WARNING — RISK OF ELECTRIC SHOCK, BURN AND INJURY

Disconnect power at the circuit breaker and verify the circuit is de-energized before installing or servicing this luminaire. Lock out and tag the circuit.

Installation must be performed by a qualified electrician in accordance with the National Electrical Code (NEC), NFPA 70, and all applicable state and local codes.

Before installation, consult your local ordinances and building codes for compliance. LAMAR LED assumes no responsibility for misapplication of fixtures.

Do not install a damaged luminaire. Do not modify the housing, driver, LED board, or factory wiring — doing so voids the UL certification and the warranty.

Indoor use only — do not use outdoors. Mount the luminaire at a location and height where it will not be subject to tampering by unauthorized personnel.

Risk of burn. Bare LEDs may be hot during operation. Allow the fixture to cool before handling.

Risk of injury. Wear gloves and safety glasses when removing the luminaire from the carton and when installing, servicing, or performing maintenance. Avoid direct eye exposure to the light source while it is on.

Use of accessory equipment not recommended by the manufacturer may cause an unsafe condition. Do not use this equipment for other than its intended use.

These instructions must be followed for proper operation of this fixture. Save these instructions. This sheet supplements LAMAR LED factory instruction sheet INS-NLSD/NLSR Rev 1; where the two differ, follow the factory sheet packed with the fixture.

1. Before You Begin

Confirm the following before opening the ceiling or pulling wire. The catalog number on the fixture label is the authority for what was supplied.

- Match the catalog number. Compare the label on the housing to the approved submittal — series, size, power, lens, CCT and options.
- Verify supply voltage. The standard driver is universal input 120–277V. Confirm branch-circuit voltage falls within this range.
- Inspect the shipment. Check the housing, lens, and trims for shipping damage. Report freight damage before installing.
- Confirm the mounting method matches the structure (see table below). Verify the fixture as supplied is configured for the mounting condition on site.
- Verify the supporting structure. Every suspension point must be anchored to building structure adequate for the fixture weight. Confirm the finished mounting height before hanging anything.
- Tools required. Power driver with the appropriate bit, wire strippers, listed wire connectors, tape measure, level, and an appropriate ladder or lift.

Mounting method	Typical application
Surface Mounted to Ceiling	Direct ceiling mount on a finished or structural surface
Aircraft Cable Suspended	Cable-suspended applications
Corner Mounted	Wall-to-ceiling or wall-to-wall corner applications

Each method is detailed in Section 5. Confirm which configuration was supplied before starting — mounting styles are not interchangeable in the field.

Mounting options as published: Surface or cable mount (specify “AC” when ordering). Actual overall lengths: 2′ nominal = 23.125 in, 4′ nominal = 46 in, 6′ nominal = 69 in, 8′ nominal = 92 in. Available in 2′, 4′, 6′ and 8′ lengths (nominal), Corners available (see page 3).

2. Prepare the Location

1. Lay out fixture locations from the reflected ceiling plan. Snap lines and confirm the run is square and level before cutting or drilling.
2. On surface-mounted runs, locate framing or install blocking so every fixture lands on structure. Mark mounting holes from the fixture itself rather than from the drawing.
3. For suspended runs, mark and verify every support point against building structure, and confirm the drop height clears doors, equipment, and traffic.
4. Route branch-circuit conductors to each fixture location, leaving 6–8 in. of free conductor. Support the whip or conduit independently of the luminaire.

3. Electrical Connection

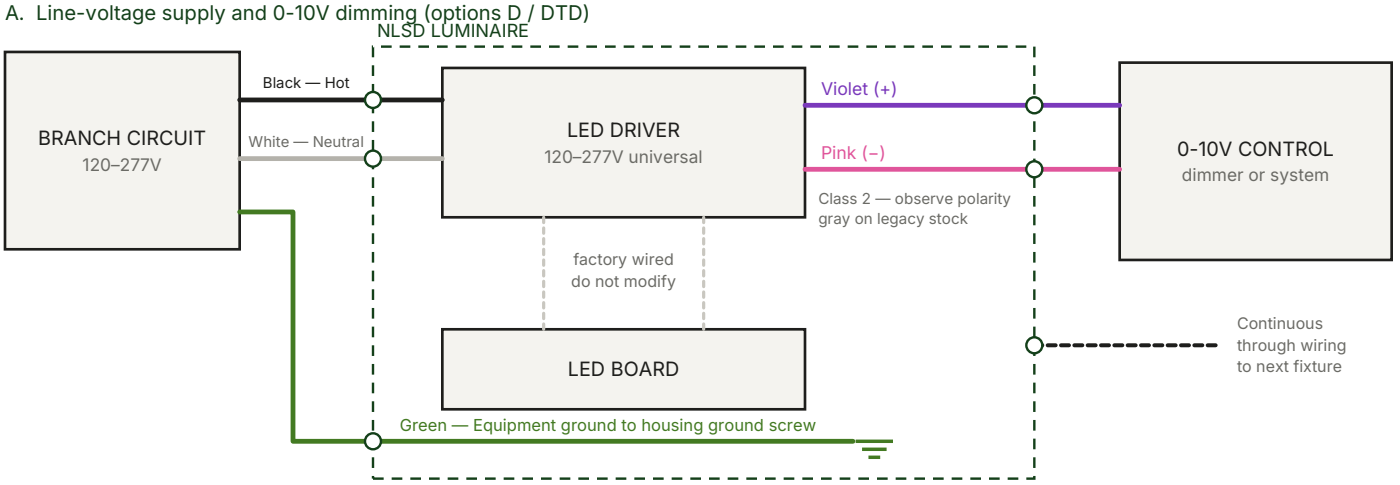
1. Confirm power is off and locked out.
2. Open the fixture for access per its construction and retain all fasteners.
3. Select the knockout closest to the incoming feed. Dimension drawings show .875 in. knockouts: (2) on 2′, (3) on 4′, (4) on 6′, (5) on 8′; .250 in. dia. (2) cable hanging holes. Knockouts are provided to suit the approach and to allow continuous through wiring in rows.

4. Install a listed connector or fitting in the knockout and bring conductors into the wireway. Protect conductors from the knockout edge.
5. Connect line, neutral, and ground to the corresponding fixture leads using listed wire connectors. Bond the equipment ground to the housing ground screw.
6. For control wiring, keep low-voltage dimming conductors separated from line-voltage conductors per NEC Class 1 / Class 2 requirements. See Sections 4 and 7.
7. Dress all conductors neatly inside the housing so nothing is pinched when the cover is reinstalled.
8. Cap every wiring connection with UL-approved wire connectors suitable for the wire type and size.
9. Where the fixture is equipped with an emergency battery backup, connect the red lead to a constant (unswitched) hot so the pack senses loss of normal power.
10. Connect the 0-10V dimming leads to 0-10V dimming controls only. Use of any line-voltage, TRIAC, PWM, or similar dimmer may damage the driver and will void the warranty.

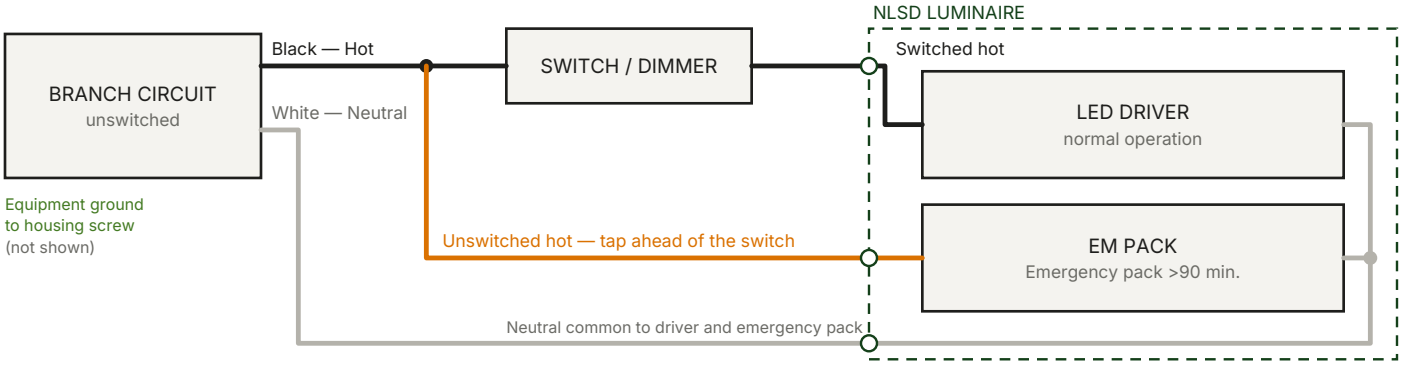
4. Wiring Diagrams

0-10V control conductor colors have changed. Effective January 1, 2022, NEC 2020 Article 410.69 prohibits colors reserved for the grounded conductor (white or gray) and the equipment grounding conductor (green) on field-connected control conductors.[1] NEMA Publication 100-2021 adopted pink in place of gray, making violet (+) and pink (–) the compliant 0-10V pair.[2] Legacy stock may still have a gray lead — see the wire color reference below.

A. Line-voltage supply and 0-10V dimming (options D / DTD)



B. Emergency pack connection (options EM / EMB)



Schematic; field connections only. Circles mark housing knockouts, each of which needs a listed connector or fitting.

Wire color reference

Conductor	Color	Notes
Line / hot	Black	Branch circuit, 120–277V. Switched hot where a switch or dimmer is used.
Neutral	White	Grounded conductor. Reserved color — never use for control conductors.
Equipment ground	Green or green/yellow	Bond to the housing ground screw. Reserved color — never use for control conductors.

Conductor	Color	Notes
0-10V control (+)	Violet	Class 2 low voltage. Observe polarity.
0-10V control (–)	Pink gray on legacy stock	Pink replaces gray per NEMA Publication 100-2021.[2] Verify against the label on the driver supplied — legacy stock may still have a gray lead. A gray control lead must be re-identified with pink tape or paint where visible and accessible.[1]
Lutron EcoSystem digital link	Purple and purple/white (E1, E2)	Polarity-free. Confirm against the Lutron driver label and the controls submittal.[3]
Unswitched hot (EM / EMB)	Per project drawings	Tap ahead of the switch and dimmer so the pack senses loss of normal power.

The factory instruction sheet for this series (INS-NLSD/NLSR Rev 1) identifies the 0-10V dimming leads as purple and gray. Confirm the leads against the label on the driver actually supplied: current NEMA practice is violet and pink, and a gray control lead must be re-identified with pink tape or paint where it is visible and accessible.

1. Electrical Contractor Magazine, "Color Coding Changes: NEC 2020 impacts 0–10V control wiring" — ecmag.com
2. Inside Lighting, "No More Gray: Low Voltage Wiring Changes" — inside.lighting
3. Lutron, "LED Driver Installation Best Practices Guide" (041827) — assets.lutron.com

5. Mounting

Make sure the luminaire is mounted to a secure structure. Use mounting hardware appropriate to and rated for your application. Failure to mount the fixture correctly could result in serious injury.

5A. Surface Mounted to Ceiling

1. Mark the fixture position and the mounting-hole locations from the reflected ceiling plan.
2. Locate structural framing, or install blocking or an approved anchor suited to the ceiling construction. The fixture must be supported by structure, not by the ceiling finish alone.
3. Bring the branch circuit into the housing through the knockout nearest the feed, using a listed connector or fitting.
4. Fasten the housing tight to the ceiling with fasteners appropriate to the substrate, then confirm it is level and does not rock.

5B. Aircraft Cable Suspended — per factory sheet

1. Install the canopy kits to the ceiling on both sides, following the instructions supplied with the cable kits.
2. Locate the cage nut at each mounting point on the fixture.
3. Screw a gripper into the cage nut on both sides.
4. Hang the fixture on the support cables. Make levelling adjustments at the grippers, and tighten the grippers once the run is level.
5. Run the power feed through the supplied canopy and make the connections above the ceiling — black to mains hot, white to mains neutral, green to ground.
6. Secure the power feed with the supplied strain relief.
7. Secure the power feed to the AC support cable with the supplied wire ties.

5C. Corner Mounted

1. Confirm the corner is square and continuous along the full run before setting any fixture.
2. Establish a level line along the corner. In continuous runs, work from one line so the fixtures read as an unbroken source.
3. Locate framing or install blocking suited to the construction on the mounting face.
4. Bring the branch circuit into the housing through the knockout nearest the feed, using a listed connector or fitting.
5. Fasten the housing into the corner, confirming it beds evenly on both faces with no twist along the run.

5D. Continuous Run Installation — per factory sheet

Continuous rows join with pre-attached joiner plates (A), light leak plates (B), supplied screws (C), and support cables (D). The interconnecting feed-through wires (E) are quick-connect.

1. Hang Fixture 1 with support cables on each end, through the cage nuts.
2. Insert the light leak plates (B) on Fixture 1.
3. Align the fixtures together.
4. Plug the interconnecting feed-through wires (E) together before joining the fixtures. They cannot be reached once the joint is closed.
5. Screw Fixture 2 to Fixture 1 by means of the pre-attached joiner plates (A).
6. Insert Fixture 2 onto the joiner of Fixture 1 and secure with the supplied screws (C).
7. Hang Fixture 2 with support cables on the far end, through the cage nuts.
8. Sight the completed run and adjust the grippers so all sections are level and the joints read as one continuous line.

6. Lens and Covers

1. Reinstall the wireway cover or access plate with the original fasteners. Confirm no conductor is pinched and the cover is fully seated.
2. Install or reseat the lens or diffuser as supplied. Handle acrylic and polycarbonate by the edges; do not force, flex sharply, or over-tighten against the lens.
3. Remove any protective film and clean fingerprints before closing out the ceiling.

7. Controls and Optional Equipment

Option	Installation requirement
D — 0-10V dimming DTD — 0-10V dimming	Land the violet (+) and pink (–) control leads on the 0-10V control circuit, observing polarity — see Diagram A. Verify the leads against the driver label: legacy stock may have a gray lead in place of pink, and gray must be re-identified with pink tape or paint. Do not connect control leads to line voltage.
Option	Installation requirement
LDH — Lutron EcoSystem dimming	Wire the EcoSystem digital link per the Lutron system drawings. The link is polarity-free but must be run as a Class 1 or Class 2 circuit per the controls submittal.
EM — emergency pack	Emergency pack >90 min., >500 lumens (higher output & run time available - consult factory). Connect the pack to an unswitched line-voltage source ahead of any switch or dimmer so it senses loss of normal power — see Diagram B. Allow a full 24-hour charge before testing.
EMB — emergency pack	BABA Compliant Emergency pack >90 min., >500 lumens. Connect the pack to an unswitched line-voltage source ahead of any switch or dimmer so it senses loss of normal power — see Diagram B. Allow a full 24-hour charge before testing.
AC	4ft aircraft cable mount. Factory-supplied configuration. Verify the fixture as supplied matches the approved submittal, and confirm nothing interferes with the lens, gasket, or lens retention on reassembly.
BLK	Black metal construction. Factory-supplied configuration. Verify the fixture as supplied matches the approved submittal, and confirm nothing interferes with the lens, gasket, or lens retention on reassembly.
BOR	Beginning of run (6′ & 8′ only). Run-position configuration. The fixture is built for this position in a continuous row and cannot be changed in the field — set the row out in order and verify each housing against the submittal before fastening anything.
EOR	End of run (2′-8′). Run-position configuration. The fixture is built for this position in a continuous row and cannot be changed in the field — set the row out in order and verify each housing against the submittal before fastening anything.
INT	Intermediate (6′ & 8′ only). Run-position configuration. The fixture is built for this position in a continuous row and cannot be changed in the field — set the row out in order and verify each housing against the submittal before fastening anything.

Universal voltage 120-277V standard. Custom driver tuning available for specific lumen requirements. Tuned fixtures are factory-set and must not be adjusted in the field. Contact the factory for options not shown.

8. Start-Up Check and Maintenance

- Restore power and confirm the fixture energizes at full output.
- Sweep the dimming control from 100% to minimum and back; confirm smooth, flicker-free response with no dropout across the run.

- Allow a full 24-hour charge, then test emergency units by interrupting normal power and confirming transfer to the emergency pack for the rated duration.
- Sight the finished run for level, alignment, and consistent lens appearance; confirm color temperature is uniform across all fixtures.
- No routine relamping is required — the LED board and driver are the serviceable components. Disconnect power before any service.
- Clean the lens with a soft cloth and mild soapy water only. Do not use ammonia, solvents, or abrasive cleaners on acrylic or polycarbonate.
- Warranty: 5 years - part replacement only (see terms & conditions at www.lamarled.com). Listings and ratings as published: U.L. Certified, All electrical components U.L. listed or recognized, Union made in the USA, Meets Buy America Act (BAA), BABA Compliant.

CAUTION — RISK OF PRODUCT DAMAGE

Do not restrict fixture ventilation. Allow some volume of airspace around the fixture. Do not cover the fixture with insulation, foam, or other material that prevents convection or conduction cooling.

Do not exceed the fixture's maximum ambient temperature of 25°C unless the individual product specification states otherwise. Use the fixture only in its intended location.

LED products are polarity sensitive. Confirm correct polarity before energizing.

Electrostatic discharge (ESD) can damage LED fixtures. Personal grounding equipment must be worn during all installation and servicing. Do not touch individual electrical components — doing so can cause ESD, shorten LED life, or alter performance.

LED boards and drivers must be replaced with the same type as originally supplied. Many drivers require tuning to specific drive currents on manufacturer-specific equipment. Consult the factory for replacement parts.

Some components inside the fixture are not field serviceable. If the unit requires service, stop using it immediately and consult the factory.

QUESTIONS OR APPLICATIONS NOT COVERED HERE

Contact LAMAR LED at 631.777.7700 or visit www.lamarled.com. Due to the rapid advancements in LED technology, please consult our website for the most current technical data.