

Descriptive specification for the MAC 2000 Profile

General

The luminaire shall be an automated yoke-mounted profile spotlight with magnetic ballast 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 four overlapping wheels for the insertion of color filters, gobos, and other effects. The first wheel shall provide seven non-rotating positions and an open position. The positions shall be filled with four dichroic color filters and three glass gobos that are held in place with spring clips for easy removal. The second and third wheels each shall provide five rotating 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 fourth wheel shall provide a rotating 3-facet prism, a rotating beam shaper, a variable frost filter, and an open position. The holders for rotating effects on all wheels shall be spring-mounted to facilitate removal.

The luminaire shall provide full range dimming and variable speed flash effects by means of opposing mechanical shutters. It shall provide an iris that closes to 15 percent of its full-open diameter.

The luminaire shall provide variable focus and zoom. Gobo patterns shall be focusable at any distance over 2 meters (6.5 ft.) The focused beam angle of a 30mm (1.18 in.) diameter image placed on the second wheel shall be continuously variable from 10° to 28° plus/minus 0.5°.

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 and projecting a 13° wide beam, the luminaire shall emit a total luminous flux of 16000 lumens.

Housing

The luminaire shall be constructed of sheet steel and aluminum alloy with an electrostatically 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 have an automatically sensing, and automatically ranging, switch-mode power supply. The luminaire shall have a magnetic ballast that is able to operate on 50-60 Hz supplies at 208 - 250 volts, or an electronic ballast that is able to operate on 50-60 Hz supplies at 100 - 250 volts. 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; with magnetic ballast - 45 kg (99 lbs), with electronic ballast - 38 kg (84 lbs).