

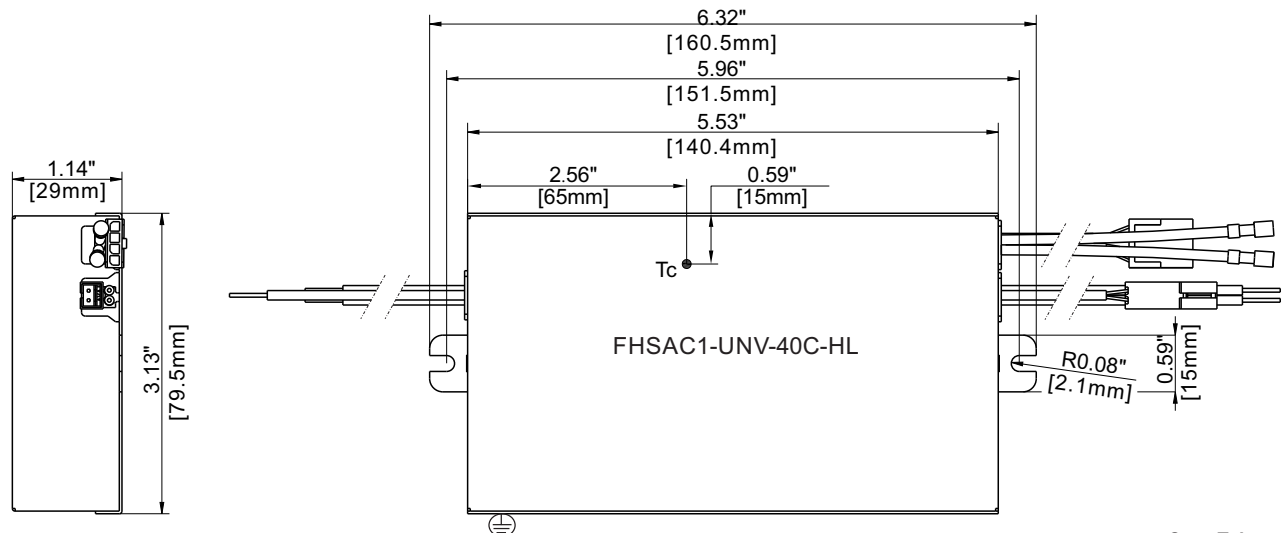
- LED Driver with integrated emergency backup
- Universal Voltage: 120-277V~, 50/60Hz
- Output Wattage: 40W Max.
- Output Current: 250-1400mA
- Output voltage range of 11-55V $\overline{=}$
- Compact case with side leads
- Meets UL 924 & NFPA 101 & CSA C22.2 No.141
- Type HL

This Driver Will Operate The Following LED Modules: Any LED module designed to accept input voltage range of 11-55VDC and can operate up to current of 250-1400mA.

General Specifications

| | |
|---|--|
| Input Voltage | 120-277VAC, 50/60Hz |
| Input Current | 0.43A @ 120VAC |
| Input Power | 54W |
| Power Factor | >0.9 |
| THD | <20% |
| Standby Input Power | <0.85W |
| Driver Type | Constant Current |
| Output Current | R-SET 0mA [TPSB 100 (Program Box) , Figure 1] ; Record New Setting On 1"x0.5" Label |
| Output Voltage Range | 11-28VDC (250-1400mA) , 11-40VDC (250-1000mA) , 11-55VDC (250-730mA) |
| Output Power | 40W Max. (Figure 4) |
| | 5W or 10W @ Emergency Mode (Min. 180 Minutes @ 5W, Min. 90 Minutes @ 10W) |
| Number of Output Channels | 1 Channel |
| Dimming Controller Type / Dimming Range | 0-10V / 100% - 1%,0% (Figure 2, Figure 3) / Custom Dimming Curve / Dimmed To Off |
| RFI/EMI | FCC Part 15A Non-Consumer |
| Output Type | LED Class 2 |
| Battery Type | LiFePO4 6.4VDC |
| Battery Capacity Available | 3200mAh |
| Battery Recharge Time | 12 Hours |
| Test Switch Remote Mounting Distance | 20' (6m) Max. |
| Max. Case Temperature | 68.5°C (155.3°F) |
| Ambient Operating Temperature Range | 0°C to 48°C(32°F to 118.4°F) |
| Sound Rating | A |
| Input Surge Protection | Line-Neutral 3kV , Line & Neutral-Ground 6kV , Ring Wave ANSI/IEEEC62.41 |
| Protections | Input Current Protection Output Open Circuit Protection Overload Protection Over Temperature Protection Output Short Circuit Protection Output To Ground Short Circuit Protection |
| Service Life | 50,000 hours |
| Approvals / Class | RoHS , cURus , CEC , Dry or Damp Locations |

MECHANICAL DATA

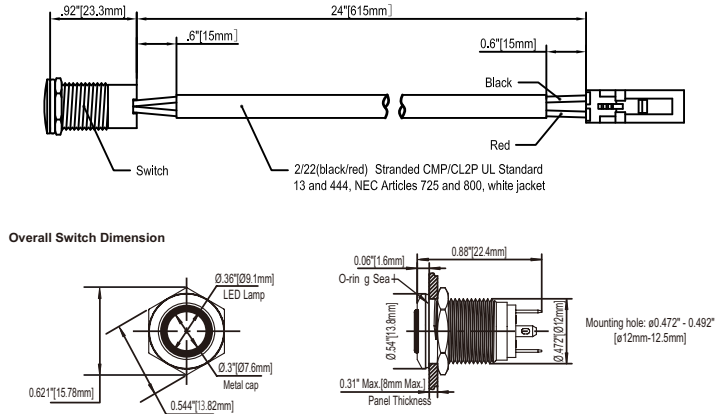


Case Tolerance=±0.02"

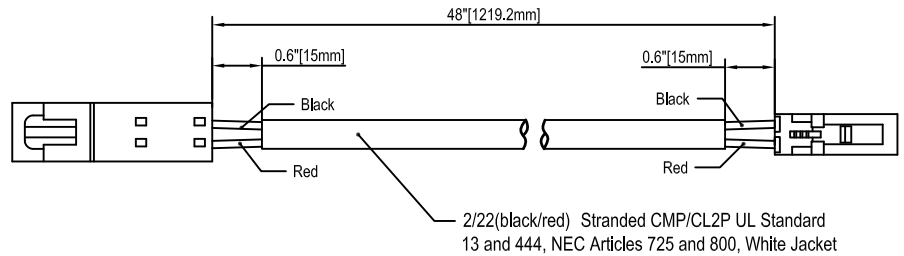
Fulham extends a limited warranty to the original purchaser or first user for a period of 5 years @ Tc 63°C from the date of manufacture when properly installed and operated under normal conditions of use. For complete terms and conditions, please refer to the Warranty Center at www.fulham.com. Specifications subject to change without notice.

Accessories

Bi-Color Wet Location Test Switch: FHS-TSTWL-BC



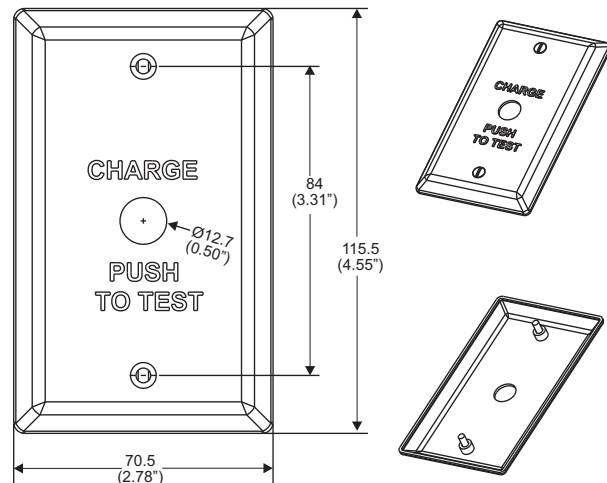
Test Switch Extension: FHS-EXT-48-TST



Wall Plate: FHSWLPWH



Wall plate and screw color:
white with black lettering



1. "Charge push to Test" plate
2. (2) 6-32 x 1/2" LG mounting screws

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Figure1

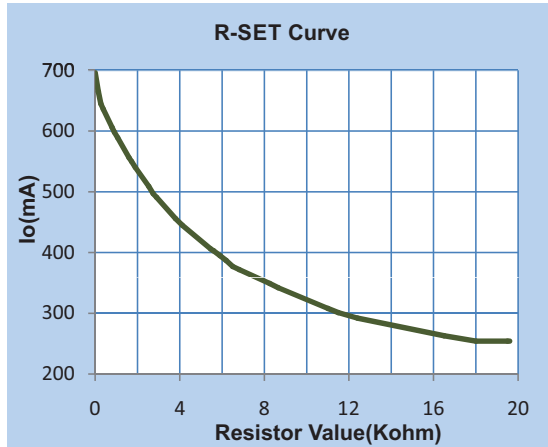


Figure2

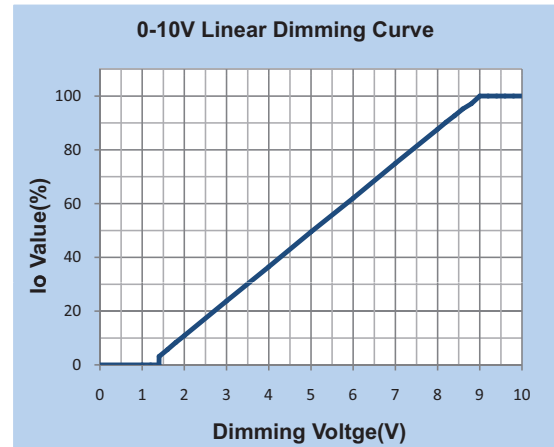


Figure3

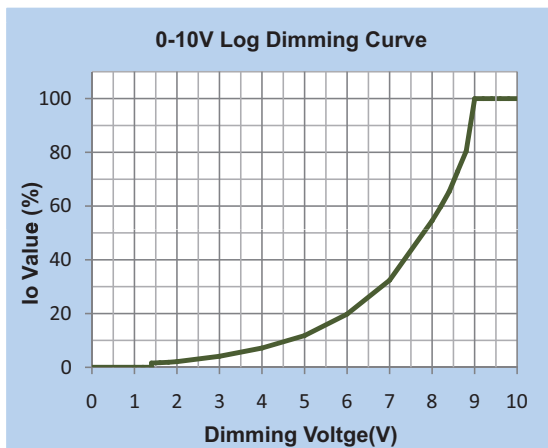


Figure4

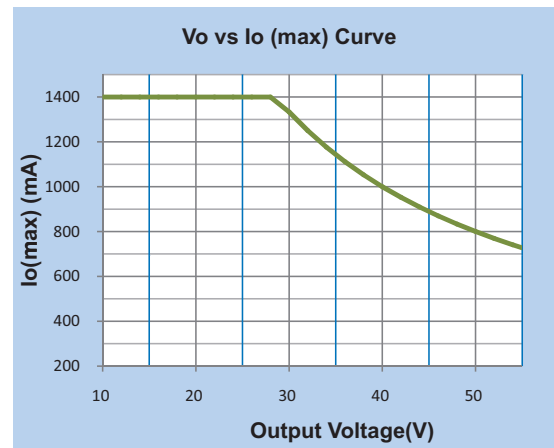


Figure5

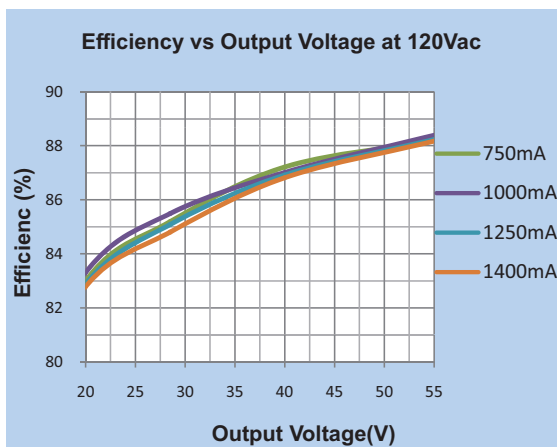


Figure6

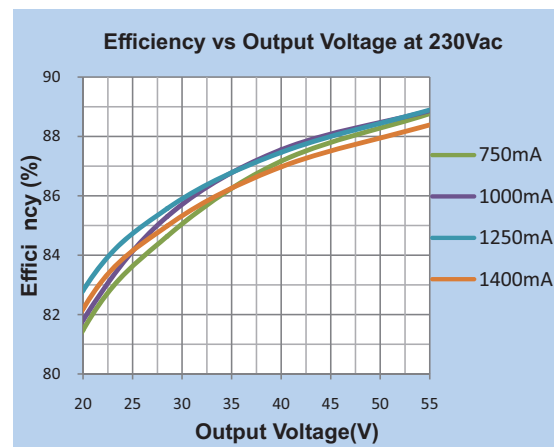


Figure7

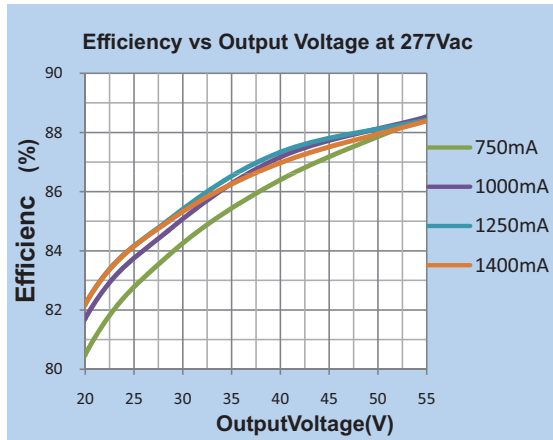


Figure8

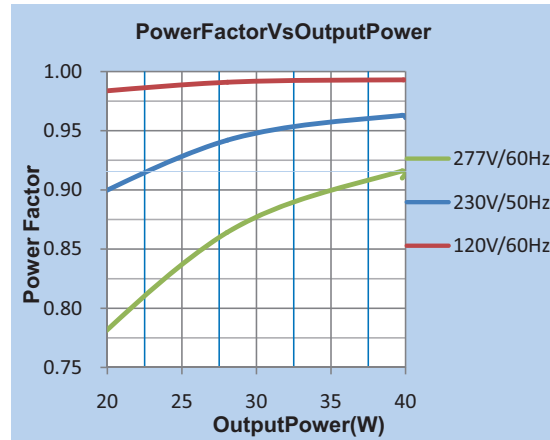


Figure9

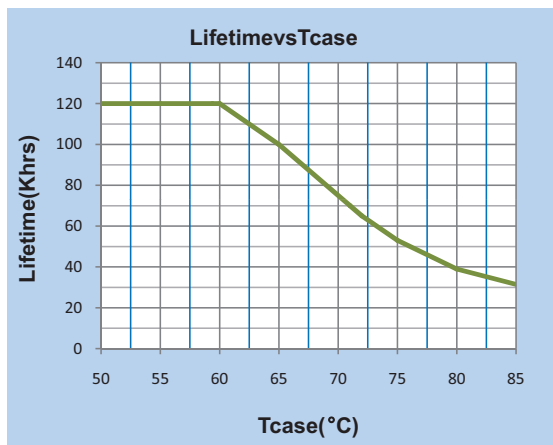


Figure10

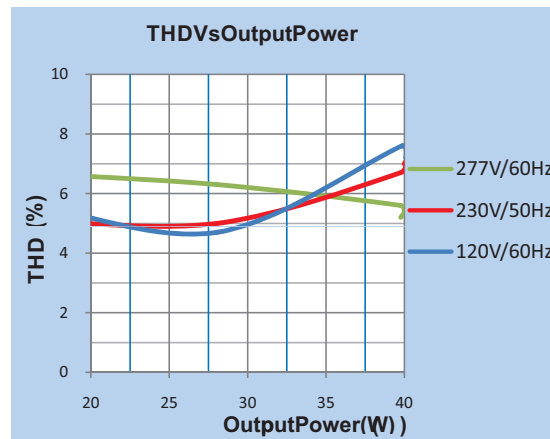


Figure11

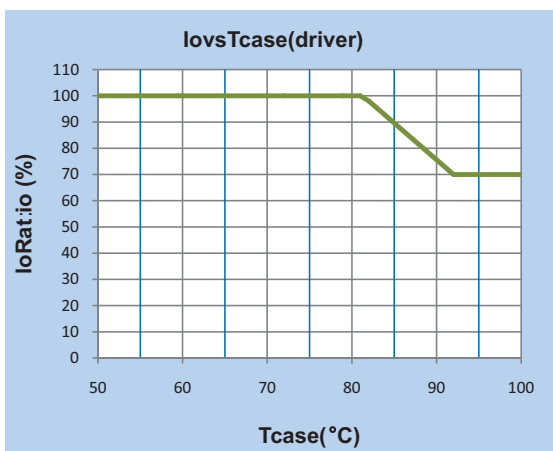
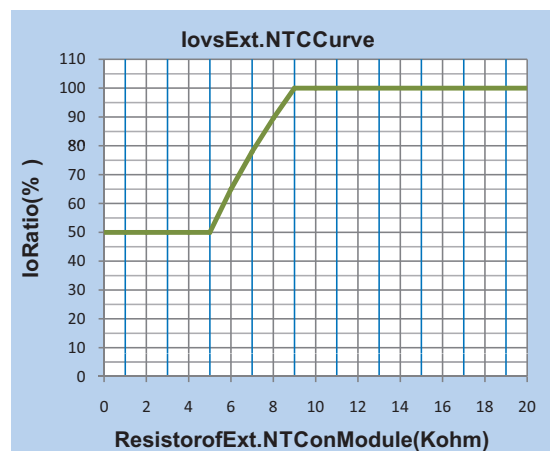
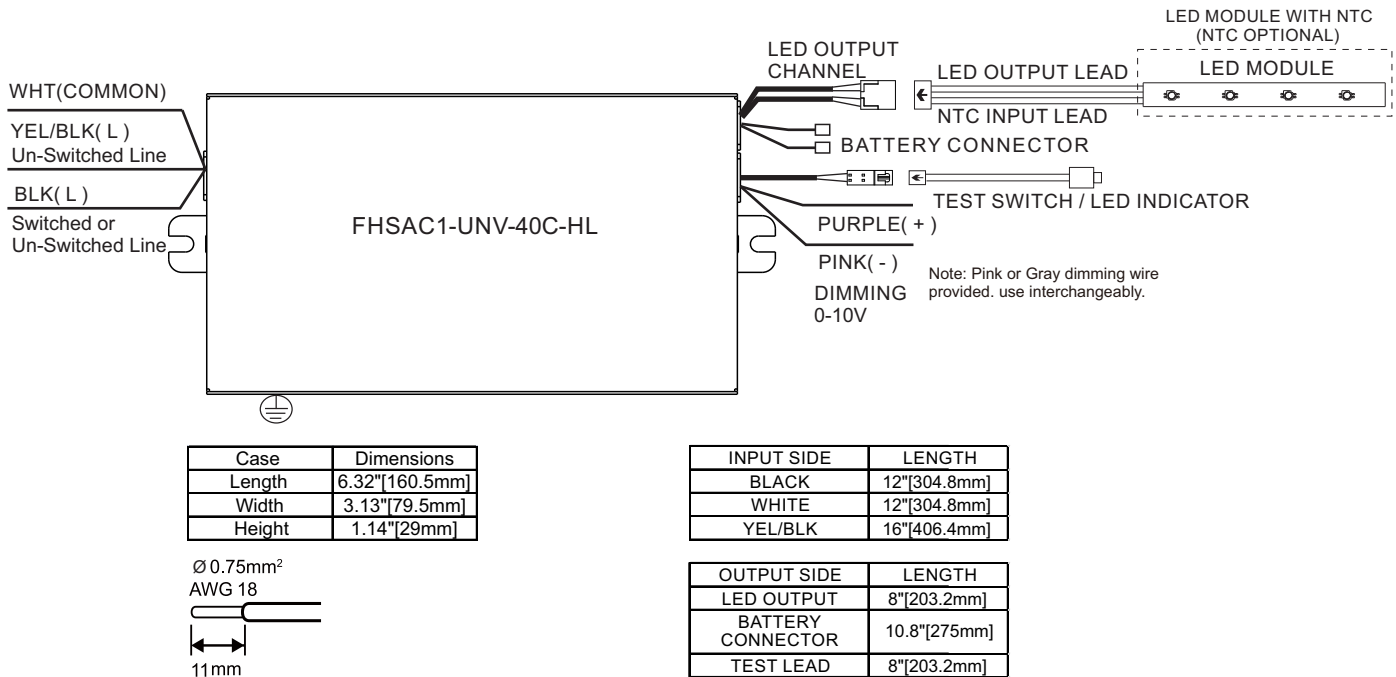


Figure12



WIRING DIAGRAMS



NOTE: 1.The driver must be grounded.

2.Once assembly, installation or servicing is complete, insert the two connectors of the battery cable.

SELF DIAGNOSTIC INSTRUCTIONS / OPERATION:

If Self-Diagnostic is set to Disable:

The self diagnostic feature is disable. A functionality test shall be manually conducted every thirty (30) days to ensure the emergency LED light source illuminates as intended. A full discharge test shall be conducted once a year; the LED light source shall illuminate for a minimum of ninety (90) minutes for the 10W load or one hundred eighty (180) minutes for 5W load.

If Self-Diagnostic is set to Enable:

The self diagnostic feature is enable .The emergency LED driver will conduct a self check for thirty (30) seconds every thirty (30) days; and ninety (90) minutes or one hundred eighty (180) minutes self check every 12 months. After every self check the LED indicator light will indicate a status signal. A single self-diagnostic test can be activated by pressing the test switch three (3) times. Refer to Indicators Status Table for details.

When user change the Self-Diagnostic setting, the LED indicator on Switch button would flash 3 times, 2.5S ON/0.5S OFF for Enabled, while 0.5S ON/2.5S OFF for Disabled.

FHSAC1-UNV-40C-HL

SPECIFICATIONS

TEST SWITCH INDICATOR STATUS:

| LED Indicators Status | EM Driver Status/Mode |
|--|---|
| • Solid Green | System OK/AC OK(Self-diagnostic Enabled or Disabled). |
| • Slow Flashing Red, 4s on/1s off | Battery not detected, check battery switch or connection. |
| • Flashing Red, 1s on/1s off | Battery Failure, replace battery. |
| • Flashing Green, 1s on/1s off | Self-Diagnostic test underway. |
| • Fast Flashing Red, 0.1s on/0.1s off | Abnormal driver performance, replace driver. |
| • Very Slow Flashing Red, 4s on/4s off | Over temperature. |
| • None. Both LEDs OFF | Normal working in EM mode. |
| • Green/Red alternative flashing, 1s green/1s red. | No load or output over voltage protection triggered. |

TEST SWITCH OPERATIONS:

1. EM Test: Press and hold test button (>1s) to enter EM mode for testing in normal AC powered. Subsequent tests can be performed after a minimum 20 Second delay in pressing the Test Switch.

Programming:

This driver can be programmed using the TPSB-100(E). Programming features include the following:

- * Output Current: 250-1400mA
- * Dimming Curve
- * LED NTC Thermal Protection



* For more detailed programming instructions please see our Programming Instructions and Design Guide found on our website:

- <https://www.fulham.com/PDFs/SpecSheets/Fulham-Design-Guide-Programmable-Drivers.pdf>

Programming Features

- Output EM Power - 5W and 10W
- * Enable / Disable Self-Diagnostic



SmartSet Software



TPSB-100 SmartSet
Controller

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- <https://www.fulham.com/PDFs/SpecSheets/Fulham-Design-Guide-Programmable-Drivers.pdf>

Factory Defaults:

- 10W EM
- Self-Diagnostics Enabled

Important Safety Instructions

When using electrical equipment and this lighting device basic safety precaution should be followed at all times including but not limited to the following:

IMPORTANT SAFEGUARD

PLEASE READ CAREFULLY AND FOLLOW ALL INSTRUCTIONS FOR YOUR OWN SAFETY

- **IMPORTANT:** An un-switched AC power source of 120VAC to 277VAC is required for the yellow/black and white leads.
- **IMPORTANT:** A switched or un-switched AC power source of 120VAC to 277VAC is acceptable for the black lead only.
- This device is designed for use in fixtures listed for **dry and damp locations**.
- **CAUTION:** Make sure all electrical connections conform to the National Electrical Code and all applicable local regulations.
- **CAUTION:** Do not mount near gas or electric heaters.
- **CAUTION:** Do not use this emergency driver with accessory equipment other than recommended by manufacturer; failure to follow this may cause an unsafe condition. Servicing should only be performed by qualified service personnel.
- **CAUTION:** Do not use this emergency driver for other than intended use.
- **CAUTION:** Battery is rechargeable LiFePO4 type and must be recycled or disposed of properly.
- **CAUTION:** Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- **CAUTION:** Sealed unit. Battery not replaceable. Replace entire unit when necessary.
- **ATTENTION:** Unité scellée. Batterie non remplaçable. Remplacez l'unité entière si nécessaire.
- **CAUTION:** To Reduce The Risk Of Ignition Of Hazardous Atmospheres, Disconnect The Luminaire From The Supply Circuit Before Opening. Keep Tightly Closed When In Operation.
No user replaceable parts, for repair or replacement of parts return luminaire to manufacturer.

ASSEMBLY and FIELD INSTALLATION WIRING: WARNING: AC power must be off before proceeding with assembly, installation or servicing of emergency driver. Additionally ensure that the battery is disconnected.

TESTING SYSTEM: The emergency battery requires a minimum charge time of one (1) hour before testing the circuit. A minimum of twelve (12) hours is required for a full charge.

IMPORTANT: In order to maintain proper operation and warranty coverage, the battery must be recharged once per year prior to installation.

RATED EMERGENCY OPERATION: Ninety (90) minutes for the 10W load or one hundred eighty (180) minutes for the 5W load. The 10W or 5W option is determined by the output EM power setting.

SAVE THESE INSTRUCTIONS