

## 1200 WATT HMI/HTI FOLLOWSPOT SPECIFICATION

June 7, 2013

### **Part 1 GENERAL**

#### **1.01 RELATED DOCUMENTS:**

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to work of this section

#### **1.01 DESCRIPTION OF WORK:**

- a. The Intent of this specification is to provide for the furnishing, testing and placing in operation, HMI Followspot. This equipment is designed to provide high quality lighting capabilities, with maximum ease of use and reliability for the wide variety of functions housed in these facilities.
- b. This Contractor shall provide all labor and materials and make all necessary arrangements, except as specifically noted herein, so that when the Contractor is finished, a fully working Followspot system will be turned over to the Owner. Any errors, omissions, or ambiguities are not to condition this requirement, but shall be brought to the attention of the Owner in their possible effect on the intent of this specification.

#### **1.02 WORK EXCLUDED:**

The following work is not included in this section:

- a. Receiving, uncrating, and placing in position of the Followspots;
- b. Electrical work, including the wiring of power receptacles to feed the Followspots.

#### **1.03 QUALITY ASSURANCE:**

- a. The equipment specified is the result of efforts to select equipment for reliability, ease of maintenance, and suitability for the Owner's purposes. Strict adherence to these specifications shall be required.
- b. Manufacturers:
  1. Provide products by the manufacturers indicated on the drawings and specifications. This apparatus is fully catalogued and described with complete technical data available from the manufacturers.
  2. Manufacturer approval shall not relieve the manufacturer from meeting the full requirements and intent of these specifications on each product specified
  3. Alternate Manufacturers or Products shall be acceptable only when they are submitted and approved at least ten days prior to the bid. Only equipment that in the opinion of the Owner equals or exceeds the features specified will be considered.
    - A. The Bidder shall provide working samples of proposed alternate equipment including lamping for any lighting fixtures, to be delivered to the premises designated, for examination by the Architects, Engineers, and such representatives as the Owner may direct. Handling shipping and delivery to, or removal from the site, of any sample required shall be at the cost of the Bidder.
    - B. The bidder shall further provide evidence of the alternate manufacturer's ability and plans to support the Followspots with parts and accessories.
  4. Proposals which fail to address specification requirements or review comments will be rejected.
  5. Equipment by a manufacturer which has not been approved prior to the bid shall not be acceptable.

**c. Warranties:**

1. The Followspots specified herein (except lamps) shall be warranted by the manufacturer to be free from defects of material or workmanship for a period of two year from the date of acceptance. During the period of this warranty, components which prove to be defective shall be repaired or replaced at no charge.
2. This contractor shall coordinate all warranty repairs and replacements in cooperation with the owner.

**1.04 OPERATION AND MAINTENANCE MANUALS:**

When the installation is complete, the owner shall be supplied with:

1. A complete set of **Operation and Maintenance Manuals**, including Safety and Maintenance information on all major units and principal components of the system.

**1.05 PRODUCT STORAGE, DELIVERY AND HANDLING:**

- a. Deliver Followspots securely wrapped in factory containers.
- b. Handle equipment and controls carefully to prevent breakage, denting and scoring of finish. Do not install damaged equipment and controls; replace and return damaged units to equipment manufacturer.

## **Part 2 PRODUCTS**

**2.01 FOLLOWSPOT**

- a. The basis of this design shall be the 1271 Starklite follow spotlight, as manufactured by Lycian Stage Lighting of Sugar Loaf, NY. Only followspots made in USA shall be acceptable. Only followspots with three differing lenses will be acceptable.
- b. Physical
  1. The unit frame and enclosure shall be constructed of formed cold rolled steel and sturdy aluminum castings, free of burrs and protected by a gray and black powder coat finish.
    - A. The lamphouse shall include venting to direct heat out of the followspot lamphouse.
    - B. Handles shall be provided to facilitate smooth operation and to lift the unit.
  2. The unit shall be mounted on a supplied, folding three-point stand with locking casters and leveling jacks unless specifically ordered without base
  3. The Power Supply shall stand separate from the followspot.
  4. Weight of the followspot head with short lens shall not exceed 75 pounds, with medium lens 81 lbs and with long lens 96 lbs.
  5. Length of head unit with color changing boomerang and short lens shall not exceed 29 1/2", with medium lens 41" and with long lens 51-1/2".
- c. Controls
  1. The Lamphouse shall, as a minimum incorporate the following:
    - A. Bulb operation elapsed hour meter
    - B. Forced-air cooling by internally wired fan
    - C. ON/OFF ignition control (pushbuttons located on body). Units with the only on/off control on the remote power supply shall be unacceptable.

- D. Lamp field focus controls to adjust the lamp's focal position relative to the reflector in three dimensions.
  - E. HMI bulb spring mount, allowing unit to be safely wheeled with bulb in place
  - F. Mounted safety switch that turns the unit off should either the hood be removed or the lamp drawer opened.
- 2. The body of the unit shall, as minimum incorporate the following:
    - A. Rear Operated Controls:
      - 1) Fader mechanism for smooth manual dimming
      - 2) Nichrome steel iris
    - B. Spot edge focus adjusting knob
  - 3. The unit shall house a six color, self-canceling boomerang
    - A. Boomerang shall be rigidly mounted to the body of the followspot  
Front mounted boomerangs shall not be acceptable. Color boomerangs that allow color frames to hang outside the main housing are not acceptable.
  - 4. The stand/yoke shall incorporate:
    - A. Horizontal Swing Control Lever
    - B. Vertical Tilt Control Lever
    - C. Height Adjustment
- d. Optical**
- 1. The unit's optical train shall consist of
    - A. 1200 watt HMI double ended lamp
    - B. Precision deep ellipse aluminum triple flatted reflector
    - C. Iris, and dowsers for beam shaping control
    - D. Six color boomerang.
    - E. A choice of three (3) available lenses, short, medium and long
  - 2. A light color temperature of 6000° Kelvin ( $\pm 200^\circ$  K.) is attainable depending on lamp choice.
- e. Electrical**
- 1. HMI lamp system input shall be 100-120 V.AC, 60 Hertz, single phase, 15 ampere maximum and fused for 20 amperes. A universal ballast (UT) shall be available for international current.
  - 2. Free standing, magnetic power supply (Lycian 927/927 UT) power supply.
  - 3. Only those lamps recommended by followspot manufacturer are acceptable.
- f. Performance**
- 1. Adjusted for flat field (approximately 70%) the unit with long lens shall produce 266 foot candles @ 80 feet with a beam diameter of 9.5'
  - 2. Adjusted for flat field (approximately 70%) the unit with medium lens shall produce 145 foot candles @ 80 feet with a beam diameter of 14.5'

3. Adjusted for flat field (approximately 70%) the unit with short lens shall produce 68 foot candles @ 80 feet with a beam diameter of 33'
4. Field soft to hard edge focus shall be changed with an adjusting knob.
- g. The following Optional accessories shall be available on and after time of purchase:
  1. "Lo-Boy" stand
  2. Hold down bolts
- h. Furnish \_\_\_\_ ( ) #1271 Starklite II followspots, complete with all necessary accessories.
- i. Furnish \_\_\_\_ ( ) long lenses
- j. Furnish \_\_\_\_ ( ) medium lenses
- k. Furnish \_\_\_\_ ( ) short lenses

### **Part 3 EXECUTION**

#### **3.01 INSTALLATION:**

- a. This Contractor must examine areas and conditions under which followspots are to be installed and notify owner in writing of conditions detrimental to proper completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.
- b. Prior to energizing the followspots, all wiring shall be checked and tested by the owner to insure the system is free from grounds, opens and shorts.

#### **3.02 SYSTEM COMMISSIONING:**

- a. After installation is complete, and before energizing the followspots, this contractor shall provide the services of a trained and authorized technician to commission the system as follows:
  1. Safely lamp each followspot
  2. Mechanically adjust the followspots to correct any misalignment caused by transportation or handling during the construction period.
  3. Trim the light output of each followspot to maximize intensity with flat field.
- b. This contractor shall provide training to instruct persons designated in the safe operation and maintenance of the followspot system.
- c. The Contractor shall further submit certificates stating installed system is operating properly and complies with manufacturer's recommendations.

**\*\*\* END OF SPECIFICATION \*\*\***