# ALS®
**Advantage Lighting Solutions**

## TREA SERIES G2  SELECTABLE LED TROFFER

Client:
Project:
Type:
Quantity:

### CONSTRUCTION
22-gauge metal frame, 95% reflective white polyester powder coat bonded to phosphate-free multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency and inhibit corrosion. All corners are rounded for safe handling. Multiple wiring entrances on driver enclosure for easy access. Integral T-bar clips for installation into T-grid ceilings.

### OPTICS
Backlit design provides exceptional lighting distribution. Frosted polycarbonate lens offers edge to edge smooth illumination for maximum visual comfort.

### ELECTRICAL
80 CRI standard. 90 CRI optional.
Long-life LEDs, coupled with a high-efficiency driver, provide superior illumination for extended service life. Greater than 70% LED lumen maintenance at 60,000 hours (L70>60,000).
Selectable lumen and CCT technology allows easy field-adjustable capability, luminaire ships with maximum output and 4000K CCT setting.
All CCTs are within 3 MacAdam ellipses.
Driver operates at 120-277V input, 0-10V dimmable driver, down to 10%.
Integral thermal protection from driver, maximum output reduced by 50% when TC temperature reach 80C.

### SENSORS (OPTIONAL)
CONTROL-LVFA AVI-ON Bluetooth Mesh Controller.
CONTROL-BLE-620 Bluetooth Wireless Fixture Controller for CCT Tuning, Dimming, Grouping, Scheduling Features (ALS Control Mobile App).

### MOUNTING
Designed to accommodate lay-in ceilings, Slot T, and T-bar suspension system for 5/8" and 3/8" width.
Built-in earthquake clips come standard.
Surface/cable mount applications, use surface mount accessories.
Plaster or sheetrock installations, select flange kit.

### STANDARD FINISH
High Reflective White finish.

### CERTIFICATION
IC Rated.
Damp location label standard.
Meets Buy America Act requirements.
Option for "BABA" compliance upon request.
All luminaires are built to UL1598 standards and bear appropriate cULus labels.
For Emergency application, equipment with UL924 certified battery packs.
DLC® Premium (DesignLights Consortium Qualified)

### WARRANTY
5 year warranty, see Limited Warranty for additional information.

TREA-4 (Gen 2)

### SHIPPING DATA

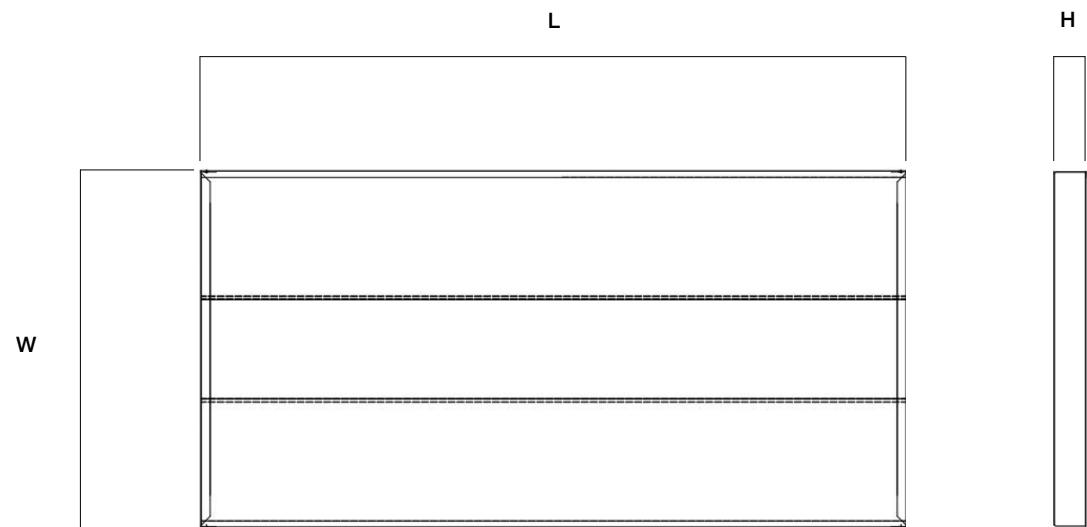| Product | Measurement | Weight |
|---|---|---|
| TREA-G2-1 (2-pack) | 48"L x 12"W x 3"H | 16 lb |
| TREA-G2-2 (2-pack) | 24"L x 24"W x 3"H | 15 lb |
| TREA-G2-4 (2-pack) | 48"L x 24"W x 3"H | 24 lb |

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## TREA SERIES G2  SELECTABLE LED TROFFER

| ORDER INFORMATION | | | | EXAMPLE: TREA G2 2 |
|---|---|---|---|---|
| Fixture | Series | Model | Finish | Input |
| | TREA | | blank | |
| Mounting | | | | |
| Accessories | | | | |
| Options | | | | |

### A  SERIES

| | |
|---|---|
| TREA | Selectable Lumen and CCT LED Troffer |

### B  MODEL

| Code | Size | Power | CCT | Output |
|---|---|---|---|---|
| 1-G2 | 1x4 | 20W / 25W / 30W | 3000K / 3500K / 4000K / 5000K / 6500K | up to 4500lm |
| 2-G2 | 2x2 | 25W / 30W / 35W | 3000K / 3500K / 4000K / 5000K / 6500K | up to 5250lm |
| 4-G2 | 2x4 | 34W / 38W / 45W | 3000K / 3500K / 4000K / 5000K / 6500K | up to 6750lm |

### C  FINISH

| | |
|---|---|
| blank | White |

### D  INPUT

| | | | |
|---|---|---|---|
| blank | 120-277V, 10% 0-10V Dimming w/12V AUX Output | MD | 120-347V, 10% 0-10V Dimming w/12V AUX Output |
| UD1% | 120-277V, 1% 0-10V Dimming w/12V AUX Output | | |

### G  MOUNTING

| | |
|---|---|
| blank | Standard lay-in |
| MOUNT-LP-14-FGK | 1.52" Tall 1x4 Flange Kit (Plaster, Sheetrock or Drywall) |
| MOUNT-LP-22-FGK | 1.52" Tall 2x2 Flange Kit (Plaster, Sheetrock or Drywall) |
| MOUNT-LP-24-FGK | 1.52" Tall 2x4 Flange Kit (Plaster, Sheetrock or Drywall) |
| MOUNT-LP-14-SMK | 4" Tall 1x4 Surface Mount Kit |
| MOUNT-LP-22-SMK | 4" Tall 2x2 Surface Mount Kit |
| MOUNT-LP-24-SMK | 4" Tall 2x4 Surface Mount Kit |

### H  ACCESSORIES/OPTIONS

| | |
|---|---|
| AIA | Assembled in America, compliant with BAA (COTS) |
| BABA | Build America, Buy America Act (BABAA) Compliant |
| 90CRI | 90CRI |
| ZENOR-DIODE* | Custom Output Controller, specify **Wattage / Lumen Value** _____ |
| CONTROL-LVFA* | AVI-ON Bluetooth Mesh Control System |
| CONTROL-BLE-620* | Bluetooth Wireless Fixture Controller for CCT Tuning, Dimming, Grouping, Scheduling Features (ALS Control Mobile App) |
| EMB-H08170* | 90-Minute Self-Diagnostic Emergency Battery 8W 100-347VAC Input 170VDC Output |
| EMB-H18170* | 90-Minute Self-Diagnostic Emergency Battery 18W 100-347VAC Input 170VDC Output |
| EMB-H40170* | 90-Minute Self-Diagnostic Emergency Battery 40W 100-347VAC Input 170VDC Output |
| GTD-ESRLUD** | Emergency Battery Generator Transfer Device 120-277 VAC Input |
| -C | 3/8" x 6FT Steel Flex 5-18AWG Solid 6' leads BLK/WH/GRN/PUR/PNK & 3/8" Die Cast Screw-In Locknut Connectors |

*see page 5 for sensor and emb specs

**see page 8 and 9 and GTD spec

## DIMENSIONS

| Model | W | L | H |
|-------|-------|-------|-------|
| TREA-1-G2 | 11.70" (298mm) | 47.80" (1213mm) | 2.0" (50mm) |
| TREA-2-G2 | 23.76" (603mm) | 23.76" (603mm) | 2.1" (54mm) |
| TREA-4-G2 | 23.76" (603mm) | 47.80" (1213mm) | 2.1" (54mm) |

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## PERFORMANCE DATA

| SYSTEM WATTS | SIZE | VOLTAGE | LUMEN | LPW | QTY ON PALLET |
|---|---|---|---|---|---|
| 20W | 1x4 | 120-277V | 3000 | 150 | 100 |
| 25W | 1x4 | 120-277V | 3750 | 150 | 100 |
| 30W | 1x4 | 120-277V | 4500 | 150 | 100 |
| 25W | 2x2 | 120-277V | 3750 | 150 | 120 |
| 30W | 2x2 | 120-277V | 4500 | 150 | 120 |
| 35W | 2x2 | 120-277V | 5250 | 150 | 120 |
| 34W | 2x4 | 120-277V | 5100 | 150 | 60 |
| 38W | 2x4 | 120-277V | 5700 | 150 | 60 |
| 45W | 2x4 | 120-277V | 6750 | 150 | 60 |

## DLC CODE

| Part Number | DLC Part Nnumber | DLC Class |
|---|---|---|
| TREA-1-G2 | S-SPVG2B | Premium |
| TREA-2-G2 | S-VQ2AI1 | Premium |
| TREA-4-G2 | S-8MCVZA | Premium |

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# TREA SERIES G2  SELECTABLE LED TROFFER

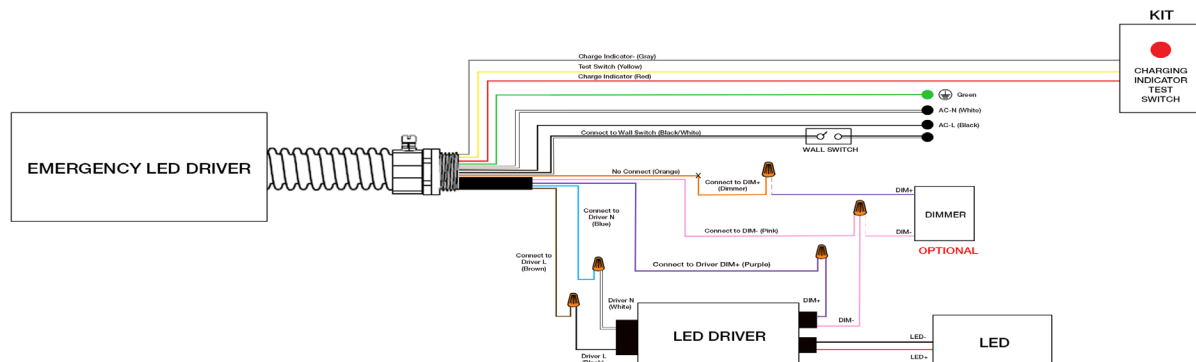| Model | Type | Mounting | Coverage | Input | Function | Programmable |
|---|---|---|---|---|---|---|
| ZENOR-DIODE | Output Controller | Integral to Fixture | - | 0-10V | Cap Maximum Output | Specify Max Wattage / Lumen |
| CONTROL-LVFA (see page 6 for detail) | Fixture Controller | Integral to Fixture | - | 12V DC | Bluetooth Mesh On/Off/Dimming Scheduling | AVI-ON Bluetooth Mobile App |
| CONTROL-BLE-620 (see page 7 for detail) | Fixture Controller | Integral to Fixture | - | 12V DC | CCT Tuning Dimming Grouping Time Schedule | ALS Control Bluetooth Mobile App |

ZENOR-DIODE      CONTROL-BLE-620      CONTROL-LVFA

## EMB SPEC

| Model | Battery Capacity | Input | Output | Output Power | Operating Temp | Installation |
|---|---|---|---|---|---|---|
| EMB-H08170 | 90mins | 100-347VAC | 170VDC | 8W | 0°C ~ 50°C 32°F ~ 122°F | Factory or Field Install |
| EMB-H18170 | 90mins | 100-347VAC | 170VDC | 18W | 0°C ~ 50°C 32°F ~ 122°F | Factory or Field Install |
| EMB-H40170 | 90mins | 100-347VAC | 170VDC | 40W | 0°C ~ 50°C 32°F ~ 122°F | Factory or Field Install |

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# TREA SERIES G2  SELECTABLE LED TROFFER

## CONTROL-LVFA SPEC

**Status LEDs & Config Button**
Quick and easy validation of wiring and network

**Direct Connect™ Sensor Port**
Simple and cost-effective addition to Avi-on sensors

**Terminal Blocks & Mounting Tabs**
Faster, easier and lower cost installation eliminating connectors

**Internal Antenna**
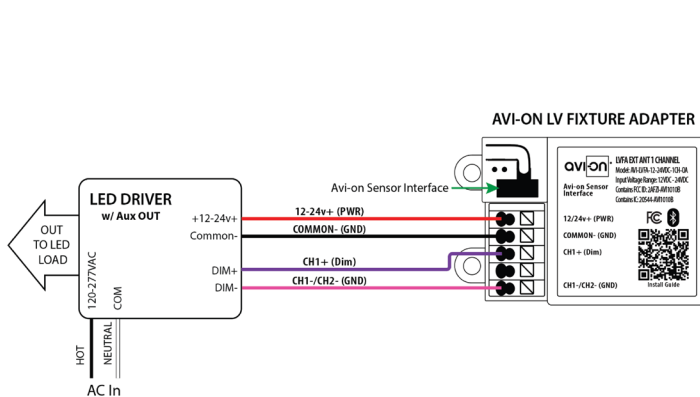Improved performance and eliminates risk of accidentally cutting a hanging wire

## SPECIFICATIONS

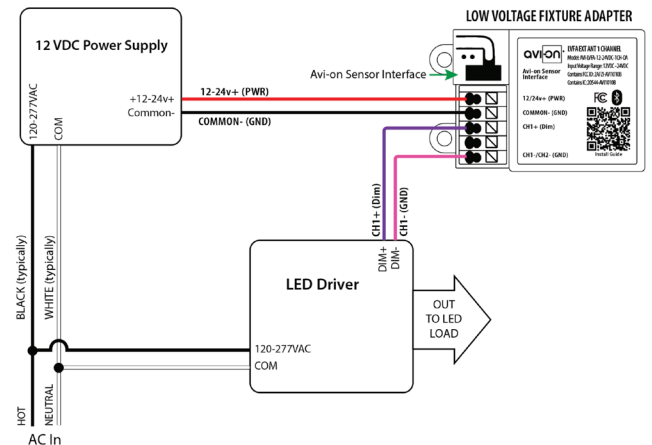| | |
|---|---|
| **INPUT VOLTAGE:** | 12-24VDC |
| **CURRENT:** | 15mA without a Sensor |
| | 19mA with a DC PIR Sensor |
| | 48mA with a DC Microwave Sensor |
| **0-10V DIMMING:** | 12-24VDC |
| **SIZE:** | 2.30in x 1.43in x 0.75in |
| | (58.2mm x 36.4mm x 19mm) |
| **MOUNTING:** | Removable mounting tabs |
| **WEIGHT:** | 0.45 oz (16g) |
| **OPERATING TEMP:** | -22°F to +158°F (-30°C to + 70°C) |

| | |
|---|---|
| **RADIO FREQUENCY:** | 2.4GHz |
| **WIRELESS STANDARD:** | BLE 4.2 with Mesh |
| **POINT TO POINT RANGE*:** | 80ft with obstructions |
| | 350ft unobstructed |
| **SECURITY:** | AES 128-bit encryption for device to device communication |
| | AES 256-bit encryption for device to cloud communication |
| **WARRANTY:** | 5 years; 10 years optional |
| **REGULATORY:** | FCC: 2AFZI-AVI1010 B |
| | IC: 20544-AVI1010 B |
| | BQB: D031801, DID: 86303 |
| | UL 916, 2043 (Plenum Rated) |

*When communicating through the mesh, range is essentially unlimited (5000ft+)

## WIRING DIAGRAM

Fixture adapter powered by LED driver auxiliary output

Fixture adapter connected to LED driver and using power supply

# ALS CONTROL

## CONTROL-BLE-620 BLUETOOTH CONTROLLER

Client:
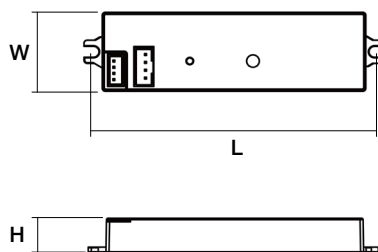Project:
Type:
Quantity:

## FEATURE

- **Installation:** Factory installed, 12V AUX power required
- **Commissioning:** Wirelessly through ALS Control Mobile App (iOS / Android)
- **Certification:** DLC 5.1 Networked Lighting Control System
- **Control:** Dimming, High-End Trim, Zoning, Continuous Bi-level Dimming
- **CCT Tuning:** CCT Tuning feature for Dual/Multi-CCT LED board fixture only
- **Sensor:** Plug-N-Play with ALS Control sensors
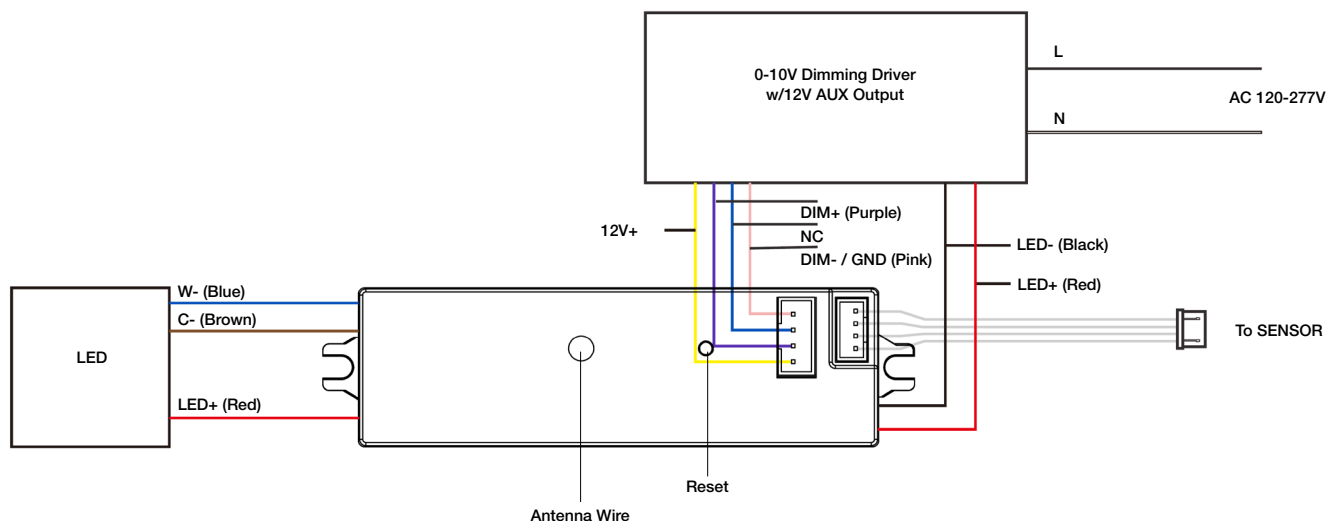- **Zone Control:** Zoning and Grouping control, Scheduling

## SPECIFICATIONS

| | |
|---|---|
| WIRELESS STANDARDS: | 5.0 Bluetooth Mesh |
| INPUT VOLTAGE: | 12-14VDC, >50mA |
| OUTPUT VOLTAGE: | LED Max. 150VDC Max. 2A |
| CONTROL OUTPUT: | 0-10V |
| OPERATING TEMP: | -40°F ~ +158°F (-40°C ~ +70°C) |
| COMMISSIONING RANGE: | 50FT |
| BLUETOOTH RANGE: | 100FT |
| WARRANTY: | 5 years |
| IP RATING: | IP20 |

## DIMENSIONS

| L | H | W |
|---|---|---|
| 3.5" (89mm) | 0.43" (11mm) | 1.00" (26mm) |

| Lead Wire | Antenna Wire |
|---|---|
| 10.60" (270mm) | 10.60" (270mm) |

## WIRING DIAGRAM



0-10V Dimming Driver w/12V AUX Output

L
N
AC 120-277V

12V+
DIM+ (Purple)
NC
DIM- / GND (Pink)
LED- (Black)
LED+ (Red)

W- (Blue)
C- (Brown)
LED+ (Red)

LED

To SENSOR

Antenna Wire

Reset

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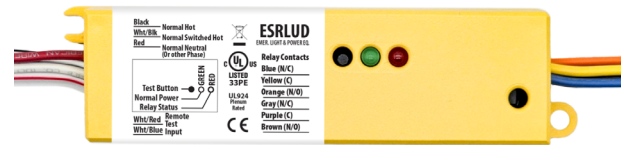
## GTD-ESRLUD Generator Transfer Device



## CONSTRUCTION

Yellow metal casing. Integrates with dry contact systems to provide lighting during power outages. Features a slim enclosure, allowing for seamlessly integrating into existing building infrastructure.

Designed for commercial and industrial applications that require an emergency load to be switched on during a loss of normal power.

## SPECIFICATIONS

| | |
|---|---|
| COIL CURRENT: | Normal Power = 6mA MAX |
| COIL VOLTAGE INPUT: | 120-277V AC (50/60 Hz) |
| EXPECTED RELAY LIFE: | 10 Million Cycles Min Mechanical |
| RELAY CONTACT RATINGS: | 10 Amp Resistive @ 30 V DC |
| | 10 Amp General Use @ 277 V AC |
| OPERATING TEMP: | -30°F ~ +140°F (-34°C ~ +60°C) |
| OPERATE TIME: | 18ms |
| HUMIDITY RANGE: | 5-95% (Noncondensing) |
| LED: | Green = Normal Power |
| | Red = Relay Status |
| DIMENSIONS: | 1.40"H x 5.63"W x 1.00"D |
| WIRES: | 16", 600V Rated |
| OVERRIDE (TEST SWITCH): | No |
| APPROVALS: | UL924, C-UL, CE, ROHS |
| NOTES: | Device Draws no Current From Emergency Source |

## TESTING

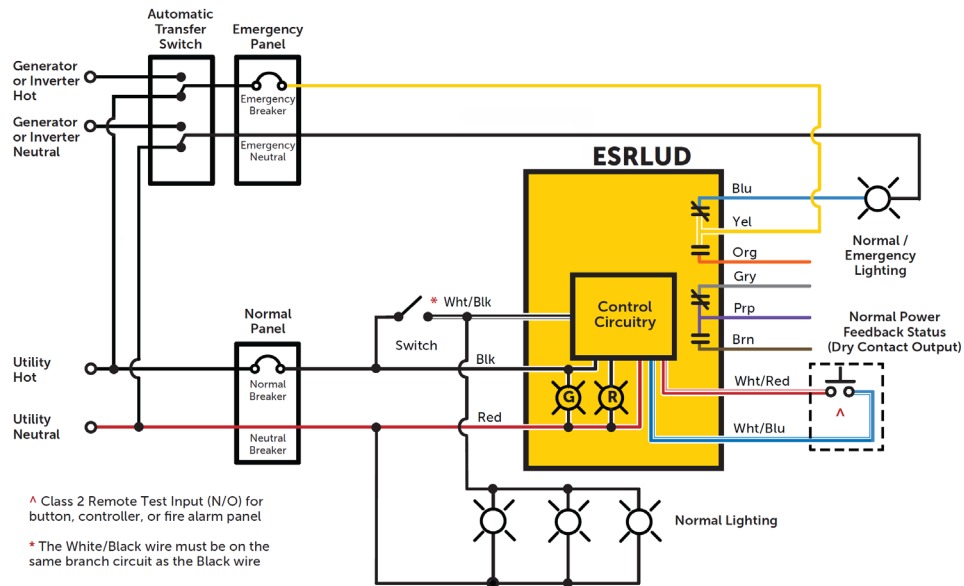| | |
|---|---|
| INITIAL TEST FOR CORRECT WIRING: | Apply Normal Power To Normal Power Input |
| | a. Green LED (Normal Power) should be ON |
| | b. Red LED (Relay Status) should be ON |
| | c. Load should be OFF |
| | d. Relay Contact (N/O) should be CLOSED |
| LOCAL TEST BUTTON: | 1. Turn Switched Circuit OFF. Load be OFF. |
| | 2. Press and Hold "Local Test Button" |
| | 3. Load should Turn ON |
| | 4. Release "Local Test Button" and Emergency Light should Turn OFF. |
| WALL SWITCH: | 1. Turn ON Wall Switch If not already ON |
| | 2. Load should Turn ON |
| | 3. Turn Wall Switch OFF |
| | 4. Load will Turn OFF |

## TROUBLESHOOTING

| CONDITION | ACTION |
|---|---|
| Green LED is OFF | • Check Normal Power Input Wiring (Black and Red Wires) and Voltage. |
| Red LED is OFF but Load is OFF | • Check Bulbs and Ballast.<br>• Check Load Wiring (Blue Wire and Load's Neutral).<br>• Replace Unit. (Assuming N/C Contact is Used). |
| Load is ON but Red LED is ON | • Replace Unit. (Assuming N/C Contact is Used). |
| Red LED does not Turn OFF and Load does not Turn ON when being tested | • Check Bulbs and Ballast.<br>• Check Wiring Connections if Using a Remote Test Option.<br>• Press Local Test Button on the Unit.<br>• Replace Unit. |
| Red LED will not Turn ON and Load will not Turn OFF | • Verify Status of Normal Power Input.<br>• Open Wall Switch Input.<br>• Verify That No Test Inputs are Stuck Closed. |

## WIRING DIAGRAM

### USING EMERGENCY LIGHTING AS NORMAL LIGHTING



^ Class 2 Remote Test Input (N/O) for button, controller, or fire alarm panel

* The White/Black wire must be on the same branch circuit as the Black wire

### OVERRIDING A 0-10V DIMMER



∗ Class 2 Remote Test Input (N/O) for button, controller, or fire alarm panel

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