INSTALLATION, OPERATION & MAINTENANCE DATA SHEET KFLX/ARXC SERIES LED LUMINAIRE

KFLX/ARXC SERIES LED LUMINAIRE

Luminaires are designed to be installed in Hazardous Locations: Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III; T3C, T4, T4A, T5 or T6 (Class I, Div. 2); T3B, T3C (Class II, Div. 1); T3B, T3C (Class I, Div 2 / Class II, Div. 1 Simultaneous Exposure); Type 4X; Marine Rated (US only); IP66.); Ambient 40C, 55C and 65C where applicable

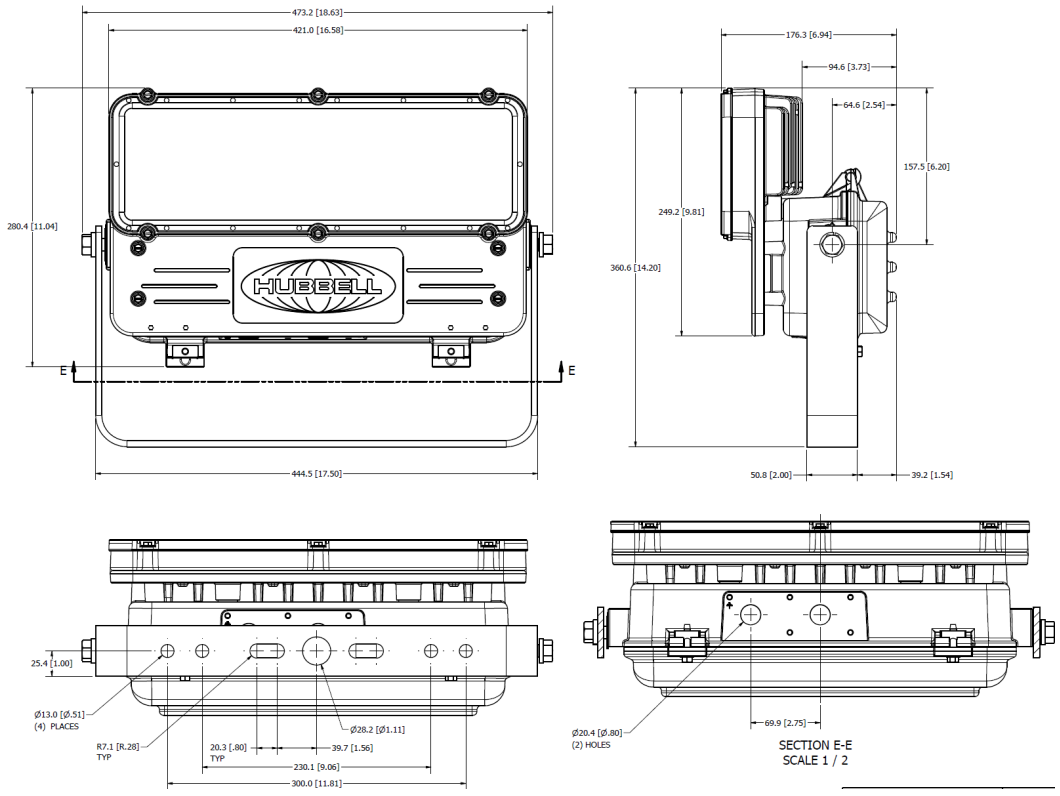
IEC Zone 2. IEC 60079-0:2017 IEC 60079-7:2015 +A1: 2018 and IEC 60079-31:2015 Zone 2 type of protection Ex ec (increased safety), Zone 21 type of protection Ex tb (dust).

STANDARD VERSION	EMERGENCY VERSION
II 3G Ex ec IIC T5/T4/T3* Gc	II 3G Ex ec IIC T5/T4* Gc
II 2D Ex tb IIIC T160°C/T135°C/T100°C * Db	II 2D Ex tb IIIC T135°C Db
-50°C<Tamb<+65°C < 120W	-20°C<Tamb<+50°C
-50°C<Tamb<+40°C/+55°C > 120W	

*Depending on wattage and ambient temperature

IECEx certificate IECEx QPS 19.0031X.

ATEX certificate QPS21ATEX7002X (ec) QPS21ATEX5004X(tb).



CAUTION:

Before installing, make sure you are compliant with area classifications, failure to do so may result in bodily injury, death and property damage. Do not attempt installation until you are familiar with the following procedures. All installation must comply with the applicable ElectricalCode.

Make sure that the circuit is de-energized before starting installation ormaintenance.

Verify that the installation is grounded. Failure to ground will create electrical shock hazards, which can cause serious injury and ordeath.

IMPORTANT:
Technical information, advice and recommendations contained in these documents are based on information that Killark believes to be reliable. All the information and advice contained in these documents is intended only for use by persons having been trained and possessing the requisite skill and know-how and to be used by such persons only at their own discretion and risk.
The nature of these instructions is informative only and do not cover all of the details, variations or combinations in which this equipment may be used, its storage, delivery, installation, check out, safe operation, and maintenance. Since conditions of use of the product are outside of the care, custody and control of Killark, the purchaser should determine the suitability of the product for its intended use and assumes all risk and liability whatsoever in connection therewith. ATTENTION:
Avant d'installer le luminaire, s'assurer que le luminaire est conforme à la classification des zones, le non- respect de cette règle risque d'entraîner des dommages corporels et / ou matériels. Ne pas tenter d'entreprendre l'installation avant d'être familiarisé avec les procédures suivantes. Toute installation doit être conforme au code électrique local et / ou national et être effectuée par un électricien qualifié.
Veiller à ce que le circuit soit mis hors tension avant de commencer l'installation ou la maintenance.
Vérifier si le luminaire est mis à la terre. S'il n'est pas mis à la terre il pourrait causer des risques de choc électrique susceptibles d'entraîner des blessures graves ou la mort.

Note: Due to the surge protection provided in the fixture to protect the internal electronics and LEDs, a branch circuit with the LED fixture may false fail a megohmmeter test (sometimes referred to as a megger test). If a megohmmeter test is required, the LED fixture should be removed from the branch circuit.

This fitting's driver is protected via thermal foldback sensor which reduces the light output of the fitting to prolong the life of the driver in high ambient service conditions. When the driver reaches temperatures near the manufacturer's recommended limits, the foldback sensor will activate and slightly reduce the light output to decrease the temperature of the fixture. Once the driver temperature reduces from this level, the fitting will operate at normal levels

Note: Multiple fluorescent or LED fixtures attached to a single Ground Fault Circuit Interrupter (GFCI) may cause nuisance tripping of the GFCI. Regulatory agencies allow a small amount of leakage current because of the circuitry required to mitigate possible issues with electromagnetic compatibility (reference UL8750 and EN61347). The summation of these leakage currents from multiple fixtures may be enough to trip a GFCI.

Note: When fitted with a polycarbonate lens, the polycarbonate lens should not be subjected to sunlight.

NOTE- For Class I, Division 1 / Class II, Division 1 / Class I, Zone 1 Hazardous Locations, use rigid conduit or appropriate cable connectors/ glands rated for Class I, Division 1 Groups BCD

NOTE – Pour les endroits dangereux Classe I, Division 1 / Classe II, Division 1 / Classe I, Zone 1 utiliser des Conduits rigides.

KFLX/ARXC INSTALLATION INSTRUCTIONS:

Yoke Mounting:

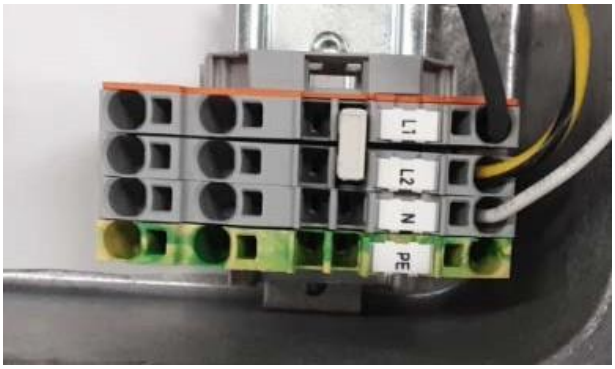
1. For convenience, install the yoke bracket to the fixture before mounting the structure.
2. Loosen bolts - aim the floodlight to the desired spot.
3. Tighten both bolts securely.
4. Fasten the yoke bracket to the mounting location using ½" bolts/fasteners.
5. An "Earthquake Safety Chain" can be looped around the bosses that attach the LED heat sink to the driver box.

IMPORTANT NOTE:

Make sure that the circuit is de-energized at main fuse or at circuit breaker prior to installation.

NOTE IMPRORTANTE:

Mettre le circuit hors tension grace au fusible principal ou le disjoncteur. Open the fixture by loosening the swing bolts. Using the terminal



blocks supplied, run supply wire to fixture through applicable watertight joint using sealing fittings at appropriate hole. The included hubs are for ¾"-14NPT. A ½-14NPT reducer is also included. The holes through the cast metal in the driver compartment are for an M20 cable gland. To use an M20 cable gland, discard the ¾ NPT hubs. he terminal block shown is with battery back up. Non back up fixtures will not have the "L2" terminal. Mains wiring should be brought into the corresponding marked terminal. Looping wiring can be accomplished by using the adjacent connection port. A small screwdriver can be inserted in the slot near the connection port to ease the force required to insert the wire. The external ground is located next to the gland/hub opening where the mains wires exit the fixture.

Reattach the swing bolts. Torque the cover bolts until the cover touches the housing. Approximately 3 N-m (25 in-lbf). Re-energized the circuit to verify the fixture is operatingproperly

AIMING DESIGNATIONS

In environments with high dust, the dust will cover the lens and increase the temperature of the fixture. In a high dust environment use the aiming diagram shown below as directed on the nameplate. The angle shown below will keep dust from accumulating on the lens.

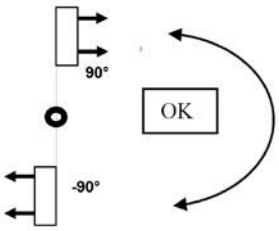


Figure A

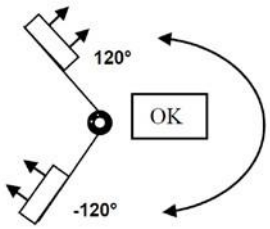
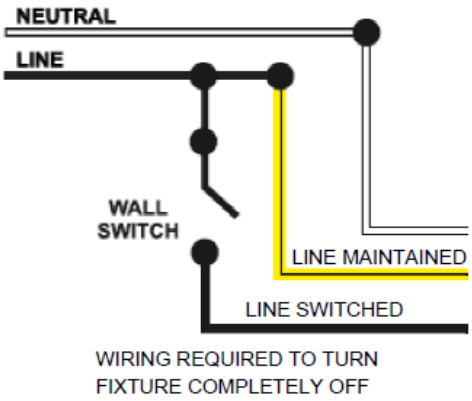


Figure B



BATTERY BACKUP FIXTURES

IMPORTANT: To turn the fixture completely off, an un-switched AC power source of 120VAC to 277VAC is required for the Line Maintained (yellow) and neutral (white) leads. A locally switched line must be attached to the Line Switched (black) terminal. If the Line Switched terminal is attached to continuous power, the fixture will go into battery backup mode if the power is turned off.

IMPORTANT: Fixtures are shipped with a jumper between the Line Maintained and Line Switched terminals. Remove the wire link (jumper) and attach the Line Switched terminal to a local switched source when local switching is required. The battery must be charged for at least 12 hours prior to testing. **The battery switch must be turned to the "ON" position for the fixture to operate correctly. The fixture will not light up in battery backup mode until AC power is supplied once while the battery switch is in the "ON" position. Thereafter, the fixture will operate in battery backup mode when the AC power is off.**

SELF-DIAGNOSTIC INSTRUCTIONS/OPERATION: The self-diagnostic feature is set from the factory. The emergency LED driver will conduct a self-check for thirty (30) minutes 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.

TABLE 1 – Self Diagnostic Indications

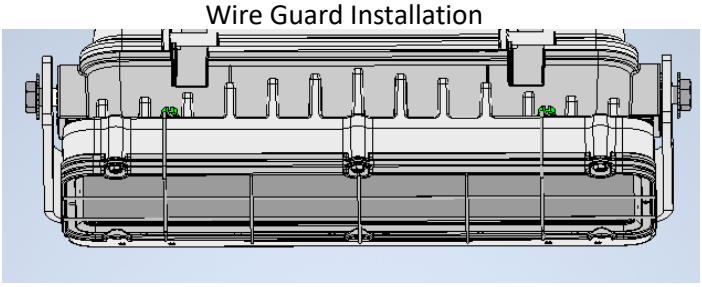
LED Indicators Status	EM Driver Status/Mode
• Solid Green	System OK/AC OK(Self-diagnostic Enabled or Disabled).
• Slow Flashing Red, 4s on/1s off	Battery not Detected, Check Battery Switch Connection.
• Flasing Red, 1s on/1s off	Battery Failure, Replace Battery.
• Flashing Green, 1s on/1s off	Self-Diagnostic 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 LED's OFF	Normal Working EM Mode.
• Green/Red Alternative Flashing, 1s Green/1s Red.	No Load or Output over Voltage Protection Triggered.

Battery Changing Procedure

1. Make sure that the circuit is de-energized
2. Remove the housing cover.
3. Remove wires from lever nuts as necessary. To remove a wire from a lever nut, fully push up the lever and remove the conductor.
4. Remove the two screws that hold the driver to the housing.
5. Remove the two screws that hold the battery compartment cover to the driver.
6. Disconnect the connector and replace the new battery (part number VM-BATT).
7. Reassemble

New fixtures with batteries can be stored for 2 years in a -20°C to 30°C ambient without a need of recharge. A fully discharged unit should not be stored more than 6 months without being recharged. There is low voltage disconnect of the battery to the emergency drivers, however as the batteries still have self-discharge they should be recharged within 6 months to prevent the cells from permanent capacity loss. For long term storage, turn the battery switch to the "off" position to prevent the cells from permanent capacity loss.

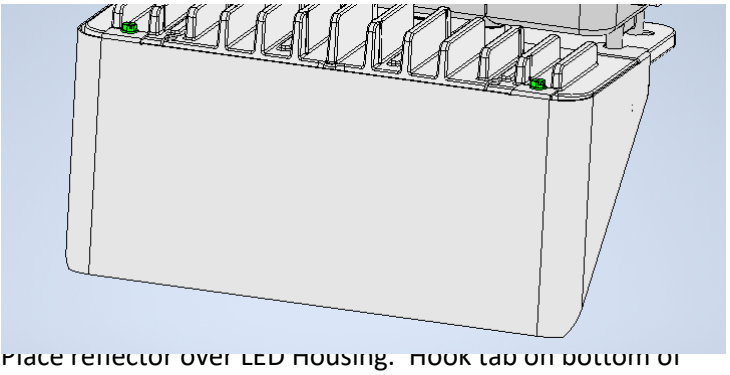
Wire Guard Installation



Place wire guard over lens area, placing loops over holes behi nd LED Housing. Attach guard to housing using two screws provided through bosses in housing.

Both guard and reflector can be used on a fixture simu ltaneously.

Dark Skies Reflector Installation



Place reflector over LED Housing. Hook tab on bottom of reflector over boss going from Driver Housing to LED Housing. Attach reflector to LED Housing using two screws provided through bosses in LED Housing.

Conditions for Safe Use:

1. To prevent ignition of hazardous atmospheres, disconnect ballast/fixture from supply circuit before opening. keep tightly closed when in operation.
2. Do not open, maintain or service in an area where an explosive atmosphere may be present.
3. When Polycarbonate lens is in use, clean lens with damp cloth to avoid static discharge.
4. The luminaire shall only be installed where there is a low risk of mechanical damage.

MAINTENANCE INSTRUCTIONS:

CAUTION:

Disconnect the supplying circuit before opening fixture or removing optics. To maintain maximum light output, this fixture should be cleaned periodically. Maintenance procedures sometimes require fixtures to be hosed down for good housekeeping. The supply circuit **must** be turned **OFF** and the fixture lens **must** be allowed to cool to the ambient room temperature before cleaning. Only mild, non-abrasive cleaning agents should be used. The force of water applied by a hose must not exceed 65 gallons per minute coming from a 1" diameter hose applied at a distance of 10 feet.

HIGH VIBRATION AREAS:

Periodic inspection of fastener tightness is required; recommended every six (6) months.

REMEMBER TO SAVE ONE OF THESE SHEETS FOR MAINTENANCE PERSONNEL