#### **GENERAL**

### A.) Overview

- 1.) The unit shall be an IP65-rated moving head luminaire using the 330-WattOsram X8 HRI Sirius Arc lamp and have an output of 12000 lumens in white light.
- 2.) The unit's head, yoke and enclosure housings shall be constructed of a combination of formed plastics, steel, and aluminum alloys for light weight, strength, and durability.
- 3.) The unit shall be black in color.
- 4.) The unit shall be cETLus listed and CE-marked. The unit shall conform to the following European Directives:
  - a) 2014/35/EU Safety of electrical equipment supplied at low voltage (LVD)
  - b) 2014/30/EU Electromagnetic Compatibility (EMC)
  - c) 2011/65/EU Restriction of the use of certain hazardous substances (RoHS)
  - d) 2009/125/EC EcoDesign requirements for Energy-related Products (ErP)
- 5.) The unit shall be tested to comply with IP65 protection rating.
- The unit shall conform to USITT DMX-512A (RDM), Art-Net, Claypaky WebServer protocol standards.
- 7.) The unit shall have a backlit LCD monochrome display for manual control and settings of the fixture. The unit shall have AUTOTEST functionality to read and store fixture error messages that can be displayed on the LCD display.
- 8.) The unit shall have a long life, self-charging battery that allows basic information of the luminaire to viewed on the LCD display without connecting the unit to an AC power source.
- 9.) The unit shall have a 12:1 zoom optics system adjusts the projected field angle over a range of 3° to 36°.
- 10.) The unit shall have a 140 mm diameter front lens that has a variable beam focus to soften the edges of gobos or spots and to provide gobo morphing. The unit's projected image shall remain in focus throughout the entire zoom range.
- 11.) The unit shall have dedicated control connections for:
  - a) DMX512 with input and throughput via 5-Pin DMX XLR connectors
  - b) RDM with input and throughput via 5-Pin DMX XLR connectors
  - c) DMX512 with input via an Ethernet RJ45 connector
- 12.) All control and power input connectors shall be located on the same panel of the unit's enclosure. The unit shall have resettable circuit breaker for over-current and thermal protection.

### B.) Physical

- 1.) The unit's head, yoke and enclosure housings shall be constructed of a combination of formed plastics, steel, and aluminum alloys for light weight, strength, and durability.
- 2.) The unit's head covers shall use captive screws for easy removal and access to the luminaire's gobos, colors, etc. for cleaning and removal.

- 3.) The unit shall be no more than 731 millimeters or 28.8 inches long and 456 millimeters or 18.1 inches wide at its greatest dimensions (not including accessories).
- 4.) The unit shall hang on 650 millimeter or 25,5 inch centers.
- 5.) The unit shall weigh no more than 37.5 kilograms or 82.8 pounds (not including accessories).
- 6.) The unit's enclosure shall accept two fast-lock omega clamp brackets to accept suitable hooks (or clamps, by others) for hanging and the unit shall operate in any working position. The unit shall be supplied with 2 fast-lock omega clamp brackets as standard accessories.
- 7.) The unit's enclosure shall be equipped with two (2) handles specifically designed to support the weight of the unit when being carried.
- 8.) The unit's enclosure shall have a dedicated safety cable (safety bond) anchor point other than the luminaire's handles.
- 9.) The unit shall be at least IP65 rated.

#### C.) Mechanical

- 1.) The unit shall contain two independent three-phase stepper motors to provide accurate movement of the head through 540° in the horizontal plane (pan) and 270° in the vertical plane (tilt). The pan and tilt mechanisms shall be belt-driven.
- 2.) The unit shall have independent locking mechanisms for pan and tilt to prevent movement for traveling or servicing the fixture.

### D.) Electrical

- 1.) The unit will be equipped for to accept a Neutrik powerCON TRUE1® connector for power input and shall operate between the voltages of 100VAC to 240VAC (single phase, 50/60 Hertz) and not draw more than 560VA at 230VAC at 50 Hz.
- 2.) The unit shall be supplied with a IP65-rated Neutrik powerCON TRUE1® connector.
- 3.) The unit's enclosure shall have an accessible from the input panel a circuit breaker that protects the unit from over current.
- 4.) The unit's light source shall be a 330-Watt Osram X8 HRI Sirius Arc lamp. One lamp shall be supplied with unit.

### E.) Environmental

- 1.) Maximum operating ambient temperature shall not exceed 40 degrees Celsius or 104degrees Fahrenheit.
- 2.) The unit shall comply with all RoHS requirements and be mercury free.

3.) The unit shall be able to illuminate objects 3 meters or 9.83 feet or further safely.

### F.) Operation

- 1.) The unit shall have dedicated control connections for:
  - a) DMX512 with input and throughput via 5-Pin DMX XLR connectors
  - b) RDM with input and throughput via 5-Pin DMX XLR connectors
  - c) DMX512 with input via an Ethernet RJ45 connector
  - d) All connectors shall have a tethered IP65-rated protective cap to use when the connection is not in use.
- 2.) The unit shall have thirty-one (31) channels of DMX-512A control as follows:
  - 1. Cyan Color
  - 2. Magenta Color
  - 3. Yellow Color
  - 4. Color Wheel 1
  - 5. Color Wheel 2
  - 6. Color Wheel 3
  - 7. Stopper/Strobe
  - 8. Dimmer
  - 9. Dimmer Fine
  - 10. Static Gobo Change
  - 11. Animation Disc Insertion
  - 12. Animation Disc Rotation
  - 13. Rotating Gobo Select
  - 14. Gobo Rotation
  - 15. Gobo Rotation Fine
  - 16. 4-Facet Prism Insertion
  - 17. 4-Facet Prism Rotation
  - 18. 8-Facet Prism Insertion
  - 19. 8-Facet Prism Rotation
  - 20. Frost
  - 21. Zoom
  - 22. Focus
  - 23. Focus Fine
  - 24. Beam Mode
  - 25. Pan
  - 26. Pan Fine
  - 27. Tilt
  - 28. Tilt Fine
  - 29. Function
  - 30. Reset
  - 31. Lamp Control
- 3.) The unit shall include an LCD menu system that will allow users to set fixture operating parameters and display fixture errors as follows:
  - a) Setup
    - 1. DMX Address
    - 2. Ethernet Interface

b)Option

1. Lamp DMX

- 2. Safety Blackout
- 3. Pan / Tilt
- 4. Shutter
- 5. Reflection
- 6. Display
- 7. Setting
- c) Information
  - 1. System Errors
  - 2. Fixture Errors
  - 3. Lamp Hours
  - 4. Lamp Strike
  - 5. System Version
  - 6. DMX Monitor
  - 7. Network Parameters
  - 8. UID
  - 9. Temperature

### d)Manual Control

- 1. Lamp
- 2. Reset
- 3. Channel
- e) Test
  - 1. Pan/Tilt
  - 2. Color
  - 3. Beam
  - 4. Gobo
  - 5. All
- f) Advanced (password protected)
  - 1. Upload Firmware
  - 2. Calibration
  - 3. Menu Locking
  - 4. Recover
- 4.) The unit shall include the following effects mechanisms:
  - a) One (1) rotating gobo wheel with eight (8) rotating and indexable gobos. The rotating gobos are easily interchangeable to allow customization of the unit. The unit shall be equipped with a standard set of gobos that have an image size of 12.0 mm diameter and the gobo shall not be larger than 15.9 mm in total diameter.
  - b)One (1) static gobo wheel with eighteen (18) static gobos including six (6) beam reducers with the smallest being 0.5°.
  - c) A linear soft edge frost that operates linearly from 0 to 100%.
  - d)A rotating 4-facet prism that is indexable 540° and can spin clockwise, counter-clockwise at user-controlled variable speeds.
  - e) A rotating 8-facet prism that is indexable 540° and can spin clockwise, counter-clockwise at user-controlled variable speeds.
  - f) An amination disc that can spin clockwise, counter-clockwise at user-controlled variable speeds.
  - g) Three (3) independent color wheels for color mixing and each color wheel must have five (5) dedicated color filters.

### H). Warranty

1.) The manufacturer of the luminaire shall offer a two-year limited warranty on the luminaire in its entirety.

2.) Manufacturers not offering a minimum of a two-year warranty shall not be accepted.

#### I.) Accessories

- 1.) The unit shall include the following accessories for each unit purchased:
  - a) One (1) each IP65-rated Neutrik powerCON TRUE1® power input connector.
  - b) Two (2) each fast-lock omega clamp brackets.
  - c) Product safety documentation.
- 2.) The following accessories shall be made available for each unit:
  - a) A preformed road case shell insert.

- End of Specification -