

## 1.01 WHITE LED FRESNEL LUMINAIRE

### A. General

1. The fixture shall be an Altman Pegasus6 as manufactured by Altman Stage Lighting, or approved equal. Fixtures that do not meet the following performance criteria in this specification will not be acceptable.
2. The fixture shall be an LED based variable zoom wash type luminaire with a true Fresnel type lens.
3. The fixture shall be capable of control via DMX or phase cut voltage dimming.
4. Unit shall be IP20 rated for indoor use.
5. Push button controls and switches shall be located on the rear of the fixture for ease of control.
6. The fixture shall be ETL, cETL and CE LISTED, and shall be so labeled when delivered to site. The fixture shall be ETL LISTED under Portable Luminaires (UL Standard 1573) and Surface Mount Luminaires (UL Standard 1598).
7. Ambient operating temperature of 32°F to 104°F (0°C to 40°C).
8. Power supply, cooling and electronics shall be included inside each unit.
9. Normal operation of optical and control functions of the fixture shall not require tools.

### B. Physical

1. The fixture shall be constructed primarily of sheet steel.
2. Finish shall be Epoxy Sandtex black, electrostatic application. Custom colors based on the RAL color system shall be available.
3. Fixture shall not weigh more than 11.5 lbs. (5.22kgs.) with hanging clamp and yoke included.
4. Fixture shall be supplied with:
  - a. Steel yoke constructed from rigid flat steel and with two mounting positions and indexed tilt angle markings.
  - b. Cast iron C-clamp (Altman #510) suitable for use on up to 2" O.D. pipe. Clamp shall incorporate a 360-degree rotational "Safety Stud" with locking bolt.
  - c. 18 inch safety cable.
  - d. Color frame.
  - e. 5 foot power cable with powerCON™ socket outlets and the following options for plug type:
    - 1) powerCON™.
    - 2) 2 pin + ground Stage Pin Male.
    - 3) NEMA L5-20P Twist Lock Male.
    - 4) Bare end cable.

### C. Electrical

1. The fixture shall be equipped with 100V to 240V 50/60 Hz universal internal power supply.
2. 2 qty. selector switches shall be located on the rear of the unit:
  - a. Selector switch 1 will set the unit to either DMX or Voltage dimming control.
  - b. Selector switch 2 will set the unit to 120 or 230 Volt Dimming Curve. This Selector switch is responsible for setting the upper dimming curve thresholds.
3. Power input and through shall be via lockable and separately keyed powerCON™ type connections.
4. Power supply shall have power factor correction.
5. Power supply outputs shall have resetting current-limiting protection.
6. The fixture shall have an expected average power consumption of 140W maximum.
7. Fixtures shall have adjustable PWM frequency up to 20Khz to avoid flicker on camera.

### D. Thermal

1. The fixture shall employ a very quiet cooling system with an ambient dBa level no greater than <19dBa @ .5M.
2. The fixture shall employ an active cooling sensing system which will shut down the led in the event of a cooling system failure. Fixtures not employing shut down safety circuitry shall not be accepted.
3. The fixture shall utilize thermal management to maintain LED life to an average of 70% intensity after 50,000 hours of use.
  - a. Thermal management shall include multiple temperature sensors within the housing to include:
    - 1) Power supply Temperature sensor
    - 2) Display Board Temperature sensor

### E. Control

1. The unit shall be dimmable using one of the following methods:
  - a. ANSI 1.11 USITT DMX512-A / ANSI E1.20 RDM (Remote Device Management).
  - b. Phase cut dimming (leading or trailing edge). Main level Voltage between 120V and 230V.
2. Up to 16-bit virtual dimming control of the fixture shall provide full range (0-100%) dimming without exhibiting flicker or stepping. Dimming curves shall be optimized for smooth dimming at low intensities and over longer timed fades.
3. Control input and through function shall be via 5-pin XLR unified d-shell connections.

4. Dimming via phase cut dimmer shall be via powerCON™ connection. No more than 4 fixtures shall be daisy chained when in this configuration.

F. Optical

1. Fixture shall have a 10-70 degree spot to flood beam spread.
2. The fixture shall utilize a single LED >92 CRI emitter and be available in configurations that include:
  - a. 2,700 Kelvin
  - b. 3,000 Kelvin
  - c. 4,000 Kelvin
  - d. 5,000 Kelvin
3. The LED shall be rated for an average of 70% output after 50,000 hours of use (L70 Rating).
4. Fixture shall be calibrated at factory for achieve consistent color and intensity output between fixtures built at different times and/or from different LED lots or bins
5. Manufacturer of LED systems shall utilize an advanced production LED binning process to maintain color consistency.

END SPECIFICATION

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