

Client: Project: Type: Quantity:

## CONSTRUCTION

Luminaire made of extruded aluminum, corners are rounded for safe handling. Housing made of cold-rolled carbon steeel 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 luminiare housing.

#### SENSORS (OPTIONAL)

SENSOR-BLE-7 Integral Microwave Bluetooth Wireless Motion/on/off/dimming/

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® Standard (DesignLights Consortium Listed)

### WARRANTY

5 year warranty, see Limited Warranty for additional information.















Front



Back



ORDER INFORMATION **EXAMPLE: LPNSF 2-MC PC WHUD** 

Series Model Finish **Fixture** Lens Input

> **LPNSF** WH UD

Accessories Options

**SERIES** 

**LPNSF** LP Series NSF Food Grade Panel

**MODEL** 

STANDARD OUTPUT

Im/W (avg.) Size Power Code 1-MC 1x4 25W / 30W / 40W 3500K / 4000K / 5000K 110lm/W 2-MC 2x2 25W / 30W / 40W 3500K / 4000K / 5000K 110lm/W 2x4 30W / 40W / 50W 3500K / 4000K / 5000K 110lm/W 4-MC

**HIGH OUTPUT** 

Code Size Power CCT Im/W (avg.) 1H-MC 1x4 25W / 30W / 40W 3500K / 4000K / 5000K 125lm/W 2H-MC 25W / 30W / 40W 125lm/W 2x2 3500K / 4000K / 5000K 4H-MC 2x4 30W / 40W / 50W 3500K / 4000K / 5000K 125lm/W

**LENS** 

PC Polycarbonate Lens TG Tempered Glass Lens

**FINISH** 

WH White

INPUT

UD 120-277V, 0-10V Dimming

ACCESSORIES/OPTIONS

AIA Assembled in America, compliant with BAA (COTS)

-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

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 SENSOR-BLE-7\* Integral Microwave Bluetooth Wireless Bi-Level Motion Sensor (ALS Control Mobile App)

CONTROL-LVFA\* AVI-ON Bluetooth Mesh Control System (12V DC Power by Driver) GTD-ESRLUD\*\*\* Emergency Battery Generator Transfer Device 120-277 VAC Input

\*see page 5 for sensor and emb spec

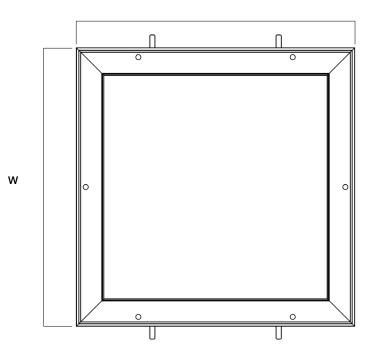
<sup>\*\*</sup>see page 8 and 9 for GTD spec



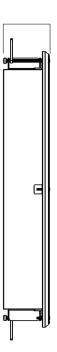
# **DIMENSIONS**

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)

L



D





# PERFORMANCE DATA

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

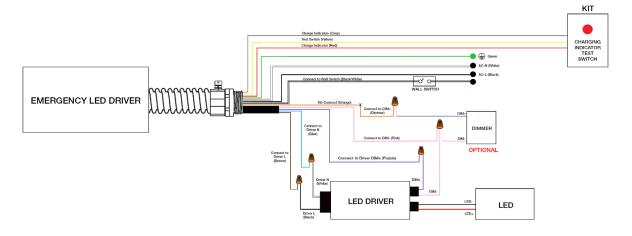
# DLC CODE

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



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





## **CONTROL-AVI-LVFA SPEC**



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) Removable mounting tabs

MOUNTING: Removable mount 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

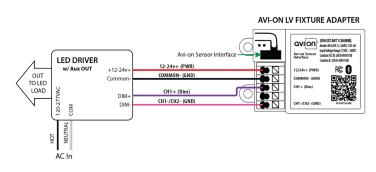
communication

**WARRANTY:** 5 years; 10 years optional **REGULATORY:** FCC: 2AFZI-AVI1010 B

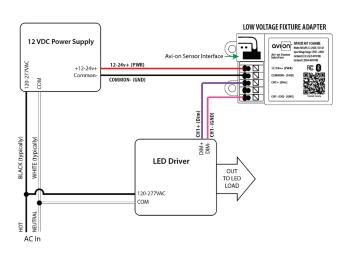
IC: 20544-AVI1010 B

BQB: D031801, DID: 86303 UL 916, 2043 (Plenum Rated)

### WIRING DIAGRAM



Fixture adapter powered by LED driver auxiliary output



Fixture adapter connected to LED driver and using power supply

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



## SENSOR-BLE-7 BLUETOOTH MICROWAVE SENSOR

Client: Project: Type: Quantity:

#### **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

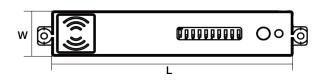
**OPERATING TEMP:** -40°F ~ +158°F (-40°C ~ +70°C)

**COMMISSIONING RANGE: 50FT** 

**BLUETOOTH RANGE:** Integral antenna up to 164FT

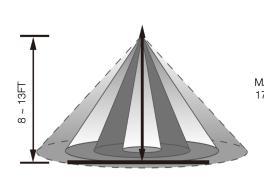
DETECTION ANGLE: 360°
MOUNTING HEIGHT: Up to 13FT
WARRANTY: 5 years
IP RATING: IP20

### **DIMENSIONS**

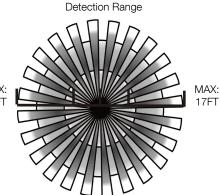


L	W
3.70"	0.73"
(94mm)	(18.5mm)

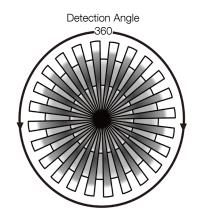
# **COVERAGE PATTERNS**



Height of Installation 8 ~13FT



Height of Installation 8FT















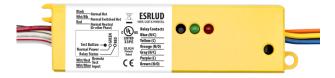
## GTD-ESRLUD Generator Transfer Device

Client: Project: Type: Quantity:

#### 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 TESTING

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

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** 

10 Amp General Use @ 277 V AC

INITIAL TEST FOR Apply Normal Power To Normal Power Input
CORRECT WIRING:

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

Load should Turn ON
 Turn Wall Switch OFF
 Load will Turn OFF

## **TROUBLESHOOTING**

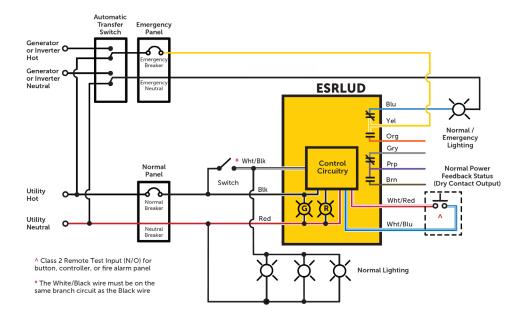
CONDITION	ACTION
Green LED is OFF	Check Normal Power Input Wiring (Black and Red Wires) and Voltage.
Red LED is OFF but Load is OFF	<ul> <li>Check Bulbs and Ballast.</li> <li>Check Load Wiring (Blue Wire and Load's Neutral).</li> <li>Replace Unit. (Assuming N/C Contact is Used).</li> </ul>
Load is ON but Red LED is ON	Replace Unit. (Assuming N/C Contact is Used).
Red LED does not Turn OFF and Load does not Turn ON when being tested	<ul> <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> <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**

