

# Specifications – Claypaky Axcor Spot 300 Luminaire

## GENERAL

### A.) Overview

- 1.) The unit shall be a LED-sourced moving head spot luminaire using a 180-Watt white LED engine with a CRI of 70 or higher, an output of 7.000 lumens in white light, and a native color temperature of 7000K.
- 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 conform to USITT DMX-512A (RDM), Art-Net, Claypaky WebServer protocol standards.
- 6.) 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.
- 7.) 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.
- 8.) The unit shall have a 5:1 zoom optics system adjusts the projected field angle over a range of 8° to 40°.
- 9.) The unit's optics shall have 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.
- 10.) 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
- 11.) All control and power input connectors shall be located on the same panel of the unit's enclosure. The unit shall have a user-replaceable 3.15 Amp fuse for over-current 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.

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- 3.) The unit shall be no more than 553 millimeters or 21.8 inches long and 350 millimeters or 13.8 inches wide at its greatest dimensions (not including accessories).
- 4.) The unit shall hang on 550 millimeter or 21,6 inch centers.
- 5.) The unit shall weigh no more than 20.2 kilograms or 44.53 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 have a label (on the same side of the hanging points) stating, "Front" to indicate the direction of hang for the unit.
- 8.) The unit's enclosure shall be equipped with two (2) handles specifically designed to support the weight of the unit when being carried.
- 9.) The unit's enclosure shall have a dedicated safety cable (safety bond) anchor point other than the luminaire's handles.
- 10.) The unit shall be at least IP20 rated.

## *C.) Mechanical*

- 1.) The unit shall have variable speed cooling fans. The user shall be able to select the fan cooling modes of standard (STD), automatic (AUTO), or silent (SLN). The modes can be set via the user at the LCD menu system or via DMX control.
- 2.) 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.
- 3.) The unit shall have a mechanical iris that provides continuous beam size control for rapid and smooth, timed beam angle changes or random effects.
- 4.) 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® connector for power input and shall operate between the voltages of 120VAC to 240VAC (single phase, 50/60 Hertz) and not draw more than 340VA at 230VAC at 50 Hz.
- 2.) The unit shall be supplied with a 3-meter AC input cable with a Neutrik powerCON® connector on one end and the other end prepped by the supplier to accept an approved and suitable connector (by others) as required to connect to power source.
- 3.) The unit's enclosure shall have an accessible from the input panel a user-replaceable fuse that protects the unit from over current.
- 4.) The unit's light source shall be a single, 180-Watt LED module that produces white light. The user can control the LED engine's refresh frequency rate from 600Hz to 25000Hz.

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## *E.) Environmental*

- 1.) Maximum operating ambient temperature shall not exceed 40 degrees Celsius or 104 degrees Fahrenheit.
- 2.) The unit shall have a variable speed cooling system to maintain the optimal operating temperature of the luminaire. The user shall be able to select the fan cooling modes of standard (STD), automatic (AUTO), or silent (SLN). The modes can be set via the user at the LCD menu system or via DMX control.
- 3.) The unit shall comply with all RoHS requirements and be mercury free.
- 4.) 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
- 2.) The unit shall have twenty-three (23) channels of DMX-512A control as follows:
  1. Cyan Color
  2. Magenta Color
  3. Yellow Color
  4. Color Wheel
  5. Strobe
  6. Dimmer
  7. Dimmer Fine
  8. Iris
  9. Static Gobo Wheel Change
  10. Rotating Gobo Wheel Selection
  11. Rotating Gobo Wheel Gobo Rotation / Indexing
  12. Rotating Gobo Wheel Gobo Rotation / Indexing Fine
  13. Prism Insertion
  14. Prism Rotation
  15. Frost
  16. Focus
  17. Zoom
  18. Pan
  19. Pan Fine
  20. Tilt
  21. Tilt Fine
  22. Reset
  23. Function
- 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

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2. Ethernet Interface
  - b) Option
    1. Pan / Tilt
    2. Color
    3. CMY Speed
    4. Dimmer Curve
    5. Display
    6. Fan Mode
    7. Power Mode
    8. Setting
  - c) Information
    1. System Errors
    2. Fixture Hours
    3. LED Hours
    4. System Version
    5. DMX Monitor
    6. Fans Monitor
    7. Network Parameters
    8. UID
  - d) Manual Control
    1. Reset
    2. 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 seven (7) rotating and indexable gobos on each wheel.  
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 18 mm diameter and the gobo shall not be larger than 22.9 mm in total diameter.
  - b) One (1) static gobo wheel with ten (10) fixed gobos.
  - c) A mechanical iris provides continuous beam size control for rapid and smooth timed beam angle changes or random effects.
  - d) An electronic 16-bit dimmer that provides full field dimming and has four (4) user-selectable dimming curves. The unit's dimmer must allow for smooth timed fades and fast blackouts.
  - e) An electronic strobe that operates in a linear fashion from 1 to 25 flashes per second or 3 levels of random effects.
  - f) One (1) fixed color wheel with seven (7) color filters (including one CTO filter).
  - g) One (1) frost filter.
  - h) A rotating 4-facet prism that is indexable 540° and can spin clockwise, counter-clockwise at user-controlled variable speeds.
  - i) A dedicated CYM (cyan/yellow/magenta) color mixing system.

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## *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 3-meter AC input cable that includes a Neutrik powerCON® power input connector and the other end prepped by the supplier to accept an approved and suitable connector (by others) as required to connect to power source.
  - 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 -**