

Installation Instructions Appleton™ Viamaster™ LED Luminaire Fittings with Emergency Light For NEC and CEC Governed Locations

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

Product Safety

Signal Words Defined

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury. **WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury. **CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. **NOTICE** is used to address practices not related to physical injury.

Safety Instructions for Complete Luminaire

WARNING:

- Before installation, ensure that the unit complies with the hazardous area classification. Refer to luminaire nameplate, located on exterior of housing body, for suitability in specific hazardous locations.
- Do not open or remove luminaire when AC supply is on.
- Do not use luminaire on ungrounded systems. Failure to ground this luminaire can result in an electric shock, which may be fatal.
- Disconnect the luminaire from the supply circuit before opening to reduce the risk of ignition in hazardous atmospheres. Keep tightly closed when in operation.
- Do not let power supply cords touch hot surfaces.
- Do not mount near gas or electric heaters.
- De-energize the unit five (5) minutes before opening.

CAUTION:

- Do not look directly at the LEDs when energized.
- Lens cleaning instructions: Wipe/clean from the outside only with a moist cloth. (Beware of electrostatic charges.)
- When installing in a hazardous location, it is necessary that the reflector, lens, and all certified conduit plugs be in place and tightened securely to the housing.
- Do not attempt to service the battery. The unit uses a sealed, NiMH battery which requires no maintenance. For replacement, contact the factory.

NOTICE:

- Do not touch the LEDs; touching could leave oily deposits, causing hot spots and potential premature failure.
- The LED lens should be cleaned periodically from the outside only with a moist cloth to maintain lighting efficiency.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- This luminaire is designed for and should be installed with hazardous locations wiring method required in accordance with the National Electrical Code®/Canadian Electrical Code and all applicable local codes.
- This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and hazards involved.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- Do not use this equipment for anything other than its intended use.
- A safety switch is provided in the enclosure which will disconnect the battery from the rest of the circuit to ensure safety while servicing.

SAVE THESE INSTRUCTIONS

Applications/Intended Use

- For wet locations apply a corrosion-inhibiting grease, such as petroleum or soap-thickened mineral oils, in 3 lines, spaced approximately 120 degrees apart, perpendicular to the threads. Tighten all unused close-up plugs.
- Areas where flammable gases and vapors are present under conditions defined by the ratings below.
- Areas of low clearance, low ceiling heights, or where luminaire weights must be minimized.
- Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmospheres, and high ambient temperatures are encountered.
- Where flexible cord is used, it should be approved for extra hard, wet location usage and shall have a separate ground conductor.

Agency Ratings ①

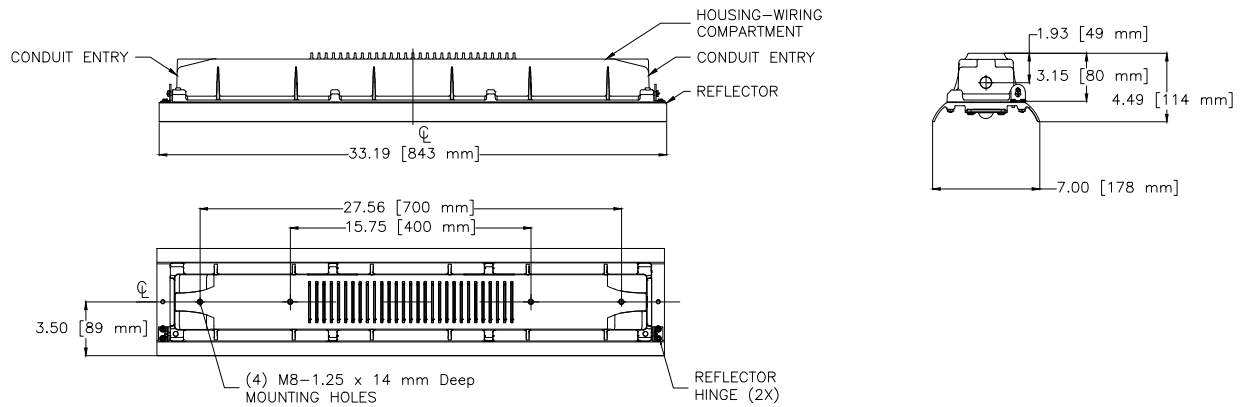
- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups F, G
- Type 3R, 4 & 4X
- IP66/IP67
- Class I, Zone 2, Group II C
- Class III
- -20° C to +55° C (select luminaires)

NOTES:

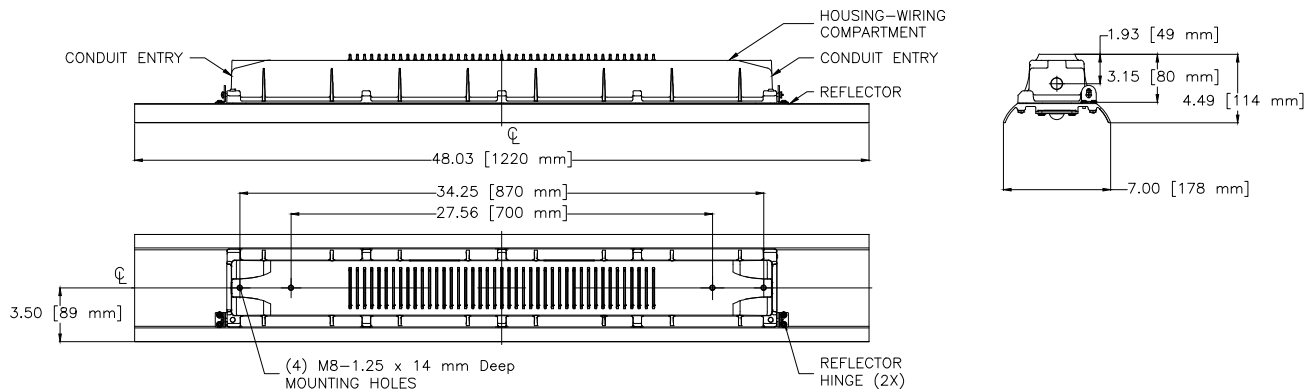
① Refer product nameplate, located on the housing body, for details.

Dimensions/Details

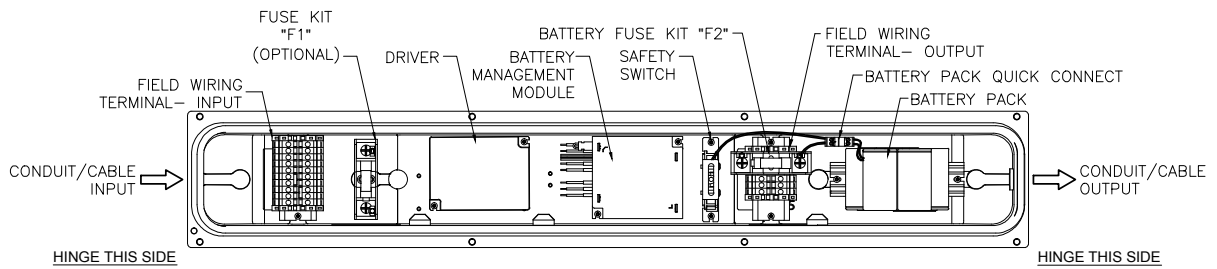
LUMINAIRE HOUSING (LLEDA12LU2H, LLEDA15LU2H, LLEDA17LU2H)



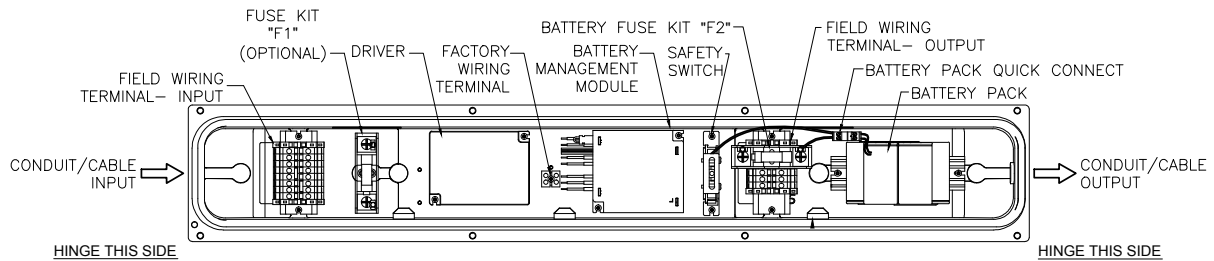
LUMINAIRE DIMENSIONS - LLEDA12 AND LLEDA15



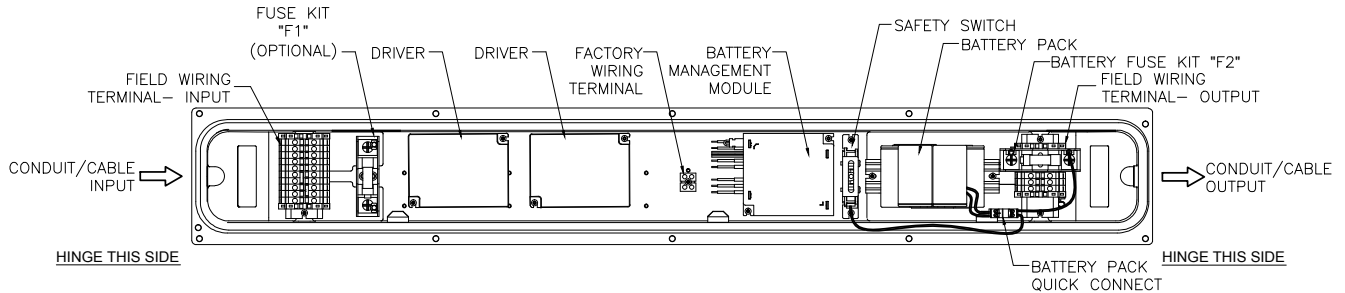
LUMINAIRE DIMENSIONS - LLEDA17



LUMINAIRE INTERNAL LAYOUT - LLEDA12 EMERGENCY PICTURED WITH OPTIONAL FUSE



LUMINAIRE INTERNAL LAYOUT - LLEDA15 EMERGENCY PICTURED WITH OPTIONAL FUSE

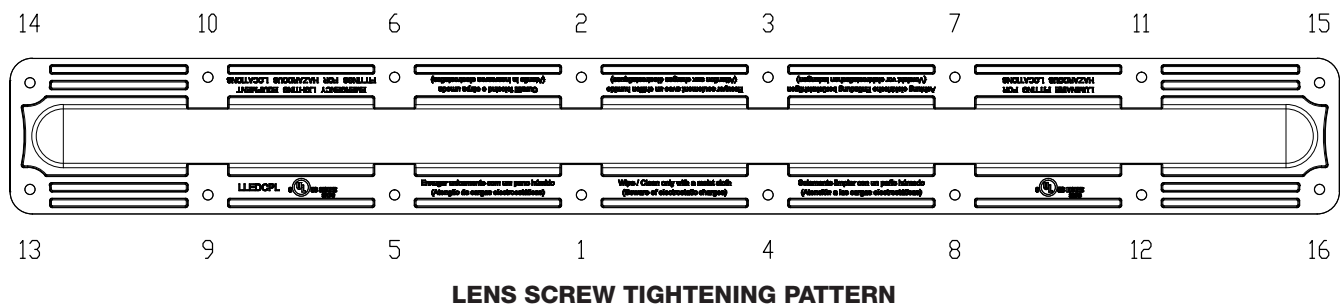


LUMINAIRE INTERNAL LAYOUT - LLEDA17 EMERGENCY PICTURED WITH OPTIONAL FUSE

Optic Installation

LENSES (LLEDCLPL, LLEDDPL)

1. Before installation: (Beware of electrostatic charges)
 - a. Ensure that the sealing surface on the reflector is clean and no dirt or foreign particles are present.
 - b. Ensure that the lens is free from dirt or any other foreign particles.
 - c. Use only a moist cloth to clean lens if necessary.
2. Align the holes of the lens with the reflector and use M4 screws to secure in place. Screws require a torque of 0.75 Nm (6.64 lbf-in.)



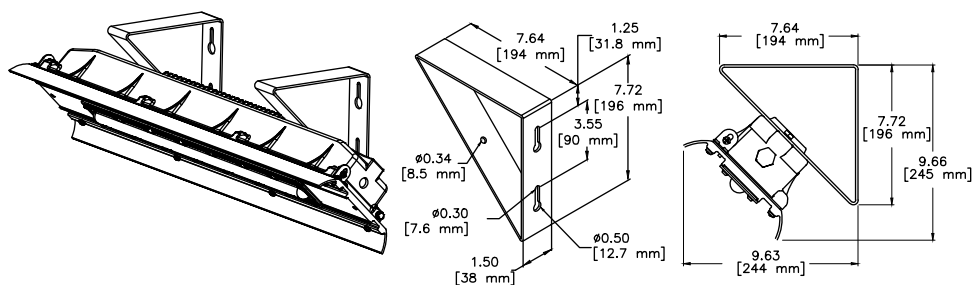
Mounting Instructions (Note: Maximum mounting height: 12 feet.)

1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between mounting holes on top of luminaire housing for your application. Note that distance can be 15.75 in. [400 mm] or 20.87 in. [530 mm].
3. Use 5/16 in. (M8) bolts (not supplied) appropriate for the structural support member.
4. Secure luminaire to structural support member having through holes (such as a unistrut or grated walkway) that can handle the weight of the luminaire in accordance with local building code and all other code applications.
5. Tighten 5/16 in. (M8) bolts to secure the luminaire in place.

Mounting Brackets (Optional Accessories)

FIXED 45° WALL MOUNT (FWWM)

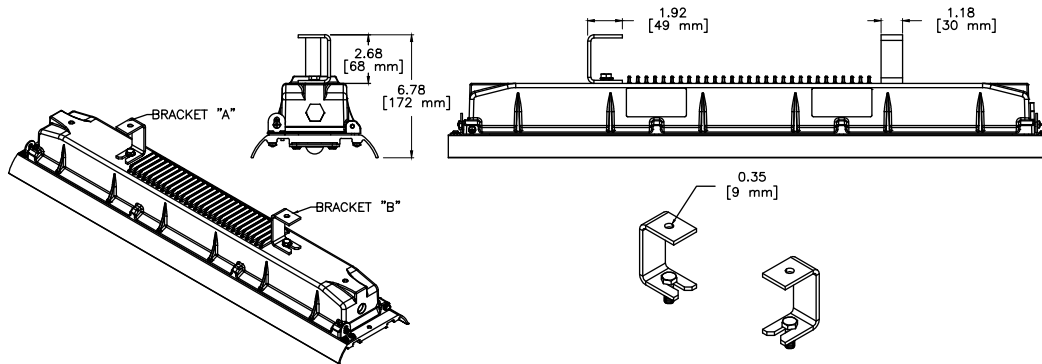
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between brackets can vary based on the lumen output/size of the luminaire.
 - a. LLEDA12 and LLEDA15: 15.75 in. [400 mm] or 27.56 in. [700 mm]
 - b. LLEDA17: 27.56 in. [700 mm] or 34.25 in. [870 mm]
3. Mark and drill holes for mounting brackets. Use 5/16 in. (M8) bolts and anchors (not supplied) appropriate for the mounting surface.
4. Attach two (2) supplied 45° wall mounting brackets to desired M8 - 1.25 x 13 mm threaded mounting holes on back of luminaire housing using supplied hardware.
5. Secure luminaire with mounting brackets installed directly to the wall or any structural support member that can handle the weight of the luminaire in accordance with local building code and all other code applications.
6. Tighten wall mount screws to secure the luminaire in place.



MOUNTING OPTIONS - FWWM

FIXED BRACKETS FOR SURFACE INSTALLATION (FEBFS, FEBZ)

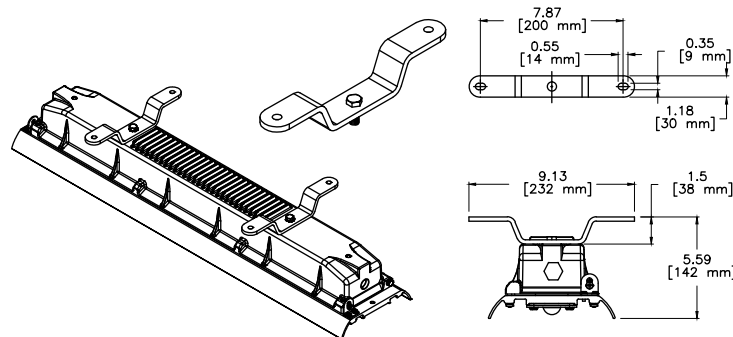
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between brackets can vary based on the lumen output/size of the luminaire.
 - a. LLEDA12 and LLEDA15: 15.75 in. [400 mm] or 27.56 in. [700 mm]
 - b. LLEDA17: 27.56 in. [700 mm] or 34.25 in. [870 mm]
3. Mark and drill holes for mounting brackets. Use 5/16 in. (M8) bolts and anchors (not supplied) appropriate for the mounting surface.
4. Mount two (2) brackets using supplied hardware perpendicular to one another on the ceiling or any structural support member that can handle the weight of the luminaire in accordance with local building code and all other code applications.
5. Slide luminaire into bracket "A" and swing luminaire into bracket "B". Tighten screws to secure luminaire in place.



MOUNTING OPTIONS - FEBFS AND FEBZ

SURFACE MOUNTING (FESBA, FESBS)

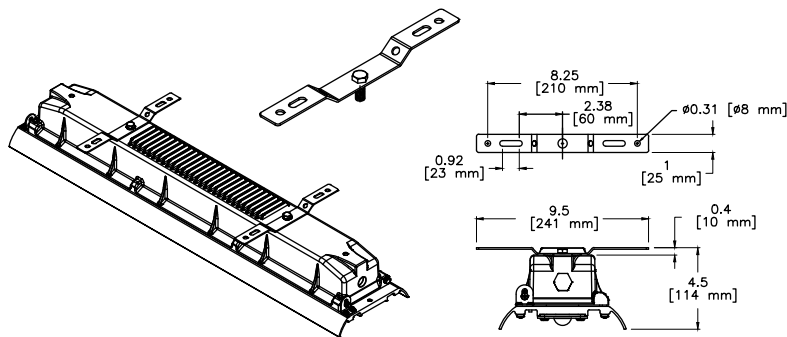
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between brackets can vary based on the lumen output/ size of the luminaire.
 - a. LLEDA12 and LLEDA15: 15.75 in. [400 mm] or 27.56 in. [700 mm]
 - b. LLEDA17: 27.56 in. [700 mm] or 34.25 in. [870 mm]
3. Mark and drill holes for mounting brackets. Use 5/16 in. (M8) bolts and anchors (not supplied) appropriate for the mounting surface.
4. Attach two (2) surface mounting brackets using supplied hardware to desired M8 - 1.25 x 13 mm threaded mounting holes on back of the luminaire housing.
5. Mount the luminaire with surface brackets installed directly to the ceiling or any structural support member that can handle the weight of the luminaire in accordance with local building code and all other code applications.



MOUNTING OPTIONS - FESBA AND FESBS

SURFACE MOUNTING (FVSM)

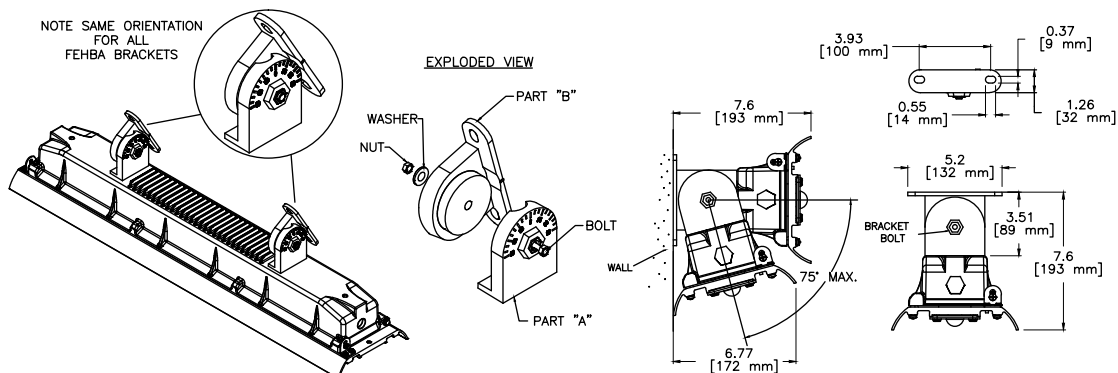
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between brackets can vary based on the lumen output/ size of the luminaire.
 - a. LLEDA12 and LLEDA15: 15.75 in. [400 mm] or 27.56 in. [700 mm]
 - b. LLEDA17: 27.56 in. [700 mm] or 34.25 in. [870 mm]
3. Mark and drill holes for mounting brackets. Use 5/16 in. (M8) bolts and anchors (not supplied) appropriate for the mounting surface.
4. Attach two (2) surface mounting brackets using supplied hardware to desired M8 - 1.25 x 13 mm threaded mounting holes on back of the luminaire housing.
5. Mount the luminaire with surface mounting brackets installed, directly to the ceiling or any structural support member that can handle the weight of the luminaire in accordance with local building code and all other code applications.



MOUNTING OPTIONS – FVSM

ADJUSTABLE HINGED BRACKETS (FEHBA, FEHBS)

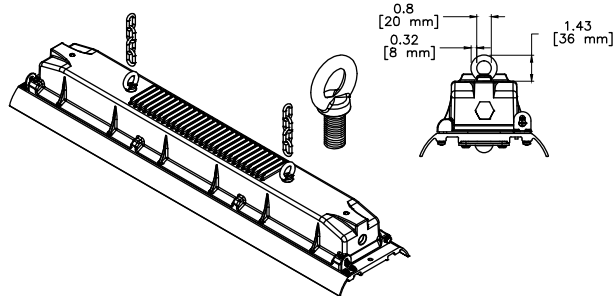
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between brackets can vary based on the lumen output/ size of the luminaire.
 - a. LLEDA12 and LLEDA15: 15.75 in. [400 mm] or 27.56 in. [700 mm]
 - b. LLEDA17: 27.56 in. [700 mm] or 34.25 in. [870 mm]
3. Mark and drill holes for mounting brackets.
4. Secure hinged bracket part “B” with 5/16 in. (M8) bolts and anchors (not supplied) appropriate for the mounting surface directly to ceiling or any structural support member that can handle the weight of luminaire in accordance with local building code and all other code applications. Note that the brackets should be facing the same direction. See picture below for illustration.
5. Locate hinged bracket part “A” and secure to the desired M8 - 1.25 x 13 mm threaded mounting holes in top of housing using 3/4 in. bolts supplied. Note that the brackets should be facing the same direction. See picture below for illustration.
6. Raise luminaire to surface mounted “B” brackets and assemble to “A” brackets on luminaire using supplied hardware as noted in exploded view below.
7. Determine exact aim of luminaire and fully tighten bracket bolts.



MOUNTING OPTIONS – FEHBA AND FEHBS

M8 RING BOLTS/CHAIN MOUNT (FERBM8Z)

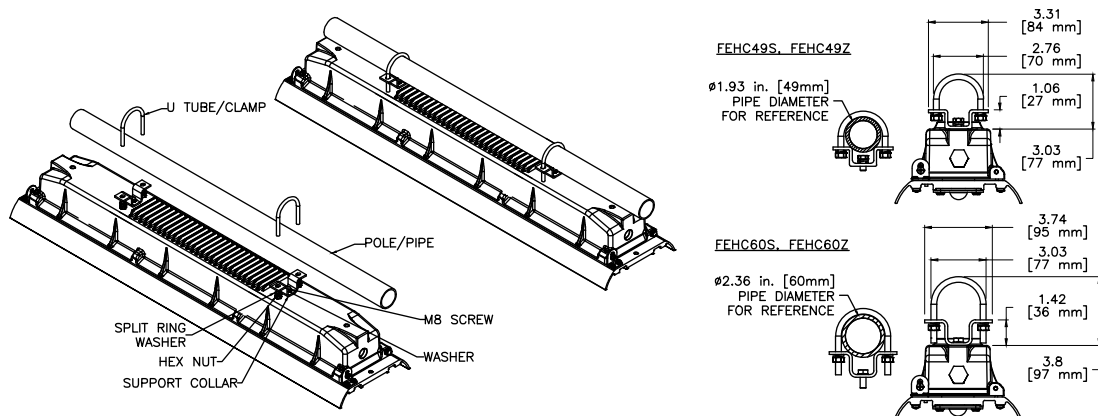
1. Make sure power is disconnected before installing the luminaire.
2. Thread two (2) eye bolts (supplied) into the desired M8 - 1.25 x 13 mm threaded mounting holes on back of luminaire housing. Tighten against back of luminaire housing.
3. Attach chain (not supplied) to eye bolts.
4. Attach chain directly to ceiling or any structural support member that can handle the weight of luminaire in accordance with local building code and all other code applications.



MOUNTING OPTIONS - FERBM8Z

HALF CLAMP BRACKETS FOR POLE MOUNTING (FEHC49Z, FEHC49S, FEHC60Z, FEHC60S)

1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between half clamp brackets can vary based on the lumen output/ size of the luminaire.
 - a. LLEDA12 and LLEDA15: 15.75 in. [400 mm] or 27.56 in. [700 mm]
 - b. LLEDA17: 27.56 in. [700 mm] or 34.25 in. [870 mm]
3. Place the support collar bracket on the luminaire housing at the desired mounting distance, and secure the brackets with a washer and a M8 screw by applying a torque of 6 Nm (MAX). NOTE: (2) two quantities of each support collar bracket and “U” shaped tube/clamp are supplied along with hardware.
4. Place the “U” shaped tube/ clamp on the pole/pipe.
5. Align the support collar bracket holes with the “U” shaped tube/clamp and secure together using split ring washers and hexagonal nuts.
6. Tighten nuts until the luminaire is firmly secured to the pole/pipe.




MOUNTING OPTIONS - FEHC49Z, FEHC49S, FEHC60Z AND FEHC60S

SAFETY CABLE INSTALLATION (LLEDSC)

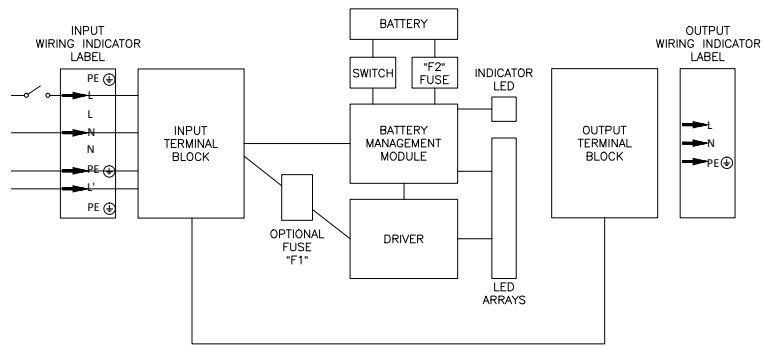
See Appleton instruction sheet 650484-000 (supplied with accessory) for installation instructions.

Wiring

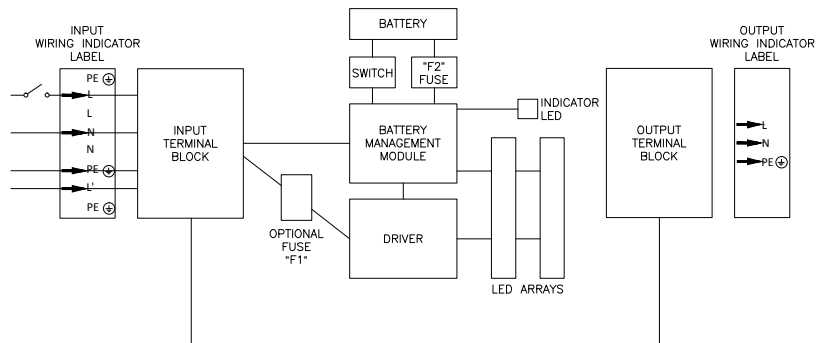
 **WARNING:** The luminaire must be grounded as required by the National Electrical Code (Paragraph 410.44 and Article 250) or Canada Electric Code (Rule 30-110 and Section 10). Verify that ground continuity has been established by using an Ohm meter or other suitable testing equipment before energizing the luminaire. Failure to properly ground the luminaire will create an electric shock hazard, which can cause serious injury or death.

Wiring the Viamaster LED Emergency Luminaire

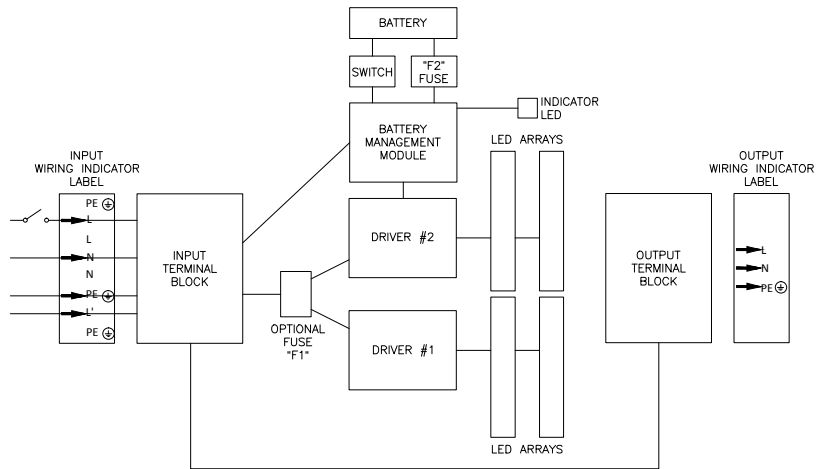
1. Make sure power is disconnected before wiring the luminaire.
2. Open the luminaire by loosening all the captive reflector screws.
 - a. LLEDA12 and LLEDA15: Eight (8) captive screws
 - b. LLEDA17: Ten (10) captive screws
3. Feed the proper temperature supply conductors into the wiring compartment. Note: The luminaire has 3/4 in. NPT threaded entries to accommodate installation in accordance with the NEC or CEC. See product nameplate for supply wire requirements.
4. Strip the individual conductors 0.35 in. [9 mm] to bare wire and insert into the proper terminal block connections. The connection points are identified by a label near the terminal block as: “→L” = Line, “→ N” = Neutral, and “→ PE” = Protective Earth and “→ L’ ” = Line to battery. Tighten the terminal block screws down onto the wire. Terminal block screws require between 5.31 – 7.1 lbf-in. [0.6 Nm – 0.8 Nm] torque to maintain proper electrical connection.
 - a. Switching not allowed on line to battery (→ L’).
 - b. The battery will be fully charged within 24 hours (maximum). Emergency lamps may or may not light at this time, depending on the battery charge.
5. Check all connections for continuity and ground integrity.
6. Assemble the fuse which is provided in the poly bag (inside the luminaire) on fuseholder at “F2” location. The fuses (F1, F2) are rated for 600Vac/150Vdc and 3A. This is a Dual-Element Time Delay Class CC Fuse. (Example: Manufacture: Bussman, LP-CC-3.)
Note: In case of replacement, kindly use a UL Listed fuse which has same type and rating.
7. Close the luminaire housing and tighten the captive screws. The screws require 22.13 lbf-in. [2.5 Nm] torque to maintain a proper seal.
8. Close all unused conduit entries. Install supplied conduit plug engaging at least three (3) full threads with corrosion-inhibiting grease, such as petroleum or soap-thickened mineral oils, in 3 lines, spaced approximately 120 degrees apart perpendicular to the threads on the conduit plugs.
9. Apply AC to the unit. The pilot light should begin to flash.



LLEDA12 WITH PASS THROUGH (FUSING)



LLEDA15 WITH PASS THROUGH (FUSING)



LLEDA17 WITH PASS THROUGH (FUSING)

Automatic Testing System

Functional Testing

- Functional test starts within 24 to 45 hours after the initial power up of the module.
- Automatic self-diagnostic test occurs every 14 days after the aforementioned functional test and lasts for 5 minutes.
- At the completion of the test the LED indicator will display the status of the emergency luminaire when AC is present. See “Status Indicator Code Table” below for more information.

Full Duration Testing

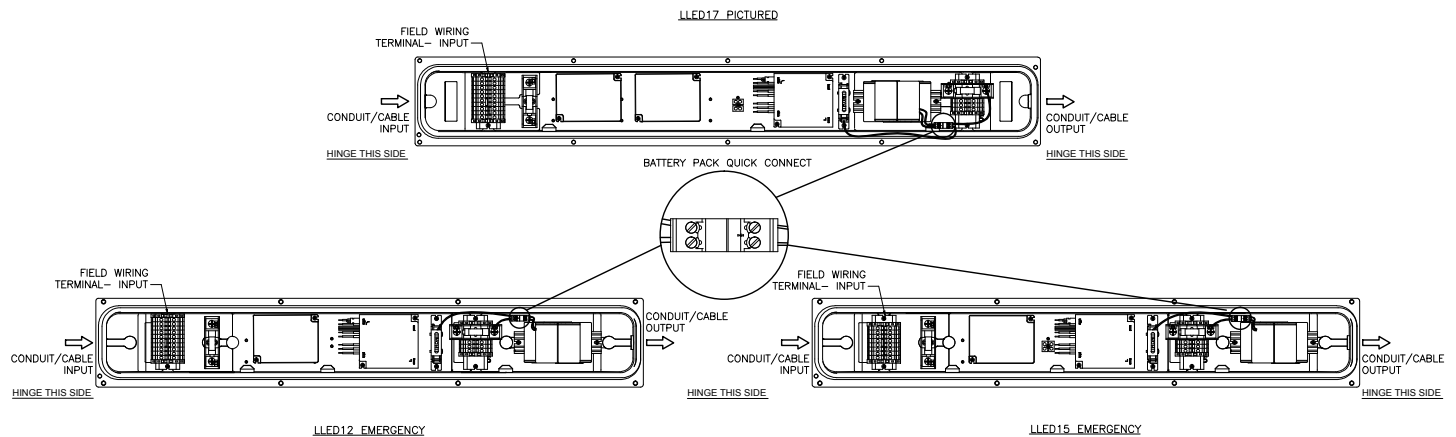
- Starts within 14–35 days after the initial power up of the module.
- Occurs every 364 days after the initial aforementioned test and lasts for the full duration of the rated emergency period.
- At the completion of the test the LED indicator will display the status of the emergency luminaire when AC is present. See “Status Indicator Code Table” below for more information.

Status Indicator Code Table		
LED Color	Status Description	Status Definition
Green	1 second ON: 1 second OFF	Charging okay. Battery not fully charged. No fault detected. Testing okay.
Green	0.25 second ON: 0.25 second OFF	Functional / Duration test on-going.
Green	Steady ON	Charging okay. Battery fully charged. No fault detected. Testing okay.
Red	1 second ON: 1 second OFF	Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure.
Indicator OFF, LED Array ON		No AC detected, Emergency mode ON.

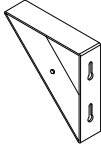
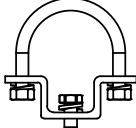
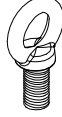
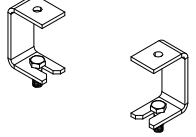
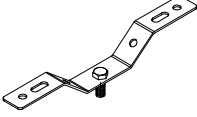
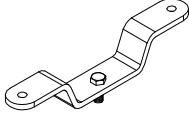
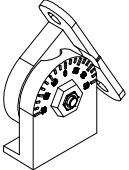
Maintenance/Troubleshooting

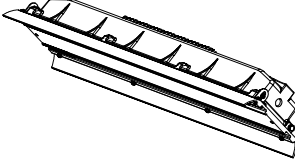
Although no routine maintenance is required to keep the emergency module functional, it should be checked periodically to ensure it is working properly. Visually inspect the LED indicator lights monthly. If a fault is detected, proceed with the following steps:

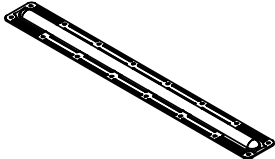
1. Make sure power is disconnected before servicing the luminaire.
2. Open luminaire by loosening all the captive reflector screws.
 - a. LLEDA12 and LLEDA15: Eight (8) captive screws
 - b. LLEDA17: Ten (10) captive screws
3. Verify that all leads going into the “Field Wiring Terminal - Input” are not loose. For reference, see images below.
4. Reset the luminaire.
 - a. Disconnect the “Battery Pack Quick Connect.” For reference, see images below.
 - b. Wait five (5) seconds.
 - c. Reconnect the “Battery Pack Quick Connect.” For reference, see images below.
5. Close luminaire by tightening all the captive reflector screws.
 - a. LLEDA12 and LLEDA15: Eight (8) captive screws
 - b. LLEDA17: Ten (10) captive screws
6. Apply AC to the unit.
7. Pilot light should begin to flash green.
8. Consult factory if a fault condition (flashing red) is still present.



Viamaster LED Luminaire with Emergency Light Family Tree ①

Fixed 45° Wall Mount (Optional Accessory) 		Half Clamp Brackets for Pole Mounting (Optional Accessory) 		M8 Ring Bolts (Optional Accessory) 	
Description	Catalog Number	For 42 mm – 49 mm pole (1-1/4 to 1-1/2" tube)		Description	Catalog Number
11Ga Stainless Steel	FVWFM	Description	Catalog Number	Zinc Plated Steel	FERBM8Z
Fixing Brackets for Surface Installation (Optional Accessory) 		Surface Mounting Bracket (Optional Accessory) 		Surface Mounting Bracket (Optional Accessory) 	
Description	Catalog Number	For 60 mm pole (2" tube)		Description	Catalog Number
316 Stainless Steel	FEFBS	Description	Catalog Number	Aluminum (Painted Gray)	FESBA
Zinc Plated Steel	FEFBZ	Zinc Plated Steel	FEHC49Z	316 Stainless Steel	FESBS
		316 Stainless Steel	FEHC49S		
		For 60 mm pole (2" tube)			
		Description	Catalog Number		
		Zinc Plated Steel	FEHC60Z		
		316 Stainless Steel	FEHC60S		
				Hinged Brackets (Optional Accessory) 	
		Description	Catalog Number	Description	Catalog Number
		14-Ga Stainless Steel	FVSM	Aluminum	FEHBA
				316 Stainless Steel	FEHBS

LLED Emergency Series	
	
Description	Catalog Number
2K Lumen, 120–277V	LLEDA12LU2H
5K Lumen, 120–277V	LLEDA15LU2H
7K Lumen, 120–277V	LLEDA17LU2H
2K Lumen, 120–277V, Fused	LLEDA12LU2FH
5K Lumen, 120–277V, Fused	LLEDA15LU2FH
7K Lumen, 120–277V, Fused	LLEDA17LU2FH

Polycarbonate Lens ②	
	
Description	Catalog Number
Clear	LLEDCPL
Diffused	LLEDDPL

Fall Prevention Kit (Optional Accessory)	
Description	Catalog Number
Safety Cable	LLEDSC

NOTES:

- ① A complete luminaire assembly consists of a listed luminaire housing fitting and listed lens fitting.
- ② Lenses may be factory installed to the LLED housing before shipping.

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