

2500 WATT HMI/MSR FOLLOWSPOT SPECIFICATION
MARCH 31, 2009

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/MSR Followspots. 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. Three (3) sets 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 1279 Super Star 2.5 follow spotlight, as manufactured by Lycian Stage Lighting of Sugar Loaf, NY.
- 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. Four handles shall be provided to facilitate smooth operation and to lift the unit.
 2. The unit shall be mounted on either a stable, folding four-point stand with locking casters and leveling jacks.
 3. The Power Supply shall stand separate from the followspot.
 4. Weight of the followspot Head and Base shall not exceed 178 pounds.
 5. Length of head unit with color changing boomerang shall not exceed 66¾ .”
- 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)
 - D. Lamp field focus controls to adjust the lamp’s focal position relative to the reflector in three dimensions without the use of tools
 - E. HMI/MSR bulb mount, allowing unit to be safely wheeled with bulb in place

- F. Safety switch mounted to the lamphouse top
- 2. The body of the unit shall, as minimum incorporate the following:
 - A. Three Control Levers on top:
 - 1) Fader mechanism for smooth manual dimming
 - 2) Horizontal chopping shutters
 - 3) Nichrome steel iris
 - B. Trombone style one handed zoom focus
 - C. 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
 - B. Front mounted boomerangs shall not be 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. 2500 watt HMI/MSR single ended lamp
 - B. Precision deep ellipse electroformed nickel reflector
 - C. Variable focus lens system utilizing Optical-quality glass
 - D. Iris, Choppers and dowser for beam shaping control
 - E. Six color boomerang.
 - F. Gobo slot
 - G. Effects slot
 - 2. The zoom focus shall increase light intensity as it decreases the spot diameter.
 - 3. The light color temperature shall be 5600° Kelvin ($\pm 200^\circ$ K.).
 - 4. Reflector shall reflect 95% of visible light and absorb 90% of infrared light as heat
- e. Electrical**
 - 1. HMI/MSR lamp system input shall be 208-240 V.AC, 50/60 Hertz, single or three phase, 20 ampere sustaining and fused for 30 amperes
 - 2. Free standing, solid-state power supply (Lycian 928) power supply.
 - 3. Only those lamps recommended by followspot manufacturer are acceptable.
- f. Performance**
 - 1. Adjusted for flat field (approximately 70%) the unit shall produce 200 foot candles @ 200 feet in Spot focus

2. The Field diameter at a 200 foot throw shall be continuously adjustable from 25.2 feet in Flood focus to 11.5 feet in Spot focus. Minimum spot w/iris the Field diameter shall be 14”.
3. 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 ____ () #1279 Super Star 2.5 Long Throw followspots, complete with all necessary accessories.

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 *****