Tender Specifications

ARCSPOTXSFC

IP66 Spot featuring 600 lumen with
3 x 4W RGB + Warm White source,
10° native

1. General

1. The luminaire shall be a LED RGB + Warm White light with DMX control of intensity and colours.
2. The luminaire shall be CE, RCM, cTUVus, FCC compliant.
3. The luminaire shall comply with the USITT DMX-512 A, ANSI RDM E 1.20 standards protocol.
4. The luminaire shall be capable of delivering an extensive range of saturated and pastel colours and white preset output from 2'800 K to 10'000 K.
5. The luminaire shall feature an LED source with a rated power of 17 W.
6. The luminaire shall feature C5M treatment for permanent exterior installation also in marine environment with dual chamber design.
7. The luminaire shall feature an LED source containing 3 pcs LED emitters, each with four (4) colours being R, G, B, W (warm white).
8. The luminaire shall not infringe any Intellectual Property unless licenced by the owner.

2. Physical

1. The luminaire shall be constructed in sturdy die cast aluminium body, free of burrs and pits, scratch resistant paint (C5M as standard) conceived for long time durability.
2. The luminaire shall feature with 10 degrees TIR lens as standard and 15 or 25 degrees as optional.
3. The luminaire shall be suitably designed for operation in any environmental conditions, for long and permanent outdoor use.
4. The luminaire shall feature a full range of accessories.
5. The luminaires shall have a tilt angle of 220 degrees a bracket with graduated scale.
6. The luminaire shall feature integral power and electronics.
7. The luminaire shall have a Basalt Grey (RAL 7012) powder coat finishing.
8. The luminaire dimension shall be:
   a. W: 132mm (5,20"), H: 156mm (6,14"), D: 99mm (3,90")
   b. The luminaire shall weight no more than 1,3 kg (2,87lb)
9. The luminaire shall feature an heatsink with heat pipes, passive cooling and fan free.

3. LED Emitters

1. The luminaire shall feature 3 LED emitters manufactured and customize for PROLIGHTS, with a total Rated power of 12 Watt, and total Driven power of 17 Watt.
2. The luminaire shall feature an LED source consisting only of LED emitters from a known production batch and bin.
3. The luminaires shall feature only LED emitters rated for nominal 90'000-hours LED life to L70 (Ta 25° C / 77° F).
4. The luminaire shall feature a minimum of three hours burn-In test during its manufacturing process.
5. The luminaire shall feature adjustable PWM frequency from 600 to 25'000 Hz to avoid flicker on camera.

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 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 each constituent LED colour 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 1 m, 2 m, 3 m 4 m, 5 m, 6 m, 7.5 m, 10 m, 15 m, 20 m, 25 m 30 m, 40 m distance with the luminaire at the following beam angle: 10° native optic, 15°, 25° optional optic, 20°, 40°, 60° Symmetric Holographic Filter, 10°x60°, 30°x60° Elliptical Holographic Filter.
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 height of 10 meters.

5. Photometric performance

1. The luminaire shall meet the following minimum photometric performance requirements which should be supported by the photometric documentation:

- The luminaire shall have a lumen output > 601 lm at full on with standard 10 degree lens.
- The Red wavelength should be 629 ± 2.5 nm.
- The Green wavelength should be 520 ± 2.5 nm.
- 8The Blue wavelength should be 449 ± 2.5 nm.
- The White Led shall have a CCT of 3000K ± 100K with a CRI >80.

2. The luminaire shall provide, Standard Lens Optic 10 degree.

6. Calibration

1. The luminaire shall be factory calibrated during its production process.
2. The luminaire shall permanently store calibration data on internal PCB.
3. The luminaire shall feature replacement LED source calibrated using the same method as the standard.
4. Fixtures not offering LED calibration shall not be acceptable.

7. 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.
2. The luminaire shall feature a nominal power consumption of 17 W.
3. The luminaire shall feature a waterproof main input connector.
4. The luminaire shall feature a waterproof connector for DMX input and DMX through.
5. The luminaire shall not feature with an on board display, to ensure higher IP rate protection in any hard weather condition.
6. The luminaire shall feature to be linked with DATAMASTER external coder for settings and addressing of the luminaire.
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 via the 5 pin XLR Connector/waterproof DMX input adapter.
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.

8. Optical

1. The luminaire shall provide, but not be limited to:
    a. Standard Lens optic 10 degree.
    b. Available range of Lens optic, 15, 25 degrees.
2. The luminaire shall provide a range of Holographic Filters to spread the horizontal or vertical beam angle:
    a. Symmetric Holographic Filter shall be 20°, 40°, 60°.
    b. Elliptical Holographic Filter shall be 10°x60°, 30°x60°.
3. The units shall provide:
    a. Honeycomb louvre.
    b. Half snoot.

9. Environmental

1. The luminaire shall feature IP 66 rating.
2. The luminaire shall feature IK 07 rating.
3. The luminaire shall feature a C5M minimum environment classification.
4. The luminaire shall be capable of operating in ambient temperature range of -20°C (-4°F) to +45°C (113°F).
5. The luminaire shall be equipped with a fanless passive cooling housing.
6. Thermal management shall include LED array circuit board temperature sensors.
7. Users shall permit monitoring of temperature sensor via user interface DATAMASTER.
8. Fixtures that do not provide the active thermal monitoring of LED board, shall not be acceptable.

10. 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, 1.33, 1.37-1, 1.37-2, 1.37-7.
3. Fixtures not offering RDM compatibility features access or temperature monitoring via RDM shall not be acceptable.

4. The luminaire shall offer 5 DMX control profiles:
    a. 9 channel profile shall have strobe and colour control.
    b. 12 channel profile shall have Effect, Color Macro, Strobe and Colour control.
    c. 13 channel profile shall have CCT, Strobe and Colour control.
5. The luminaire shall offer additional user definable options setting using the DATAMASTER to including:
    a. Loss of data behaviour need to hold last DMX frame or back to Stand Alone mode if selected.
    b. 4 selectable dimming curves.
    c. Master and Slave function for Stand Alone synchronization of more units linked together,
    d. Static colour mode in Stand Alone, with selection of colours.
    e. Several pre-built macros with adjustable speed.
6. Fixtures without stand-alone operation features described above shall not be acceptable.

11. Dimming

1. The luminaire shall feature continuous smooth and linear dimming of intensity from 0% to 100%.
2. LED control shall be compatible with broadcast equipment in the following ways:
    a. PWM control of LED levels shall be imperceptible to video cameras and related equipment.
    b. PWM rates shall be adjustable by the user at the fixture if necessary to avoid any visible interference on video camera and related equipment.
3. The luminaire shall feature a minimum of 4 options for dimming curves, selectable from the DATAMASTER external coder.

12. Accessories

The following accessories shall be included in fixture supplied:

a. 16 A 3G 2.5 mm Power cable adapter with IP 67 connector – Schuko.
b. DMX adapter with IP67 connector - XLR 5 pin male.

The following accessories shall be available as an optional:

a. 15 degree lens.
b. 25 degree lens.
c. 20 degree Light diffusion filter.
d. 40 degree Light diffusion filter.
e. 60 degree Light diffusion filter.
f. 10 x 60 degree Light diffusion filter.
g. 30 x 60 degree Light diffusion filter.
h. Power extension cable IP67 3m, 5m, 10m, 20m.
i. DMX extension cable IP67 3m, 5m, 10m, 20m.
j. DATAMASTER
k. Half snoot.
l. Honeycomb louvre.
m. UPBOX1UP5
n. UPBOXPRO

Approved device shall be the PROLIGHTS ARCSPOTXSFC; no alternates or equals.