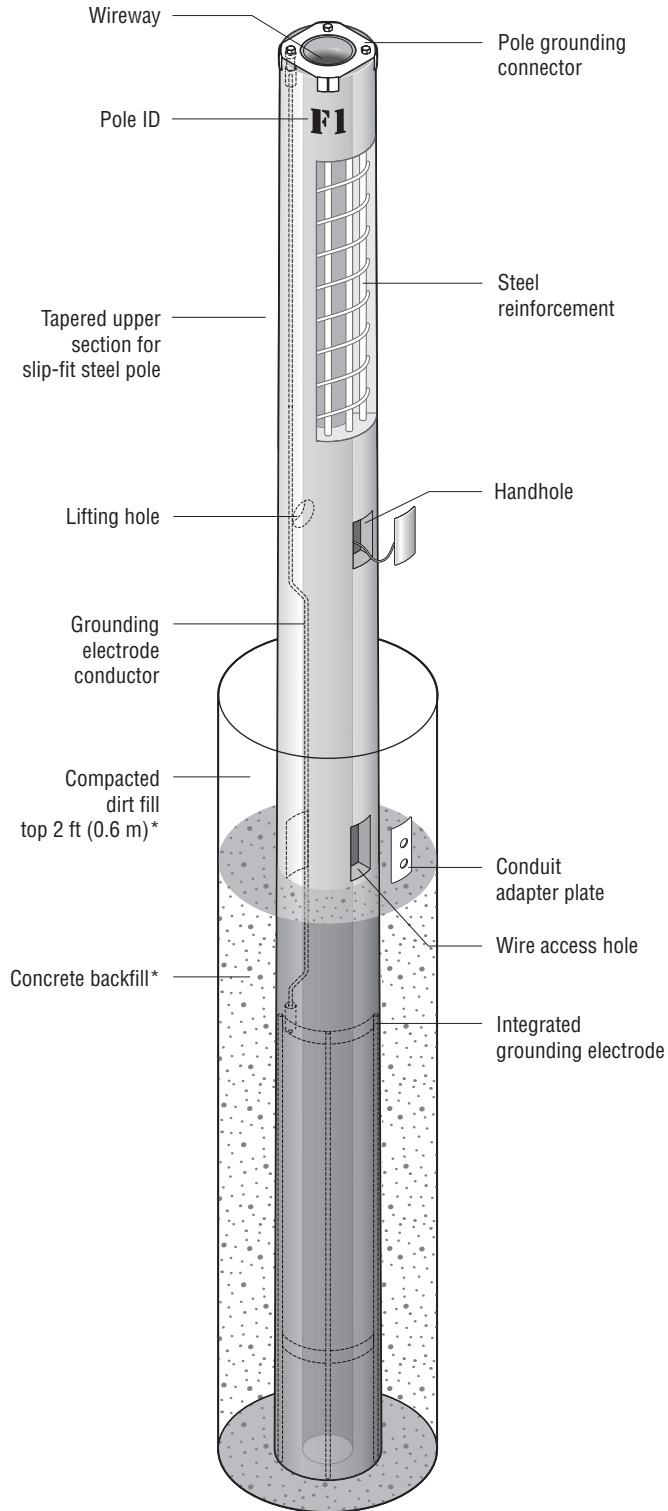
**Construction**

- Spun concrete construction
- Prestressed steel vertical strands and coil spiral for strength throughout base
- Minimum design strength is 9500 lb/in<sup>2</sup> (65.5 MPa) at 28 days
- Meets ASTM C1804 design requirements

**Quality Assurance Tests**

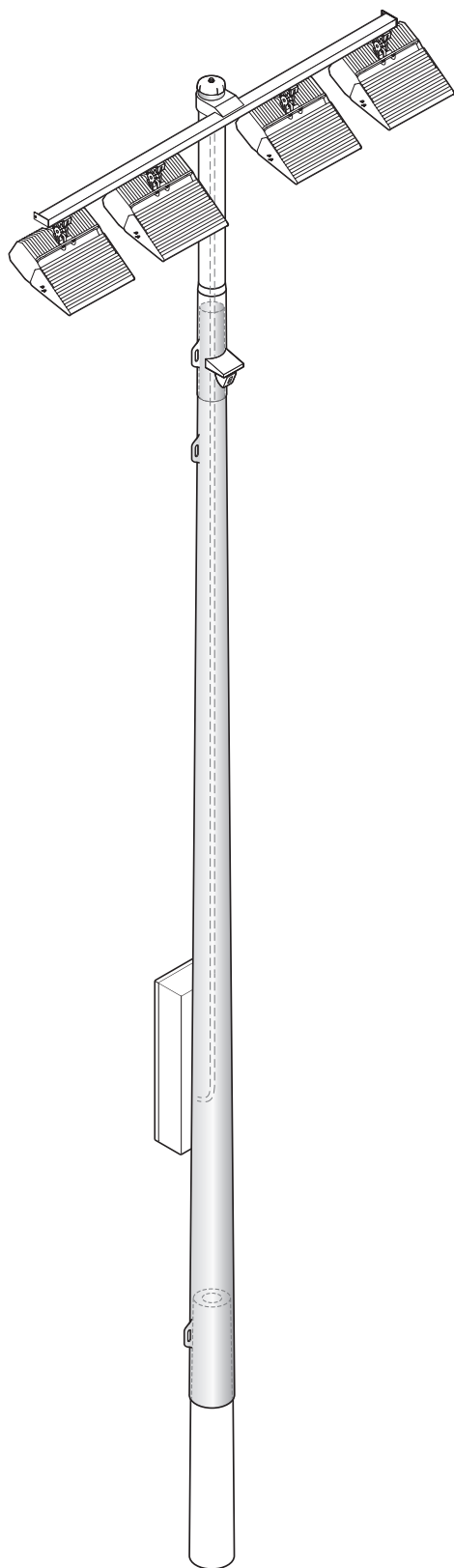
- 28-day compressive strength
- Bending moment capacity
- Grounding system continuity

**TLC for LED® – Precast Concrete Base**



\*Standard pier foundation shown. Foundation and/or backfill may vary per alternate foundation design.

**TLC for LED® – Galvanized Steel Pole**



**Overview**

The galvanized steel pole is designed to slip-fit together with the precast concrete base and the poletop luminaire assembly.

**Features**

- Slip-fit connection allows pole assembly with come-alongs
- Built-in hardware for attaching electrical components enclosure
- Wire access from inside the pole (no exposed wiring or conduit)
- Shipped in sections for easier handling
- Labeled with pole identification for location on field

**Technical Specifications**

Pole dimensions vary. For measurements refer to project specific pole configuration drawing.

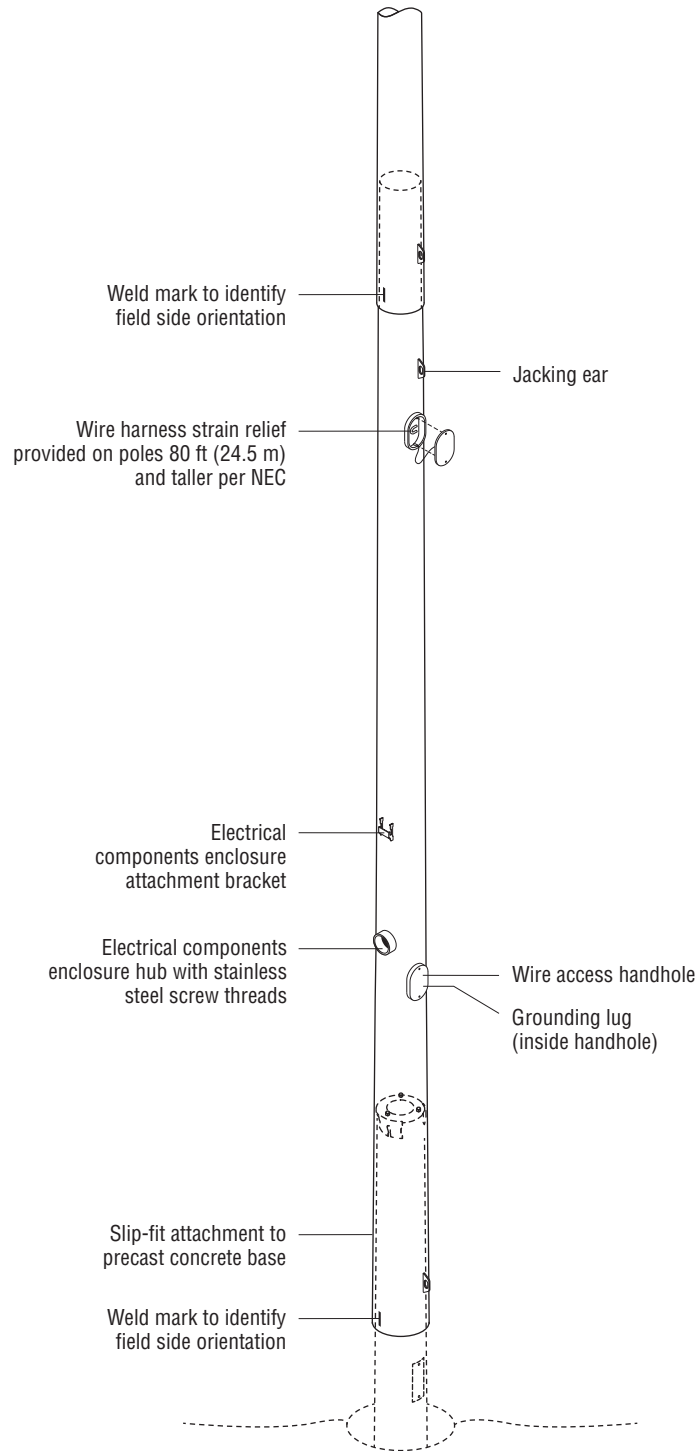
**Construction**

- Pole designs comply with all major building codes
- High strength, low alloy, tapered, round steel pole
- Hot-dip galvanizing inside and outside after fabrication meets ASTM-A123 and EN 1461 standards
- Conforms to AASHTO stress standards and BS EN 40-3-1
- Grounding lug—rated for aluminum (AL) or copper (CU) wiring
- Pole shipped in sections
- Stainless steel fasteners passivated and coated
- Material certifications are available

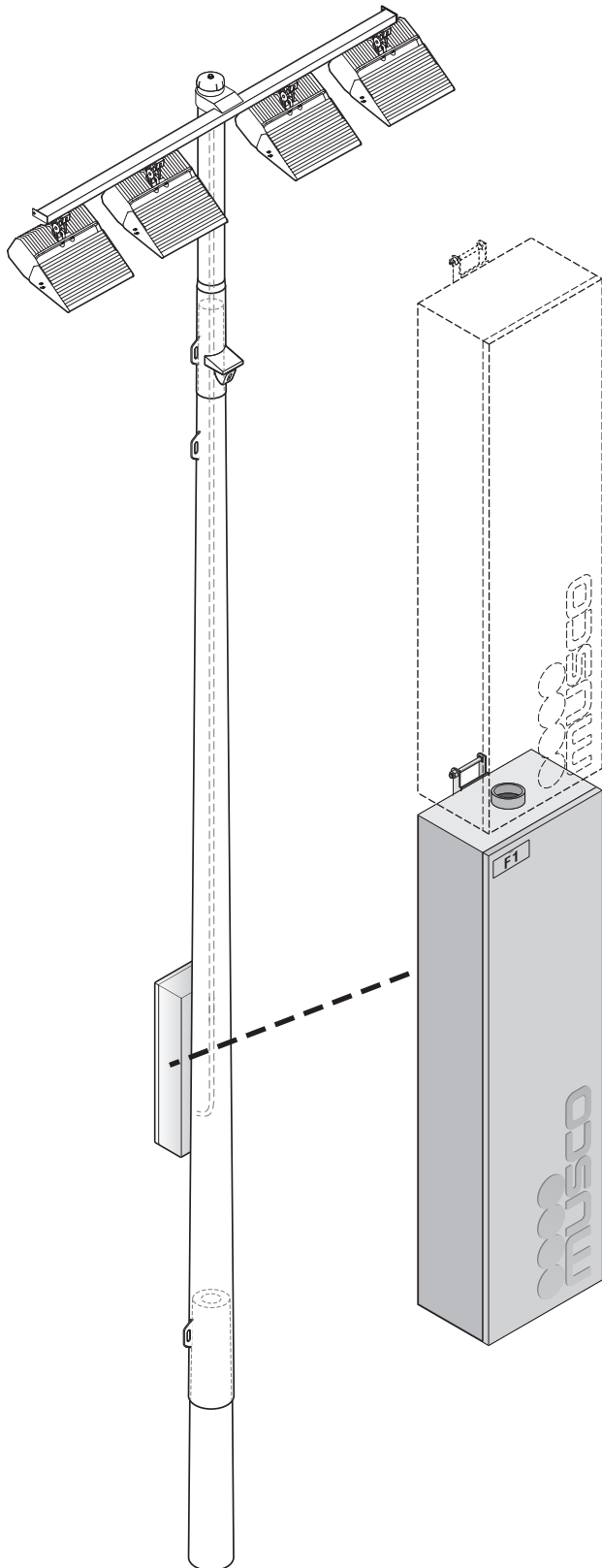
**Quality Assurance Tests**

- Bending stress
- Minimum galvanizing thickness
- Straightness measurement

**TLC for LED® – Galvanized Steel Pole**



**TLC for LED® – Electrical Components Enclosure**



**Overview**

The electrical components enclosure contains all necessary equipment to operate luminaires. Built-in mounting hardware allows for easy attachment to the galvanized steel pole. Quick connect plugs fasten to the wire harness.

**Features**

- Factory-built and tested as a unit
- Quick connect plug for easy field wiring
- Mounted 10 ft (3 m) above grade for servicing with ladder
- Labeled with pole identification and electrical information
- Drivers individually fused and spare fuses supplied
- Wire access from inside the pole (no exposed wiring or conduit)
- Disconnect per circuit

**Technical Specifications**

For amperage draws and circuitry refer to project specific document.

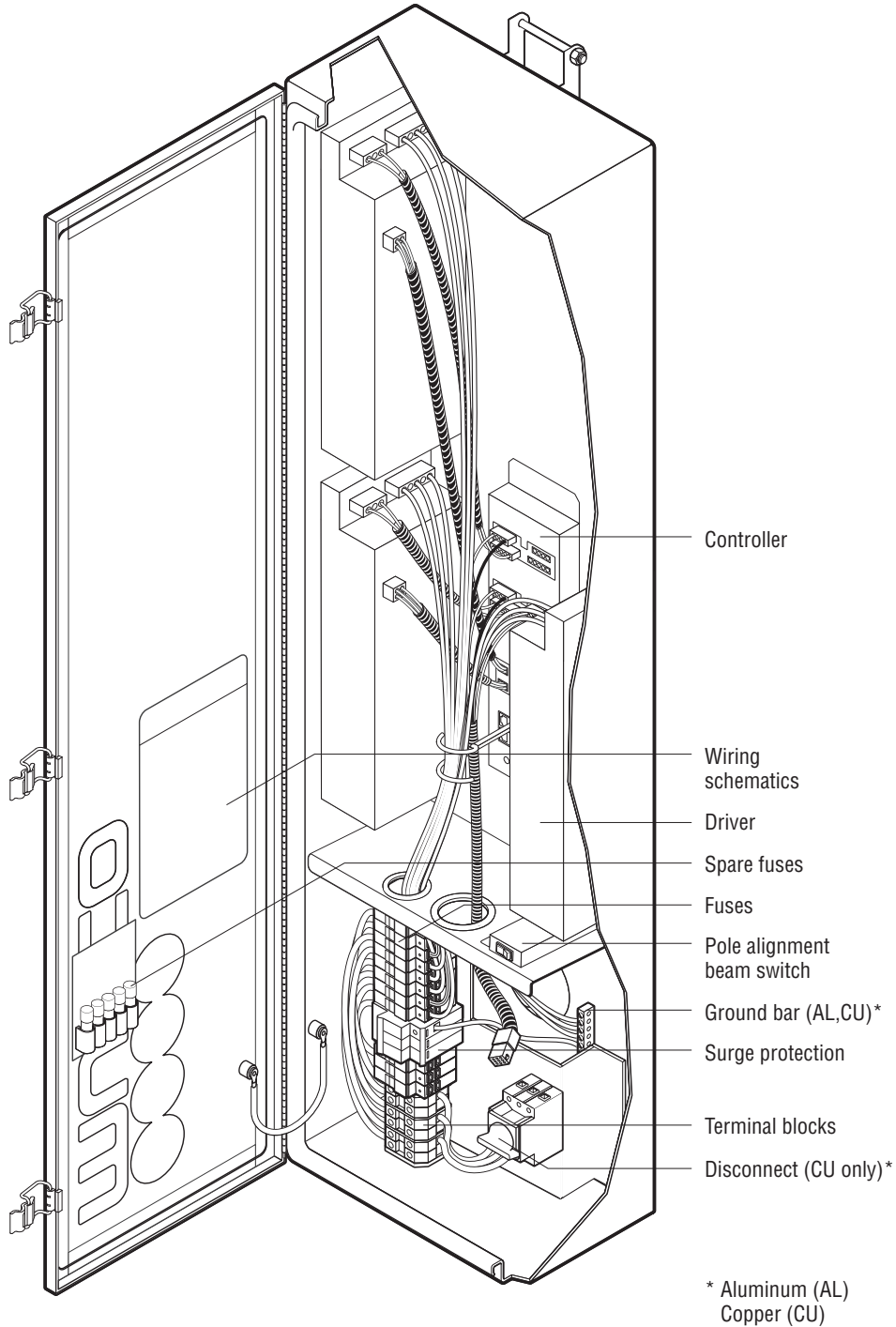
**Construction**

- 0.08 inch (2 mm) thick, powder-coated aluminum
- Enclosure ratings: NEMA 3R, IP54
- Designed to operate in up to 50° C (122° F) ambient temperature
- Full length stainless steel hinge
- All stainless steel fasteners passivated and coated
- Meets touchsafe standards
- Up to four drivers per enclosure
- Approximate weight 65 lb (29 kg)
- Lower enclosure size 14.25 in (362 mm) wide x 8 in (203 mm) deep x 52.5 in (1334 mm) high
- Upper enclosure size 14.25 in (362 mm) wide x 8 in (203 mm) deep x 40.5 in (1029 mm) high

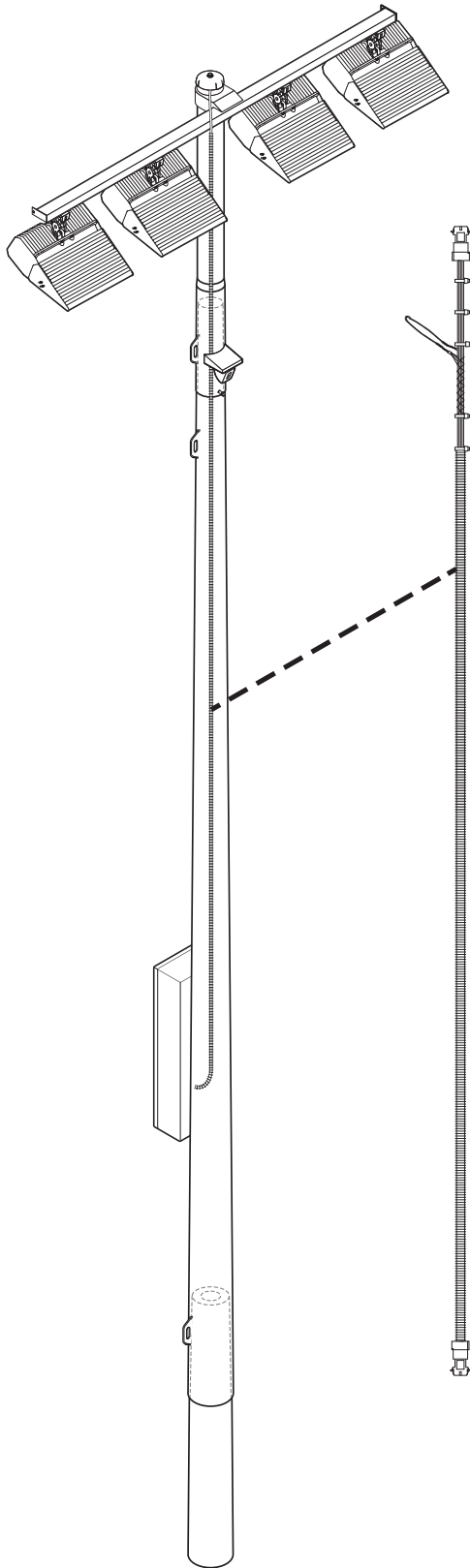
**Quality Assurance Tests**

- Grounding continuity
- High potential dielectric withstand
- Full functionality test

**TLC for LED® – Electrical Components Enclosure**



**TLC for LED® – Wire Harness**



**Overview**

The factory-built wire harness connects the electrical components enclosure to the poletop luminaire assembly.

**Features**

- Quick connect plugs for easy field wiring
- Factory-assembled support grip alleviates strain on connections
- Spiral wound cable eliminates slippage
- Protective sleeve prevents wire damage
- All internal wiring, no exposed wires
- Labels identify pole and luminaires

**Technical Specifications**

**Construction**

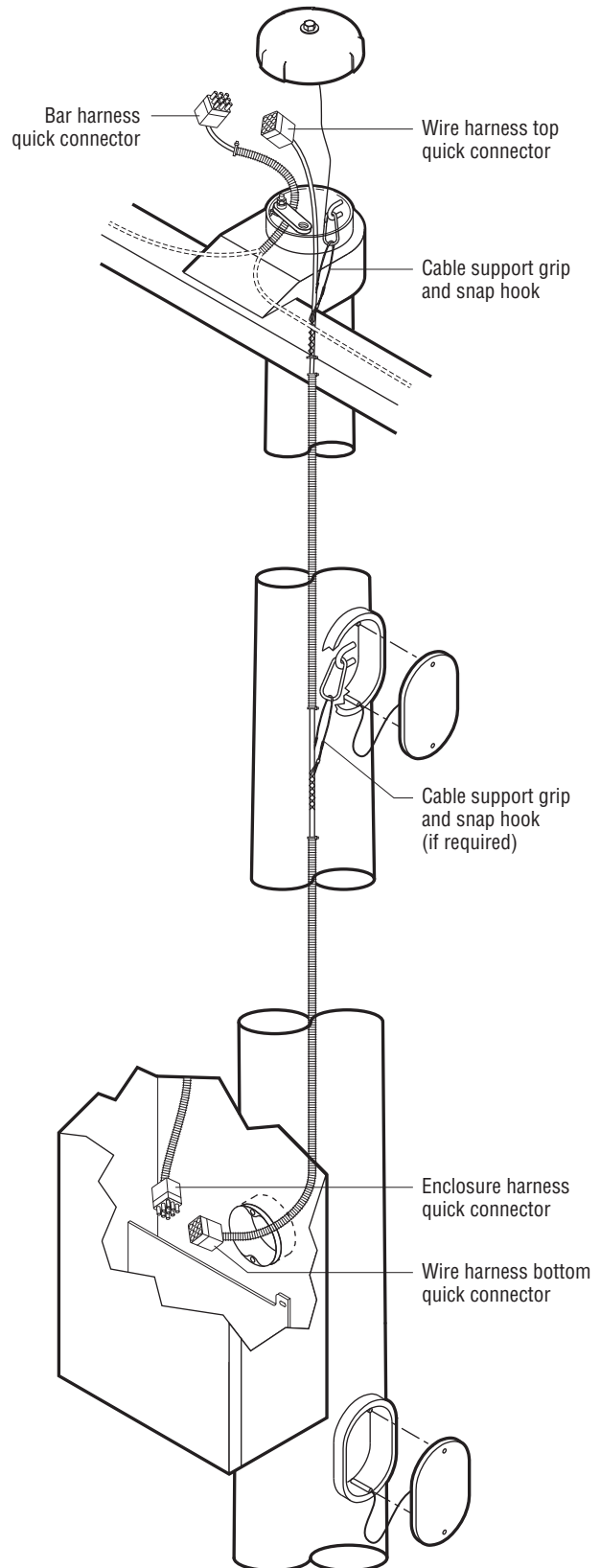
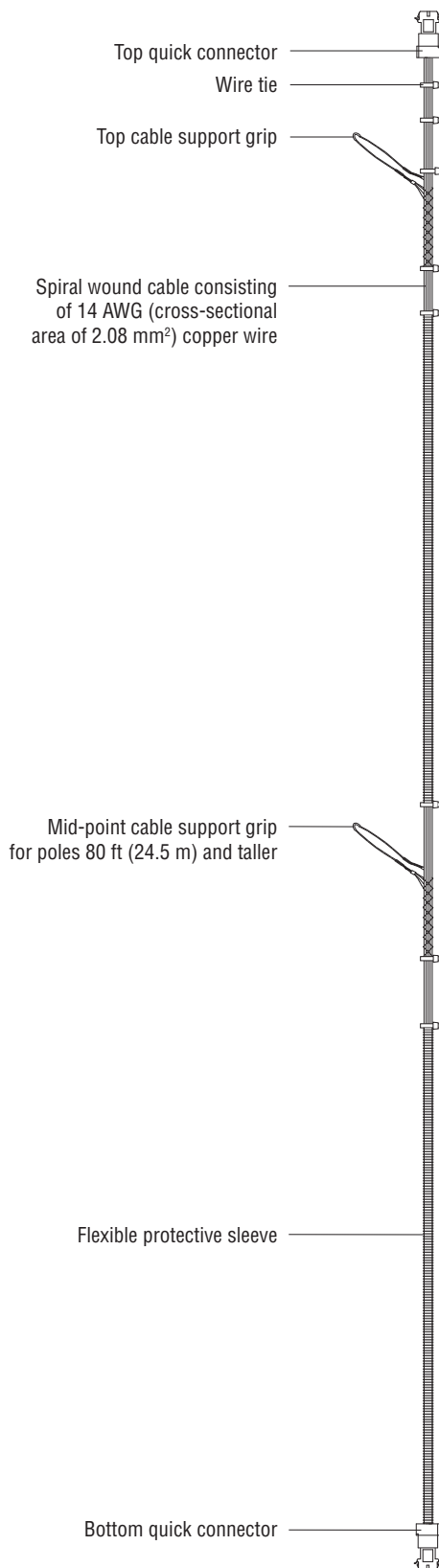
- Spiral wound, wrapped cable, 14 AWG (cross-sectional area of 2.08 mm<sup>2</sup>) copper wire
- Integral cable support grip
- Two wires per driver
- Each harness supports up to four drivers
- Multiple top connectors may be present if required for number of luminaires

**Quality Assurance Tests**

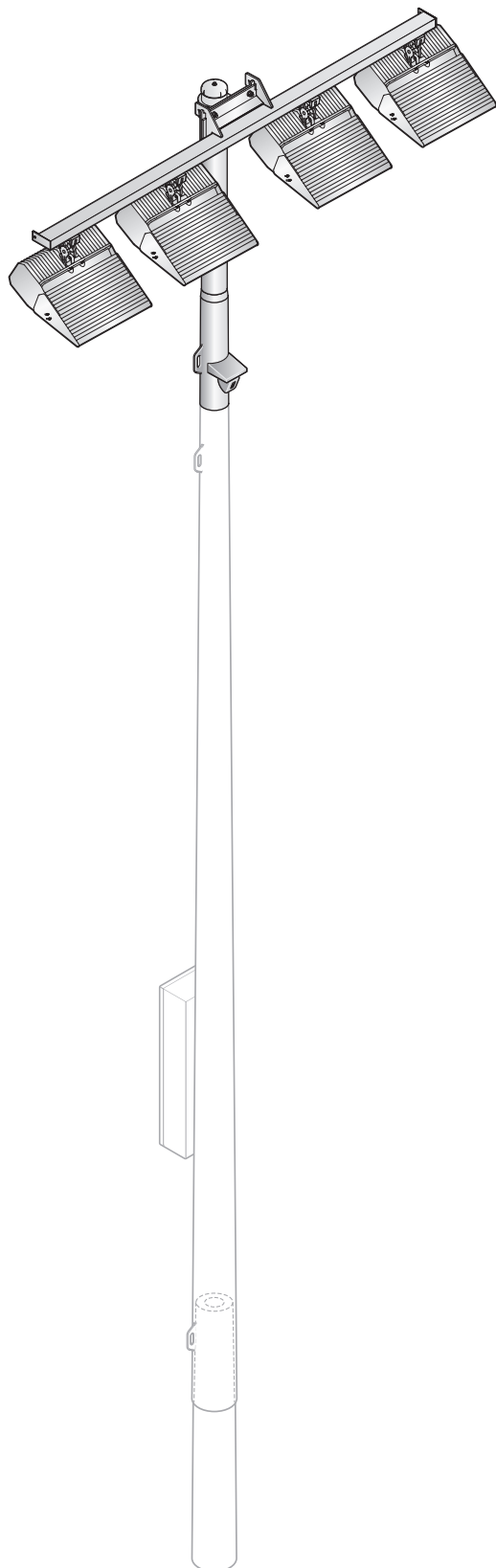
- Connector/load resistance
- High potential dielectric withstand
- Grounding continuity
- Termination crimp



**TLC for LED® – Wire Harness**



**TLC for LED® – Poletop Luminaire Assembly, Bolt On**



**Overview**

The factory-aimed poletop luminaire assembly is the upper section of the pole and slip-fits together with the galvanized steel pole. Crossarms are removed for shipping and assembled in the field.

**Features**

- Each luminaire is factory-built, tested, and ships as a unit
- Luminaires are factory-aimed to two-tenths degree of accuracy
- Luminaire mounts and connects in a single step
- Slip-fit connection allows assembly with come-alongs
- All luminaires are factory-wired to a quick connect harness for easy installation
- Labels identify pole and luminaire location
- No exposed wiring or conduit
- Factory-set pole alignment beam allows easy field alignment
- Retaining hook crossarm attachment design

**Technical Specifications**

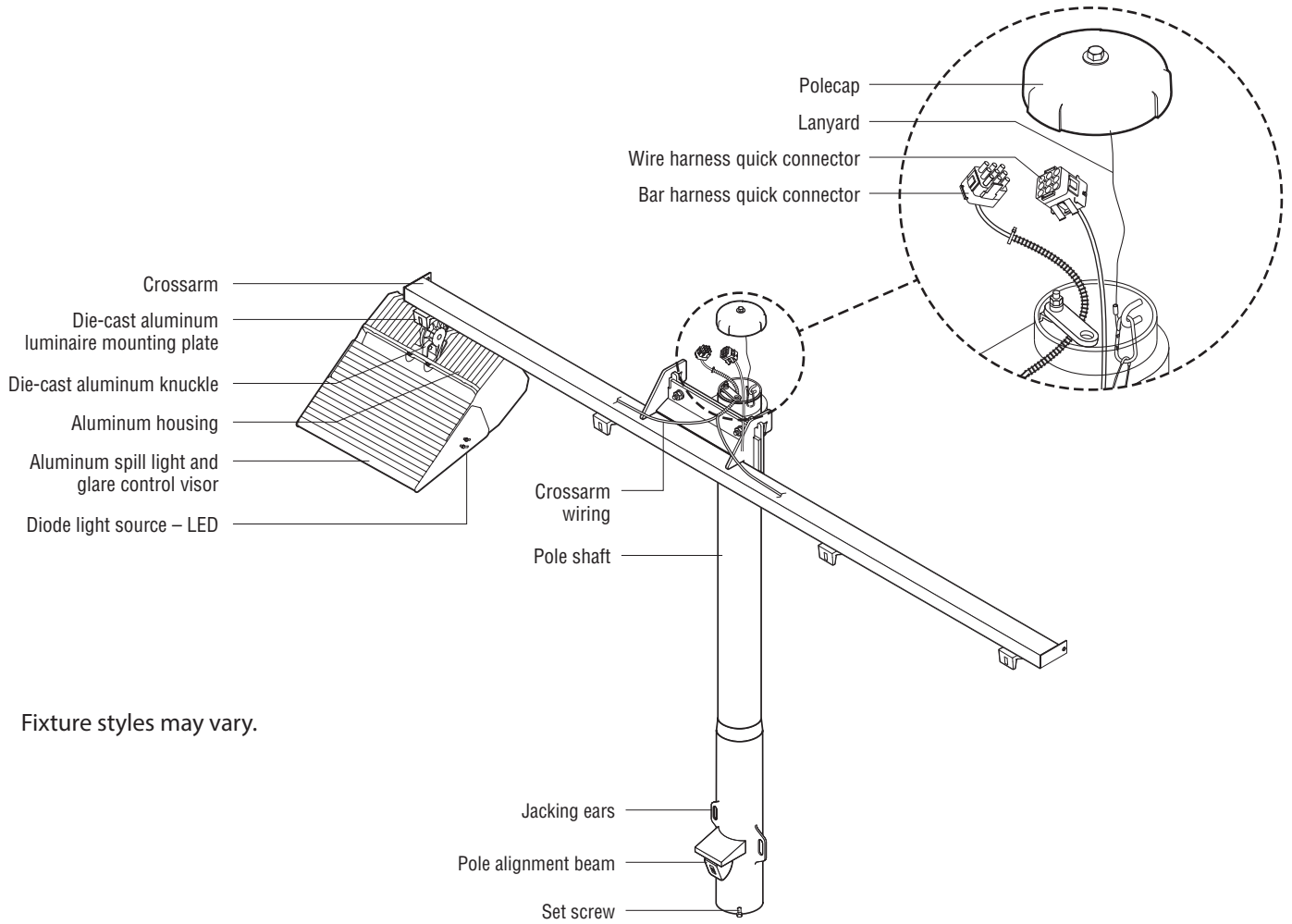
**Construction**

- Crossarms and pole shaft hot-dip galvanizing inside and outside after fabrication meets ASTM-A123 and EN 1461 standards
- All aluminum components are powder-coated or anodized to mil-A-8625F and BS 5599
- Luminaire and knuckle are powder-coated die-cast aluminum
- All stainless steel fasteners are passivated and coated
- Crossarms are constructed of rectangular steel tubing
- Polecap is attached with stainless steel lanyard and securing bolt
- Structural-grade fasteners with DTI (Direct Tension Indicating) washers attach crossarms to poletop

**Quality Assurance Tests**

- Galvanizing thickness
- High potential dielectric withstand
- Electrical continuity

**TLC for LED® – Poletop Luminaire Assembly, Bolt On**



Fixture styles may vary.