#### 1.01 LED PANEL LIGHT

### A. General

- The fixture shall be an Altman Helios Series Back-Lit Panel 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 flood type luminaire with even, low-glare illumination across the entire light emitting face of the luminaire.
- 3. The fixture shall utilize a 20-40 watt, user selectable, multi-LED array for light generation.
- 4. Unit shall be IP20 rated for indoor use.
- 5. End user operated switches shall be located on the side of the luminaire to select power and color temperature.
- 6. The fixture shall be DLC, cETLus listed, RoHS, & CE marked, and shall be so labeled when delivered to site. The fixture shall be UL listed under UL153.
- 7. Ambient operating temperature of 32°F to 104°F (0°C to 40°C).
- 8. Power supply and electronics shall be included and pre-installed with each luminaire.
- 9. Normal operation of optical and control functions of the fixture shall not require tools.

## B. Physical

- The fixture shall be constructed from a composite of lightweight aluminum, injected molded and PMMA thermoplastic materials free of defects such as burrs, pits and malformations.
- 2. Finish shall be white RAL 9016 on viewable surfaces.
- 3. Dimensions
  - a. AAL-2X2FPTFR-TW-VP
    - 1) 604mm (23.3 3/4")
    - 2) 604mm (23 3/4")
    - 3) 36mm (1 7/16")
  - b. AAL-1X4FPTFR-TW-VP
    - 1) 1214mm (47 13/16")
    - 2) 300mm (11 13/16")
    - 3) 36mm (1 7/16")
  - c. AAL-2X4FPTFR-TW-VP
    - 1) 1214mm (47 13/16")
    - 2) 604mm (23 3/4")
    - 3) 36mm (1 7/16")

- 4. Fixture shall be supplied with:
  - a. Driver / power supply with selectable power and color temperature settings.
  - b. Junction box for direct connection of power and signal cabling.

## C. Electrical

- 1. The fixture shall be equipped with 100V to 277V 50/60 Hz auto-ranging internal power supply.
- 2. Power input and through shall be wirenuts.
- 3. Power supply shall have power factor correction.
- 4. Maximum power consumption shall be no greater than 40 Watts.

#### D. Thermal

1. The fixture shall utilize tuned convection cooling to maintain LED life to an average of 70% intensity after 50,000 hours of use.

## E. Control

- 1. The unit shall be controlled using 0-10V.
- 2. Control input and through function shall be via permanent connection.
- An optional battery backup driver in compliance with UL924 and CSA C22.2 no.141 shall be available.

# F. Optical

- LED arrays shall include high color quality white LEDs tunable between 3000K 43000K.
- 2. LED emitters should be rated for nominal 50,000 hour LED life to L70.
- 3. Photometric performance of greater than 5,000 lumens shall be possible with some settings.
- 4. Light emission shall be even across the entire output area.
- 5. Fixture shall be calibrated at factory to achieve consistent color and intensity output between fixtures built at different times and/or from different LED lots or bins.

## **END SPECIFICATION**

©Altman Lighting 2020