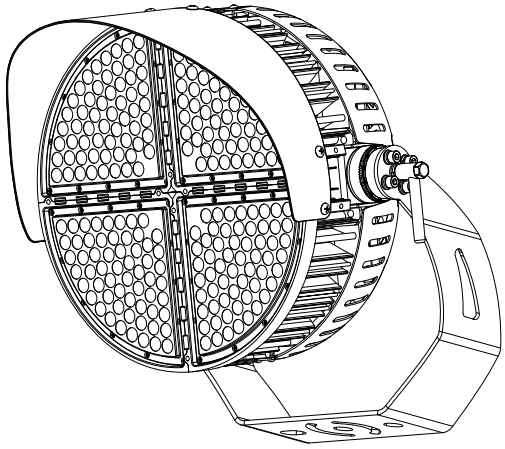
ATLETA LED SPORTS LIGHT (ASL1)

INSTALLATION INSTRUCTIONS



IMPORTANT SAFETY INSTRUCTIONS

- **To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts,cuts/abrasions, and other hazards please read all warnings and instructions included with and on the fixture box and all fixture labels.**
- Before installing, servicing, or performing routine maintenance up on this equipment, follow these general precautions.
- Installation and service of luminaires should be performed by a qualified licensed electrician.
- Maintenance of the luminaires should be performed by person(s) familiar with the luminaires' construction and operation and any hazards involved. Regular fixture maintenance programs are recommended.
- It will occasionally be necessary to clean the outside of the refractor/lens. Frequency of cleaning will depend on ambient dirt level and minimum light output which is acceptable to user. Refractor/lens should be washed in a solution of warm water and any mild, non-abrasive household detergent, rinsed with clean water and wiped dry.
- DO NOT INSTALL DAMAGED PRODUCT! This luminaire has been properly packed so that no parts should have been damaged during transit. Inspect to confirm. Any part damaged or broken during or after assembly should be replaced.
- These instructions do not purport to cover all details or variations in equipment nor to provide every possible contingency to meet in connection with installation, operation, or maintenance.

WARNING RISK OF ELECTRIC SHOCK

- Disconnect or turn off power before installation or servicing.
- Verify that supply voltage is correct by comparing it with the luminaire label information.
- Make all electrical and grounded connections in accordance with the National Electrical Code (NEC) and any applicable local code requirements.
- All wiring connections should be capped with UL approved recognized wire connectors.

WARNING RISK OF INJURY

- Follow all applicable safety procedures and use Personal Protective Equipment such as hard hats, safety glasses, reflective vests, electrical safety gloves, fall protection, and safety toe boots during installation, operation, and maintenance of the luminaire.
- Risk of eye injury! Eye protection is required at all times during installation, operation, and maintenance of the luminaire. The high intensity light produced by the luminaire can cause severe damage to the eye if viewed directly at close range. Avoid being in front of a luminaire that is on or wear suitable light blocking protective eye wear such as welding goggles. The luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 10m is not expected.

WARNING RISK OF BURN

- Allow lamp/fixture to cool before handling.
- Do not exceed maximum wattage marked on luminaire label.
- Follow all manufacturer's warnings, recommendations and restrictions for: driver type, burning position, mounting locations/methods, replacement and recycling.

WARNING RISK OF FIRE

- Keep combustible and other materials that can burn, away from lamp/lens.
- Do not operate in close proximity to persons, combustible materials or substances affected by heat or drying.

Specifications and dimensions subject to change without notice.

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Store luminaires in a clean, dry environment free from dirt, water, and sunlight. See table below for ideal storage and operating conditions.

Storage Temperature	Operating Temperature	Humidity
-40°C to +75°C (-40°F to 167°F)	-40°C to +50°C (-40°F to 122°F)	5% to 95% non-condensing

FUSING

LED sports light luminaires are not traditional incandescent lights. They are high-tech, new generation solid-state devices. To protect your valuable investment, the electrical power shall be clean, have stable voltage and current and undistorted waveforms.

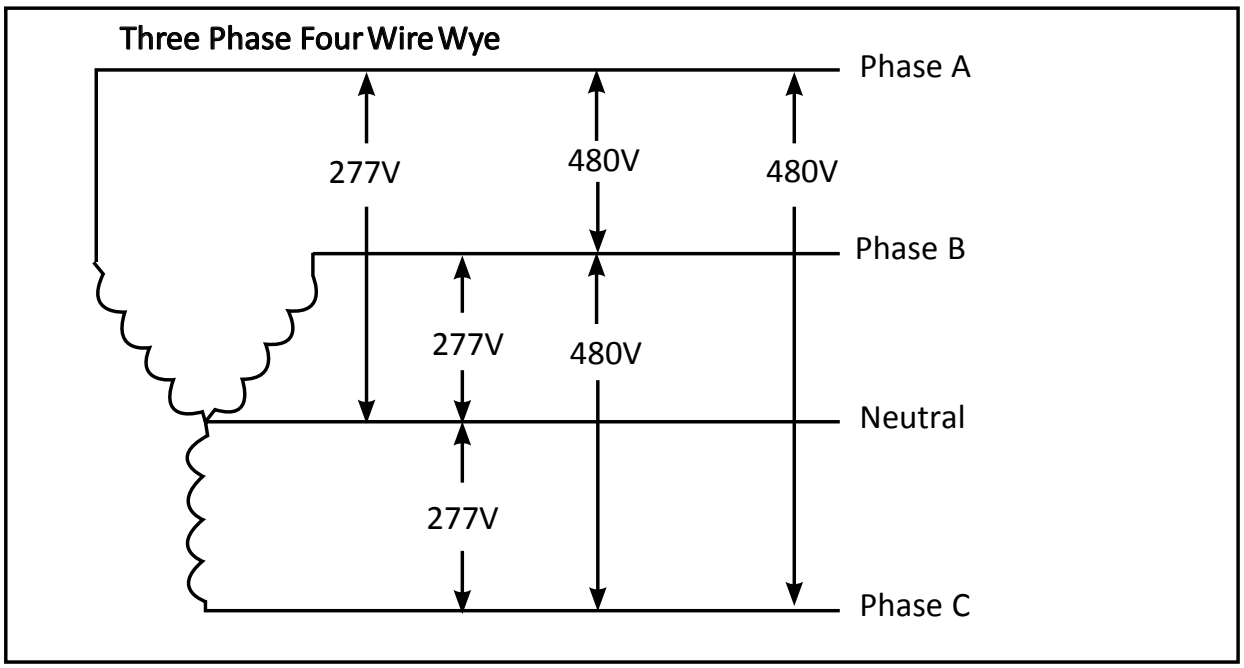

Figure 1. Acceptable Power Configurations

WARNING: PROPER GROUNDING

Follow proper ground methods: Electrical system must be grounded. If you are not sure if your power system is grounded, DO NOT install the luminaire. Contact a licensed electrician for information on proper ground methods as required by electrical code. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO DEATH, SEVERE INJURY, OR PROPERTY DAMAGE.**

WARNING: VOLTAGE

Do not attempt to connect all field luminaires to any circuits with nominal voltage below 277V or above 480VAC. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO LUMINAIRE INTERNAL DAMAGE AND FAILURE.**

The voltage on the lighting circuits must stay within 3% of nominal at 50/60Hz. voltage that is consistently too high or low shall be corrected before LED luminaires are installed.

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FUSING

If individual branch circuit protection is required, the table below shows the minimum fuse ratings for each individually circuited luminaire. Fuses must be time delay type.

Minimum Fuse Ratings

Circuit Voltage (VAC)	Minimum Fuse Rating (amps)
240	4
277	4
347	4
480	3

POWER QUALITY

The lighting circuits shall have surge protection.

INSTALLATION INSTRUCTIONS

STEP 1 - MOUNT THE LUMINAIRE

Attach the luminaire to the mounting structure. The mounting structure may be a light pole cross arm, an indoor catwalk bracket, or other structural component that will hold the luminaire in place. Refer to photometric drawings or project installation drawings for luminaire installation locations and any additional mounting instructions.

WARNING: MOUNTING STRUCTURES

It is the responsibility of the installer to verify that all proposed mounting structures, including poles, cross arms, catwalk brackets, and other mounting structures are certified to support the weight of the luminaires, withstand wind loads, and meet all applicable codes and regulations. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO DEATH, SEVERE INJURY, OR PROPERTY DAMAGE.**

WARNING: SUSPENDED MOUNTING

Do not suspend any luminaire by electrical or control wires, as these will not support the weight of the luminaire, resulting in the potential for the luminaire to fall and cause damage or injury. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO DEATH, SEVERE INJURY, OR PROPERTY DAMAGE.**

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INSTALLATION INSTRUCTIONS

EQUIPMENT REQUIRED

- Mounting hardware
- Socket wrenches and/or crescent wrenches sized to fit mounting hardware
- Cable ties or wire management - outdoor installations use UV rated

Mounting Hardware Required

Hardware Required	Size	Quantity per luminaire
Hex bolt	M20*120mm	1
Flat washers	Φ21mm	1
Spring washers	Φ21mm	1
Hex Locknut	M20	1
Hex bolt	M10*120mm	2
Flat washers	Φ10.5mm	2
Spring washers	Φ10.5mm	2
Hex Locknut	M10	2

Mounting hardware shall be high-strength, corrosion-resistant material. Length of hex bolt shall be determined in the field. Size the bolt appropriately to allow secure fastening of the luminaire to the mounting structure.

WARNING: POWER TOOLS

An impact driver may be used on mounting hardware while the power is off, but NEVER use any power tools on the luminaire while the power is on. The vibration caused by power tools may damage the luminaire. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO LUMINAIRE INTERNAL DAMAGE AND FAILURE.**

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INSTALLATION INSTRUCTIONS

STANDARD MOUNTING

This is the most common mounting. The luminaire sits on top of the mounting structure.

1. Refer to the project installation drawings to determine luminaire installation locations and lens type.
2. For each luminaire location, install a luminaire that has the correct lens type. Unless otherwise noted, luminaires that share the same lens type are identical.
3. Set luminaire in place and install bolt, flat washers, and nut to securely fasten the luminaire mounting bracket to the mounting structure. Tighten hardware hand tight so that the luminaire is secure but do not fully torque hardware until aiming is complete.

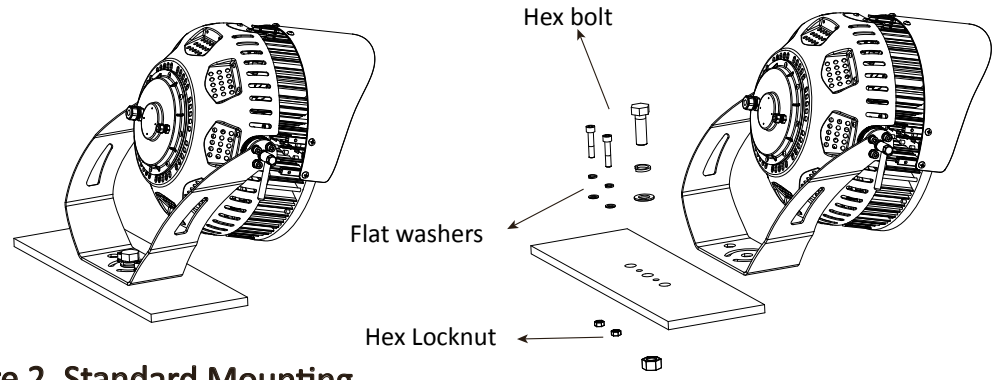

Figure 2. Standard Mounting

SLIP FITTER MOUNTING

Attach the luminaire to the pole with a slip fitter mount (screw size 5/16)

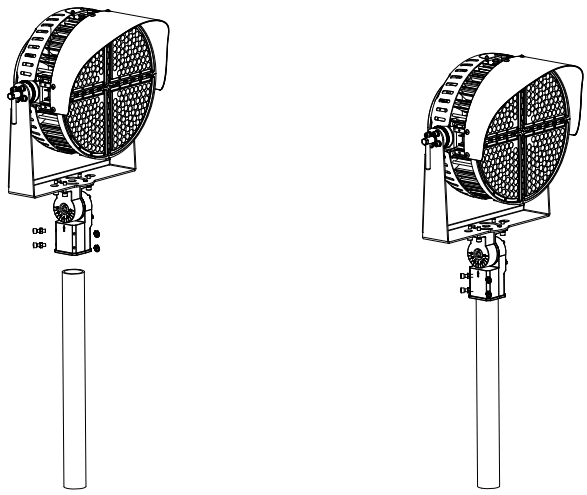

Figure 3. SLI Mounting

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INSTALLATION INSTRUCTIONS

STEP 2 - MAKE ELECTRICAL CONNECTIONS

EQUIPMENT REQUIRED

- 3/16” driver (or metric equivalent)
- Power cable
- Electrical splicing connectors. For all outdoor installations, silicone filled water resistant connectors are highly recommended.

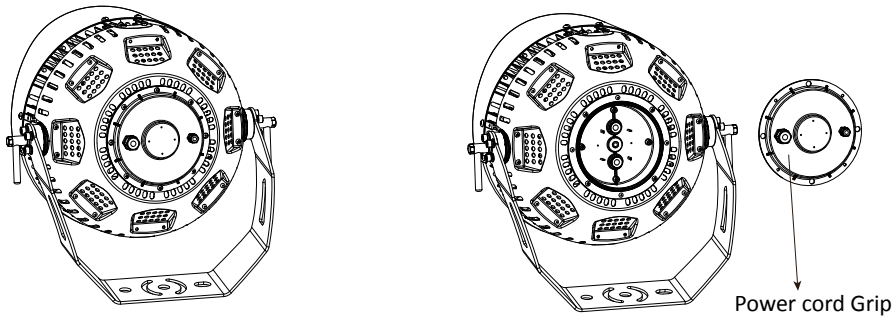

Figure 4. Electrical Connections

WIRING

Incoming power conductors shall be a minimum of 14-18AWG. Consult NEC and local codes for exact requirements.

1. Remove cover from junction box at the base of the luminaire.
2. Route incoming power cable through the cord grip in the junction box cover.
3. Strip outer jacket of incoming power cable back 3” (7cm). Connect the incoming power wires to the luminaire power wires on the right side of the junction box.

POWER WIRING CONNECTIONS

Fixture power wire color	Designation
Black	Line
White	Line or Neutral
Green	Ground
Purple	Dimming +
Grey	Dimming -

WARNING: MOUNTING STRUCTURES

NEVER connect the luminaire’s green insulation (GROUND) wire to the black (LINE) current-carrying or white (NEUTRAL) supply wire, as this could energize the metal housing and create the risk of electrical shock. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO DEATH, SEVERE INJURY, OR PROPERTY DAMAGE.**

WARNING: SUSPENDED MOUNTING

Do not damage or cut the wire insulation (covering) during installation. Do not permit wires to contact any surface having a sharp edge, as this may damage the wire insulation and create the risk of electrical shock. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO DEATH, SEVERE INJURY, OR PROPERTY DAMAGE.**

STEP 3 - AIM THE LUMINAIRES

Aiming the luminaires is a critical part of the LED lighting solution to ensure that light is evenly distributed on the playing surface. There are two basic methods to properly aim a sports venue: precision laser aiming by coordinates or orient-tilt.

PRECISION LASER AIMING BY COORDINATES

Laser aiming is the most effective and preferred technique for aiming LED sports lighting. This method uses a laser mounted to the luminaire to point it at a predetermined point on the playing surface using (X,Y) coordinates. Unless otherwise noted, aiming coordinates on photometric or project installation drawings are based on the origin (0,0,0) placed at center field, court, or ice. All dimensions from that point are in feet along the playing surface unless otherwise noted.

ORIENT-TILT

With the orient-tilt method, the installer turns the luminaire according to predetermined angles. This technique is extremely helpful for pre-aiming luminaires mounted on a cross arm on the ground before the lighting pole is lifted and set into place. However, this method is less accurate due to the variances in the actual fine pole and luminaire locations and orientations compared to the approximated parameters used in the photometric design.

The orient angle refers to the direction the luminaire faces in the z-plane. In other words, mount the luminaire to the structure but leave the mounting nut slightly loosened to allow the entire luminaire to spin about the mounting bolt. Set the luminaire orient by rotating the luminaire mounting bracket relative to the mounting structure.

Unless otherwise noted, orient values shown in photometrics or project installation drawings are based on 0° being Plan East. Plan East means 0° is heading to the right side of the sheet as you hold it in front of you, which is not necessarily geodetic or True East.

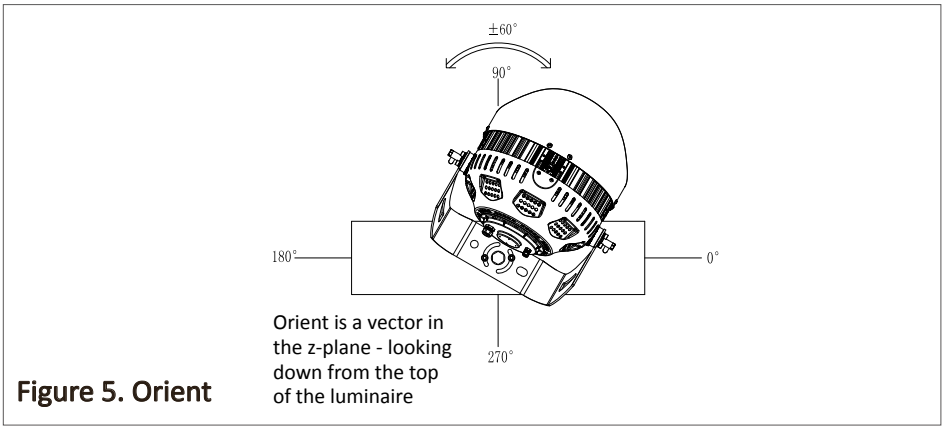

Figure 5. Orient

The tilt angle refers to the direction the luminaire faces in the y-plane. When the luminaire is securely mounted to the structure so that the mounting bracket does not move but the side hex and set screws are loosened, the luminaire may rotate up inside the mounting bracket. Set the luminaire tilt angle by rotating the luminaire housing relative to the luminaire mounting bracket.

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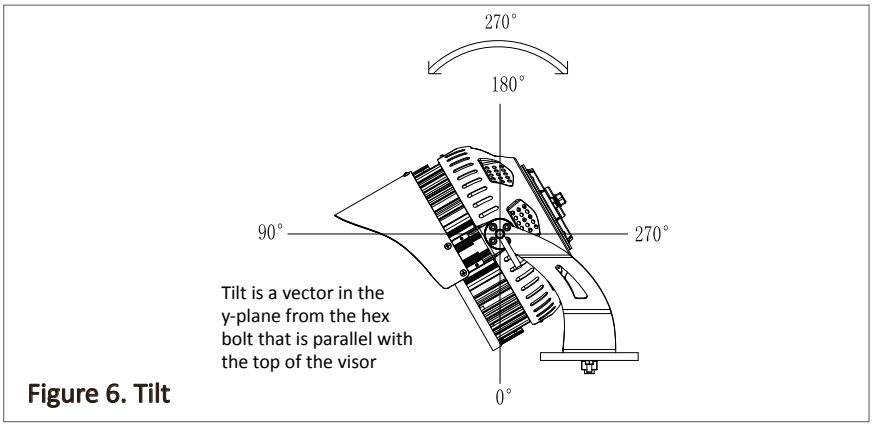

Figure 6. Tilt

EQUIPMENT REQUIRED

- Laser or aiming tube
- Aiming mount
- 15/16” (or metric equivalent) socket wrench
- 3/16” (or metric equivalent) hex driver
- Torque wrench/driver

WARNING: POWER TOOLS

NEVER use any power tools on the luminaire while the power is on. The vibration caused by power tools may damage the luminaire. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO LUMINAIRE INTERNAL DAMAGE AND FAILURE.**

SPECIAL NOTE:

For outdoor daytime aiming when the laser dot is difficult to see, a piece of rigid tubing bay be used in place of the laser. Outside diameter of the tube must be 0.8” - 0.87” (ANSI NPS 1/2”; 20-22mm) to fit into the aiming mount. Slightly smaller conduit size as 1/2” (16 Metric) EMT (Electrical Metallic Tubing) may be used in the mount with a grommet or other shim only if the shim is evenly distributed around the tubing to keep it correctly aligned parallel with the top front visor of the luminaire.

WARNING: POWER TOOLS

NEVER point the aiming laser at any person or animal as it can cause permanent damage to eyes. Use laser only for aiming luminaires as directed. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO SEVERE INJURY.**

SPECIAL NOTE:

Turn off laser while not in use to conserve battery. Have a spare battery charged to facilitate the aiming process.

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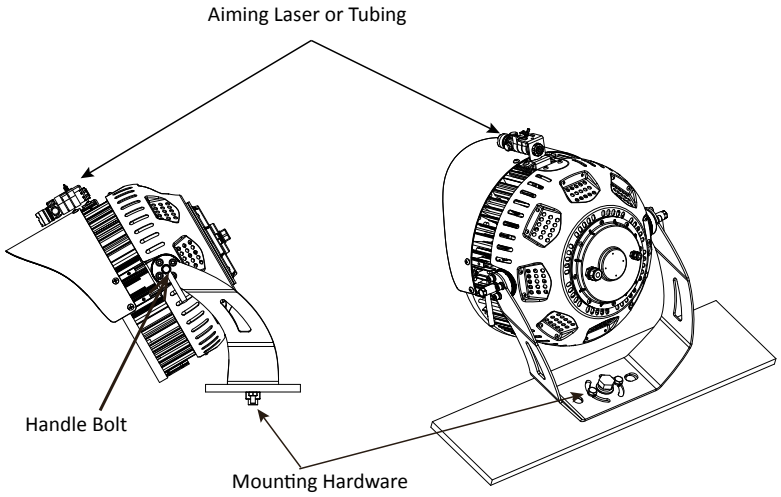

Figure 7. Aiming Laser & Mount

1. Insert the laser or tube into the aiming mount and tighten the holding screw.
2. Insert the aiming mount onto the luminaire aiming pin until it is fully seated. Aiming mount must be tight against the luminaire because any movement or wiggle in the mount will cause aiming to be inaccurate.
3. Slightly loosen the luminaire aiming screws just enough to allow the luminaire to rotate and tilt.
4. Turn on the laser and aim the luminaire by targeting the red laser dot at the aiming point. If aiming tube is used, look through the tube and adjust the luminaire until the aiming point is centered in the view through the tube. Refer to photometrics or project installation drawings for aiming point coordinates.
5. After aiming is complete, tighten all bolts and screws include hex and set screws on side of the luminaire and mounting hardware.
6. Briefly turn the laser back on or re-check view through tube to verify that the luminaire aim did not shift during tightening.
7. Remove the aiming mount from the luminaire and proceed to the next luminaire.

SPECIAL NOTE:

After targeting the aiming point with the laser, turn off laser to conserve battery.

STEP 4 - FINISHING TOUCHES

To complete the installation, verify that all mounting, connection, and aiming work is finished.

- Verify electrical connections are tight and secured. The installer is responsible for the integrity of all connections.
- Verify all bolts and screws are tightened and properly torqued.
- Straighten up cabling and tie down cables neatly. For outdoor projects, use UV rated tie wraps/wire management.

SPECIAL NOTE:

When power is turned on, the luminaire default to 100% on unless a different control signal is present.

CARE AND MAINTENANCE

All luminaires are prepared with a powder coat finish. The finish on the exterior of the luminaires may weather over time, depending on the environmental conditions at the installation site. Proper care of the luminaires will maintain their performance and appearance.

Follow a regular maintenance schedule to retain optimal light and thermal performance. Remove any dirt, leaves, and other foreign debris from the luminaire housing. Wipe the optical lenses with a clean, dry, cotton cloth to remove dust and other contaminants. A non-abrasive polycarbonate cleanser may be used periodically.

WARNING: TROUBLESHOOTING

Before performing any work on the luminaire, shut off the power circuit, verify the power is off with a multimeter, and wait 2 minutes before handling luminaire to avoid electric shock. **FAILURE TO FOLLOW THIS WARNING MAY LEAD TO DEATH, SEVERE INJURY, OR PROPERTY DAMAGE.**

Symptom	Possible Cause	Corrective Action
No light output	Power is off.	Check if circuit power is on.
	Bad wire connection.	Check input wiring connections.
	Control signal set to 0 Dimming leads shorted together	Verify control signal Separate dimming leads
Fuse blows or circuit breaker trips	Crossed wires or a supply wire is grounding out.	Check wiring connections.
	Improperly sized fuse or breaker	Improperly sized fuse or breaker