N° ei8ht
LIGHTING
®

200 SERIES
202-RM/203-RM REMODEL
INTEGRAL POWER SUPPLY
INSTALLATION INSTRUCTIONS

SCAN QR CODE FOR INSTRUCTIONS

WARNING: Read and understand these instructions completely before installation. Disconnect power at circuit breaker or fuse panel before installation. Always allow LED assembly to cool before servicing. To be installed by qualified electricians only. Products should be installed in accordance with these instructions, local electrical codes, and the National Electric Code (NEC). These products may represent a possible shock or fire hazard if improperly installed.

Do not install where insulation or ambient temperatures will exceed maximum values noted in product specifications. See www.8lighting.com for current product specifications.

NOTE: Number Eight Lighting fixtures are designed to meet the latest NEC requirements and are listed in full compliance with UL standards. Before attempting installation check and understand your local electrical code which sets the wiring standards and installation requirements for your locality.

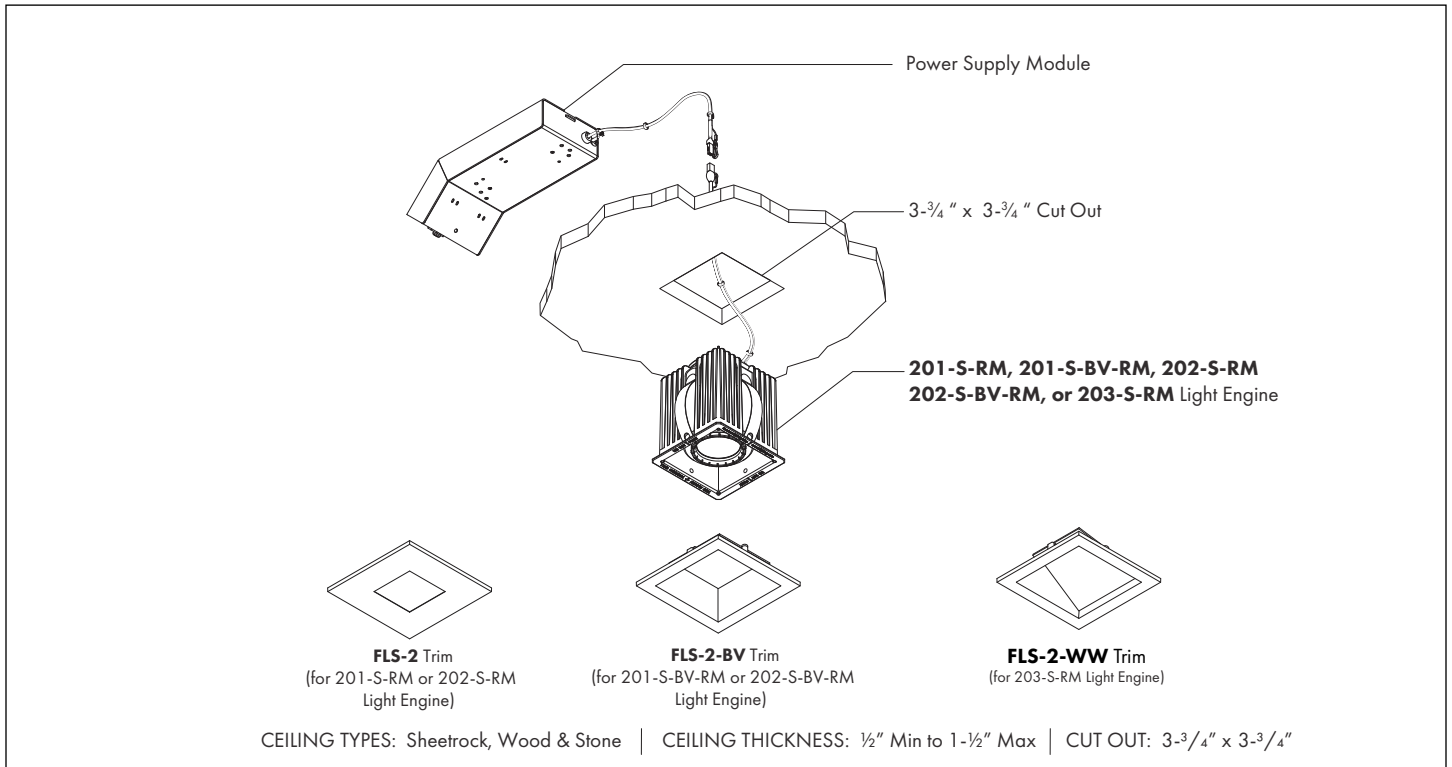**Save these instructions.**

TABLE OF CONTENTS

200 SERIES REMODEL COMPONENTS

201-RM FIXED POSITION LIGHT ENGINE + POWER SUPPLY

**201-R-RM/
201-R-BV-RM**

**201-S-RM/
201-S-BV-RM**

202-RM ADJUSTABLE LIGHT ENGINE + POWER SUPPLY

**202-R-RM/
202-R-BV-RM**

**202-S-RM/
202-S-BV-RM**

203-RM WALL WASH LIGHT ENGINE

203-R-RM

203-S-RM

WALL WASH TRIM PLATES (for 203-R/S-RM Light Engines)

FLR-2-WW

FLS-2-WW

FLAT TRIM PLATES (for 201/202-R/S-RM Light Engines)

FLR-2

FLS-2

BEVEL TRIM PLATES (for 201/202-R/S-BV-RM Light Engines)

FLR-2-BV

FLS-2-BV

FLANGELESS TRIM MOUNTING ACCESSORIES

FR-2-RM FLANGELESS TRIM ACCESSORY
(for flush mounting **FLR-2/FLR-2-BV/FLR-2-WW** trims
in REMODEL applications)

FS-2-RM FLANGELESS TRIM ACCESSORY
(for flush mounting **FLS-2/FLS-2-BV/FLS-2-WW** trims
in REMODEL applications)

OPTIC OPTIONS + ACCESSORIES

TIR-15	15° Narrow spot
TIR-25	25° Narrow flood
TIR-40	40° Flood
TIR-60	60° Wide flood

NSP	Narrow softening lens
NFL	Medium softening lens
FL	Wide softening lens
WFL	Extra wide softening lens
LS	Linear spread Lens

REMODEL INSTALLATION - FLANGED TRIMS

201/202/203-S-RM and 201/202/203-S-BV-RM SQUARE LIGHT ENGINES

Power Supply Module

3-¾ " x 3-¾ " Cut Out

**201-S-RM, 201-S-BV-RM, 202-S-RM
202-S-BV-RM, or 203-S-RM** Light Engine

FLS-2 Trim
(for 201-S-RM or 202-S-RM
Light Engine)

FLS-2-BV Trim
(for 201-S-BV-RM or 202-S-BV-RM
Light Engine)

FLS-2-WW Trim
(for 203-S-RM Light Engine)

CEILING TYPES: Sheetrock, Wood & Stone | CEILING THICKNESS: ½" Min to 1-½" Max | CUT OUT: 3-³/₄" x 3-³/₄"

201/202/203-R-RM and 201/202/203-R-BV-RM ROUND LIGHT ENGINES

Power Supply Module

Ø3-¾ " Cut Out

**201-R-RM, 201-R-BV-RM, 202-R-RM,
202-R-BV-RM, or 203-R-RM** Light Engine

FLR-2 Trim
(for 201-R-RM or 202-R -RM
Light Engine)

FLR-2-BV Trim
(for 201-R-BV-RM or 202-R-BV-RM
Light Engine)

FLR-2-WW Trim
(For 203-R-RM
Light Engine)

CEILING TYPES: Sheetrock, Wood & Stone | CEILING THICKNESS: ½" Min to 1-½" Max | CUT OUT: Ø3- ³/₄"

Caution: Cut-out must be within ± ¹/₃₂" Ceiling material must be rigid and able to support weight of fixture (approximately 5lbs.).
Not for use with Acoustic tile or non-rigid ceiling materials. Minimum of 5-½" rough ceiling space required for power supply installation.

REMODEL INSTALLATION - FLANGED TRIMS

STEP 2 – ROUGH WIRING

1a. Disconnect power at circuit breaker.

1b. Review wiring diagrams on page 9 & 10, wire accordingly.

1c. Install wiring to fixture location leaving a 12" to 18" flexible whip to facilitate installation/servicing.

**Note: 0-10v, DALI,** or **EcoSystem** power supplies (if specified) require additional dimming control wiring.

STEP 2 – CEILING CUT-OUT AND INSTALLATION

2a. Ensure center of cut-out will be a minimum of 2-¼" from nearest framing member and there is a minimum of 5-½" of rough ceiling space above for installation of power supply.

2b. (Skip this step if installing into existing ceiling). Install ceiling material over rough wiring. **Note:** Rough wiring will be accessible after making ceiling cutout. Certain local electrical codes may require rough wiring to be installed in temporary junction box (not supplied) prior to installing ceiling.

2c. For sheetrock ceilings - apply all coats of primer & finish paint <u>before</u> making ceiling cut-out.
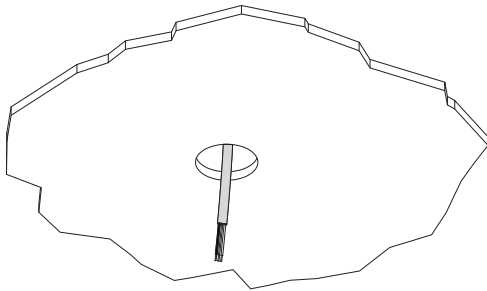
2d. Make cut-outs as shown.

Round Cut-out

2-¼" Min.

Ø3-¾ "

Joist

Square Cut-out
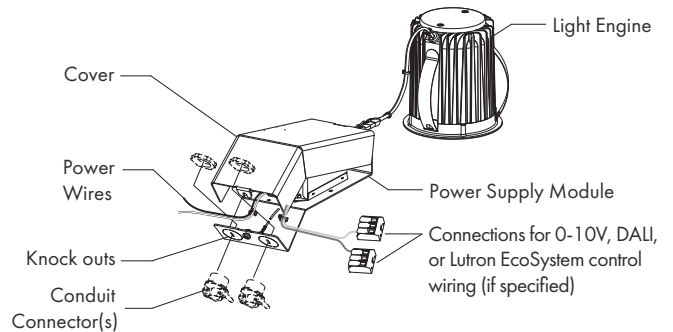
2-¼" Min.

3-¾"

3-¾"
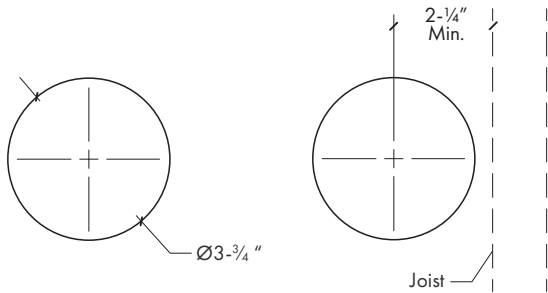
Joist
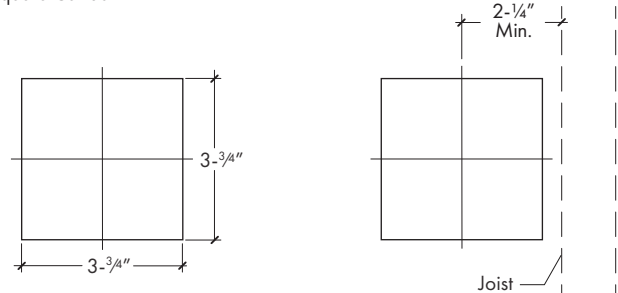
STEP 3 – FIXTURE WIRING

3a. Locate rough wiring and pull through ceiling cut-out ensuring a minimum of 6" of wire extends below the ceiling.

3b. Remove box cover on power supply assembly and install appropriate conduit connector (not supplied).

Light Engine

Cover

Power Wires

Knock outs

Conduit Connector(s)

Power Supply Module

Connections for 0-10V, DALI, or Lutron EcoSystem control wiring (if specified)

3c. Review wiring instructions on page 9 & 10, wire fixture accordingly. Place all wiring connectors back in power supply box and replace cover.

**STEP 4** – LIGHT ENGINE WIRING AND INSTALLATION

4a. Attach light engine wire connector & cable ring to power supply side wire connector & cable clip. Install power supply assembly through ceiling cut-out.

Cable Ring

Cable Clip

Wire Connectors
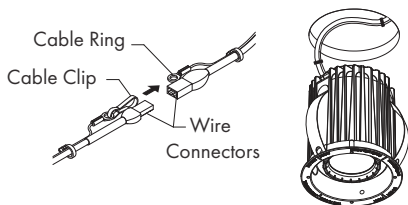
4b. Align light engine so arrow shown on flange is perpendicular with adjacent wall.
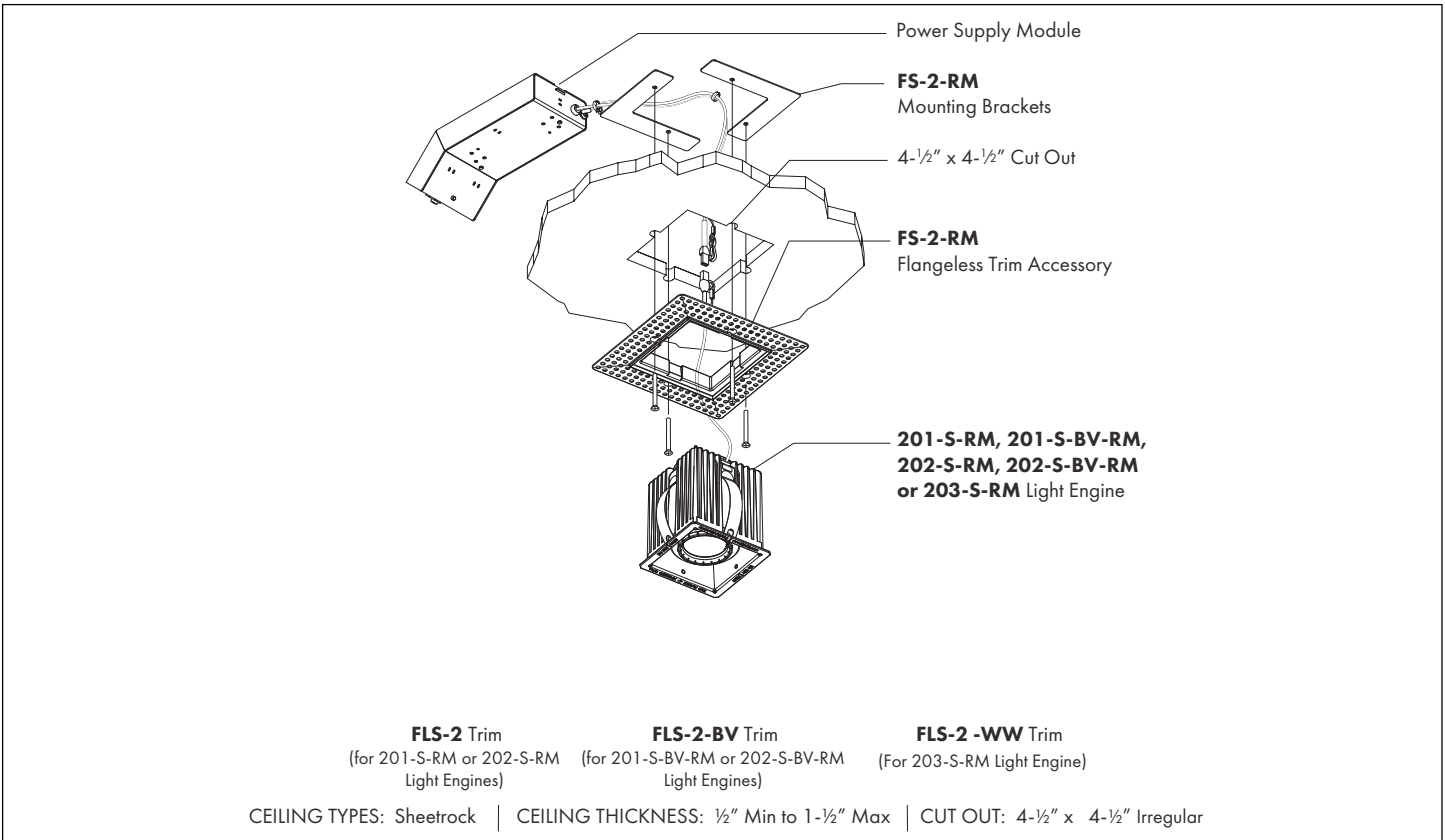
Arrow

Wall Line
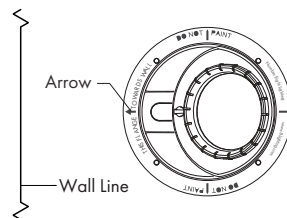
4c. Install light engine through cut-out.
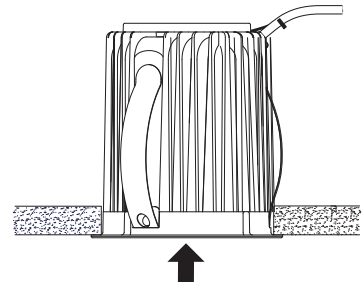
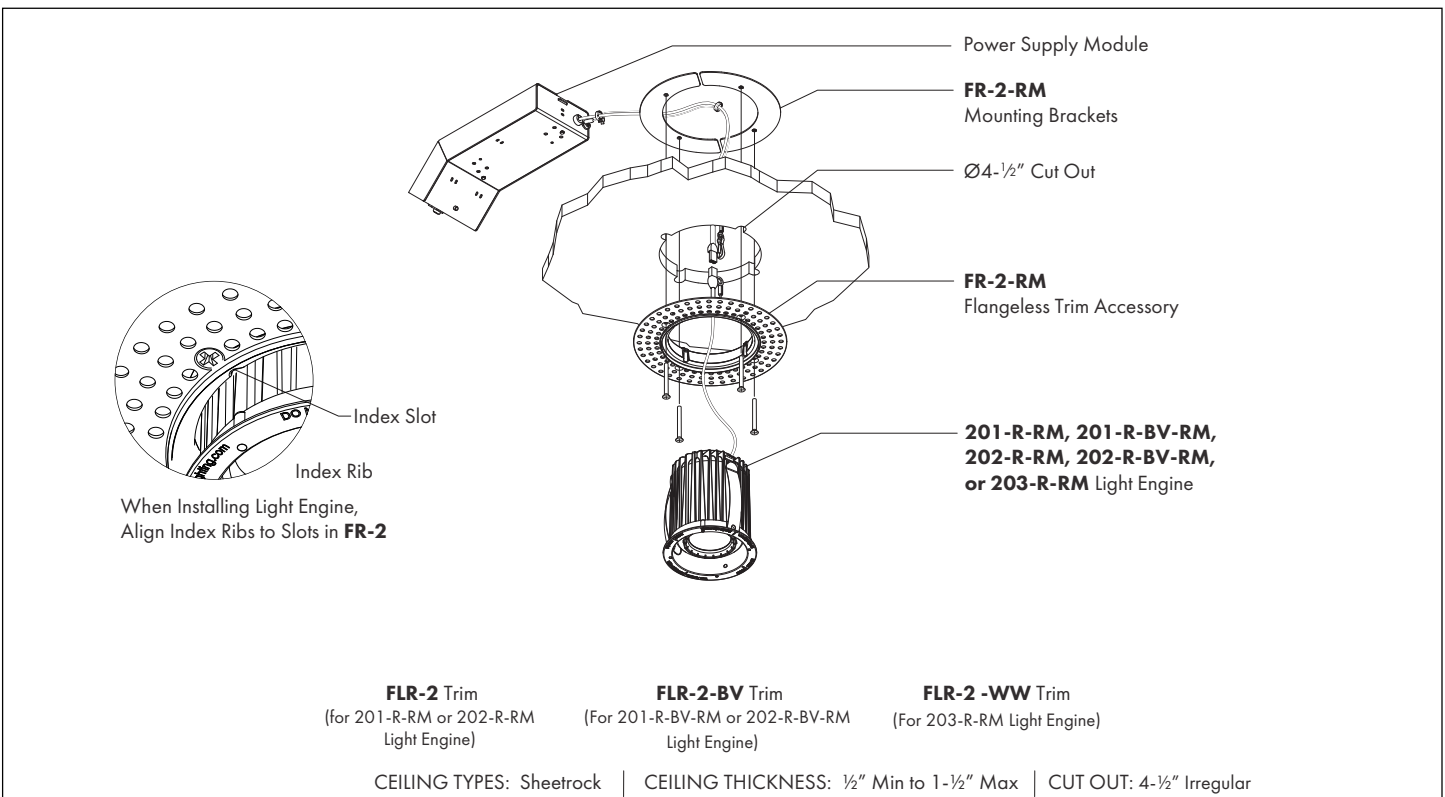**4d.** Install trim plate (see page 8).

REMODEL INSTALLATION - FLANGELESS TRIMS

201/202/203-S-RM and 201/202/203-S-BV-RM SQUARE LIGHT ENGINES

Power Supply Module

FS-2-RM
Mounting Brackets

4-½" x 4-½" Cut Out

FS-2-RM
Flangeless Trim Accessory

**201-S-RM, 201-S-BV-RM,
202-S-RM, 202-S-BV-RM
or 203-S-RM** Light Engine

FLS-2 Trim
(for 201-S-RM or 202-S-RM
Light Engines)

FLS-2-BV Trim
(for 201-S-BV-RM or 202-S-BV-RM
Light Engines)

FLS-2 -WW Trim
(For 203-S-RM Light Engine)

CEILING TYPES: Sheetrock │ CEILING THICKNESS: ½" Min to 1-½" Max │ CUT OUT: 4-½" x 4-½" Irregular

201/202/203-R-RM AND 201/202/203-R-BV-RM ROUND LIGHT ENGINES

Power Supply Module

FR-2-RM
Mounting Brackets

Ø4-½" Cut Out

FR-2-RM
Flangeless Trim Accessory

**201-R-RM, 201-R-BV-RM,
202-R-RM, 202-R-BV-RM,
or 203-R-RM** Light Engine

Index Slot

Index Rib

When Installing Light Engine,
Align Index Ribs to Slots in **FR-2**

FLR-2 Trim
(for 201-R-RM or 202-R-RM
Light Engine)

FLR-2-BV Trim
(For 201-R-BV-RM or 202-R-BV-RM
Light Engine)

FLR-2 -WW Trim
(For 203-R-RM Light Engine)

CEILING TYPES: Sheetrock │ CEILING THICKNESS: ½" Min to 1-½" Max │ CUT OUT: 4-½" Irregular

CAUTION: For use wth sheet rock material only. Cut-out must be within ± 1⁄16". Minimum of 5-½"rough ceiling space required for power supply module installation.
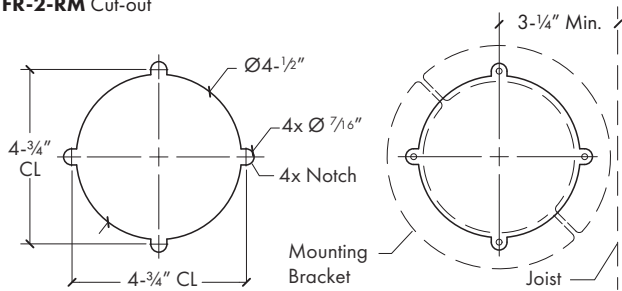
REMODEL INSTALLATION - FLANGELESS TRIMS

STEP 1 - ROUGH WIRING

1a. Disconnect power at circuit breaker.

1b. Review wiring diagrams on page 9 & 10, wire accordingly.

1c. Install supply wiring to fixture location leaving a 12-18″ flexible whip to facilitate installation/servicing.

Note: 0-10, DALI, or EcoSystem power supplies (if specified) require additional dimming control wiring.

STEP 2 – CEILING CUT-OUT AND INSTALLATION

2a. Ensure center of cut-out will be a minimum of 3-¼″ from nearest framing member and there is a minimum of 5-½″ of rough ceiling space above for installation of power supply.

2b. (Skip this step if installing into existing ceiling) Install ceiling material over rough wiring.

Note: Rough wiring will be accessible after making ceilng cut-out. Certain local electrical codes may require rough wiring to be installed in temporary junction box (not supplied) prior to installing ceiling.

2c. Make cut-outs as shown below.
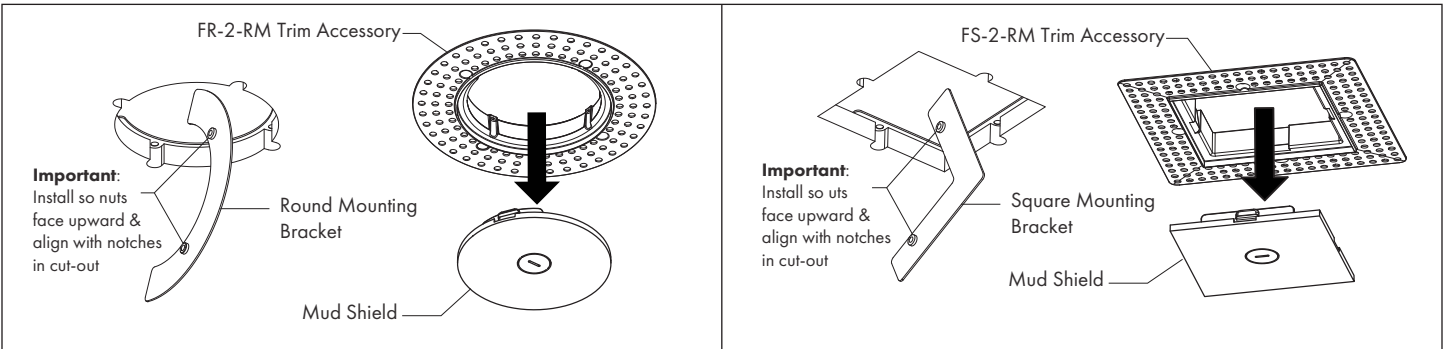
FR-2-RM Cut-out
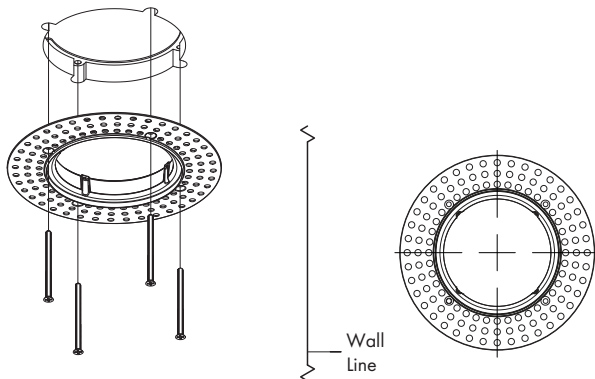

FS-2-RM Cut-out
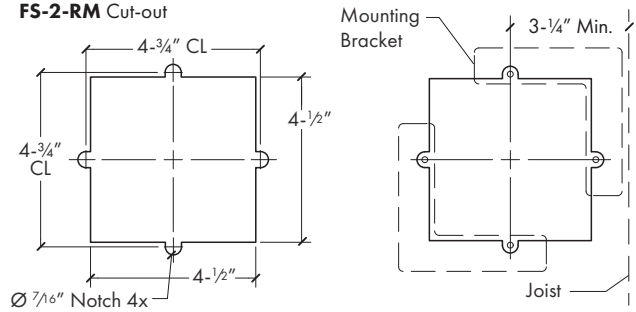
STEP 3 – FLANGELESS TRIM INSTALLATION

3a. Install ceiling brackets through cut-out. Remove mud shield and save. Install trim using four screws. **Note:** do not tighten screws until step **3b**.
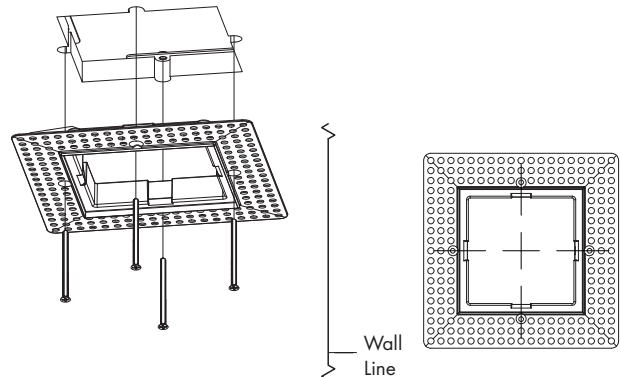

3b. Rotate trim to be aligned with adjacent walls or fixtures as shown below. Note: hand tighten trim screws. A power driver is not recommended.
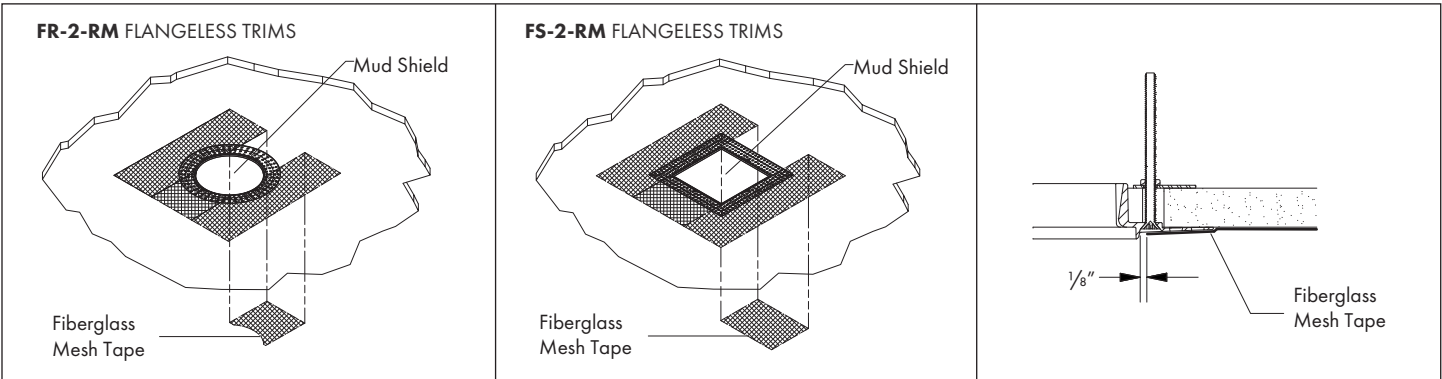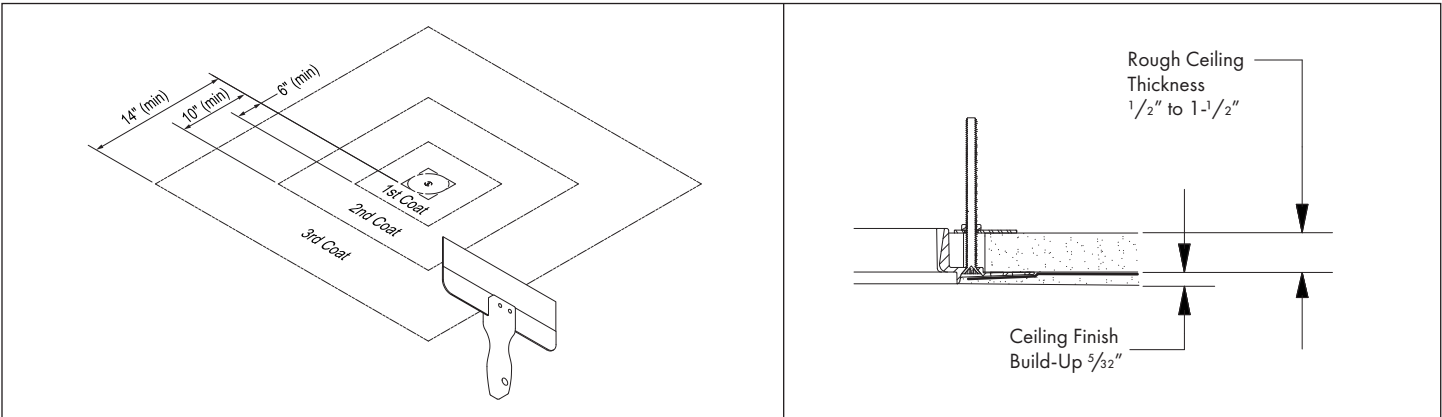
FR-2-RM FLANGELESS TRIM

FS-2-RM FLANGELESS TRIM

REMODEL INSTALLATION - FLANGELESS TRIMS

3c. Reinstall mud shield.

3d. Apply 6″ wide fiberglass mesh tape over perforated metal trim flange leaving 1/8″ cut-out around the outside edge of the raised trim lip and extending over sheetrock.

FR-2-RM FLANGELESS TRIMS — Mud Shield — Fiberglass Mesh Tape

FS-2-RM FLANGELESS TRIMS — Mud Shield — Fiberglass Mesh Tape

1/8″ — Fiberglass Mesh Tape

3e. Apply ceiling finish around FR-2-RM or FS-2-RM flangeless trim. **NOTE:** Minimum Level 4 or 5 finish is recommended.

14″ (min) — 10″ (min) — 6″ (min) — 1st Coat — 2nd Coat — 3rd Coat

Rough Ceiling Thickness 1/2″ to 1-1/2″

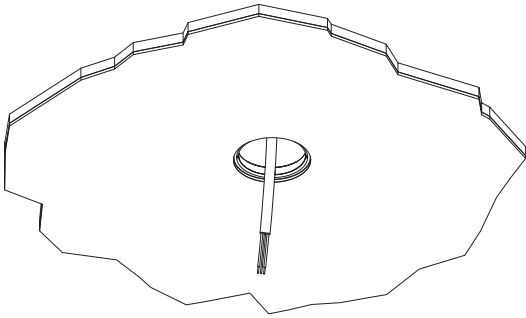Ceiling Finish Build-Up 5/32″

3f. First Coat - Apply USG "Durabond" setting-type joint compound for embedding the perforated flange and fiberglass mesh tape following the manufacturer's instructions and warnings for outside corners and trim. The compound should extend a minimum of 6″ from the trim edge. Allow first coat to dry completely and remove any high spots by lightly sanding before applying the second coat.

3g. Second Coat - Apply USG general purpose ready-mixed joint compound flush to finished edge of trim, floating outward following the manufacturer's instructions and warnings. The compound should extend a minimum of 10″ from the trim edge. Allow second coat to dry completely and remove any high spots by lightly sanding before applying the third coat.

3h. Third Coat - Apply USG ready-mixed finishing joint compound flush to finished edge of trim, floating outward following the manufacturer's instructions and warnings. The compound should extend a minimum of 14″ from the trim edge. Allow third coat to dry completely before sanding.

3i. Sand third coat with fine grit sandpaper until mud shield and finished metal edge of trim lip are barely exposed.

3j. Remove mud shield.

3k. Remove excess material from inside edges of trim.

3l. Apply primer (USG Sheetrock or equivalent) and paint following the paint manufacturer's instructions and warnings.
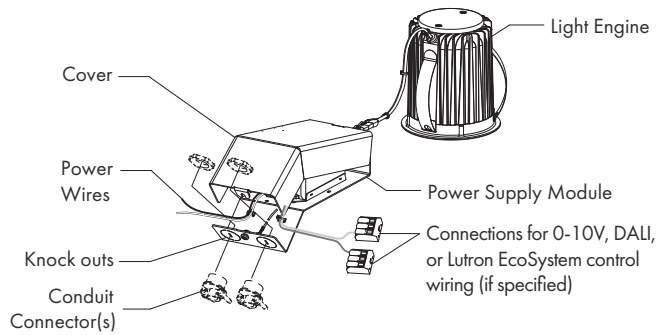
REMODEL INSTALLATION - FLANGELESS TRIMS

4a. Locate rough wiring and pull through ceiling cut-out ensuring a minimum of 6" of wire extends below the ceiling.

4b. Remove box cover on power supply assembly and install appropriate conduit connector (not supplied).

Light Engine

Cover

Power Wires

Power Supply Module

Knock outs

Connections for 0-10V, DALI, or Lutron EcoSystem control wiring (if specified)

Conduit Connector(s)

4c. Review wiring diagrams on page 9 & 10, wire fixture accordingly. Place all wiring connectors back in power supply box and replace cover.

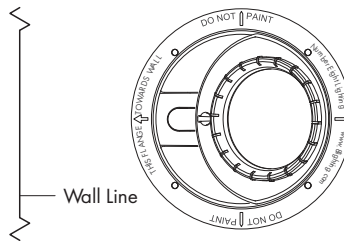**5a.** Attach light engine wire connector & cable ring to power supply side wire connector & cable clip. Installpower supply assembly through ceiling cut-out.
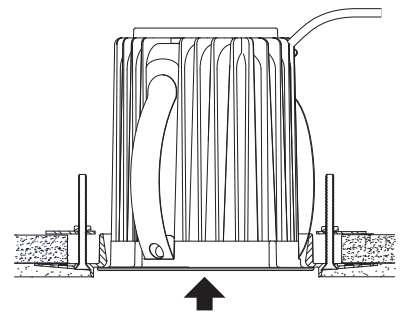
Cable Ring

Cable Clip

Wire Connectors
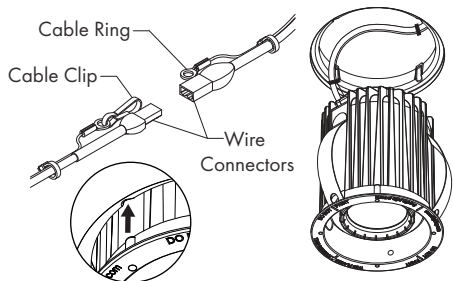
Align Index Ribs & Slots when installing Light Engine.

5b. Rotate light engine so the arrow aligns with adjacent walls.

DO NOT PAINT

DO NOT PAINT

Wall Line

**5c.** Install light engine into flangeless trim.

5d. Install trim plate (see page 8).
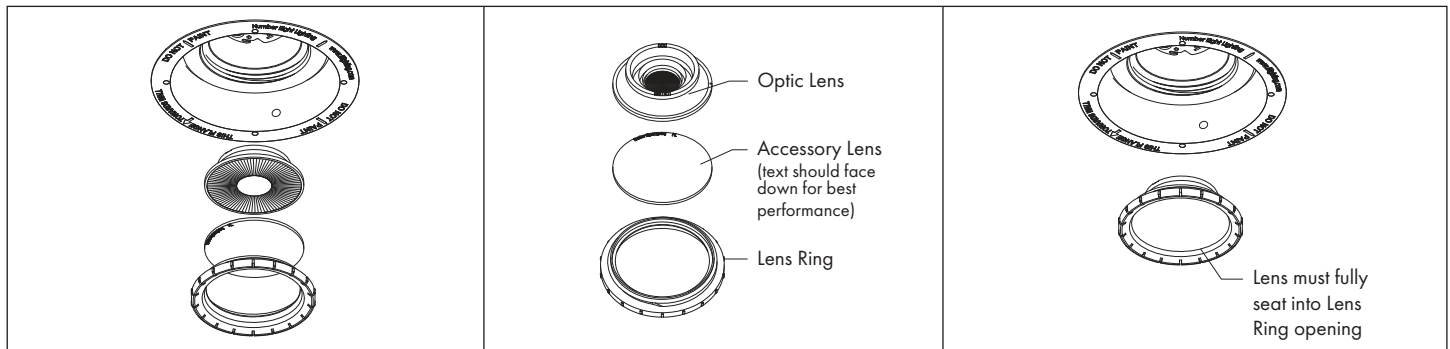
AIMING & ADJUSTMENT

STEP 1–VERTICAL AND HORIZONTAL AIMING AND ADJUSTMENT (Adjustable light engine models 202-R/S or 202-R/S-BV only)

1b. Adjust vertical aiming by sliding the lamp holder to desired angle (0-30°)
1a. Adjust the horizontal aiming by rotating the lamp holder & housing to desired angle (0-360°)

VERTICAL AIMING ANGLE ADJUSTMENT			HORIZONTAL AIMING ANGLE ADJUSTMENT
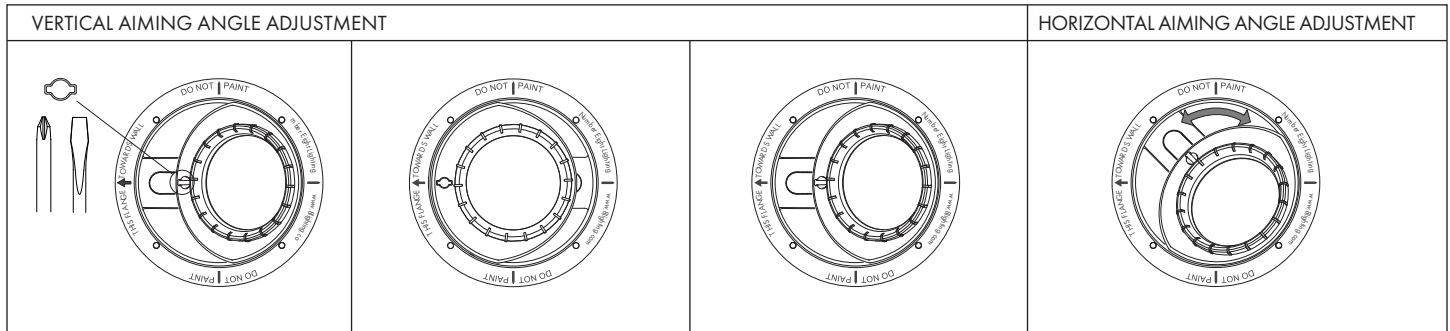
STEP 2– LENS AND ACCESSORY REMOVAL AND REPLACEMENT

2a. Remove the lens ring from the lamp holder by unscrewing counter-clockwise.
2b. Remove optic lens (and accessory lens if used) by gently pressing upward on the center while holding the lens ring.
2c. Install desired optic (and accesory lens if used) by aligning the optic lens in lens ring.
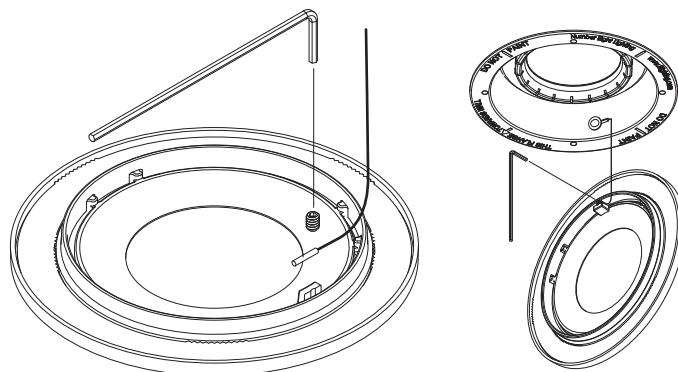**2d.** Reinstall lens ring on to lamp holder by turning clockwise.

Optic Lens

Accessory Lens (text should face down for best performance)

Lens Ring

Lens must fully seat into Lens Ring opening

TRIM PLATE FINISHING & INSTALLATION

STEP 1. (OPTIONAL) -PAINT TRIM PLATE

1a. Remove the trim plate from packaging.
1b. Clean and prepare exposed surfaces for painting following the paint manufacturers instructions and warnings.
1c. Paint as desired using a "dry roller" or light spray application
Note: If applying paint by spray method, mask trim plate lens (If installed).
Caution: Paint must be rated for minimum 90 C (150 F). Do not paint trim plate while installed in fixture. Do not paint backside of trim plate or safety cable.
Do not paint edges of trim plate if using with FR-2 or FS-2 flangeless trim.
1d. Allow trim plate to dry completely before installing.
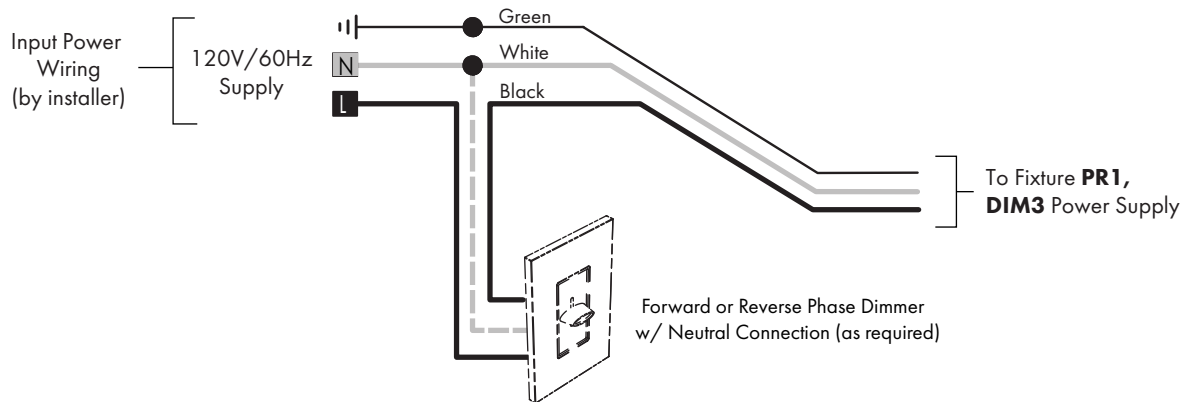
STEP 2 – INSTALL TRIM PLATE

2a. Loosen set screw in trim plate to accept safety cable.
2b. Extend trim safety cable out of housing and insert ferrule at end of the cable under set screw from side and secure with hex key.
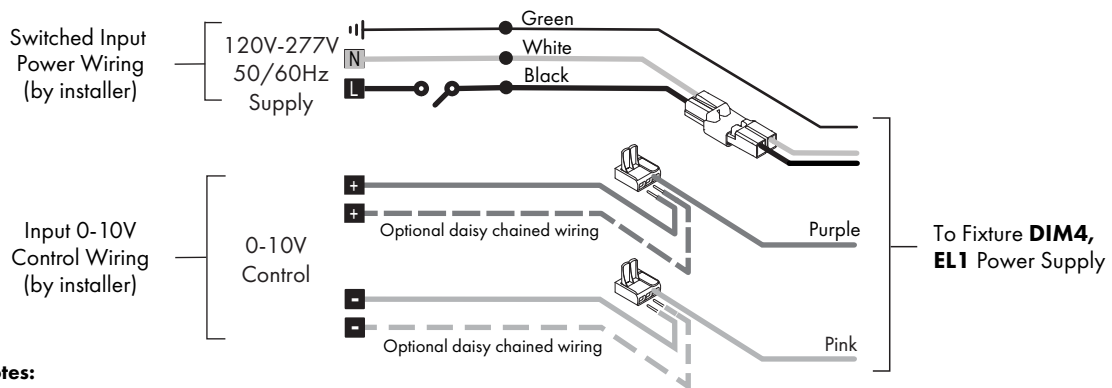
WIRING DIAGRAMS

PR1 / DIM3 - PHASE CONTROL

Input Power Wiring (by installer)

120V/60Hz Supply

Green
White
N
Black
L

To Fixture **PR1, DIM3** Power Supply

Forward or Reverse Phase Dimmer w/ Neutral Connection (as required)

Phase Control Notes:

PR1 / **DIM3** drivers are Forward or Reverse Phase dimmable.

For compatible dimmers for use with **PR1/DIM3** drivers see: www.8lighting.com/resources-downloads

DIM4 / EL1 - 0-10V CONTROL

Switched Input Power Wiring (by installer)

120V-277V 50/60Hz Supply

Green
N
White
L
Black

Input 0-10V Control Wiring (by installer)

0-10V Control

+
+
Optional daisy chained wiring
Purple

-
-
Optional daisy chained wiring
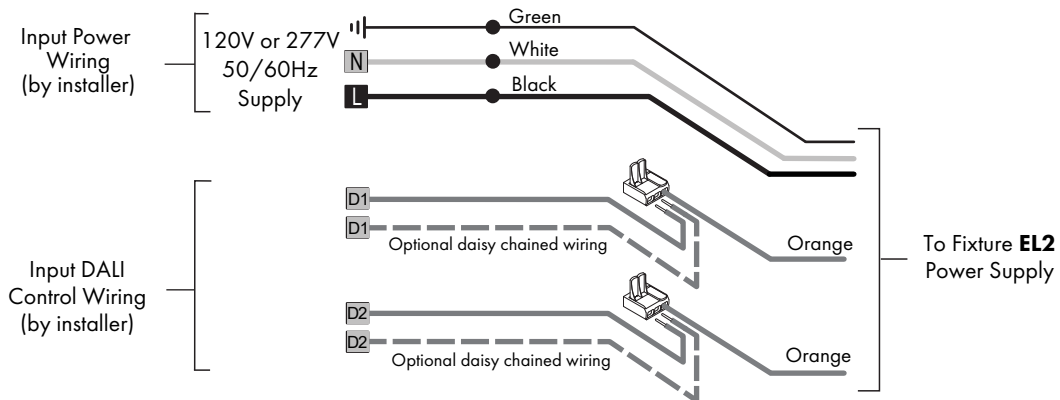Pink

To Fixture **DIM4, EL1** Power Supply

0-10V Control Notes:

0-10V control wiring is polarity sensitive and should be run as Class 2.

300' is the maximum control wiring run length to reduce EMI susceptibility and voltage drop. Voltage drop should be no greater than 0.3V.

For compatible dimmers for use with **DIM4 / EL1** drivers see: www.8lighting.com/resources-downloads.

EL2 - DALI CONTROL

Input Power Wiring (by installer)

120V or 277V 50/60Hz Supply

Green
N
White
L
Black

Input DALI Control Wiring (by installer)

D1
D1
Optional daisy chained wiring
Orange

D2
D2
Optional daisy chained wiring
Orange

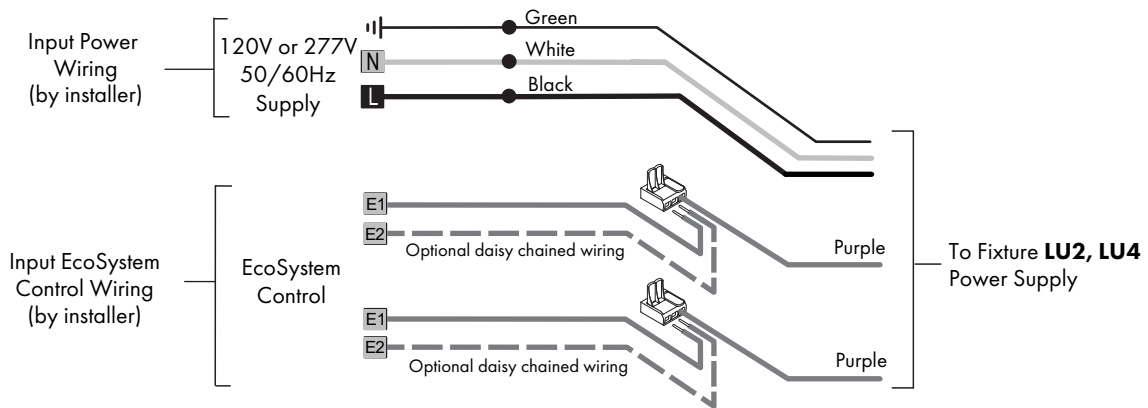To Fixture **EL2** Power Supply

DALI Control Notes:

DALI control wiring is not polarity sensative and can be run as Class 1 or 2. Up to 64 **EL2** power supplies can be daisy chained per DALI control loop.

Maximum control wiring run length is 1000'.

For compatible dimmers for use with **EL2** drivers see: www.8lighting.com/resources-downloads

WIRING DIAGRAMS

LU2 / LU4 - LUTRON ECOSYSTEM CONTROL

Input Power Wiring (by installer)

120V or 277V 50/60Hz Supply

Green
White
Black

Input EcoSystem Control Wiring (by installer)

EcoSystem Control

E1
E2
Optional daisy chained wiring

Purple

E1
E2
Optional daisy chained wiring

Purple

To Fixture **LU2, LU4** Power Supply

Lutron EcoSystem Control Notes:
Up to 64 **LU2 / LU4** power supplies can be daisy chained per EcoSystem control loop.
Maximum control wiring run length is 1000'.
For additional information, contact LED Center of Excellance at 1.877.346.5338 or LEDs@lutron.com.

N°
ei8ht
LIGHTING
®

www.8lighting.com