SHOWLINE SL BAR 720 ZT LUMINAIRE SPECIFICATIONS.

GENERAL.

A.) Overview.

1.) The luminaire shall be a color mixing luminaire employing six (12) red, green, blue, and white LED engines. The engine shall be capable of providing color matched presets as well as millions of permutations of color.

2.) The luminaire shall conform to UL 1573 stage and studio use as well as UL 8750 LED standards and tested via ETL to conform to the aforementioned UL specifications, luminaire shall hold ETL, cETL, CE and RCM markings. .

3.) The luminaire shall conform to USITT DMX-512A protocol standards.

4.) The luminaire shall employ six (12) LED light source engines that will not emit light in the ultra-violet (wavelengths less than 400nm for UV-A,B, or C) or the Infrared spectrum (wavelengths of more than 775 nm). Units that emit light within this spectrum shall not be accepted.

5.) The luminaire shall have an integrated control system that provides local controls offering access to set up parameters, preset colors, stored custom presets and chases, and status reporting.

6.) The luminaire shall be a motorized linear wash with a variable motorized five (5) to thirty-eight (38) degree homogenized output. \

7.) The luminaire shall have an output of up to 5000 lumens (RGBW)

8.) The luminaire shall have control inputs for:

    a. DMX512 with input/output connectivity via a 5 Pin DMX connector

    b. RDM with input/output connectivity via a 5 Pin DMX connector

    c. DMX512 with input/output connectivity over Ethernet via a RJ45 connector

9.) All LED luminaires shall be provided by a single manufacturer to ensure over all compatibility.

B.) Physical

1.) The construction of the unit shall be sheet metal with molded engineering grade plastic in a matt black finish.

2.) The linear wash luminaire shall be of compact dimensions, not exceeding seven-hundred and eighty (780) mm in length, three hundred and fifty-four (354) mm in height and one hundred and twenty-five (125) mm in width.

3.) The luminaire shall weigh no more than nineteen (19) kgs.

4.) The luminaire enclosure housing shall be constructed of steel with a plastic outer lens for lightweight strength and durability.

5.) The luminaire shall provide mounting capabilities from a pair of quick connect brackets to which approved mounting devices can be attached. It shall be possible to remove the quick connect brackets without the use of tools. The luminaire shall have four feet constructed from rubber for floor mounting.

6.) Safety cable attachment points shall be located on both ends of the luminaire.

E.) Mechanical Data.

1.) Variable fans shall be used to provide forced-air cooling for internal components. In addition, the fans shall be capable of being disabled where the luminaire shall regulate intensity without utilizing the fans.

2.) A full color LCD menu system shall provide essential system information and operational controls. The LCD display shall automatically orient the display according to the orientation of the luminaire, thus ensuring the menu is readable in various configurations.

3.) The finish shall be high temperature stoved black paint on the metal components.

4.) The luminaire shall be supplied with a limited two-year warranty when used in normal applications.

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6.) The luminaire shall have a tilt system comprising a pair of two phase stepper motors. The luminaire shall have an indexable tilt range of two hundred and twenty (220) degrees, and a 0.014 degree resolution per step.

7.) It shall be possible to rotate the luminaire continuously clockwise or anticlockwise on the tilt axis.

8.) The luminaire shall have a motorized focus system .The beam angle range shall be from five (5) to thirty-eight (38) degrees.

C.) Electrical.

1.) Supply Voltage shall be 100 to 240V, 50/60Hz. (+/- 10% auto-ranging)

2.) The luminaire current draw shall not exceed four hundred and twenty (420) watts with all RGBW engines at full output and shall not exceed four hundred and twenty (420) watts in any of the preset color settings; luminaires that do not meet these criteria shall not be accepted.

3.) The light engine source shall consist of six (6) RGBW LED engines. It shall be possible to control the RGBW LED engines in a single group, or in nineteen separate zones.

4.) The luminaire shall be ETL and cETL listed, CE and RCM marked.

D.) Environmental.

1.) Maximum operating ambient temperature shall not exceed forty (40) degrees Celsius.

2.) A variable speed cooling system shall be employed to maintain the optimal operating temperature of the luminaire.

3.) Luminaires shall be low maintenance and environmentally friendly, all units shall be mercury free.

E.) Operation.

1.) The luminaire shall have control inputs for:

   a. DMX512 with input/output via a DMX 5 Pin Male and Female connector

   b. RDM with input/output via a DMX 5 Pin Male and Female connector

   c. DMX512 with input/output connectivity over Ethernet via a RJ45 connector

   Luminaires utilizing proprietary only controls shall not be accepted.

2.) DMX512 control will be via Color mode, RGBW 8-Bit or RGBW 16-Bit mode. Each control type can be further broken into LED groupings of one (1) or six (6) LED engines. Control parameters for each DMX512 mode shall be as follows (1 group mode):

   a. RGBW 8-Bit Mode (14 Channel)
      a. Tilt High
      b. Tilt Low
      c. Master Intensity
      d. Color Presets
      e. Strobe
      f. Duration
      g. Zoom
      h. Focus timing
      i. Timing
      j. Control
      k. Red
      l. Green
      m. Blue
      n. White

   b. RGBW 16-Bit Mode (21 Channel)
      a. Tilt High
      b. Tilt Low
      c. Intensity – High

        d. Intensity - Low
        e. Color Presets
        f. Strobe
        g. Duration
        h. Zoom
        i. Focus Timing
        j. Intensity Timing
        k. Color Timing
        l. Zoom timing
        m. Control
        n. Red – High
        o. Red - Low
        p. Green – High
        q. Green - Low
        r. Blue – High
        s. Blue – High
        t. White - High
        u. White – Low

c. Color Mode (8 Channel)
    a. Tilt High
    b. Strobe
    c. Zoom
    d. Control
    e. Red
    f. Green
    g. Blue
    h. White

d. Luminaire addressing shall be setup in three different methods:

    i. Instant set up - from the control display on the luminaire utilize the shortcut key and navigation arrows for quick DMX 512 addressing.
    ii. From the control menu – under Settings/DMX– set up the DMX address using the navigation arrows to set DMX 512 mode, LED grouping, and address.
    iii. RDM – using any RDM controller, the DMX address shall be assignable via standard RDM commands.

3.) The luminaire shall include an onboard LCD display and controls of the following:

a. Menu settings:
    i. Presets (standard and user defined)
    ii. Color Filters
    iii. Effects (Chases – preloaded and user defined)
    iv. Strobe / Timing
    v. Settings (configuration options)
    vi. Fixture Lockout (to prevent changes)
    vii. Password Setting
    viii. Current Fixture Operational Status

4.) Security settings shall be employed on a four (4) level access. Each level shall allow access to additional features and settings. Configuration settings, power up presets, hour reset, and password settings may be set under full access control. Security settings shall follow a four level access and noted as the following:

       a.) Level 0 System is unlocked
       b.) Level 1 Editing and saving presets and settings are locked
       c.) Level 2 Settings menu is locked
       d.) Level 3 All settings available are locked

Luminaires not utilizing this type of technology or any security settings shall not be accepted.

5.) Access to on board presets shall be from the control panel of the luminaire and DMX. Each user definable preset shall store RGBW and intensity settings for each of the thirty-one (31) presets. All or discrete LED pixel pairs shall be selectable for editing. Presets shall be storable in the fixture firmware.

6.) Access to eighteen (18) on board chases shall be from the control panel of the luminaire and DMX. Each chase shall playback RGBW and intensity settings for each step of the eighteen (18) presets. All or discrete LED pixels shall be selectable for editing. Ten (10) built-in and eight (8) user adjustable presets shall be storable in the fixture firmware.

    a. A rainbow chase editor shall allow quick creation of color chases across the pixel groupings. A graphical interface shall display a representation of the colors used on each pixel pair of a chase.

7.) The luminaire shall provide temperature monitoring technology. This technology employs provides the operating temperature for the luminaire as well as high and low records.

    a. The current and past temperatures shall be readable in the menu system under Status.

    b. The luminaire shall be capable of having its fans disabled via the menu system or DMX where the unit shall regulate luminaire intensity in relation to temperature without utilizing the fans.

Luminaires not utilizing temperature monitoring technology and luminaire status will not be accepted.

8.) The unit shall include a color calibration system, ensuring that each pixel can replicate colors within a pre-defined color space.

    a. This color space shall match all Showline products and shall also include pre-defined preset colors.

    b. The color calibration shall be set at the factory and shall be capable of being enabled or disabled via the menu, DMX, and RDM.

Luminaires not utilizing color calibration technology will not be accepted.

9.) The luminaire shall include six (6) RGBW LED engines for full-range color mixing and that provides full field dimming - allowing for both smooth timed fades and fast blackouts. The LED engines shall operate in various groupings allowing up to six (6) individually controlled pairs of LED engines. The LED engines shall operate as a strobe system capable of various strobe effects from both rate and duration control channels.

    a. Osram OSLON LEDs used in the luminaire shall be high brightness and proven quality from established and reputable LED manufacturers.

    b. Osram OSLON LEDs emitters should be rated for nominal 50,000-hour LED life to 70% intensity.

    c. All LED fixtures (100% of each lot) shall undergo a minimum eight-hour burn-in test during manufacturing.

F). DIMMING.

1.) The Luminaire, in 16-bit mode, shall use 16-bit nonlinear scaling techniques for high-resolution dimming.

    a. Dimming curves shall be selectable via the luminaire menu, DMX and RDM for various methods of smooth dimming over long timed fades.

    b. The luminaire shall be digitally driven using high-speed pulse width modulations (PWM) in concert with power factor control (PFC) to ensure a smooth flicker free dim curve from 100 to 0 % and shall be imperceptible to video cameras and video related devices.

END OF SPECIFICATION.