Tender Specifications

Jet Profile300LT

300W LT Profile Moving head,
with 4° - 44° zoom and CMY

1. General

1. The luminaire shall be a compact and quiet moving Profile head, with subtractive colour generation, DMX control of intensity, colours, pan, tilt, shutters, pattern projection, focus and zoom.
2. The luminaire shall be CE, RCM, cTUVus, FCC compliant.
3. The luminaire shall comply with the USITT DMX-512 A and ANSI RDM E 1.20 protocol standards.
4. The luminaire shall be offers precise beam control with four framing shutters, each with individual plane rotation and full curtain effect capability.
5. The luminaire shall be equipped with motorized zoom lens that offers a Long Throw range, from 4° to 44° zoom.
6. The luminaire shall be equipped with 300W White LED.
7. The luminaire shall feature an LED source made with a White CTC 6'500K LED array.
8. The luminaire shall not infringe any Intellectual Property unless licensed by the owner.

2. Physical

1. The luminaire shall be constructed of aluminium structure with high-resistance polycarbonate black cover.
2. The luminaire dimensions shall be:
    a) 630 mm (24.8”) from base of the enclosure to the tip of the lens baffling.
    b) 403 mm (15.87”) across the exterior dimensions of the yoke.
    a) The electronics enclosure shall be 375 mm (14.8”) wide.
    b) The electronics enclosure shall be 250 mm (9.8") deep.
    c) Head length 429 mm (16.9”).
    d) The luminaire shall weigh 21,4 kg (47.18 lbs).
    e) The front lens diameter shall be 140 mm (5.51’’) with HD anti-reflection achromatic coating.
3. The luminaire shall be able to be either truss-mounted or stand on a surface.
4. Fixture shall be suitable designed for operation over or under mounted on a truss perpendicular to the ground.

5. The following shall be provided:
   a The luminaire must include a rotating gobo wheel:
      a.1) The luminaire must include seven (7) interchangeable rotating gobos on a wheel. Luminaires that have non-interchangeable gobo patterns shall not be deemed acceptable.
      a.2) Interchangeable rotating gobos shall have an outside diameter of 20 mm, image diameter of 16 mm, with a thickness up to 1,1 mm.
      a.3) Rotating gobo systems must be able to index to any point on the 360 positioning of the gobo.
   b The luminaire shall have 540 degrees of pan and 265 degrees of tilt. Pan and tilt must be controlled with 8 and 16 bit control and utilize position encoder sensors to guarantee correct step position.
      b.1) The luminaire shall have a pan speed of 1.6 s for 180 degree movement.
      b.2) The fixture shall have a tilt speed of 1.5 s for 180 degree of movement.
      b.3) Pan and tilt locks that stop at 0, 45, and 90 degrees for service and handling. Pan and tilt locks are not intended to be engaged during transport in pre-rigged truss.
   c The luminaire must include an interchangeable frost filter, with 0-100% linear insertion.
   d Linear focus lens system.
   e Linear zoom system from 4° to 44°.
   f Three independent colour wheels with:
      f.1) CMY colour system on 3 gradually fading colour wheels.
      f.2) Six (6) dichroic filters on 2 independent colour wheels, including 6,000K High CRI filter.
      f.3) linear CTO correction 2.800 K ~ 6.500 K.
   g A subtractive linear CMY (cyan, magenta, yellow) on 3 gradually fading colour wheels.
   h A circular 4 face prism and 4 face linear prism with rotating systems must be able to index to any point on the 360° positioning of the prism. The two prisms shall be capable of being overlapped creating a multi-ray effect.
   i An automated motorized shutter system composed by 4 individually controllable shutter blades, working on 4 layers and each being able to cut through the entire projection, each shall allow a +/- 30° rotation, and the entire system shall be able to perform a self rotation of +/- 45°.

j The luminaire must have handles in the base for luminaire handling and manipulation. Luminaires with no handles on the base shall not be acceptable.

k Power Supply, cooling, and driver electronics shall be integral to each luminaire.

l Control/UI module shall have the option for battery power backup to allow fixture settings to be retained in memory when the luminaire is not connected to the main.

3. LED Emitters

1. The luminaire shall feature an LED source module manufactured and customized for Prolights, with a 300W high-power white LED.
2. The luminaire shall feature a 6'500k LED source.
3. The luminaire shall feature an LED source consisting only of LED emitters from a known production batch and bin.
4. The luminaires shall feature only LED emitters rated for nominal 50'000-hours LED life.
5. The luminaire shall feature a minimum of 3 hours burn-In test during its manufacturing process.
6. The luminaire shall feature adjustable PWM frequency from 600 to 50'000 Hz.

4. Photometric documentation

1. The luminaire shall be supplied with a full and detailed photometric report measured by a calibrated two axis photogoniometer in a constant temperature environment of 25°C and with the luminaire in a stabilised condition with not more than 0.5% variation in output over a 15 minute period.
2. The photometric report supplied with the luminaire shall detail CRI, CQS, TM-30 and spectral distribution at full output.
3. The photometric report supplied with the luminaire shall detail the spectral distribution of LED source.
4. The photometric report supplied with the luminaire shall detail light level measured in lux and foot candles and beam diameter measured in meters and feet at 10 m, 20 m, 30 m 40 m, 50 m, 60 m, 70 m, 80 m, 90 m, 100 m, distance with the luminaire at the following beam angle: minimum beam angle, medium beam angle, maximum beam angle.

5. The photometric report supplied with the fixture shall include ISO LUX and candela diagrams, showing light distribution in both X and Y planes measured with the luminaire mounted at distance of 10 meters.

5. Photometric performance and Optical

1. The luminaire shall meet the following minimum photometric performance requirements which should be supported by the photometric documentation:
   a) The luminaire shall have a colour temperature of 6'500 K (+/- 125 K) at full on.
   b) The luminaire shall have an output in excess of 12.065 lm @ maximum zoom angle.
   c) The luminaire shall have an output in excess of 11.979 lm @ medium zoom angle.
   d) The luminaire shall have an output in excess of 8.313 lm @ minimum zoom angle.
   e) The luminaire shall have an output in excess of 1.282 lx (119fcd) at 5m (16,4 ft) @ maximum zoom angle.
   f) The luminaire shall have an output in excess of 88.597 lx (8.231 fcd) at 10m (32.8 ft) @ minimum zoom angle.
2. The luminaire shall provide, but not limited to:
   a) Sharp imaging on all gobo planes, framing shutters planes and iris planes.
   b) High-quality pattern imaging.
   c) 3,9° through 44,1° degree zoom angle.

6. Electrical

1. The luminaire shall feature an internal auto sensing power supply with an input range from 100 V to 240 V AC 50/60 Hz protect by on board fuse.
2. The luminaire shall feature a nominal max power consumption of 491W.
3. The luminaire shall feature a nominal Standby power consumption of 85W.
4. The luminaire shall feature a Seetronic PowerCON True1 main in/out connector.
5. The luminaire shall feature Neutrik XLR 5p connector for DMX input and DMX through.
6. The luminaire shall feature an on board graphic display with autoflip.
7. The luminaire shall be compatible with the USITT DMX-512A RDM protocol.

8. The luminaire shall support firmware upgrades using a dedicated UP-LOADER device using a 5 pin XLR connector or via USB pen drive.
9. The luminaire shall meet all requirements of the LVD (Low Voltage Directive) 2014/35EC and with the EMC (Electromagnetic Compatibility Directive) 2014/30/EU.

7. Environmental

1. The luminaire shall feature IP20 rating.
2. The luminaire shall be capable of operating in ambient temperature range of -10°C (-14° F) to + 45°C (113° F).
3. The luminaire shall be equipped with a combination of heat cooling system and fan cooling system.
    a) Fan speed control via DMX channel shall be possible.
4. Fan speed software shall permit the fixture to override DMX fan speed setting to prevent heat damage.
5. Thermal management shall include LED array circuit board temperature sensors.
6. Users shall permit monitoring of temperature sensor via legible graphic display.
7. Fixtures that do not provide the active thermal monitoring of LED board, shall not be acceptable.

8. Control And User Interface

1. The luminaire shall feature a temperature sensor which shall be accessible in real time via RDM.
2. The luminaire shall be compatible with the ANSI RDM E 1.20 standard.
3. The luminaire shall offer the following control protocols: DMX512, RDM, WDMX + CRMX (Wireless Control is optional).
4. Fixtures not offering RDM compatibility features access or temperature monitoring via RDM shall not be acceptable.
5. The luminaire shall be equipped with multi-line graphic display for easy to read status reports and configurations changes.
6. The luminaire shall be equipped with five buttons user interface.
7. The luminaire shall be equipped with the USB input for firmware upgrade.

8. The internal software shall include the following features:
    a) Home screen shall visualize at least the following information:
        - luminaire address
        - Wdmx signal
        - user mode
        - temperature info
        - diagnostic
        - selected protocol
        - lock screen
    b) Diagnostics section with indication of possible parts damaged.
    c) User selectable fixture XY home position settings.
    d) LED status indicator setting on front panel.
    e) DMX lost setting functions.
    f) Transfer settings to fixture on the same signal line.
    g) Calibration setting with individual focus and index calibration on each gobo.
    h) Fixture info:
        - fixture and source hours
        - power cycles
        - maintenance cycles
        - power consumption
        - firmware info
        - device info
        - UID
    i) Wireless signal monitoring section.
9. The luminaire shall offer two (2) DMX mode with 37 (Standard Mode) and 42 (Extended Mode) channels of control.
10. The luminaire shall offer additional user definable options to including:
    a) Dedicated channel for control option (Fan, LED frequency, Dimmer Speed, Reset).
    b) Display time out option.

9. Dimming

1. The luminaire shall feature continuous smooth and linear dimming of intensity from 0% to 100%.
2. The luminaire shall feature control of intensity in 16 bit mode.
3. LED control shall be compatible with broadcast equipment in the following ways:
    a) PWM control of LED levels guarantee flicker free to video cameras and related equipment.
4. The luminaire shall feature a minimum of 4 options for dimming curves, selectable from the on board menu.
5. Dimming curves shall be optimized for smooth dimming over longer time fades.
6. The LED system shall be digitally driven using high-speed pulse width PWM modulation.

10. Accessories

The following accessories shall be included in the fixture supplied:

1. 1 x 1,5 meters 3G1,5mmq power cable (BARE END - NEUTRIK POWERCON TRUE1 IP65 power connector).
2. 2 x Quick-Lock omega brackets.

The following accessories shall be available as an optional:

1. Flight Case for 2 pcs.
2. ABS case for 1 pc.
3. Wireless kit with TimoFX.
4. Light Frost Filter.
5. Aluminium clamp.
6. Security Cable.
7. Firmware uploader UPBOX2P5 and UPBOXPRO

Approved device shall be the PROLIGHTS JETPROFILE300LT, no alternates or equals.