



INSTRUCTIONS

UltraSpot_R FLOOD LIGHT

READ THOROUGHLY BEFORE INSTALLING. SHOULD YOU HAVE ANY QUESTIONS, DO NOT HESITATE TO CONTACT YOUR LOCAL AGENT OR CAROLINA HIGH MAST FOR CLARIFICATION.

UNPACKING

The UltraSpot_R (USR) ships preassembled in one shipping package. The package is designed to minimize risk of damage to the luminaire during shipping and handling. It is recommended that the USR is not removed from the packaging unless it is to be immediately mounted on the support structure. Each package contains an exterior label that identifies the wattage and lighting distribution. In preaiming lighting systems, each package also uniquely identifies the appropriate tower and cross arm location. **WARNING:** Removing the fixture from the packaging and setting on the ground could damage the glass or exterior finish. Care should be taken to protect the unit if it is to be removed from the packaging and not immediately bolted to the support structure.

INSTALLATION

A. MOUNTING

The flood light is provided with a heavy duty, cast angle adaptor mounted to a heavy duty steel trunion. The adaptor has clearance for a 5/8" main attachment bolt and a 1/2" aiming bolt. Raise the luminaire into position and attach the main and aiming bolts. Snug tight the main bolt to hold the luminaire in place. The luminaire shall be adjusted to the proper left-right aiming angle by rotating the luminaire on the main trunion bolt. Once the proper left-right aiming angle has been achieved, tighten the main trunion bolt to 70-80 ft*lb of torque and the aiming bolt to 50-60 ft*lb. **NOTE:** The USR is designed to be mounted with the center axis of the lighting beam parallel to below the horizon. It is not design for up-lighting applications. Refer to aiming instructions for additional details on proper aiming procedure.

B. WIRING

Make all connections in accordance with the National Electric Code and any applicable local code requirements. Verify that the supplied voltage (as marked on the luminaire packaging) matches the supply voltage to the lighting unit. **NOTE:** If the luminaire is supplied with an optional Brad Harrison style connector, skip this step.

- Remove the rear junction box cover by removing the (4) screws
- The luminaire includes a weather tight cord grip in the lower portion of the junction box. It is recommended that the luminaire be wired with a minimum 16/3 SEOWW (90C+ rating). The cord grip may need to be loosened to ensure the cable easily slides into the ballast housing.
- The drivers internal of the luminaire will accept either 120-277V or 347-480V line voltage and are prewired to the junction box. Three wires include 3-pole Wago connector for ease of wiring. Match the color code of the incoming 16/3 to the supplied wires (Black/White/Green). **WARNING:** In a L-N-G system, ensure the system neutral is connected to the incoming white wire only. G is exclusively reserved for electrical ground and B is always hot (Line).

- Once the electrical connections are made, ensure the supplied cord grip is properly tightened on power cable.
- Reattached the junction box cover by tightening the (4) screws.

AIMING PREPARATION

Prior to aiming of the flood lighting fixtures, it is critical to ensure the proper distributions are located in the appropriate location on the support structure. Distributions should be matched to the supplied aiming array illustrating the fixture array, aiming angles and specific distribution.

DEGREE AIMING

The USR is provided with a horizontal and vertical aiming indicator. These aiming indicators can be used for general aiming indication. **NOTE:** If precision aiming is required, the target aiming process should be followed. Contact CHM for detailed target aiming instructions.

In the pre-aimed configuration, both the horizontal and vertical aiming indicators with be marked with the appropriate aiming settings. Adjust the luminaire until the aiming mark aligns with the aiming bolt. If the fixture is not pre-aimed from the factory, follow the aiming steps below.

- The pole and crossarms must be braced so that they are both LEVEL (parallel) with the ground.
- Each floodlight is attached to the crossarm(s) so that the glass lens is LEVEL(parallel) with the ground.
- An inclinometer is positioned on the glass lens perpendicular to the crossarm. The down angle adjustment that is indicated in the square boxes of the fixture arrangement and aiming schedule is made. The bolts that attach the trunnion to floodlight housing are tightened.
- The reposition stop is then aligned against its stop and secured by tightening the screw.
- The bolts are then loosened and the floodlight is rotated back to its original horizontal (level) position in preparation for Left or Right adjustment. Retighten the bolts.
- The inclinometer is positioned on the glass lens parallel to the crossarm. The crossarm attachment bolts are loosened, the Left or Right angle adjustment is made, and the bolt is retightened.
- Finally, the trunnion/fixture bolts are loosened and the floodlight is rotated to its final vertical position (against the reposition stop). Make sure that the stop is not bent by rapid movement during rotation. Securely tighten all bolts and screws.

ADDITIONAL SAFETY NOTES

- LED luminaires operate at temperatures above 90C, luminaires should be allowed to cool to ambient temperature prior to handling.
- This luminaire is a high wattage, high voltage piece of equipment. There is a **RISK OF ELECTRICAL SHOCK** when

The included installation instructions are not to be considered to cover all details. General best practice and safety precautions should be taken when working with electrical equipment such as this. Should there be any uncertainty about the guidelines contained herein, Carolina High Mast or a Carolina High Mast representative should be contacted immediately for further guidance.

Document Revision 05/31/17



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working on this product. Installation, service and maintenance should be conducted by properly trained personnel only.

3. Do not fuse the incoming ground or neutral line to the luminaire; this can cause electrical shock and death.
4. Do not modify or retrofit this product without the express authorization of CHM.

CLEANING AND MAINTENANCE

1. The optical assembly of the USR is a sealed enclosure that does not need to be opened or modified for installation. The system is designed such that failure of any one driver or board can be repaired by completely removing any one module (LED optic housing and driver housing). If the optic assembly is to be opened it is recommended that the gaskets used to seal the enclosure are replaced during service. Contact CHM for new gaskets.
2. Each LED driver powers one LED circuit board (4 boards, 4 drivers per fixture). If a complete board will not illuminate, remove the incoming cable from the module. Swap the cable with another module that is illuminating properly. If the same board is not illuminating, the issue is isolated to the LED board. If the board that will not illuminate moves when the cables are swapped, the issue is related to the driver and replacement should be considered.
3. The glass utilized in the USR has an advanced, high efficiency coating. The glass can be cleaned with a typical glass cleaner (e.g. Windex) though under no circumstance should the glass be cleaned with paper towels. Utilize a clean lint free microfiber towel to clean the glass surfaces.
4. In the event of major service (LED board or driver replacement), it is suggested that the surge protective device should also be replaced as these items will erode over time from transient voltage spikes/surges.
5. The USR should be serviced with OEM specification material. Please contact CHM or your local CHM agent should you need replacement components.

USR COMPONENT LAYOUT AND CRITICAL DETAILS

