

Installation Instructions for Viamaster™ LED Luminaire Fittings for NEC and CEC Governed Locations

FOR PROPER AND SAFE INSTALLATION OF THIS PRODUCT, PLEASE READ THE FOLLOWING 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 the exterior of the 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.
- De-energize 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.

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 by a qualified electrician in accordance with the National Electrical Code®/ Canadian Electrical Code and all applicable local codes under the direction of the Authority Having Jurisdiction (AHJ).

Applications/Intended Use

- For marine and 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.

Agency Ratings ^①

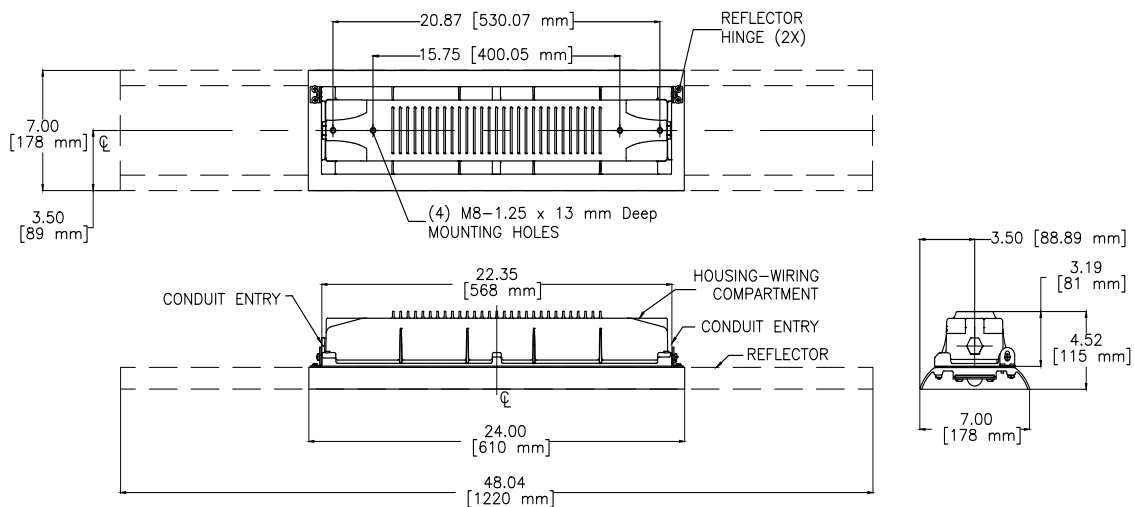
- Class I, Division 2, Groups A, B, C, D
- Class 1, Zone 2, Group IIC
- Class II, Division 2, Groups F, G
- Class III
- Type 3R, 4 & 4X
- Marine Outside Type ^②
- IP66/IP67
- -40° C to +65° C (select luminaires)

NOTES:

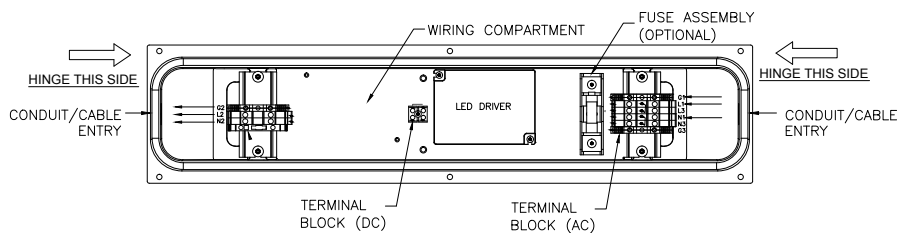
- ① Refer product nameplate, located on the housing body, for details.
 ② To be installed in accordance with CG-259 of American Bureau of Shipping and Coast Guard.

Dimensions/Details

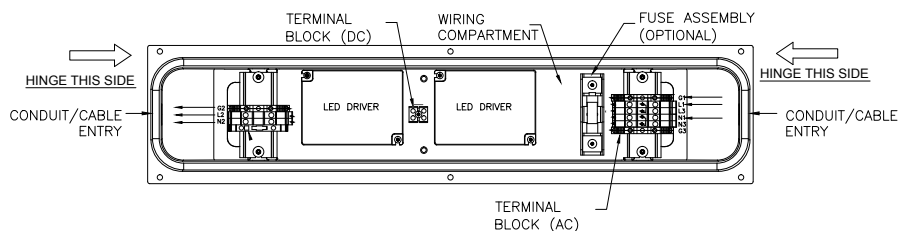
LUMINAIRE HOUSING (LLEDA12LU2, LLEDA15LU2, LLEDA17LU2, LLEDA12BH2, LLEDA15BH2, LLEDA17BH2)



LUMINAIRE DIMENSIONS



LUMINAIRE INTERNAL LAYOUT - LLEDA12 AND LLEDA15 PICTURED WITH OPTIONAL FUSE

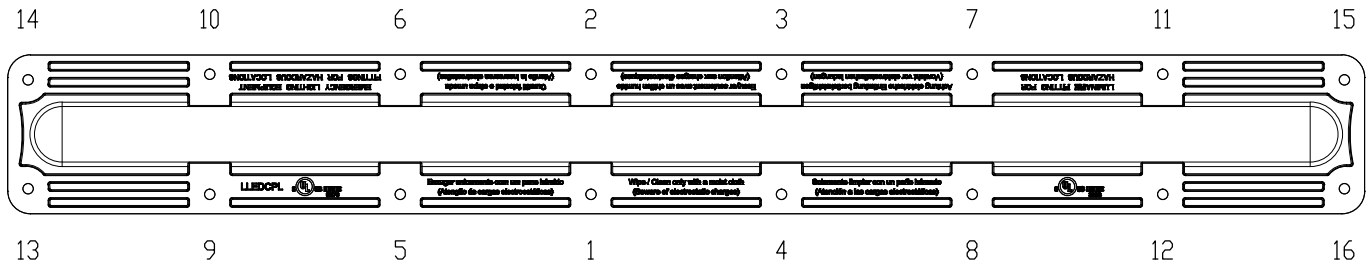


LUMINAIRE INTERNAL LAYOUT - LLEDA17 PICTURED WITH OPTIONAL FUSE

Optic Installation

LENSES (LLEDGPL, 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.)



LENS SCREW TIGHTENING PATTERN

Mounting Instructions

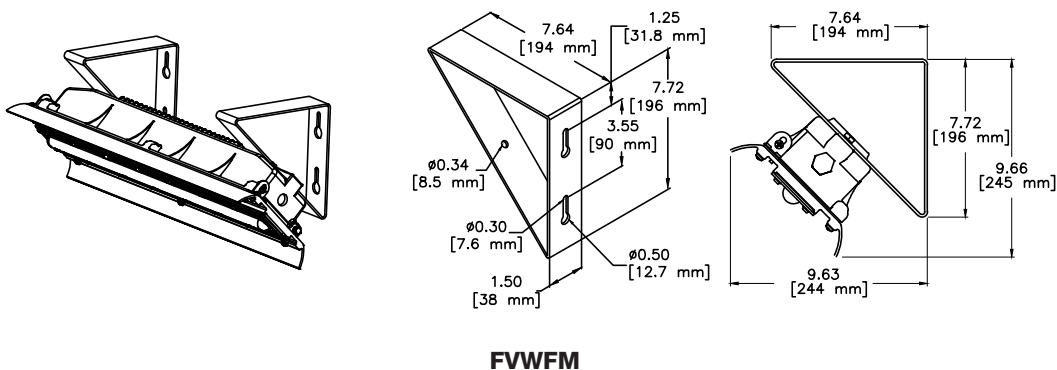
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between mounting holes on top of luminaire housing for your application. Note that distance can be 15.75 in. [400 mm] or 20.87 in. [530 mm].
3. Use 5/16 in. (M8) bolts (not supplied) appropriate 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)

Note: Zinc plated steel mounting brackets are not for use where Marine Listing is required.

FIXED 45° WALL MOUNT (FWWM)

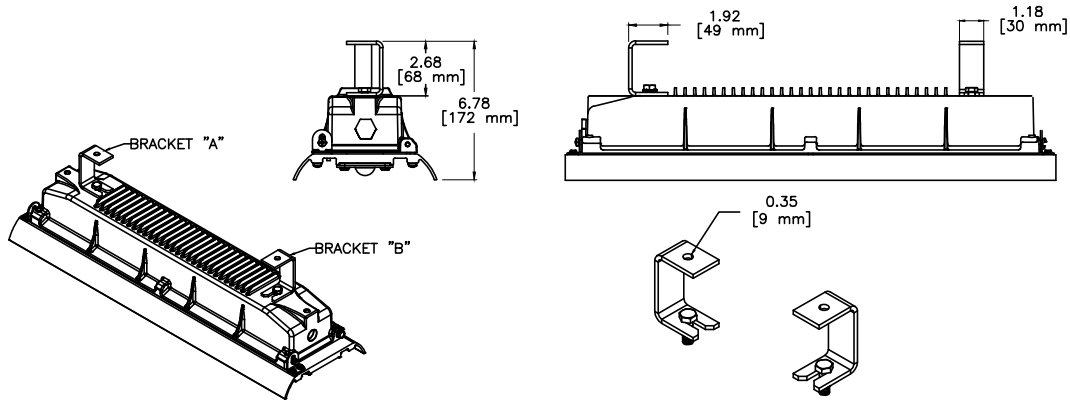
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between brackets can be 15.75 in. [400 mm] or 20.87 in. [530 mm].
3. Mark and drill holes for mounting brackets. Use 5/16 in. (M8) bolts 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 fixture in accordance with local building code and all other code applications.
6. Tighten wall mount screws to secure the luminaire in place.



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 be 15.75 in. [400 mm] or 20.87 in. [530 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 fixture 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.

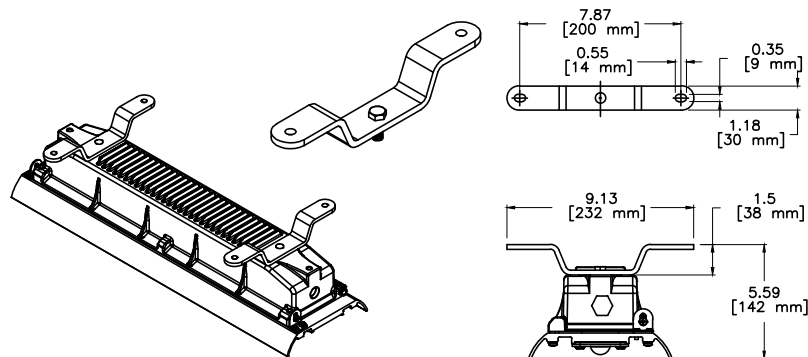


FEBFS AND FEBZ*

*** Note: Not for use with Marine Listing.**

SURFACE MOUNTING (FESBA, FESBS)

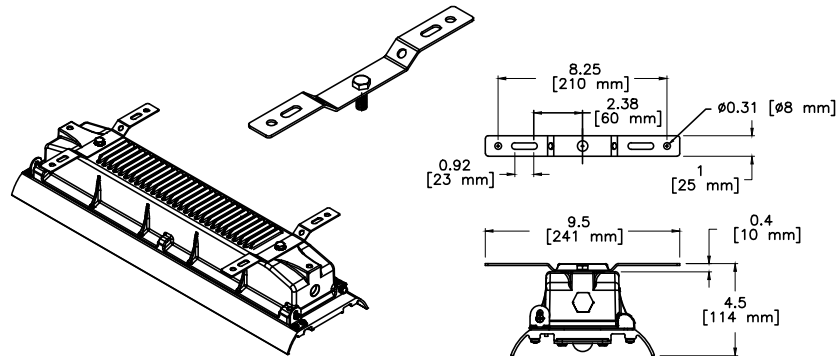
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between brackets can be 15.75 in. [400 mm] or 20.87 in. [530 mm].
3. Mark and drill holes for mounting brackets. Use 5/16 in. (M8) bolts 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 luminaire housing.
5. Mount the fixture with surface brackets installed directly to the ceiling or any structural support member that can handle the weight of the fixture in accordance with local building code and all other code applications.



FESBA AND FESBS

SURFACE MOUNTING (FVSM)

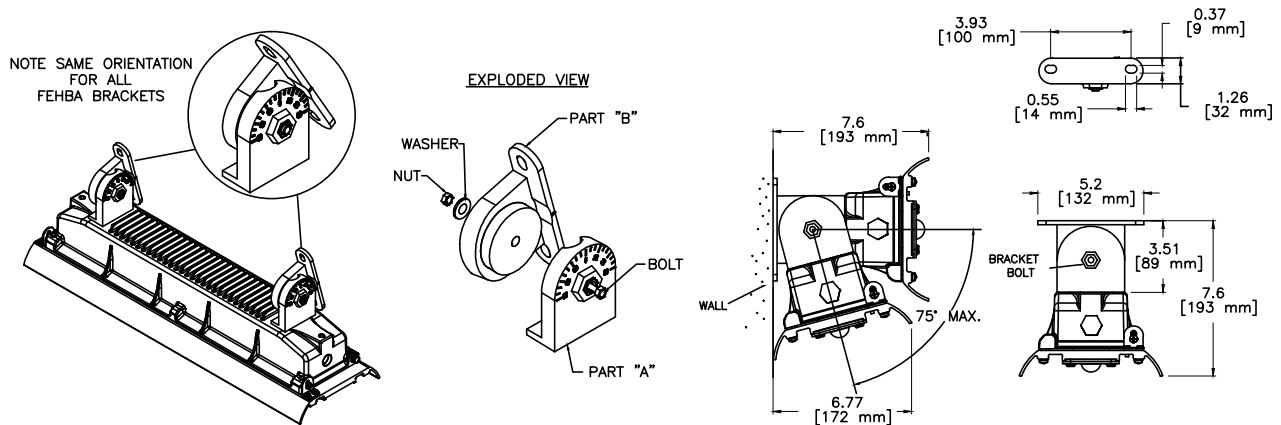
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between brackets can be 15.75 in. [400 mm] or 20.87 in. [530 mm].
3. Mark and drill holes for mounting brackets. Use 5/16 in. (M8) bolts 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 luminaire housing.
5. Mount the fixture with surface brackets installed directly to the ceiling or any structural support member that can handle the weight of the fixture in accordance with local building code and all other code applications.



FVSM

ADJUSTABLE HINGED BRACKETS (FEHBA, FEHBS)

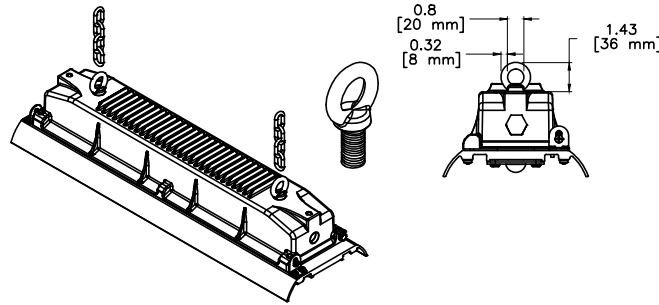
1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between brackets can be 15.75 in. [400 mm] or 20.87 in. [530 mm].
3. Mark and drill holes for mounting brackets.
4. Secure hinged bracket 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 fixture in accordance with local building code and all other code applications. Note that the brackets should be facing the same direction.
5. Locate part "A" and secure to 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.
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.



FEHBA AND FEHBS

M8 RING BOLTS/CHAIN MOUNT (FERBM8Z*)

1. Make sure power is disconnected before installing the luminaire.
2. Determine appropriate mounting distance between brackets for your application. Note that distance between ring bolts can be 15.75 in. [400 mm] or 20.87 in. [530 mm].
3. Thread two (2) eye bolts (supplied) into the desired M8 - 1.25 x 13 mm threaded mounting holess on back of luminaire housing. Tighten against back of fixture housing.
4. Attach chain (not supplied) to eye bolts.
5. Attach chain directly to ceiling or any structural support member that can handle the weight of fixture in accordance with local building code and all other code applications.

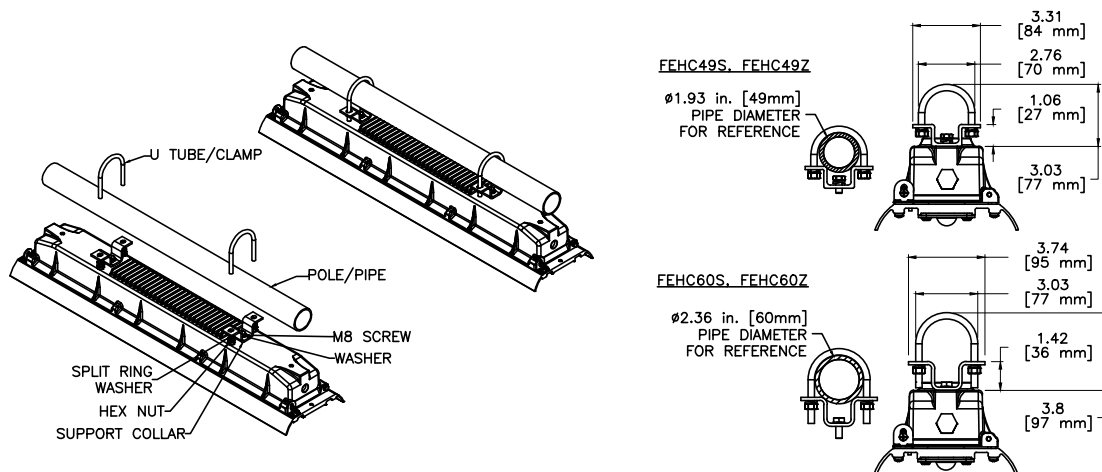


FERBM8Z*

*** Note: Not for use with Marine Listing.**

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 be 15.75 in. [400 mm] or 20.87 in. [530 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.




FEHC49Z*, FEHC49S, FEHC60Z*, FEHC60S

*** Note: Not for use with Marine Listing.**

SAFETY CABLE INSTALLATION (LLEDSC)

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

Wiring

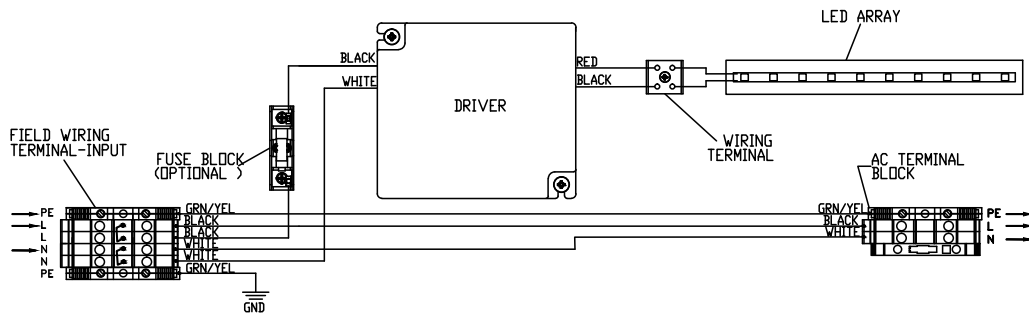
 **WARNING:** The luminaire must be grounded as required by the National Electrical Code (Paragraph 410-21 and Article 250) or Canadian Electrical Code (Rule 30-500 and Section 10). Verify that ground continuity has been established by using an Ohm meter or other suitable testing equipment before energizing 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 Luminaire

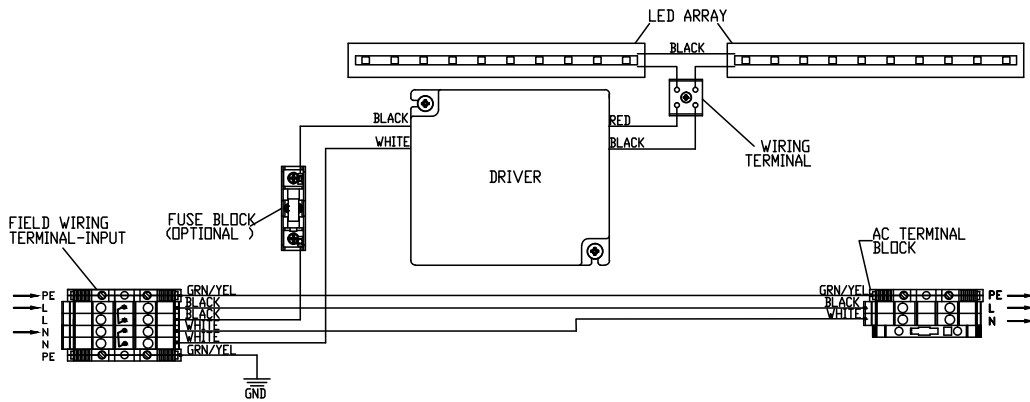
1. Make sure power is disconnected before installing the luminaire.
2. Open the luminaire by loosening the six (6) captive reflector screws.
3. The luminaire has 3/4 in. NPT threaded entries to accommodate installation in accordance with the NEC or CEC.
4. Feed the proper temperature supply wire into the wiring compartment. See product nameplate for supply wire requirements.
5. 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 “P” = Protective Earth. 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.
6. Check all connections for continuity and ground integrity. Close the luminaire housing and tighten the six (6) captive screws.
7. The screws require 22.13 lbf-in. [2.5 Nm] torque to maintain a proper seal.
8. Close all unused conduit entries with close-up plugs (one (1) supplied) engaging at least three (3) full threads. Install supplied conduit plug with corrosion-inhibiting grease, such as petroleum or soap-thickened mineral oils in 3 lines, spaced approximately 120 degrees apart, perpendicular to the threads.
9. Power can now be applied to the luminaire.

Wiring Diagrams

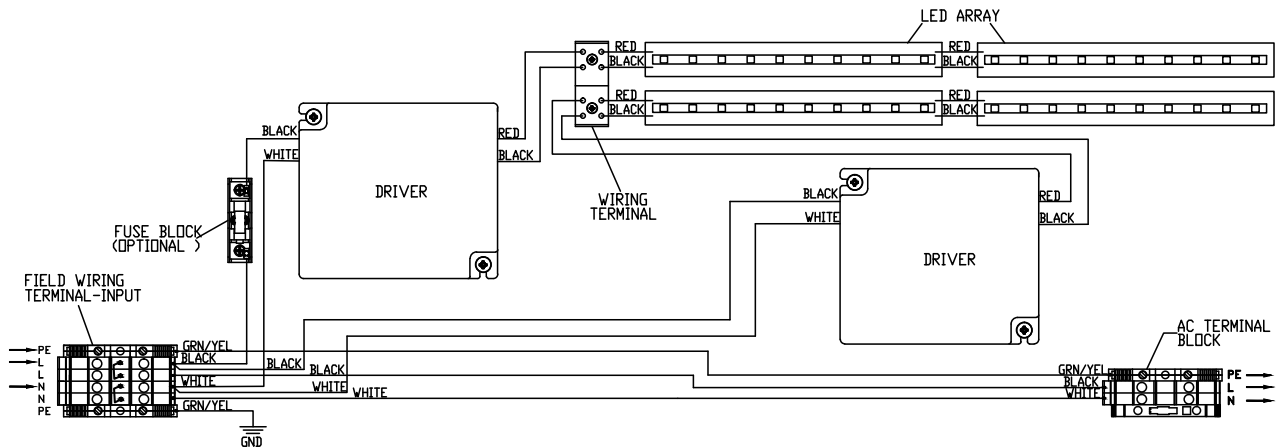
NOTE: The wiring diagrams shown here are based on the type of luminaire (2500K, 5000K, and 7500K) options (fusing). Please look the diagrams over carefully to determine the one that fits your situation.



WIRING DIAGRAM - SINGLE LED BOARD

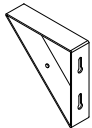
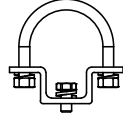

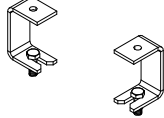
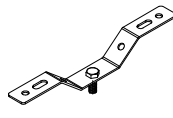
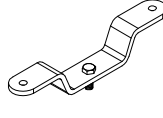
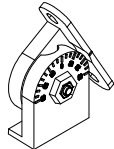


WIRING DIAGRAM - DOUBLE LED BOARD

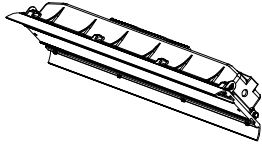


WIRING DIAGRAM - FOUR LED BOARDS

Viamaster LED Luminaire Family Tree ①

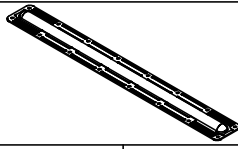
Fixed 45° Wall Mount (Optional Accessory) 		Half Clamp Brackets for Pole Mounting (Optional Accessory) 		MB Ring Bolts (Optional Accessory) 	
Description	Catalog Number	Description	Catalog Number	Description	Catalog Number
11Ga Stainless Steel	FWFM	For 42 mm – 49 mm pole (1–1/4 to 1–1/2" tube)		Zinc Plated Steel	FERBM8Z ③
Fixing Brackets for Surface Installation (Optional Accessory) 		Surface Mounting Bracket (Optional Accessory) 		Surface Mounting Bracket (Optional Accessory) 	
Description	Catalog Number	Description	Catalog Number	Description	Catalog Number
316 Stainless Steel	FEFBS	316 Stainless Steel	FEHC49S	Aluminum (Painted Gray)	FESBA
Zinc Plated Steel	FEFBZ ③	For 60 mm pole (2" tube)		316 Stainless Steel	FESBS
		Description	Catalog Number	Hinged Brackets (Optional Accessory) 	
		Zinc Plated Steel	FEHC60Z ③	Description	Catalog Number
		316 Stainless Steel	FEHC60S	Aluminum	FEHBA
				316 Stainless Steel	FEHBS

LLED Series



Description	Catalog Number
2K Lumen, 120–277V	LLEDA12LU2
5K Lumen, 120–277V	LLEDA15LU2
7K Lumen, 120–277V	LLEDA17LU2
2K Lumen, 347–480V	LLEDA12BH2
5K Lumen, 347–480V	LLEDA15BH2
7K Lumen, 347–480V	LLEDA17BH2
2K Lumen, 120–277V, Fused	LLEDA12LU2F
5K Lumen, 120–277V, Fused	LLEDA15LU2F
7K Lumen, 120–277V, Fused	LLEDA17LU2F
2K Lumen, 347–480V, Fused	LLEDA12BH2F
5K Lumen, 347–480V, Fused	LLEDA15BH2F
7K Lumen, 347–480V, Fused	LLEDA17BH2F

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.
- ③ Zinc plated steel mounting brackets not for use where Marine Listing is required.

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