

Descriptive specification for the MAC 2000

Performance

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 three wheels for gobos and other effects. The first wheel shall provide five rotating gobo positions and an open position. Each position shall be indexable and shall accept theatrical size-E gobos up to 7 mm (1/4 in.) thick. The holders for rotating effects shall be spring-mounted to facilitate removal. The second wheel shall provide vertical, horizontal, or angled gobo animation effects, and an open position. This wheel shall be held in place magnetically for easy removal. The third wheel shall provide a wide-angle converter lens, a non-rotating 9-facet prism, a variable frost filter, and an open position.

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. The luminaire shall provide a zoom providing a beam angle range of 10° to 28°. 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, the luminaire shall emit a total luminous flux of 23000 lumens.

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 39.5 kg (87 lbs).