Descriptive specification for the MAC 2000 Wash

General

The luminaire shall be an automated yoke-mounted profile spotlight that employs a 1200 watt short-arc discharge lamp as the light source.

Mechanical effects

The luminaire shall provide cyan, yellow, and magenta (CMY) subtractive color mixing and continuous 0-178 mired color correction by means of dichroic glass filters.

The luminaire shall provide two color wheels. These shall each provide four removable filter positions and an open position. Each position shall be indexable.

The luminaire shall be provided with three changeable lens - a PC lens, a Fresnel lens, and a wide angle lens.

The luminaire shall provide a motorized zoom with a beam angle range of 11° to 66° (dependant on the lens that is fitted).

The luminaire shall provide full range dimming and variable speed flash effects by means of opposing mechanical shutters.

The luminaire shall provide a four-blade framing system where the blades have a tilting range of +/- 31° and the frame can rotate +/- 45°.

The luminaire shall provide a motorized iris, and variable focus and zoom. Gobo patterns shall be focusable at any distance over 2 meters (6.5 ft.).

The yoke shall pan 540° and the head shall tilt 267°.

Control

The luminaire shall respond to command signals conforming to the USITT DMX512 (1990) standard and shall have locking 3-pole and 5-pole XLR connectors for input and throughput of serial data. User-selected software settings shall be adjustable via an onboard control panel with LED display or via data cabling in conjunction with a remote control unit. At user option, the angle of rotating gobos, pan, and tilt shall be controllable with one or two control channels.

Performance

When fitted with a new HMI 1200 W/S discharge lamp, a Fresnel lens, a 50 millimeter aperture ring and projecting a/an:

- 11° wide beam, without a diffuser, the luminaire shall emit a total luminous flux of 31300 lumens at 7.6 metres.
- 15° wide beam, with a diffuser, the luminaire shall emit a total luminous flux of 21130 lumens at 7.6 metres.
- 40° wide beam, with a diffuser, the luminaire shall emit a total luminous flux of 32027 lumens at 3.8 metres.

When fitted with a new HMI 1200 W/S discharge lamp, a PC lens, a 50 millimeter aperture ring and projecting a/an:

- 12° wide beam, without a diffuser, the luminaire shall emit a total luminous flux of 33125 lumens at 7.6 metres.
- 12° wide beam, with a diffuser, the luminaire shall emit a total luminous flux of 23421 lumens at 7.6 metres.
- 34° wide beam, with a diffuser the luminaire shall emit a total luminous flux of 32550 lumens at 2.3 metres.

When fitted with a new HMI 1200 W/S discharge lamp, a wide angle lens, a 50 millimeter aperture ring, the luminaire shall projecting a:

- 66° wide beam, without a diffuser
- 12°-34° wide beam, with a diffuser

Housing

The luminaire shall be constructed of sheet steel and aluminum alloy with an electro-statically applied powder coating on exterior surfaces. The covers for the head and yoke shall be constructed of a UV-resistant fiber-reinforced composite material with integral color. The color shall be black. The housing shall provide an IP protection factor of two-zero.

Installation

The luminaire shall operate in any orientation. It shall be supplied with two brackets to which mounting clamps may be bolted. These brackets shall attach to the base with quarter-turn fasteners such that the luminaire may be installed at any increment of 45° in a plane parallel to the structure. When installed above floor level, secondary attachment shall be fastened to a reinforced attachment point in the luminaire's base.

Electrical

The luminaire shall provide an auto-ranging switch-mode power supply and shall operate on 50 - 60 hertz supplies at 100 - 130 volts, and 200 - 260 volts. It shall provide electronic ballast. It shall be fitted with a 3 meter (9.8 ft.) length of three conductor 2.5 sq. mm (13 AWG) electrical cable for connection to AC power. The luminaire shall be electrically grounded.

The luminaire shall be designed to meet CE safety standards EN 60598-1 and EN 60598-2-17, CE electromagnetic compatibility standards EN 50 081-1 and EN 50 082-1, CSA standard C22.2 No. 166, and ANSI/UL standard 1573.

Environmental

The luminaire shall be located in a dry area in which the ambient temperature does not exceed 40° C (104° F).

Physical

Size (tilt neutral): 408 x 490 x 743 mm (16.0 x 19.3 x 29.3 in.).

Weight: Approximately 34 kg (74.8 lbs).