Please store this Installation Manual, for future reference.

AEON ECO-Series Installation Manual

AEON™ ECO SERIES

Warning: Before beginning Installation, please ensure that you have verified the Safety of Existing Power Distribution Systems.

- Prior to Installation, an Analysis must be Performed to Verify Site Power Meets these Requirements. The Electrical Power must be Clean and have Stable Voltage, Current and Undistorted Waveforms. If the Power DOES NOT meet this Criteria, Waveform Correction Technology should be used to Condition the Power. The Surge Protection alone is not adequate. AEON™ will not be liable for damage to Luminaires due to Poor Power Quality. Failure to Follow this Warning may lead to Luminaire Damage and/or Failure and will Void All Warranties.
- The AEON™ LED Luminaires are only installed on their own, independent Circuit. They must not be shared on the same Circuit which also uses other Heavy Equipment or any HID Luminaires. Failure to Follow this Warning may lead to Luminaire Damage and/or Failure and will Void All Warranties.

DLC QPL LISTED PREMIUM

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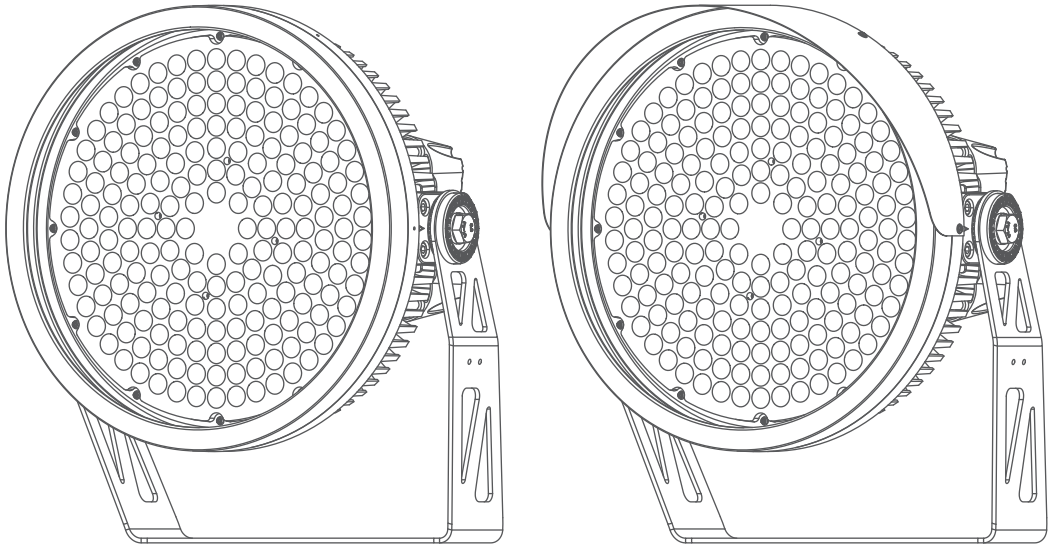


98% RECYCLABLE

NO LEAD, MERCURY, HEAVY METALS OR TOXIC GASES

ANSI American National Standards Institute

IEC

ASTM INTERNATIONAL

MEMBER AMERICAN SPORTS BUILDERS ASSOCIATION

This Manual applies to the following Models:

Sports Light: HL-AES-310WD and HL-AES-500WD

Flood Light: HL-AEF-310WD and HL-AEF-500WD

Note: Flood Light comes without Visor/Glare Shield and Laser Pointer

Thank you for purchasing the AEON™ and for investing in the future of Eco-Friendly products. By selecting AEON™, you have chosen a High-Quality, Eco-Friendly product that is Designed for Years of Dependable Performance. Properly cared for, the AEON™ will give you an extended Life of Trouble-Free Performance. We trust you will experience years of Reliable Service from it. Please store this Installation Manual, for future reference.

This Guide explains the steps necessary to install AEON™. This guide is for reference only and is intended for Certified Electricians who are familiar with the Construction and Operation of the Product and the Hazards Involved. This Guide does 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. Should further information be desired, or should particular problems arise which are not covered sufficiently for the Owner's purposes, this matter should be referred to HyLite LED, LLC.

For Your Own Protection Read, Understand and Strictly Observe These Safety Rules and All Instructions Before Attempting to Assemble, Install or Operate This Product!

AEON™ will not accept any Responsibility for Injury, Damage, or Loss which may occur due to Improper or Careless Handling, Incorrect Installation, Operation, or Maintenance of its Products.

Warning - Important Safety Instructions. Risk of Serious Personal Injury, Fire and/or Electric Shock

Read and Understand the detailed Installation Instructions before installing the AEON™ LED Luminaire. When using Electrical Equipment, basic Safety Precautions MUST always be followed including the following:

- Risk of Fire or Electric Shock. The AEON™ Installation requires knowledge of Luminaires Electrical Systems. All Inspections, Installation, Servicing or Removal of this product MUST be performed by a Certified Electrician only and in accordance with ALL the Applicable National (NEC), State and Local Electrical Codes and Ordinances. Failure to do so may result in a Serious Personal Injury. If not Qualified, DO NOT attempt Installation. Contact a Licensed Electrician.
- Disable, Disconnect or Turn-off Power to the Luminaire before Inspection, Installation, Servicing or Removal. NEVER Disconnect the Terminals until the Power is switched "OFF". Failure to do so will create a Hazardous and Fatal Working Environment. Verify the Safety of Existing Power Distribution System before beginning Installation. Failure to follow Operating Instructions May Lead to Property Damage, Severe Injury or Death. Always Connect Ground Lead to Luminaire in accordance with National Electrical Codes and Local Electrical Codes and Ordinances where applicable. Failure to do so may result in Serious Personal Injury. Install and use the Luminaires only in Environments for which the product is Specifically Marked.
- Install this Luminaire where the Supply Voltage of the Luminaire does not exceed as specified on the AEON™ LED Luminaire. Verify that Supply Wiring Voltage matches Power Supply Voltage by comparing it with the Power Supply Label. Improper Voltage matching can result in Performance Degradation and/or Physical Damage.
- If a NEMA® Photo Control is installed refer to NEMA® Receptacle manufacturer for Wiring Instructions.
- Luminaire Wiring, Power Supply, or other Electrical Parts may be Damaged when Drilling for Installation. Inspect Wiring and Components for Damage before Turning on Power. Proper Grounding is essentially required for Safety.
- If Mounting Bolts are completely removed in the field they should be Hand Threaded (prior to use of Power Tools) to ensure proper engagement of the Thread when reinstalling. Failure to Pre-start threads may result in Cross-threading or Stripping of the Bolts during Reinstallation.
- DO NOT Damage or Cut the Wire Insulation during Installation. To Prevent Wiring Damage or Abrasion, DO NOT Expose Wiring to edges of Sheet Metal or other Sharp Objects.
- DO NOT Make, Alter, Relocate or Remove Wiring, Power Supply or any other Electrical Component. Changes of the Design and Modifications to the AEON™ LED Luminaire are strictly prohibited. DO NOT Make or Alter any Open Holes in an Enclosure of Wiring or Electrical Components during Installation.
- DO NOT Mount or Support this Luminaire in a manner that can Cut the Outer Jacket or Damage Wire Insulation. Make sure all Connections are secure using only approved Connecting Devices. The AEON™ LED Luminaire can under No Circumstance be Mounted on any Flammable Surfaces. Keep all Combustible and other materials that can burn, away from Luminaire/Lens. DO NOT Operate in Close Proximity to People, Combustible Materials or Substances affected by Heat or Drying.
- To avoid Possible Damage to the Eyes, avoid being in front of a Luminaire that is ON. Do not stare into an LED Beam. LED Luminaires are Extremely Bright. Wear Protective Welding or Laser Safety Eyewear.
- Avoid Touching any External Surface of the Luminaire In use, due to the possibility of High Temperatures. TURN-OFF Electric Power to all affected Circuits and allow to Cool before Servicing.
- DO NOT Restrict Luminaire Ventilation. Allow for some Volume of Airspace around the Luminaire. Avoid Covering LED Luminaires with Insulation, Foam, or Other Material that will Prevent Convection or Conduction Cooling.
- LED products are Polarity Sensitive. Ensure proper Polarity before Installation.
- Electrostatic Discharge (ESD): ESD can damage LED Luminaires. Personal Grounding Equipment must be Worn during all Installation or Servicing of the Unit. DO NOT Touch Individual Electrical Components as this can cause ESD, Shorten Lamp Life, or Alter Performance.
- **WARNING:** Dangerous Voltages Exist within the Unit and all Precautions in Handling High Voltage Equipment should be Strictly Observed when replacing the Light Engine or otherwise Servicing the Luminaire. Disregarding this Warning could result in Electrical Shock and Severe Injury, Property Damage or even Death to the Individual Installing or Servicing this Luminaire.
- The AEON™ LED Luminaire is a New Generation, High-Tech Solid-State Luminaire. To Protect your Investment, you should ensure that the Electrical Power must be Clean and have Stable Voltage, Current and Undistorted Waveforms. Installing a Surge/Lightning Protection and Waveform Correction Technology Device prior to Installation on each Circuit Panel or Power Supply Feed Powering the AEON™ LED Luminaire is Highly Recommended as it helps to Eliminate Premature Driver Failure caused by Surges and other Power Fluctuations.
- Store Luminaires in a Clean, Dry Place, Protected From Dirt, Water and Direct Sunlight. See Table below for required Storage and Operating Conditions:

Storage Temp.: -40°F to 167°F / (-40°C to +75°C)	Suitable for Ambient Temp.: -40°F~+113°F (-40°C~+45°C)	Humidity 5% to 95% (Non-Condensing)

Notice: Risk of Product Damage: Failure to Strictly Follow all Instructions could Result in Damage to the Product and Void ALL Warranties!

SAFETY FIRST

AEON™ ECO SERIES

Your Safety is very important to us. It is extremely important that you read the entire Installation Manual to become familiar with the Luminaire before you begin to Install the unit. Properly cared for, the AEON™ will give you extended time of trouble-free performance. Please store this Installation Manual, for later reference.

Before beginning Installation please ensure that you have verified the Safety of Existing Power Distribution Systems. Failure to follow these Instructions may result in Electrical Shock and Severe Injury, Property Damage or even Death to the Individual Installing or Servicing this Luminaire.

- **Always Wear Appropriate Protective Clothing and Equipment. DO NOT** wear Loose Clothing or Jewelry. They can be caught in Moving Parts. Approved Electrical Protective Gloves, Impact Resistant Safety Glasses or Safety Goggles, Hardhats, Reflective Vests, Fall Protection Equipment and Safety, Non-Skid Toe Boots are strongly recommended for Installer's Protection.
- **Stay Alert.** Watch what you are doing. Use Common Sense. **DO NOT** Install the Luminaire when you are Tired or under the influence of any medications. **Be Alert at All Times**. You may have demonstrated a certain product hundreds of times, but do not be lulled into Complacency due to a False Sense of Security. Tools can be extremely unforgiving if not used carefully and as per instructions.
- **DO NOT Over-reach.** Keep Proper Footing and Balance at all times.
- **Keep Visitors Away.** All Visitors must be kept away from Work Area.

SPECIFICATIONS

AEON Model	310WD	500WD
Luminaire Wattage	310W	500W
Delivered Lumens	51,150	80,000
Variable Dimming Control	0-10VDC	0-10VDC
Current Draw @120V	2719mA	4386mA
Current Draw @208V	1569mA	2530mA
Current Draw @240V	1360mA	2193mA
Current Draw @277V	1243mA	2006mA
Current Draw @347V	993mA	1601mA
Current Draw @480V	718mA	1157mA
Effective Projected Area (EPA)	1.3 Sq. Ft.	1.3 Sq. Ft.
Net Weight	28 lbs. (12.5 kg.)	31 lbs. (14 kg.)

- Input Voltage: 100-277VAC and 347-480VAC
- LED's Lifetime (L70 Hrs. at 70°C): >158,000 Hours
- Driver Lifetime: 277VAC Input (100% Load @ 40°C Case Temperature): >50,000 Hours
- Driver Lifetime: 480VAC Input (80% Load @ 70°C Case Temperature): >100,000 Hours
- Operating Temperature Range: -40°F~+104°F (-40°C to +40°C)
- Surge Protection (Line-Line): 6kV; Surge Protection (Line-Ground): 10kA / 20kV against Over Voltage, Short Circuiting, and Over Temperature.
- IP Rating: IP67; NEMA Rating: 6P

Important Note: The Specifications Listed were obtained under Optimal Testing Conditions. Changes in Options, Features and Conditions may result in slightly different Performance Specifications among Luminaires.

Warning: Before beginning Installation, please ensure that you have verified the Safety of Existing Power Distribution Systems.

- Prior to Installation, an Analysis must be Performed to Verify Site Power Meets these Requirements. The Electrical Power must be Clean and have Stable Voltage, Current and Undistorted Waveforms. If the Power DOES NOT meet this Criteria, Waveform Correction Technology should be used to Condition the Power. The Surge Protection alone is not adequate. AEON™ will not be liable for damage to Luminaires due to Poor Power Quality. Failure to Follow this Warning may lead to Luminaire Damage and/or Failure and will Void All Warranties.
- The AEON™ LED Luminaires are only installed on their own, independent Circuit. They must not be shared on the same Circuit which also uses other Heavy Equipment or any HID Luminaires. Failure to Follow this Warning may lead to Luminaire Damage and/or Failure and will Void All Warranties.

Installing a Surge/Lightning Protection and Waveform Correction Technology Device prior to Installation on each Circuit Panel or Power Supply Feed Powering the AEON™ LED Luminaire is Highly Recommended as it helps to Eliminate Premature Driver Failure caused by Surges and other Power Fluctuations. Pure, Clean Power is Essentially Required to Ensure Proper Function and Lifetime of AEON™ LED Luminaires. Consult your Lighting Representative at AEON™ for more information.

Contents: Luminaire, Glare-Shield with Mounting Hardware, Safety Cable with Locking Snap Hook, Laser Pointer with Mount (1 pc. per order) and Installation Manual. Specification of the Replacement Battery for Laser Pointer: RCR123A / 16340 600mAh, 3.7V Lithium Ion (Li-ion) Button Top Battery.

Required Materials & Tools:

- Socket Wrench or Adjustable Spanner Sized for 1/2" (12mm) and 3/4" (20mm) Bolts.
- 6mm Allen Hex Socket Wrench (for 6mm Angle Locking Screw) and 10mm Allen Hex Socket Wrench for Tenon Adapter.
- Torque Wrench Rated to a Minimum of 35 Ft-Lb.
- Phillips Head Screwdriver
- Cable Ties or Wire Management
- Light Meter

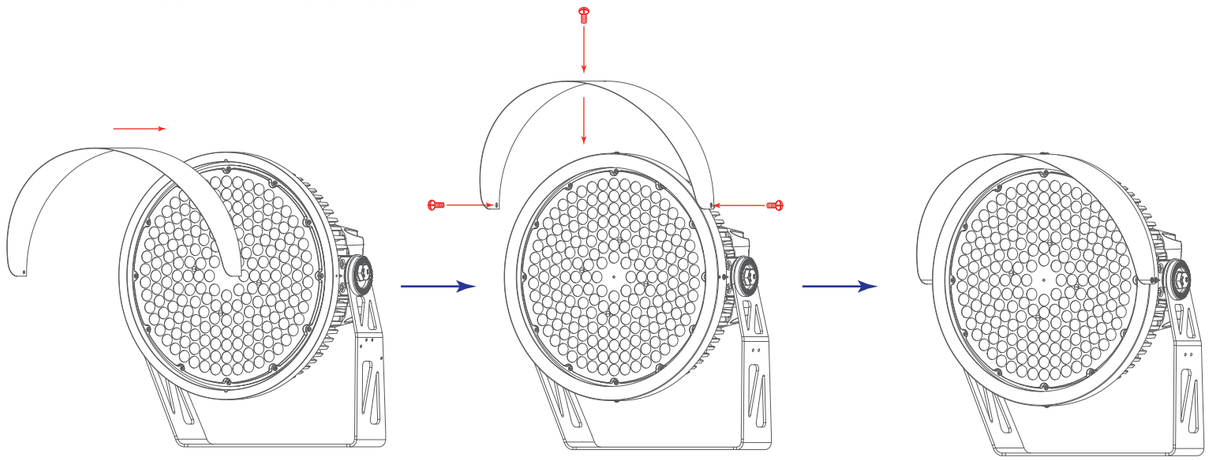
Installation: We designed the AEON™ LED Luminaire for Easy Installation and Usage. Please Read this Manual completely BEFORE attempting Installation and Operation.

Warning: 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 Other Applicable Codes and Regulations before beginning the Installation Process.

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. An Eye Hook is provided Standard with each AEON™ LED Luminaire for Lifting or Suspending the Luminaire. Failure to Follow these Warnings May Lead to Severe Injury, Property Damage or even Death.

Caution: Handle the new AEON™ LED Luminaire with Care. DO NOT set the Luminaire down on the Lens. Protect Lenses when Setting Luminaire down.

Glare Shield Installation: Slide the Glare Shield over the Luminaire as shown in the illustration. Install Three M5 x 10mm Round Head Self-tapping Screws (Included) through the holes on the Glare Shield as shown. Affix the Glare Shield to the Luminaire as shown. Tighten the Screws to ensure that the Glare Shield is Secure.



Mounting the Luminaire: The first step is to attach the Luminaire to the Mounting Structure. The Mounting Structure may be a Pole, Cross Arm, an Indoor Catwalk Bracket or other Structural Component that will hold the Luminaire in place. Refer to Photometrics or Project Installation Drawings for Luminaire Installation Locations and any additional Mounting Instructions.

Caution: Before Installation, verify there are no Obstructions in the Designed Luminaire Locations and Light Paths. If any other Obstructions are present, shift the Mounting Location up to +/-2 ft. (60cm) in either direction to Install the Luminaires in the closest available Location to provide a Clear Conical Light Path from the Luminaire to a 20 ft. (6M) diameter circle around the aiming point that is Completely Free of Obstructions. All LED Arrays in each Luminaire must have Clear Line of Sight to Aiming Area. DO NOT install the Luminaire Partially Obscured.

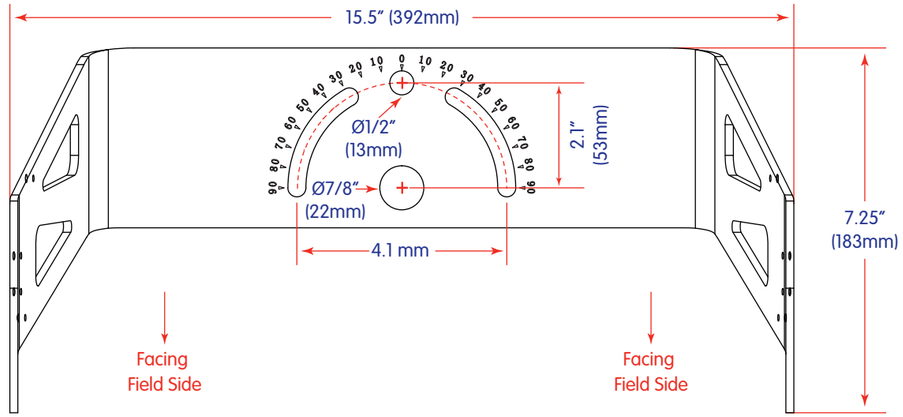
	For 7/8" (22mm) Hole		For 1/2" (13mm) Hole	
Hardware Required	Size	Quantity per Luminaire	Size	Quantity per Luminaire
Hex Bolt & Locknut	3/4" (19mm)	1	1/2" (12mm)	1
Spring Washer	3/4" (19mm) ID	1	1/2" (12mm) ID	1
Flat Washer	3/4" (19mm)	2	1/2" (12mm)	2

Important Note: Mounting Hardware must be Stainless Steel or of other 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.

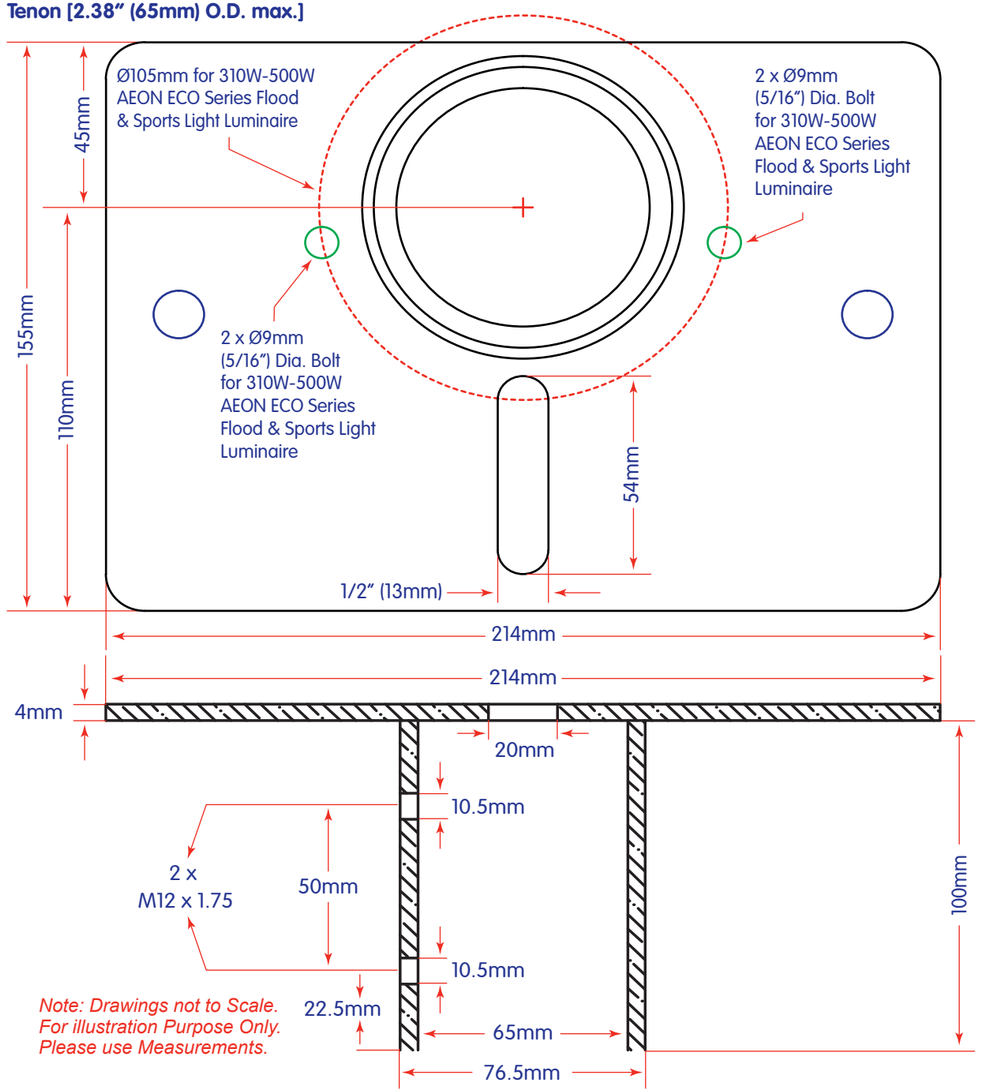
Warning: NEVER use any Power Tools on the Luminaire while the Power to the Luminaire is ON. The Vibration caused by the Power Tools will Damage the Luminaire. Failure to Follow this Warning may lead to Luminaire Damage and/or Failure and will Void All Warranties.

AEON™ ECO SERIES

Yoke Mounting Bracket



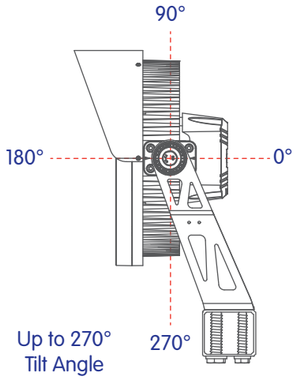
Tenon Adaptor for 2" (51mm) Pole or Tenon [2.38" (65mm) O.D. max.]



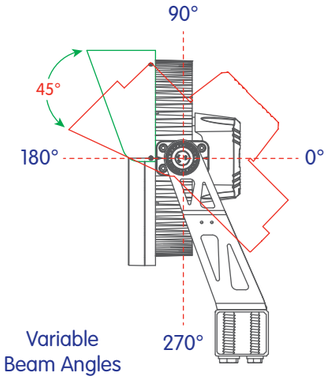
Yoke Bracket: The AEON™ LED Luminaire comes Standard with Fully-Adjustable Yoke Bracket, in 7.5° Increments: 0-90° Orient and 270° Tilt Angle. Loosen Pivot Hex Bolts and Angle Locking Set Screws on each side of the Luminaire (Do Not Remove). Move Yoke Bracket to Desired Position and Lock into place by Tightening M16 (5/8") Pivot Hex Bolts to 45 ft-lb [61 Nm], M20 (3/4") Pivot Hex Bolts to 90 ft-lb [121 Nm], and M8 (5/16") Angle Locking Set Screws to 6-7 ft-lb [8.0-10.0 Nm].

Installation of Safety Cable: When using a Safety Cable, ensure Minimum Slack in Cable after Installation. Connect Safety Cable to the Yoke Bracket of the Luminaire. Ensure it meets all the appropriate Local and Regional Codes and Regulations.

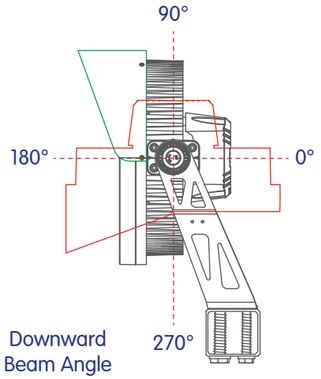
AEON Tilt and Orient Angles



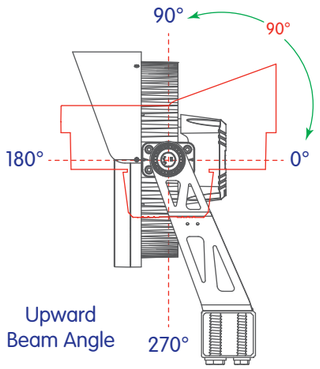
Up to 270° Tilt Angle



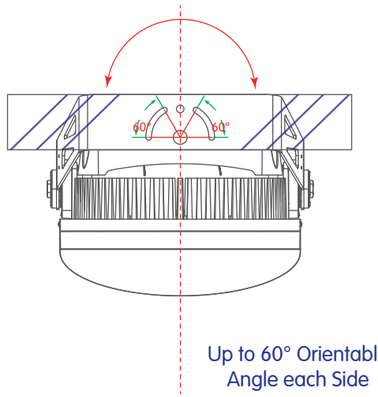
Variable Beam Angles



Downward Beam Angle



Upward Beam Angle

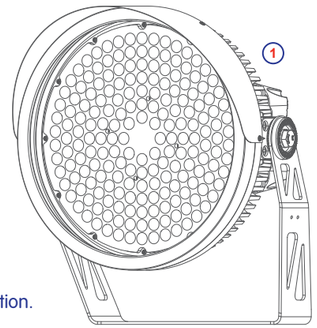


Up to 60° Orientable Angle each Side

Mounting: The AEON™ LED Luminaire can be mounted in two different ways: Standard or Inverted. Standard Mounting is when the Luminaire sits on Top of the Mounting Structure, and Inverted Mounting is when the Luminaire hangs from Underneath the Mounting Structure.

Warning: 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. A Safety Cable is provided Standard with each AEON™ LED Luminaire for Lifting or Suspending the Luminaire. Failure to Follow this Warning could result in Electrical Shock and Severe Injury, Property Damage or even Death to the Individual Installing or Servicing this Luminaire.

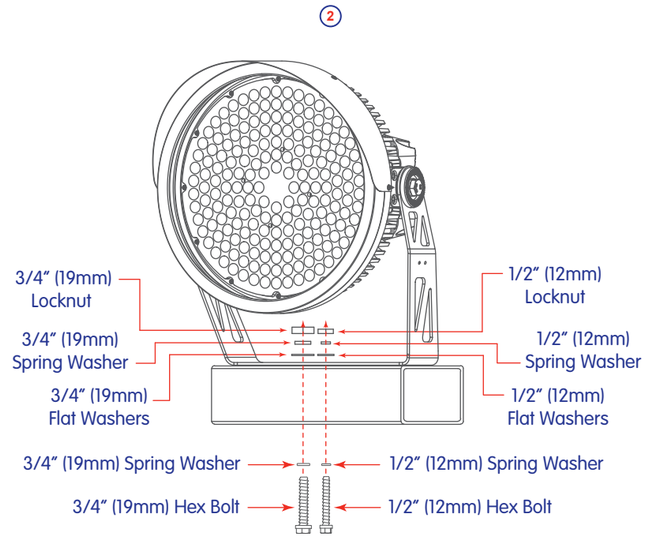
Standard Mounting

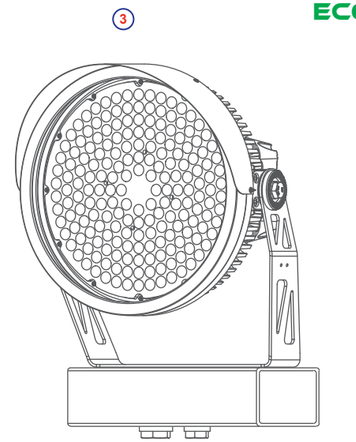


Standard Mounting: This is the most common Mounting. The Luminaire sits on Top of Mounting Structure.

1. Refer to the Photometrics or Project Installation Drawings to determine Luminaire Installation Locations and the Lens-Type. For each Luminaire Location, install a Luminaire that has the correct Lens-Type.
2. Remove 2 Knobs from the Front Side of the Driver Box and Flip it Upwards.
3. Set Luminaire in place and Install Bolt, Washers, and Nut to securely fasten the Luminaire Mounting Bracket to the Mounting Structure. Hand tighten the Bolts so that Luminaire is Secure but, do not fully Torque the Bolts until Aiming is complete.
4. Flip the Driver Box Downwards and install the 2 Knobs on the Front Side of the Driver Box. Hand tighten both the Knobs so that the Driver Box is Secure.
5. Remove the Clear Protective Film from the front of the Lenses, if present. Now the Luminaire is ready for application.

AEON™ ECO SERIES





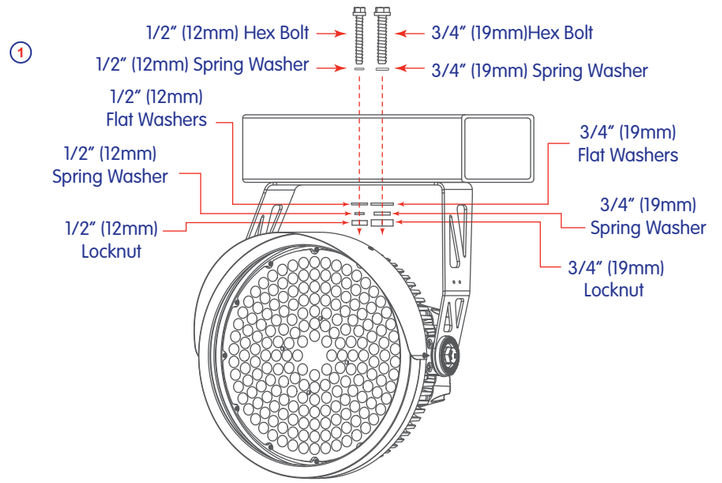
Note: Mounting Structure shown for Illustration Purposes Only.

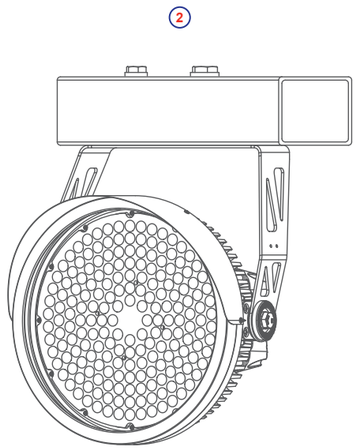
Inverted Mounting

The Luminaire hangs from underneath the Mounting Structure.

Warning: When using Inverted Mounting, Flip the Mounting Bracket so that the Luminaire stays Upright. NEVER install the Luminaire Upside Down. 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. An Eye Hook is provided Standard with each AEON™ LED Luminaire for Lifting or Suspending the Luminaire. Failure to Follow this Warning could result in Electrical Shock and Severe Injury, Property Damage or even Death to the Individual Installing or Servicing this Luminaire.

1. Refer to the Photometrics or Project Installation Drawings to determine Luminaire Installation Locations and the Lens-Type. For each Luminaire Location, install a Luminaire that has the correct Lens-Type.
2. Ensure when Installing that the Inverted Luminaire is properly Supported.
3. Set Luminaire in place and Install Bolt, Washers, and Nut to securely fasten the Luminaire Mounting Bracket to the Mounting Structure. Hand tighten the Bolts so that Luminaire is Secure but, do not fully Torque the Bolts until Aiming is complete.
4. Remove the Clear Protective Film from the front of the Lenses, if present. Now the Luminaire is ready for application.

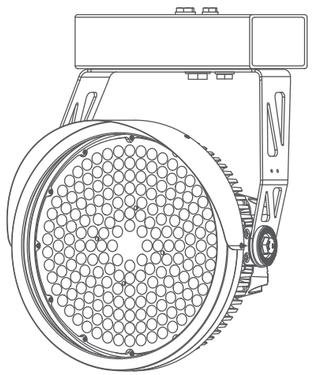


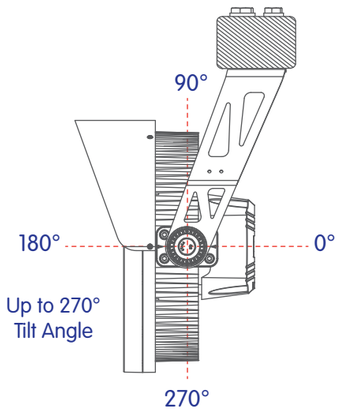


Yoke Bracket: The AEON™ LED Luminaire comes Standard with Fully-Adjustable Yoke Bracket, in 7.5° Increments: 0-90° Orient and 270° Tilt Angle. Loosen Pivot Hex Bolts and Angle Locking Set Screws on each side of the Luminaire (Do Not Remove). Move Yoke Bracket to Desired Position and Lock into place by Tightening M16 (5/8") Pivot Hex Bolts to 45 ft-lb [61 Nm], M20 (3/4") Pivot Hex Bolts to 90 ft-lb [121 Nm], and M8 (5/16") Angle Locking Set Screws to 6-7 ft-lb [8.0-10.0 Nm].

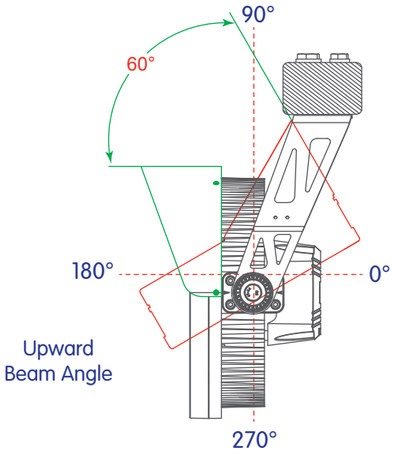
Installation of Safety Cable: When using a Safety Cable, ensure Minimum Slack in Cable after Installation. Connect Safety Cable to the Yoke Bracket of the Luminaire. Ensure it meets all the appropriate Local and Regional Codes and Regulations.

AEON Inverted Tilt Angles



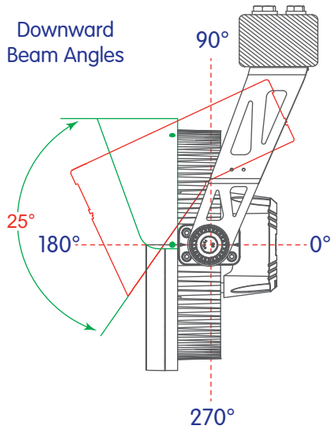


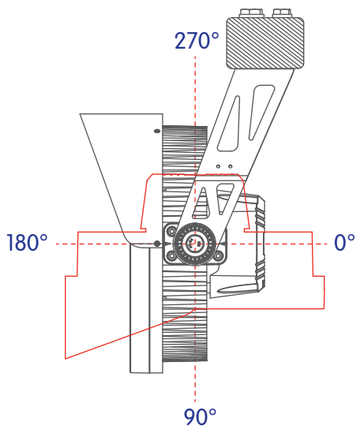
Up to 270°
Tilt Angle

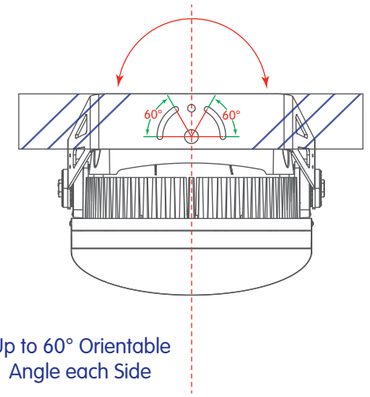


Upward
Beam Angle

Downward
Beam Angles



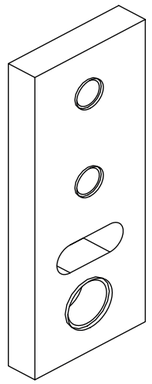


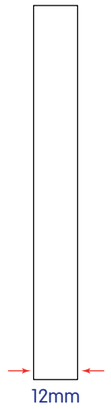


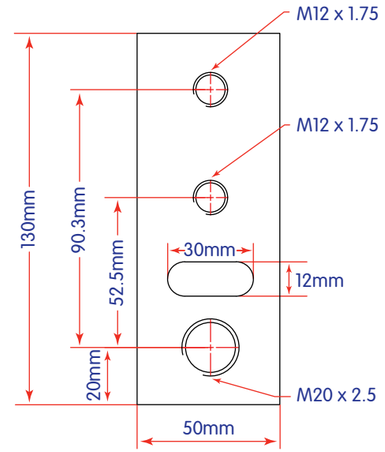
Up to 60° Orientable
Angle each Side

AEON™ ECO SERIES

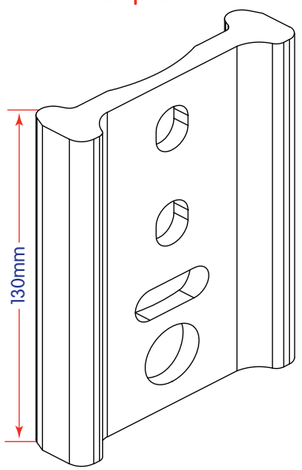
Bolster Plate

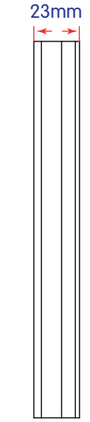


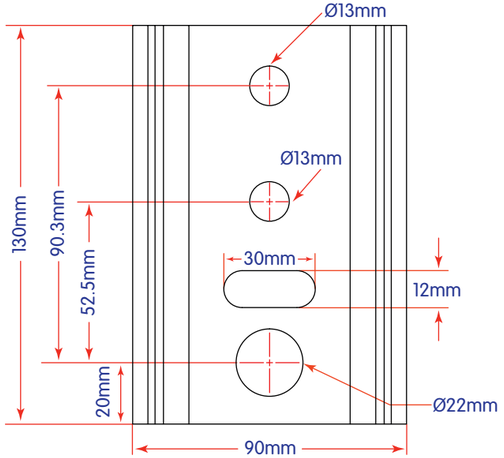




Adaptor





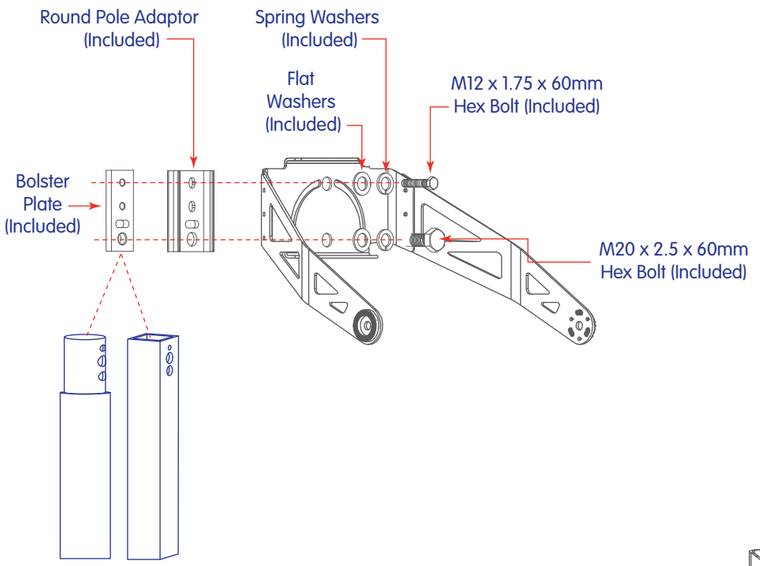


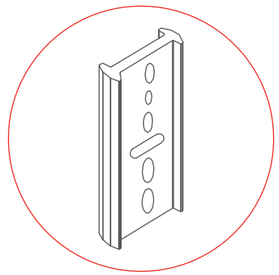
Note: Drawings not to Scale.
For illustration Purpose Only.
Please use Measurements.

AEON Universal Adaptor for Round or Square Pole Mount

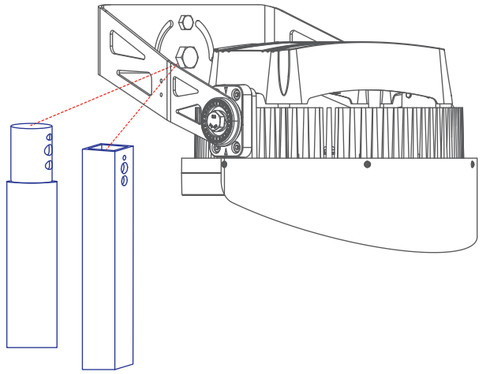
Note: Drawings not to Scale.
For illustration Purpose Only.

Please use Measurements as shown on Page 10 - Aeon Universal Round & Square Pole Adaptor





Note: Round Pole Adaptor is not required for use on Square Pole.



1. Place the Round/Square Pole Adaptor and Gasket between the Yoke Bracket and Drilled Pole as shown in the illustration.
2. Line-up the Holes of the Gasket and the Adaptor with the Holes in the Pole Drilling Pattern.
3. Feed Supply Wires from the Pole through the Bolster Plate, Gasket and the Adaptor to be connected to the Luminaire. Connect Wire Cord to AC Branch Circuit as per following. It must be in Accordance with Local and National Codes:
   a. Connect Black Wire to Line (Hot)
   b. Connect White Wire to Neutral
   c. Connect Green to Ground

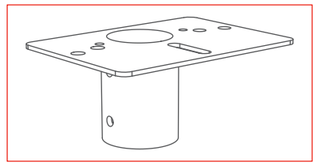
   Connect these Wires to the Supply Wires using Waterproof Wire Nuts (provided). Refer to Pages 9 to 11 for Proper Wiring Instructions
4. Place the Bolts and Washers through the Yoke Bracket, the Adaptor and Gasket to the Pole and Thread into the Bolster Plate.
5. Set Luminaire in place and install Bolt, Washers, and Nut to securely fasten the Luminaire Mounting Bracket to the Pole. Hand tighten the Bolts so that the Luminaire is Secure but, do not fully Torque the Bolts until Aiming is complete.
6. Tighten both the Bolts securely to ensure the Luminaire is well-secured.

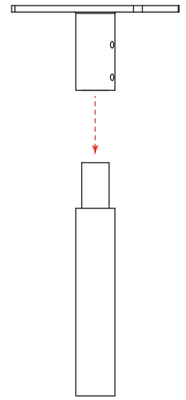
AEON™ ECO SERIES

AEON Tenon Adaptor for Pole Mount

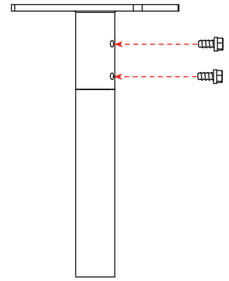
Note: Drawings not to Scale.
For illustration Purpose Only.

Please use Measurements as shown in Aeon Tenon Adaptor - Page 5

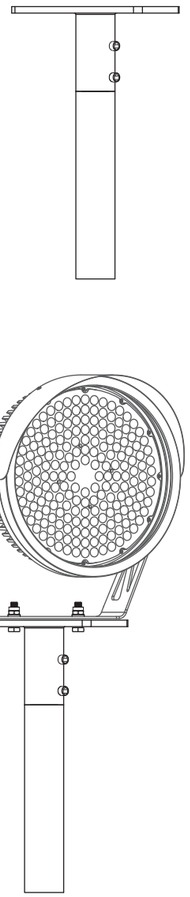




1. Place the Tenon Adaptor over the Pole as shown in the illustration.

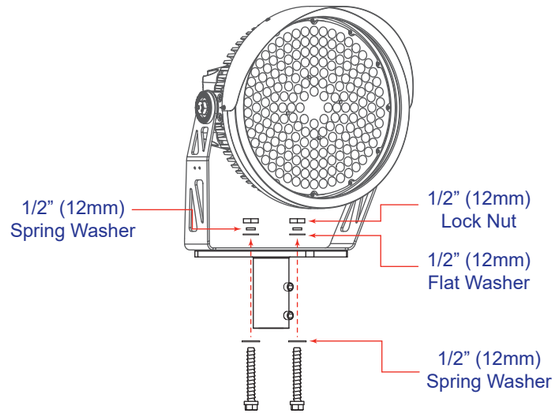


2. Securely fasten the Tenon Adaptor to the Pole

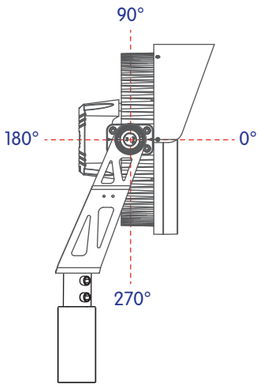


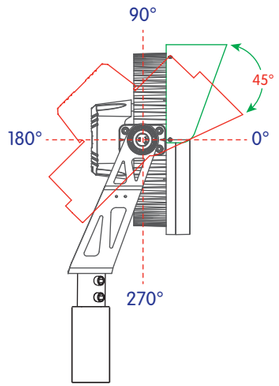
3. Line up the Holes of the Yoke Bracket with the Holes in the Tenon Adaptor Pattern.

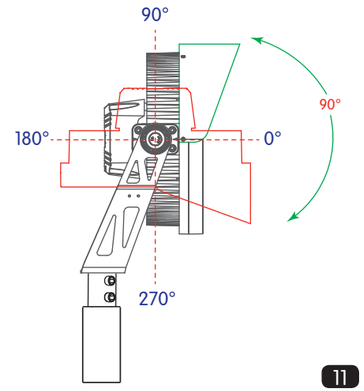
4. Feed Supply Wires from the Pole through the Tenon Adaptor to be connected to the Luminaire.



5. Place the Bolts through the Tenon Adaptor. Set Luminaire in place and Install Bolts, Washers, and Lock Nuts to securely fasten the Luminaire Mounting Bracket to the Tenon Adaptor. Hand tighten the Bolts so that Luminaire is Secure but, do not fully Torque the Bolts until Aiming is complete.







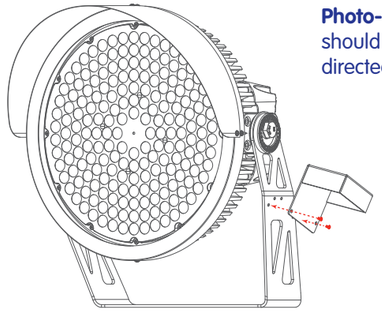
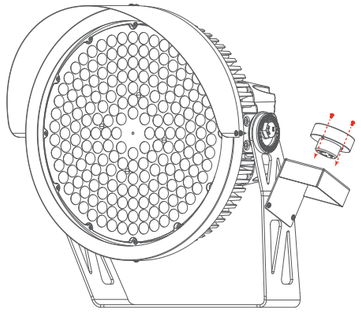
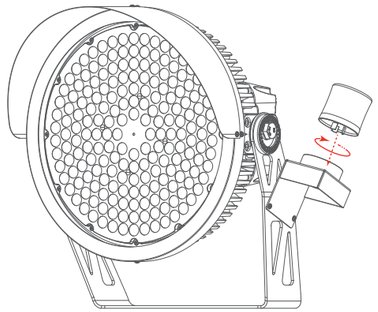


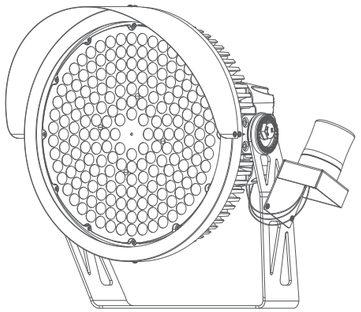
Photo-Control: When used, Photo-Control Receptacle should be Oriented so that the letter "N" with Arrow is directed toward true North. Install the Photo-Control last.

1. Install the Receptacle Kit on the Bracket of the Luminaire with M4 x 10 Screws (Included). The Receptacle should be oriented so that the letter "N" with Arrow is directed towards true North





2. Simply Plug-in the Photo Control to the Receptacle and twist Clockwise. Do not install the Photo Control so that it directly faces the mid-day Sun



Caution:

1. Position and mount the Photo-Control so that no Artificial Light will cause the Photo-Control to accidently turn-off at Night.
2. Luminaire will turn ON initially and then turn OFF within 2 minutes if the Photo-Control is tested in Daytime. For further Testing cover the Photo-Control completely with Black Tape or another Dark Material to simulate Night Conditions. If the Luminaire is tested at Night, use a Flashlight and shine the Light directly on the cell. The Luminaire should turn off in less than 2 minutes.

Wiring Diagrams

PHOTO-CONTROL WIRING DIAGRAM 3-PIN

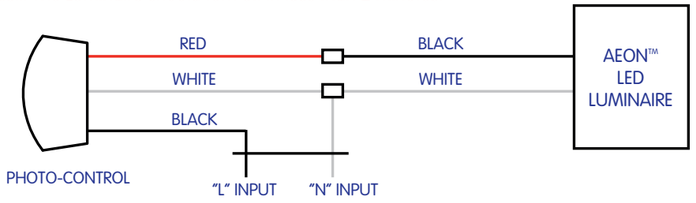


PHOTO-CONTROL WIRING DIAGRAM 5-PIN

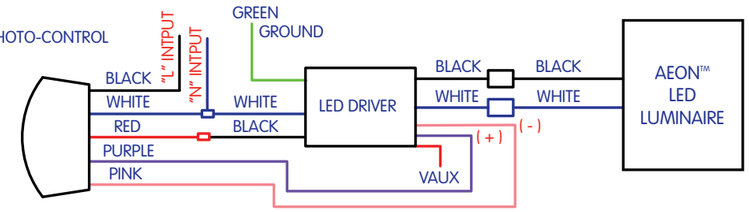
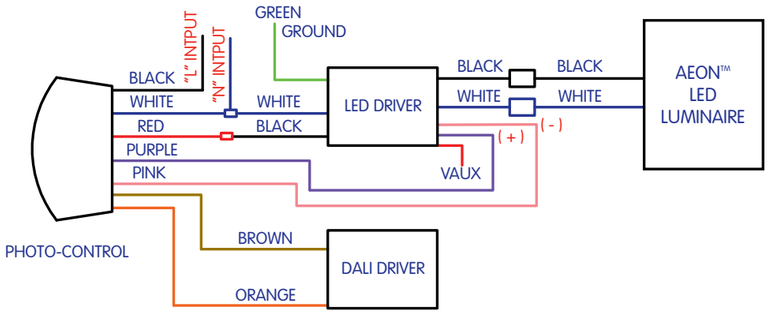


PHOTO-CONTROL WIRING DIAGRAM 7-PIN



Labelling the Luminaires (If Required)

Labeling a Luminaire can be helpful in ensuring that proper Luminaires are installed in the right locations. Additionally, since AEON™ LED Luminaires can be controlled individually or in groups, labeling a Luminaire can aid in setting up the Control Systems. For Applications where many Luminaires are Installed and the Luminaires are typically labeled to facilitate identifying each one:

1. Labels should be on White Background with Black Lettering. Ensure that the Text is large enough for easy identification from few feet.
2. Affix the Label to the Mounting Bracket in a Prominent Location, avoiding overlap on Manufacturer Label.
3. Label each Luminaire with Luminaire Number as indicated on Project Installation Drawings.

Making Electrical Connections

Wiring: Branch Power Circuits feeding AEON™ LED Luminaire shall be 120-277V or 277-480V AC Only.

Warning: NEVER connect AEON™ LED Luminaire to Nominal Voltage above 480VAC. The Voltage on the Lighting Circuits must stay within 3% of nominal at 60Hz. Voltage that is consistently too high or low shall be corrected before LED luminaires are installed. Failure to Follow these Warnings may lead to Luminaire Damage and/or Failure and will Void All Warranties.

Warning: NEVER Connect the Luminaire to an Electrical System that is not Grounded. Installing a Luminaire in an Ungrounded Electrical System could allow the Housing to become Energized in the event of an Electrical Short, resulting in the Risk of Electrical Shock for anyone who comes into contact with the Luminaire. Failure to Follow these Warnings May Lead to Severe Injury, Property Damage or even Death.

Fusing: If Individual Branch Circuit Protection is required, the Table below shows the Minimum Fuse Ratings (MFR) for each Individually Circuited Luminaire.

AEON™ Model	100-277V MFR	277-480V MFR
310W	300V, 4 Amps.	300V, 2 Amps.
500W	300V, 7 Amps.	300V, 3 Amps.

Warning: Failure to Wire the Luminaire properly as suggested above can cause Permanent Damage to the Luminaire and/or can cause Physical Harm and even Death. Installation should only be performed by a Qualified and/or a Licensed Electrician.

Wiring Connections:

Warning: Failure to Follow these Warnings May Lead to Severe Injury, Property Damage, or even Death. In order to Prevent or Create the Risk of Electrical Shock:

- The Ground Leads Must Always be Connected Before any other Leads.
- NEVER connect the Bare or Green Insulated Ground Wire to the Black (LIVE/HOT) Current-Carrying or White (NEUTRAL) Supply Wire, as this could Energize the Housing and Create the Risk of an Electrical Shock.
- DO NOT Damage or Cut the Wire Insulation during Installation.
- DO NOT Mount or Support this Luminaire in a manner that can Cut the Outer Jacket or Damage Wire Insulation. Make sure all Connections are Secure using only approved Connecting Devices.
- DO NOT Expose Wiring to Edges of Sheet Metal or other Sharp Objects.
- DO NOT Make, Alter, Relocate or Remove Wiring, Power Supply or any other Electrical Component.
- DO NOT Make or Alter any Open Holes in an Enclosure of Wiring or Electrical Components during Installation.

Power Input:

High Voltage (277-480VAC): All AEON™ LED Luminaires come with a Sheathed SOOW/SOW Style 3C Cable with 18AWG, 600V annealed stranded bare copper per ASTM B-174 with temperature range of -40°F to +221°F (-40°C to +105°C).

Low Voltage (120-277VAC): All AEON™ LED Luminaires come with a Sheathed SJOW Style 3C Cable with 18AWG, 300V annealed stranded bare copper per ASTM B-174 with a minimum temperature range of -40°F to +221°F (-40°C to +105°C).

Dimmable Cable Assembly: AWM Style 22AWG, 105°C, 300V, VW-1.

AEON™ Cable Assembly is Weather-Resistant, UV Stabilized, and certified for Indoor and Outdoor use.
Any additional Cables used to connect to the Luminaire must strictly match these Specifications.

Power Input: Connect the Luminaire Power Whip to Incoming Power Wires or the Plug. See the Table below for the Correct Color Designation:

Luminaire Power Wire	Color Designation	Luminaire Dimming Wire	Color Designation
Black	Line (Live)	Purple	(+) Anode
White	Neutral	Pink	(-) Cathode
Green	Ground	Auxiliary Source Wire	Black & White

Dimming: The AEON™ LED Luminaire is Capable of Dimming with a 3 Conductor Colored Cable. The Output Wire is standard AWM Style 22AWG, 105°C, 300V, VW-1, to connect to the Dimming Cable - Purple Connects to DIM (+) and Pink Wire Connects to DIM (-).

0-10VDC Dimming Mode: Dimming is controlled by means of a 0-10VDC Signal (to be provided by the Installer) to Control the Level of Dimming. At 10 Volts, the Output of the Unit is 100%; at 0 Volts, it will TURN-OFF. 120-277V may dim down to 10%. The DC Dimming Voltage should never exceed 15 VDC. Increasing the Voltage from 10VDC to 15VDC will not result in additional Light Output.

Note: When Power is TURNED-ON, the Luminaire defaults to 100% on unless Dimming Mode is used or a Different Control Signal is present.

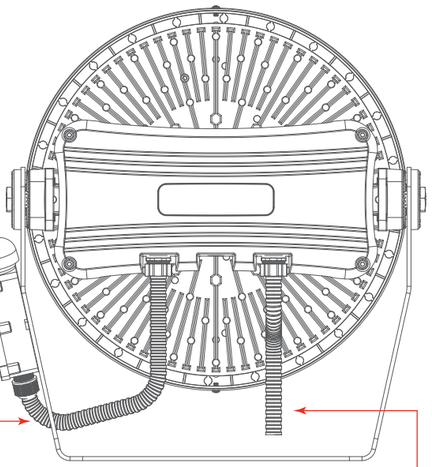
Important Notes:

- The Low Voltage Dimming Wires are connected to the Grounded Output Section of the Driver inside the Luminaire.
- Never Connect either one to the Hot or Neutral Supply Wires.
- Purple Connects to DIM (+) and Pink Wire Connects to DIM (-)
- Auxiliary Source Wire (Unattached/Open) is Black & White

Variable Voltage Control: An Analog 0-10V Active Dimmer may be connected to the Two Wires to Control the Light Output of the Luminaire. Multiple Luminaires may be connected to the same Dimmer, as long as the Maximum Current Rating of the Dimmer is not exceeded.

The Dimmer must be Capable of Sinking 0.5mA per Luminaire. Light Output will vary approximately linearly with Control Voltage, with 10V corresponding to 100% Light Output.

Wireless Lighting Controller (Optional)

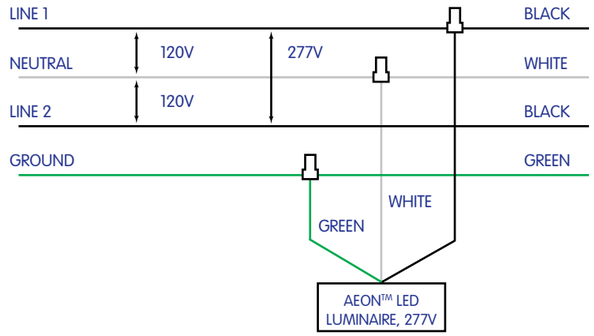


Symptom	Possible Cause	Corrective Action
No Light Output	Power is OFF	Check if Circuit Power is ON
	Bad Wire Connection	Check Input Wiring Connections
	Control Signal Set to "0 "	Verify Control Signal
Fuse Blows or Circuit Breaker Trips	Crossed Wires or a Supply Wire is Grounding Out	Check Wiring Connections
	Improperly Sized Fuse or Breaker	Refer to Minimum Fuse Ratings

Wiring Diagrams

AEON™ ECO SERIES

SINGLE PHASE, 120V & 277V - WIRING DIAGRAM



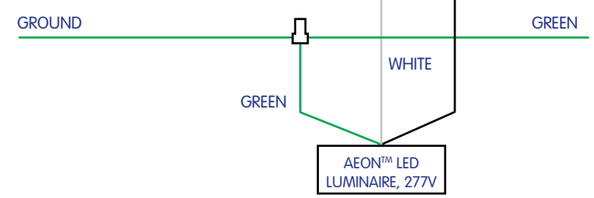
WARNING: Install this Luminaire where the Power Supply Voltage to the Luminaire does not exceed as specified on the AEON™ LED Luminaire.

Verify using Multimeter that Power Supply Wiring Voltage matches Supply Voltage by comparing it with the Power Supply Label. Improper Power Supply Voltage matching to the Luminaire can result in Physical Damage and/or Performance Degradation.

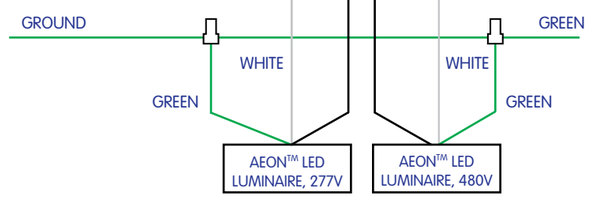
WARNING: Dangerous Voltages Exist within the Unit and all Precautions in Handling High Voltage Equipment should be Strictly Observed when replacing the Light Engine or otherwise Servicing the Luminaire. Disregarding this Warning could result in Electrical Shock and Severe Injury, Property Damage or even Death to the Individual Installing or Servicing this Luminaire.

AEON™ will not accept any Responsibility for Injury, Damage, or Loss which may occur due to Improper or Careless Handling, Incorrect Installation, Operation, or Maintenance of its Products.

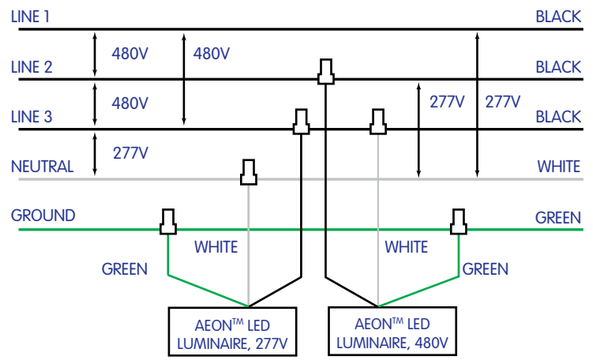
SINGLE PHASE, 240V - WIRING DIAGRAM



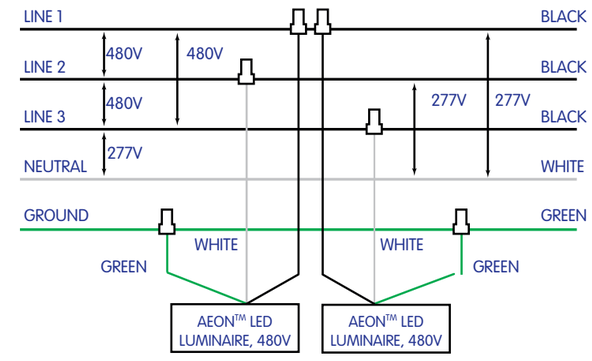
SINGLE PHASE, 277V & 480V - WIRING DIAGRAM



THREE PHASE, 277V & 480V - WIRING DIAGRAM



THREE PHASE, 480V - WIRING DIAGRAM



Wiring Diagrams

DIMMING
WIRING DIAGRAM

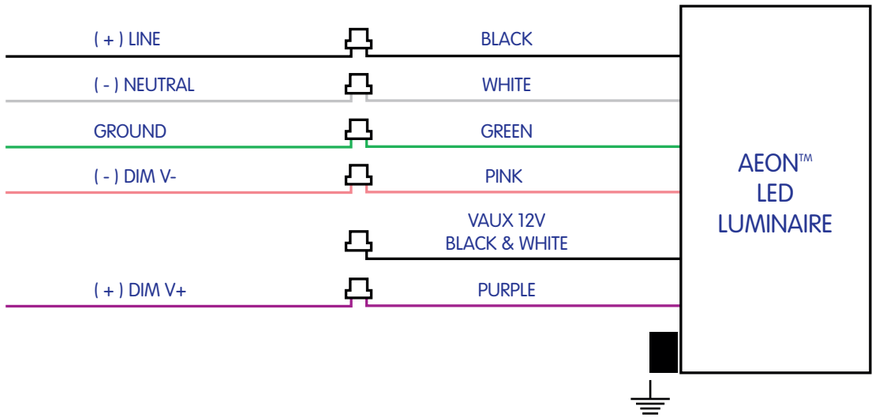


PHOTO-CONTROL
WIRING DIAGRAM
3-PIN

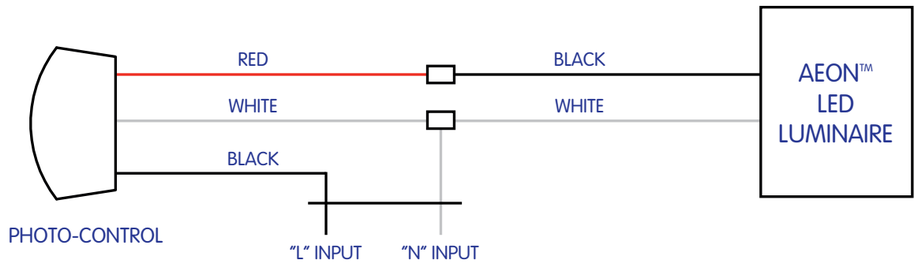


PHOTO-CONTROL
WIRING DIAGRAM
5-PIN

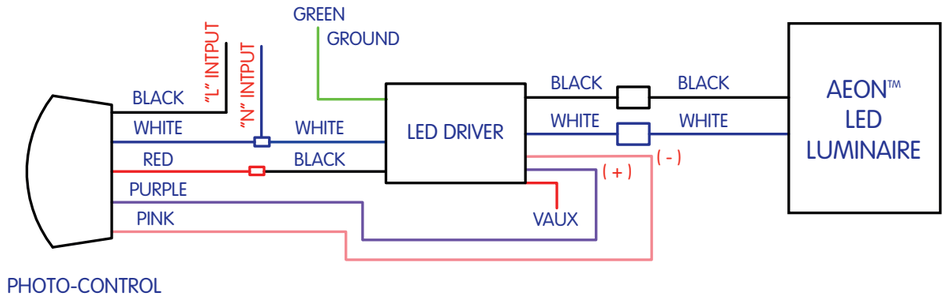
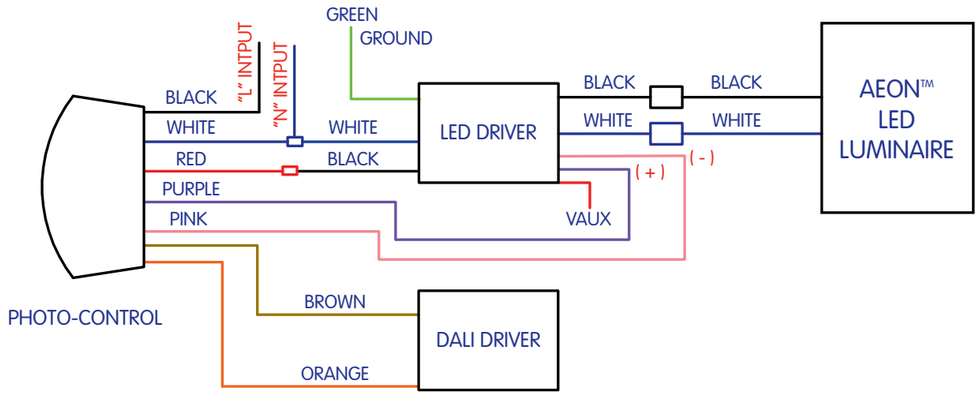


PHOTO-CONTROL
WIRING DIAGRAM
7-PIN



AEON™ ECO SERIES

Aiming: AEON™ LED Luminaire can be Mounted in any Direction, at any Angle.
Please refer to the Aeon Tilt and Orient Angles Diagrams on Page 6, 8, and 12.

Aim the Luminaires: Aiming the Luminaires is an Important and a Critical Part of the LED Lighting Solution to ensure that the Light is evenly distributed on to the Surface. For properly aiming a Sports Venue, there are Two Basic Methods used: Precision Laser Aiming by Coordinates and Orient-Tilt.

1. **Precision Laser Aiming by Coordinates:** Laser Aiming is the most Effective and Preferred Technique for aiming AEON™ LED Sports Luminaire. This method uses a Laser, mounted to the Luminaire to point the Luminaire at a Pre-determined Point on the Playing Surface using (X, Y) Coordinates. Unless otherwise noted, aiming Coordinates on Project Installation Drawings are based on the Origin (0, 0, 0) placed at Center Field, Court, or Ice. For Baseball Fields, Origin is usually the back point of Home Plate. All Dimensions from that Point are in Feet along the Playing Surface, unless otherwise noted.

2. **Orient–Tilt:** With the Orient-Tilt method, the Installer turns the Luminaire according to Pre-determined Angles. This technique is extremely helpful for Pre-aiming Luminaires mounted on a Cross-arm on the Ground before the Lighting Pole is Lifted-up and Set-in-place. However, this method is less Accurate due to the Variances in actual Final Pole and Luminaire Locations and Orientations compared to the approximated Parameters used in the Photometric Design.

a. **Orient Angle:** Refers to the Direction the Luminaire faces in the Z-Plane. 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 on AEON™ 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.

b. **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.

Minimum Tilt Angles: The side set screws will not allow the Stadium to be tilted downward at an angle of more than 45° relative to the Horizontal Axis. If the Luminaire must be tilted down at an angle greater than 45° from the Horizontal, remove the side Set Screws. If the Luminaire must be aimed down at less than 15° tilt relative to the Vertical Axis, use the Inverted Mounting Configuration.

Final Aiming: Aiming information is exported from Computer Lighting Simulation Software. Since on Site Conditions may vary from the Computer Models, Final Aiming is usually required to fully achieve Desired Lighting Specifications. Final Aiming means deviating from designed Aiming Parameters to produce the best outcome on the Playing Surface. Typically, Final Aiming only requires Slight Adjustments.

1. Verify that all Lights are Correctly Aimed according to the Photometric or Installation Drawings.
2. Measure Light Levels on the Playing Surface with a Calibrated Light Meter. Unless otherwise noted, take readings at 3 ft. (1M) above Ground, holding the Meter out at Arm's length as much as possible, thereby reducing the effect of the Shadow from your Body.

Note: Take Horizontal Readings by holding the Meter Face-Up, Parallel with the Ground. Take Vertical Foot-Candle Readings by facing the Meter at a Perpendicular Angle to the Floor toward the Vertical Main or Vertical End-Point. These vary based on Venue And Sport, but basically refer to the typical Locations for Elevated Main Cameras, at the Center Lines directly off of the side and off of the end of the Playing Surface.

Refer to Specific Project Requirements or Governing League Regulations for more information. For reference, the NCAA lighting Best Practices website has Grid Layouts by Sport: http://www.ncaa.com/news/ncaa/article/2013-11-21/ncaa-best-lighting-practices/

3. Review the Light Measurements and compare the data to Project Requirements or Photometric Drawings. If the Light Measurements do not meet Designed Levels, Final Aiming is required.

Note: There is no hard and fast rule on how to make Final Aiming Adjustments as it is essentially an art form due to the Propagation and Reflection Properties of Light. A Bright Spot is usually not caused by one Individual Luminaire but rather the additive effect from Several Luminaires aimed in the same General Vicinity.

4. Note the Areas of the Playing Surface that are the Brightest and Darkest and determine which Luminaires are aimed toward the Bright Areas and which are Aimed near the Darkest Areas.
5. Re-aim One or a Few Lights away from the Bright Areas and Closer to the Darker Areas.

WARNING: During Final Re-aiming, always Minimize the Number and Size of Aiming Modifications. Make just One or a Few Small Adjustments and then Re-check Light Levels. Making too many Significant Aiming Changes may result in Failure to Meet Specified Levels or introducing unwanted results.

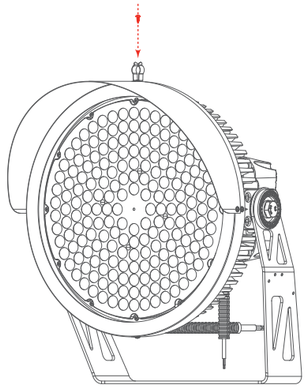
6. Re-measure Light Levels in areas where Adjustments were made and compare new results to Project Specifications.
7. Repeat Steps 5-6 as necessary to meet Light Level Requirements.

To complete the Installation, verify that all Mounting, Connections, and Aiming work is finished.

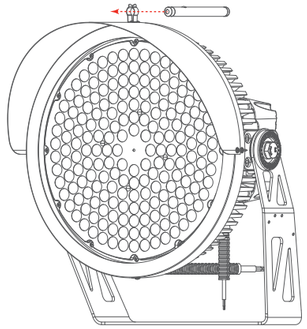
- Verify all Electrical Connections are Tight and Secured. The Installer is Responsible for the Integrity of all the Connections.
- Verify all Bolts and Screws are Tightened and Properly Torqued.
- Straighten up all Cabling. Tie down all Cables neatly. For all outdoor projects, use UV rated tie-wraps and Cable Management.

Note: When Power is turned ON, the Luminaire defaults to 100% on unless a Different Control Signal is present.

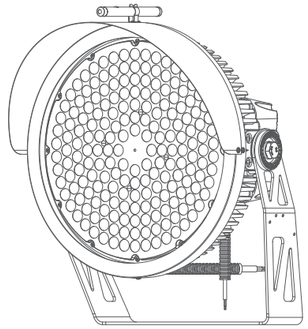
Laser Aiming



1. Install the Aiming Mount on the Center-top of the Luminaire. The Aiming Mount must be secured tight against the Fixture, as any Movement or Wiggle in the Mount will cause Aiming to be inaccurate.

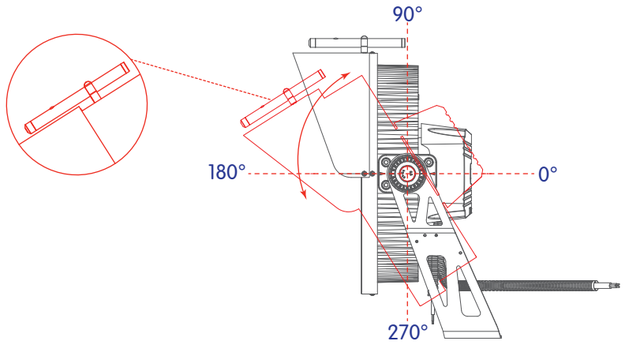


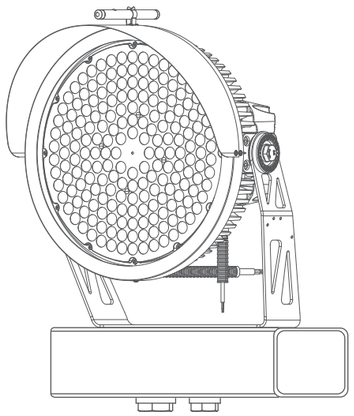
2. Push the Laser Pointer firmly in the Aiming Mount



3. Ensure the Laser Pointer is Secure in the Aiming Mount

Warning: Never point the Aiming Laser at any person or animal as it can cause Permanent Damage to Eyes. Use the Laser only for aiming Luminaire(s) as directed. Failure to heed this Warning May Lead to Severe and/or Permanent Injury.





4. Slightly loosen the Luminaire Bolts and Screws just enough to allow the Fixture to Rotate and Tilt.

5. Turn on the Laser and Aim the Luminaire by targeting the Laser Dot at the Aiming Point. If an Aiming Tube is used, look through Tube and adjust Luminaire until Aiming Point is Centered in view through the Tube. Refer to Photometrics or Project Installation Drawings for Aiming Point Coordinates. Note: After targeting the Aiming Point with the Laser, turn-off the Laser to Conserve Battery Life.

6. After Aiming is complete, Tighten all Bolts and Screws including Hex and Set Screws on Side of the Fixture and Mounting Hardware.

7. Briefly turn the Laser back on to Verify that the Luminaire Aim did not Shift during tightening the Bolts and Screws.

8. Remove the Laser Mount from the Fixture and proceed to the next Luminaire.

Caution: Turn-off Laser while not in use to Conserve Battery. Have spare Battery charged to facilitate the Aiming Process.

Maintenance: Proper care of the Luminaires will Maintain their Performance and Appearance. Follow a Regular Maintenance Schedule to retain Optimal Light Output and Thermal Performance. Remove any Dirt, Leaves and Other Foreign Debris from the Luminaire housing. Wipe the Optical Lenses with a Clean, Dry, Cloth to remove Dust and other Contaminants.

- **WARNING - Risk of Electric Shock:** Dangerous Voltages Exist within the Unit and all Precautions in Handling High Voltage Equipment should be Strictly Observed when Servicing the Luminaire. All Servicing should be performed by a Certified Licensed Electrician. Turn-off Power before performing any Electrical or Control Work. Disregarding this Warning could result in Electrical Shock and Severe Injury, Property Damage, or even Death to the Individual Installing or Servicing this Luminaire.
- To avoid Personal Injury, make certain Power is OFF before attempting any Inspections, Servicing, Maintenance or Removal.
- DO NOT make or alter any open holes in the Luminaire. Do not modify the Luminaire.
- Due to the possibility of High Temperatures, avoid Touching any External Surface of the Luminaire until the Unit Cools Down.
- To avoid Possible Damage to the Eyes, make certain that the Luminaire is OFF.
- Do not set the Luminaire on the Lens.
- Electrostatic Discharge (ESD): ESD can damage LED Luminaires. Personal Grounding Equipment must be Worn during all Servicing of the Unit. DO NOT Touch Individual Electrical Components as this can cause ESD, Shorten Lamp Life, or Alter Performance.

Notice: Risk of Product Damage: Failure to Strictly Follow all Instructions could Result in Damage to the Product and Void ALL Warranties!

Perform Visual, Mechanical, and Electrical Inspections on a Regular Basis. To keep Maximum Luminaire Efficiency AEON™ recommends checks to be made minimum on a yearly basis. Frequency of Use and Environmental Conditions, however should Determine the Frequency of Inspections. It is recommended to follow an Electrical Preventive Maintenance Program as described in NFPA 70B: Recommended Practice for Electrical Equipment.

Cleaning: Inspect the Luminaire to ensure that they are Free of any Obstructions or Contamination (i.e. Excessive Dust Build-up). Clean with a Non-abrasive Cloth, if needed. The Lenses should be Cleaned Periodically, as needed, to ensure continued Photometric Performance. Clean the Lens with a Soft, Damp, Non-Abrasive, and Lint-free Cloth. If not sufficient, Use a Mild, Non-abrasive, Non-Corrosive Detergent or an Ammonia-Free Liquid Cleaner of Neutral pH (pH approximately 6 to 8), which contains no Chlorinated or Aromatic Hydrocarbons. Do not use and Abrasive, Strong Alkaline, or Acid Cleaners as damage will certainly occur.

Immediately after Cleaning the Luminaire, Rinse with Clear, Clean, Cold Water to remove all Soap Residues and Wipe Dry with a Clean, Non-abrasive Soft Cloth. Rinse with Clean, Cold Water and Wipe Dry. There is no need to Clean the inside of the Luminaire with Soap and Water. However, it is recommended to remove Dust, Cobwebs, Nests or Active Insect Infestations, or any other things that might interfere with the Proper Functioning of the Luminaire.

Cleaning Instructions:

- It will occasionally be necessary to Clean the outside of the Lens. Frequency of Cleaning will depend on Ambient Dirt Level and Minimum Light Output which is acceptable to the user.
- Lens should be wiped with a DAMP Cloth with a Solution of Warm Water and a Mild, Non-Abrasive Household Detergent. Dry with Soft, Dry, Clean Cloth.
- Do NOT use Chemical Cleaners such as Powder Cleansers, Bleach, etc. Do not use Scouring Pads, as this will Scratch and Damage the Lens Finish.
- Do NOT Wipe with a Soiled Cloth or Wet Towel - these may leave a Residue that can Damage Finish.
- Do NOT use any abrasives such as Car Wax, Brass Cleaners or Other Polishes Or Chemicals. These may Scratch, Remove, or Damage the Protective Coating, allowing Moisture and Pollutants to come into contact with the Luminaire Body, possibly Discoloring or Pitting the Finish.

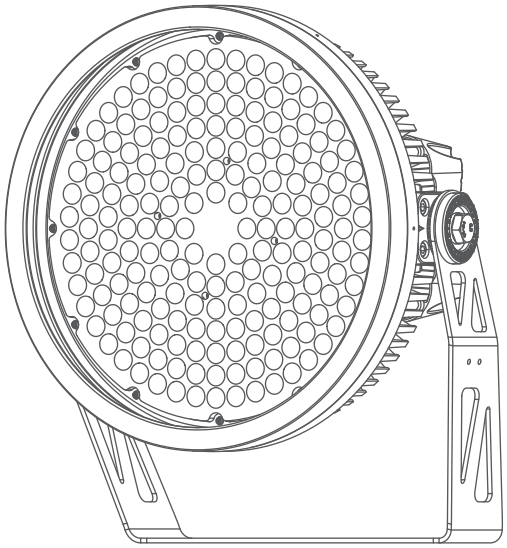
Troubleshooting

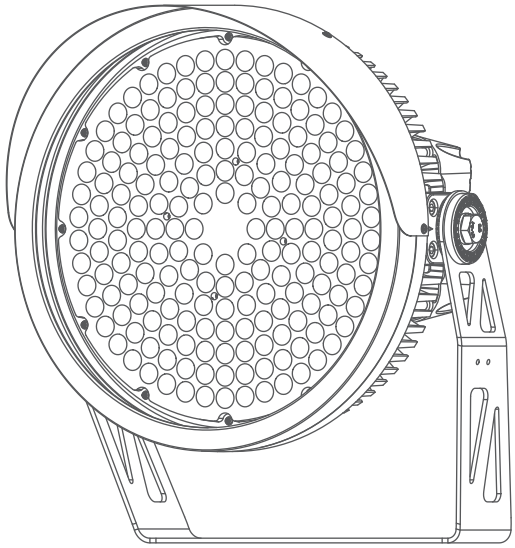
WARNING: Before performing any work on the Luminaire, shut off the power circuit, verify the power is off with a Multimeter, and wait a couple of minutes before handling the Luminaire to avoid Electrical Shock. Failure to Follow this Warning could result in Severe Injury, Property Damage or even Death to the Individual Installing or Servicing this Luminaire.

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	Verify Control Signal
Fuse Blows or Circuit Breaker Trips	Crossed Wires or a Supply Wire is Grounding Out	Check Wiring Connections
	Improperly Sized Fuse or Breaker	Refer to Minimum Fuse Ratings

AEON™
ECO SERIES

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.





98% RECYCLABLE

NO LEAD, MERCURY, HEAVY METALS OR TOXIC GASES

ANSI American National Standards Institute

MEMBER AMERICAN SPORTS BUILDERS ASSOCIATION

ASTM INTERNATIONAL

INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT.

When this product has reached the end of its life it must be treated as Waste Electrical & Electronics Equipment (WEEE). Any WEEE marked products must not be mixed with General Household Waste, but kept separate for the Treatment, Recovery and Recycling of the Materials used. Contact your Local Authority for details of Recycling Schemes in your area.

Recycle: For information on how to recycle LED electronic products, please visit www.epa.gov.

As part of the Company's Continuous Product Improvement Program, HyLite LED, LLC. reserves the right to change materials or modify the design of its product without notification. All Specifications Subject to Change without notice. All values are Design and/or Typical Values when measured under laboratory conditions. Actual Values depend upon the Ambient Temperature of the Installation Location. Please consult Factory for your Specific Requirements.

All Statements, Technical Information, and Recommendations contained herein are based on Information and Tests that HyLite believes to be Reliable. The Accuracy or Completeness thereof is not Guaranteed. In accordance with HyLite "Terms and Conditions of Sale" and since Conditions of use are Outside our Control, the Purchaser should determine the Suitability of the Product for his or her Intended Use and assumes all Risk and Liability whatsoever in Connection therewith.

The customer is Responsible for Compliance with Local and National Safety Laws, Best Practice Codes, and Applicable Standards when installing Electrical Equipment and should ensure they adhere to the same.

Changes or Modifications not Expressly Approved by the Party Responsible for Compliance could Void the User's Authority to Operate the Equipment.