

FOLLOWSPOT SPECIFICATION
November 4, 2005

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 Metal Halide 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.

- C. Proposals which fail to address specification requirements or review comments will be rejected.
- 4. 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 one year from the date of acceptance. During the period of this warranty equipment which proves to be defective shall be repaired or replaced at no charge.
 - 2. This contractor shall perform all warranty repairs and replacements at the jobsite, after coordinating schedules 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.
- 2. A proposal for a Preventative Maintenance Agreement to commence thirty days before the termination of the system warranty.

1.05 PRODUCT STORAGE, DELIVERY AND HANDLING:

- a. Deliver Followspots securely wrapped in factory fabricated wooden or fiberboard type containers.
- b. Handle equipment and controls carefully to prevent breakage, denting and scoring 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 Radiance follow spotlight, as manufactured by Strong Entertainment Lighting of Omaha, Nebraska.
- b. Physical
 - 1. The unit frame and enclosure shall be constructed of formed and sturdy aluminum extrusions, free of burrs and protected by a gray and black powder coat finish.
 - 2. The unit shall be mounted on a stable, folding three-point floor stand and low profile yoke.
 - A. Mounting shall incorporate the following design features:
 - 1) Unobstructed access;
 - 2) Easy height adjustments;
 - 3) Horizontal Pan and Vertical Tilt Control Levers.
 - B. In order to provide extra smooth Pan and Tilt operation, mounting shall incorporate an improved yoke sleeve in the stand, and Teflon bearings for the tilt axis bolt.
 - 3. The Power Supply shall be mounted underneath the lamp house, and shall be accessible with the removal of no more than four (4) screws.

4. The entire lens train and lamp house shall be accessible with the removal of two access panels, each secured with four (4) captive quarter turn screws.
5. Weight of Head unit shall not exceed 96 pounds.
6. Length of head unit with color changing boomerang shall not exceed 54".

c. Controls

1. The Lamphouse shall, as a minimum incorporate the following:
 - A. Very Quiet forced-air cooling by internally wired blower
 - B. ON/OFF ignition control
 - C. Lamp field focus controls and centering joystick to adjust the lamp's focal position relative to the reflector in three dimensions without the use of tools
2. The body of the unit shall, as minimum incorporate the following:
 - A. Control Levers on top:
 - 1) Optical dimmer iris mechanism for smooth manual dimming;
 - 2) Horizontal and Vertical masking shutters
Internal adjustment of the shutters shall be provided to eliminate any keystone caused by the relative position of the followspot to the stage.
 - 3) Drop-in nichrome steel Iris and Gobo holder slot
 - B. Trombone style one handed zoom focus, which maintains sharp edge throughout zoom range from flood to spot. The relationship between front and rear lenses shall be maintained with a grooved spiral cam.
 - C. Spot edge focus adjusting knob, which shall be incorporated into the Trombone handle.
3. The front of the unit shall house a six color, self-canceling boomerang with color filters
 - A. Boomerang shall be rigidly mounted to the body of the followspot
 - B. The boomerang shall include a folding door, which completely encapsulates the color frames when in storage and folds flat to the body of the followspot when in use.

d. Optical

1. The unit's optical train shall consist of
 - A. 850 watt double ended Metal-Halide lamp, with hot restrike capability.
 - B. Precision deep ellipse electroformed nickel reflector
 - C. Variable focus lens system utilizing Optical-quality glass
 - D. Iris, Choppers and dowsers for beam shaping control
 - E. Six color boomerang.
2. The zoom focus shall increase light intensity as it decreases the spot diameter.

e. Electrical

1. Lamp system input shall be 115 V.AC, 50/60 Hertz, single phase, 10 ampere operation.
2. Plug shall be NEMA 5-15P standard parallel blade, U-Ground.

3. Lamp shall 850 watt Metal halide as manufactured by Ushio.
- f.** Performance
1. Adjusted for flat field (approximately 70%) the unit shall produce a continuous range of illumination from 500,000 beam candlepower in Flood focus to 4,300,000 beam candlepower in Spot focus.
 2. The Field diameter at a 70 foot throw shall be continuously adjustable from 18.2 feet in Flood focus to 7.8 feet in Spot focus. With full iris the Field diameter in spot focus shall be 11.2”.
- g.** Furnish _____ () #7201111 Radiance 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 factory 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 *****