

**LPNSF SERIES NSF FOOD GRADE PANEL**

Client:  
Project:  
Type:  
Quantity:

**CONSTRUCTION**

Luminaire made of extruded aluminum, corners are rounded for safe handling.  
Housing made of cold-rolled carbon steel sheet metal (SPCC) designed for Lay-In Recessed application, mounting clips included.

**OPTICS**

Backlit design provides exceptional lighting distribution. Available with Polycarbonated (PC) and Tempered Glass (TG) Lens options.

**ELECTRICAL**

80CRI Long-life, high-efficacy, micro-power LEDs, illumination for extended service life. Greater than 70% LED lumen maintenance at 50,000 hours.  
Selectable lumen and CCT technology allows easy field-adjustable capability.  
Driver operates at 120-277V input, 0-10V dimmable driver.

**MOUNTING**

Designed for Lay-in Recessed application.  
Suitable for Hard Ceiling, Drywall, T-bar suspension system. Built-in mounting clips on luminaire housing.

**SENSORS (OPTIONAL)**

SENSOR-BLE-7 Integral Microwave Bluetooth Wireless Motion/on/off/dimming/photosensing.  
CONTROL-AVI-LVFA AVI-ON Bluetooth Mesh Controller.

**STANDARD FINISH**

Antimicrobial White paint, 90% minimum average reflective powder coat bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.

**CERTIFICATION**

Option for "Assembled in America" upon request.  
NSF Food Rated.  
IP65 Rated.  
All luminaires are built to UL1598 standards and bear appropriate cULus labels.  
For Emergency application, equipment with UL924 certified battery packs.  
DLC<sup>®</sup> Standard (DesignLights Consortium Listed)

**WARRANTY**

5 year warranty, see Limited Warranty for additional information.



Front



Back



**LPNSF SERIES NSF FOOD GRADE PANEL**

ORDER INFORMATION				EXAMPLE: LPNSF 2-MC PC WHUD	
Fixture	Series	Model	Lens	Finish	Input
	<b>LPNSF</b>			<b>WH</b>	<b>UD</b>
Accessories					
Options					

<b>A</b>	<b>SERIES</b>	
	LPNSF	LP Series NSF Food Grade Panel

<b>B</b>	<b>MODEL</b>				
	<b>STANDARD OUTPUT</b>				
	Code	Size	Power	CCT	lm/W (avg.)
	<b>1-MC</b>	1x4	25W / 30W / 40W	3500K / 4000K / 5000K	110lm/W
	<b>2-MC</b>	2x2	25W / 30W / 40W	3500K / 4000K / 5000K	110lm/W
	<b>4-MC</b>	2x4	30W / 40W / 50W	3500K / 4000K / 5000K	110lm/W
	<b>HIGH OUTPUT</b>				
	Code	Size	Power	CCT	lm/W (avg.)
	<b>1H-MC</b>	1x4	25W / 30W / 40W	3500K / 4000K / 5000K	125lm/W
	<b>2H-MC</b>	2x2	25W / 30W / 40W	3500K / 4000K / 5000K	125lm/W
	<b>4H-MC</b>	2x4	30W / 40W / 50W	3500K / 4000K / 5000K	125lm/W

<b>C</b>	<b>LENS</b>	
	PC	Polycarbonate Lens
	TG	Tempered Glass Lens

<b>D</b>	<b>FINISH</b>	
	WH	White

<b>E</b>	<b>INPUT</b>	
	UD	120-277V, 0-10V Dimming

<b>F</b>	<b>ACCESSORIES/OPTIONS</b>	
	<b>BAA</b>	Assembled in America, compliant with BAA (COTS)
	<b>-C</b>	3/8" x 6FT Steel Flex 5-18AWG Solid 6' leads BLK/WH/GRN/PUR/PNK & 3/8" Die Cast Screw-In Locknut Connectors
	<b>EMB-H08170*</b>	90-Minute Self-Diagnostic Emergency Battery 8W 100-347VAC Input 170VDC Output
	<b>EMB-H18170*</b>	90-Minute Self-Diagnostic Emergency Battery 18W 100-347VAC Input 170VDC Output
	<b>SENSOR-BLE-7*</b>	Integral Microwave Bluetooth Wireless Bi-Level Motion Sensor (ALS Control Mobile App)
	<b>CONTROL-LVFA*</b>	AVI-ON Bluetooth Mesh Control System (12V DC Power by Driver)
	<b>GTD-ESRLUD***</b>	Emergency Battery Generator Transfer Device 120-277 VAC Input

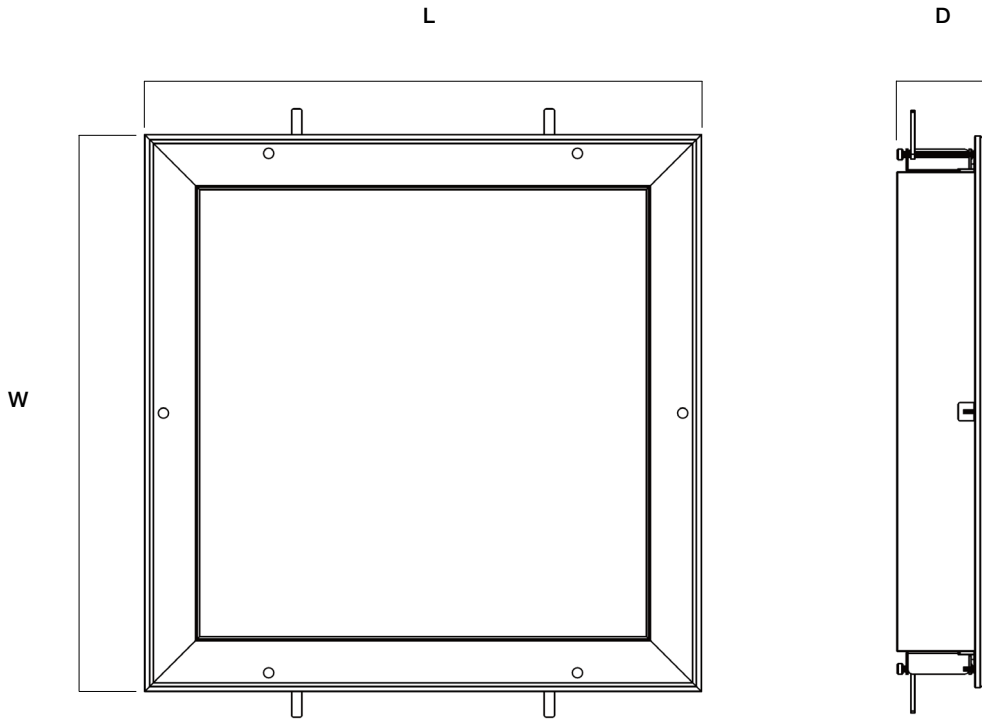
\*see page 5 for sensor and emb spec

\*\*see page 8 and 9 for GTD spec

**LPNSF SERIES NSF FOOD GRADE PANEL**

**DIMENSIONS**

Model	L	W	D	Cut Out
LPNSF-1 / 1H	47.70" (1212mm)	11.74" (298mm)	3.94" (100mm)	10.98" (279mm) x 46.97" (1193mm)
LPNSF-2 / 2H	23.70" (602mm)	23.70" (602mm)	3.94" (100mm)	22.95" (583mm) x 22.95" (583mm)
LPNSF-4 / 4H	47.70" (1212mm)	23.70" (602mm)	3.94" (100mm)	22.95" (583mm) x 46.97" (1193mm)



## LPNSF SERIES NSF FOOD GRADE PANEL

### PERFORMANCE DATA

SYSTEM WATTS	SIZE	VOLTAGE	3500K		4000K		5000K	
			LUMEN	LPW	LUMEN	LPW	LUMEN	LPW
25W	LPNSF-1 LPNSF-2	120-277V	2622	110	2693	113	2646	111
			2622	110	2693	113	2646	111
30W	LPNSF-1 LPNSF-2 LPNSF-4	120-277V	3146	110	3232	113	3175	111
			3146	110	3232	113	3175	111
40W	LPNSF-1 LPNSF-2 LPNSF-4	120-277V	4240	110	4317	113	4240	111
			4240	110	4317	113	4240	111
			4240	110	4317	113	4240	111
50W	LPNSF-4	120-277V	5243	110	5386	113	5291	111
25W	LPNSF-1 LPNSF-2	120-277V	2969	125	3016	127	2993	126
			2969	125	3016	127	2993	126
30W	LPNSF-1 LPNSF-2 LPNSF-4	120-277V	3572	125	3553	127	3615	126
			3572	125	3553	127	3615	126
40W	LPNSF-1 LPNSF-2 LPNSF-4	120-277V	4831	127	4691	125	4856	126
			4831	127	4691	125	4856	126
			4831	127	4691	125	4856	126
50W	LPNSF-4	120-277V	5965	125	5969	126	6060	127

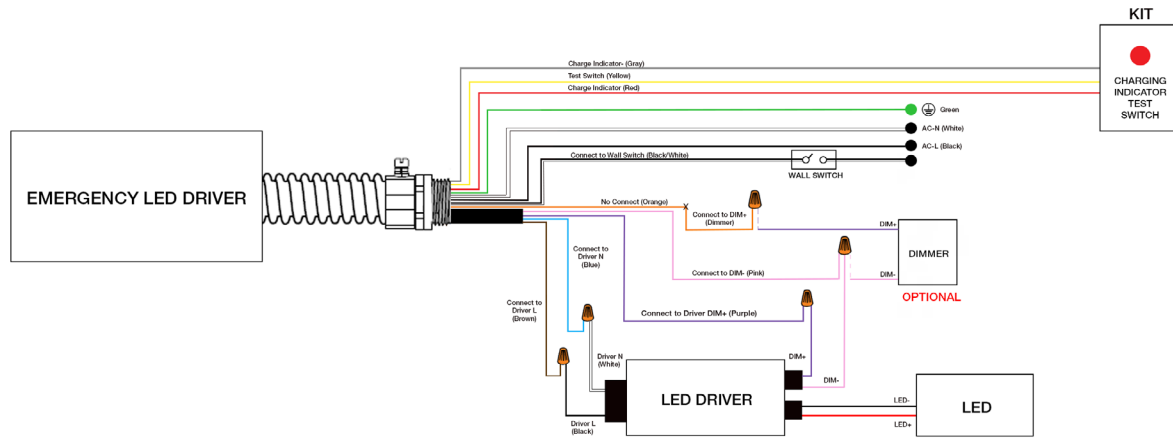
### DLC CODE

Part Number	DLC Product ID	DLC Class
LPNSF-1 (1x4)	Pending	Standard
LPNSF-2 (2x2)	Pending	Standard
LPNSF-4 (2x4)	Pending	Standard
LPNSF-1H (1x4)	Pending	Premium
LPNSF-2H (2x2)	Pending	Premium
LPNSF-4H (2x4)	Pending	Premium

**LPNSF SERIES NSF FOOD GRADE PANEL**

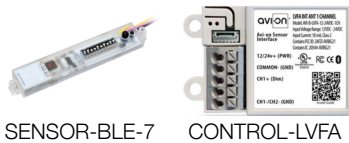
**EMB SPEC**

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



**SENSOR SPEC**

Model	Type	Mounting	Coverage	Input	Function	Programmable
CONTROL-LVFA (see page 6 for detail)	-	-	-	12V DC	Bluetooth Mesh On/Off/Dimming Scheduling	AVI-ON Bluetooth Mobile App
SENSOR-BLE-7 (see page 7 for detail)	Microwave	up to 13FT	17FT radius	12V DC	Bluetooth Mesh On/Off/Dimming Motion Daylight Sensing	ALS Control Bluetooth Mobile App



**LPNSF SERIES NSF FOOD GRADE PANEL**

**CONTROL-AVI-LVFA SPEC**

**Status LEDs & Config Button**

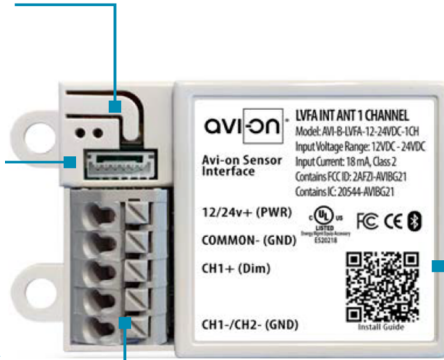
Quick and easy validation of wiring and network

**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

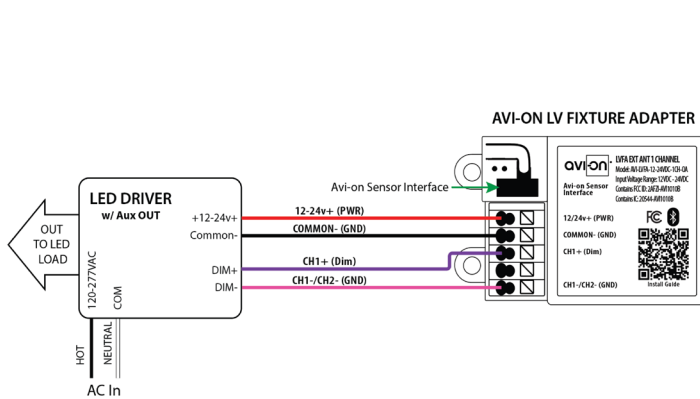
**SPECIFICATIONS**

**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)

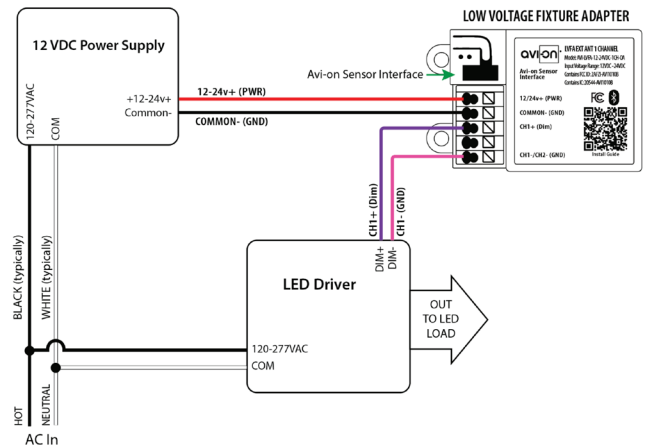
**RADIO FREQUENCY:** 2.4GHz  
**WIRELESS STANDARD:** BLE 4.2 with Mesh  
**POINT TO POINT RANGE\*:** 80ft with obstructions  
 350ft unobstructed  
**SECURITY:** AES 128-bit encryption for device to device communication  
 AES 256-bit encryption for device to cloud communication  
**WARRANTY:** 5 years; 10 years optional  
**REGULATORY:** FCC: 2AFZI-AV1010 B  
 IC: 20544-AV1010 B  
 BQB: D031801, DID: 86303  
 UL 916, 2043 (Plenum Rated)

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

**WIRING DIAGRAM**



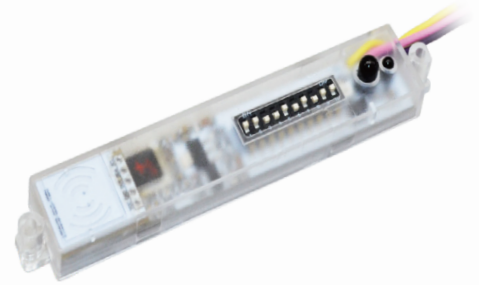
Fixture adapter powered by LED driver auxiliary output



Fixture adapter connected to LED driver and using power supply

**FEATURE**

- **Installation:** Factory Install - Integral to Fixture
- **Commissioning:** Wirelessly through ALS Control Mobile App (iOS / Android)
- **Certification:** DLC 5.1 Networked Lighting Control System
- **Control:** Hold time, High-Low setting, continuous Bi-level dimming, Code-compliant manual-on or auto-off capability
- **Sensor:** Motion (Occupancy/Vacancy/Manual)
- **Room and Zone Control:** Zoning and Grouping control, Scheduling

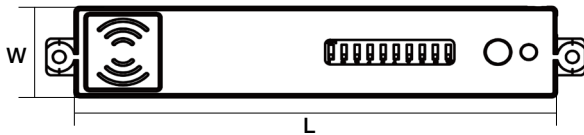


**SPECIFICATIONS**

**SENSOR TYPE:** Microwave  
**WIRELESS STANDARDS:** Bluetooth SIG Mesh  
**INPUT VOLTAGE:** 10-14VDC, >50mA  
**CONTROL OUTPUT:** 0-10V  
**OPERATING TEMP:** -40°F ~ +158°F (-40°C ~ +70°C)

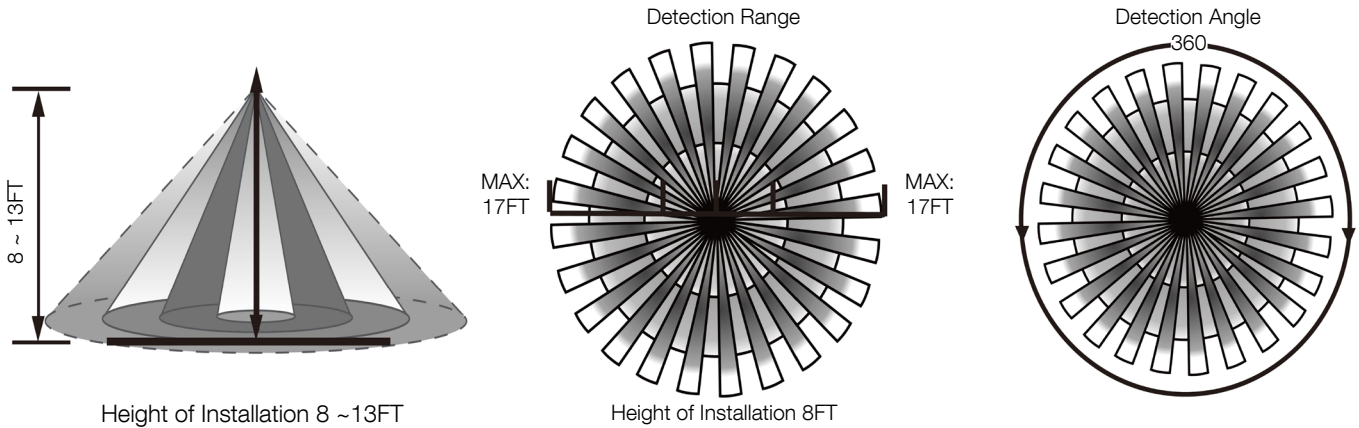
**COMMISSIONING RANGE:** 50FT  
**BLUETOOTH RANGE:** Integral antenna up to 164FT  
**DETECTION ANGLE:** 360°  
**MOUNTING HEIGHT:** Up to 13FT  
**WARRANTY:** 5 years  
**IP RATING:** IP20

**DIMENSIONS**



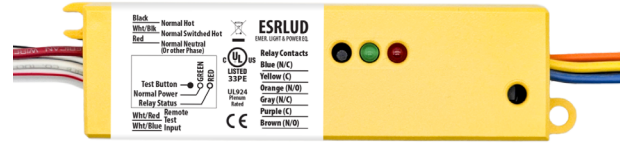
L	W
3.70" (94mm)	0.73" (18.5mm)

**COVERAGE PATTERNS**



**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**

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

**TESTING**

<b>INITIAL TEST FOR CORRECT WIRING:</b>	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
<b>LOCAL TEST BUTTON:</b>	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.
<b>WALL SWITCH:</b>	1. Turn ON Wall Switch If not already ON 2. Load should Turn ON 3. Turn Wall Switch OFF 4. Load will Turn OFF

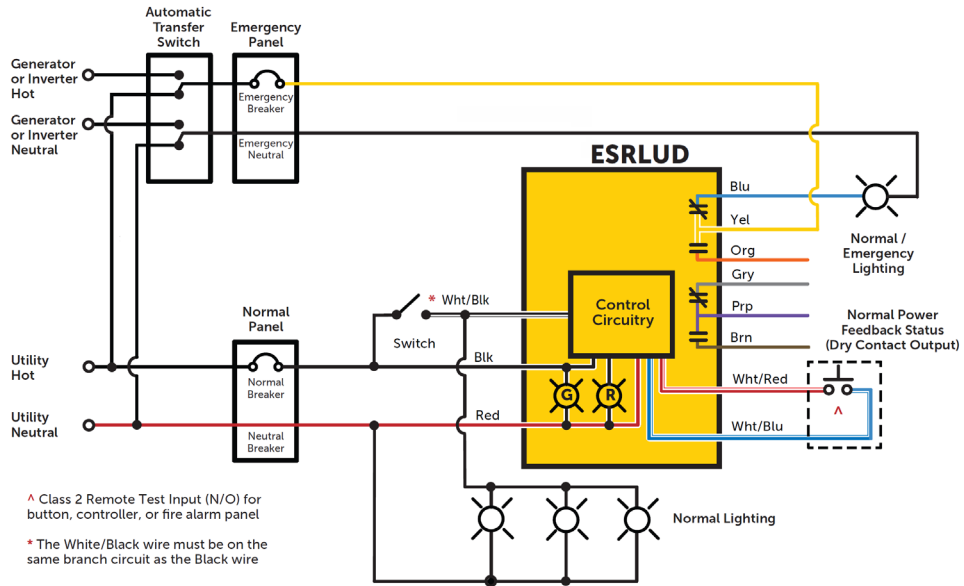
**TROUBLESHOOTING**

CONDITION	ACTION
Green LED is OFF	<ul style="list-style-type: none"> <li>Check Normal Power Input Wiring (Black and Red Wires) and Voltage.</li> </ul>
Red LED is OFF but Load is OFF	<ul style="list-style-type: none"> <li>Check Bulbs and Ballast.</li> <li>Check Load Wiring (Blue Wire and Load's Neutral).</li> <li>Replace Unit. (Assuming N/C Contact is Used).</li> </ul>
Load is ON but Red LED is ON	<ul style="list-style-type: none"> <li>Replace Unit. (Assuming N/C Contact is Used).</li> </ul>
Red LED does not Turn OFF and Load does not Turn ON when being tested	<ul style="list-style-type: none"> <li>Check Bulbs and Ballast.</li> <li>Check Wiring Connections if Using a Remote Test Option.</li> <li>Press Local Test Button on the Unit.</li> <li>Replace Unit.</li> </ul>
Red LED will not Turn ON and Load will not Turn OFF	<ul style="list-style-type: none"> <li>Verify Status of Normal Power Input.</li> <li>Open Wall Switch Input.</li> <li>Verify That No Test Inputs are Stuck Closed.</li> </ul>

**GTD-ESRLUD Generator Transfer Device**

**WIRING DIAGRAM**

**USING EMERGENCY LIGHTING AS NORMAL LIGHTING**



**OVERRIDING A 0-10V DIMMER**

