Tender Specifications

ECLPENDANTFC

200W RGB + Warm White

innovative pendant light

1. General

1. The luminaire shall be a colour-mixing Pendant LED light with DMX control of intensity and colour.
2. The luminaire shall be CE, UKCA, RCM, cTUVus, FCC compliant.
3. The luminaire shall comply with the DALI Type8, USITT DMX-512 A, ANSI RDM E 1.20, W-DMX protocol.
4. The luminaire shall be capable of delivering a variable white output from 2’800 K to 10'000 K.
5. The luminaire shall be capable of delivering an extensive range of saturated and pastel colours.
6. The luminaire shall feature an LED source with a power of 200W.
7. The luminaire shall features an LED source containing 4 different colours of LED.
8. The luminaire shall not infringe any Intellectual Property unless licenced by the owner.

2. Physical

1. The luminaire shall be constructed from a combinations of rugged die cast aluminium, free of burrs and pits, and high quality thermo plastic all finished in black or white.
2. The luminaire shall feature with 20 degrees fresnel lens as standard and 40 or 60 degrees as optional.
3. The luminaire shall feature full range of accessories and mounting options.
4. The luminaires shall features on board mechanics ring for pendant mounting.
5. The luminaire shall have a rugged black (RAL 9004) or white (RAL 9010) powder coat finishing.

a) Other powder coat colour options shall be available on request.

6. The luminaire shall feature integral power and electronics.
7. The luminaire shall weight no more than 7,5 kg.
1. The luminire dimension shal be:
   8. W: 204mm (8,0”), H: 380mm (15”), D: 204mm (8,0”)
   9. The luminaire shall have a lens diameter of 157mm (6,1”)
10. The luminaire shall feature an heatsink with heat pipes, passive cooling and fan free.

3. LED Emitters

1. The luminaire shall feature an LED source comprising an array of 74 LED emitters manufactured and customize for Prolights.
2. The luminaire shall feature an LED source comprising of 16 pcs Red LED, 14 pcs Green LED, 16 pcs Blue LED, 28 pcs Warm White LED.
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 to L70.
5. The luminaire shall feature a minimum of three hours burn-In test during its manufacturing process.
6. The luminaire shall feature adjustable PWM frequency from 600 to 40'000 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 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: 24 and 73 degrees.
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 CRI in excess of 94 with mounted 20° lens fresnel when set to a preset of 3’200 K.
- The luminaire shall have a CRI in excess of 94 with mounted 20° lens fresnel when set to a preset of 5'600 K.
- The luminaire shall have an output in excess of 10'160 lm with mounted 20° lens fresnel when set to Full On preset.

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 protect by on board fuse.
2. The luminaire shall powered with low voltage DC mains 48V for emergency light use.
3. The luminaire shall feature a nominal power consumption of 200 W.
4. The luminaire shall feature a Neutrik® PowerCON main input connector.
5. The luminaire shall feature a Neutrik® PowerCON main through connector.
6. The luminaire shall feature an Amphenol 5 pin XLR connector for DMX input and DMX through.
7. The luminaire shall feature with screw terminal block for Power and Signal connection.
8. The luminaire shall feature an on board OLED graphic display.
9. The luminaire shall be compatible with the USITT DMX-512A RDM, W-DMX and DALI Type8 protocol.
10. The luminaire shall support firmware upgrades using a dedicated UP-LOADER device using a 5 pin XLR connector.
11. 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 light beam should have a 2-to-1 centre-to-edge drop-off ratio.
2. The units shall provide:

a) 20, 40, 60 degree fixed field angles fresnel lens.

b) Concentric louvre.

c) Honeycomp louvre.

d) Snoot and half snoot.

9. Environmental

1. The luminaire shall feature IP 20 rating.
2. The luminaire shall be capable of operating in ambient temperature range of -10°C (4°F) to +45°C (113°F).
3. The luminaire shall be equipped with heatsink pipes for passive cooling without fan.
4. Thermal management shall include LED array circuit board temperature sensors.
5. Users shall permit monitoring of temperature sensor via legible black OLED multi-line display.
6. 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 DALI Type8, DMX512, RDM, CRMX (Lumen Radio) and W-DMX (Wireless Solutions).
3. Fixtures not offering RDM compatibility features access or temperature monitoring via RDM shall not be acceptable.
4. The luminaire shall be equipped with multi-line OLED display for easy to read status reports and configurations changes.
5. The luminaire shall be equipped with four buttons user interface.

6. The luminaire shall features a range of control modes including control of color temperature and +/- green correction.
7. The luminaire shall offer a "Studio Mode" option to set the output to a default calibrated white point of 6'000 K.
8. The luminaire shall offer additioanal use options to including:

a) Display time out option.

b) White point setting.

c) Tungsten emulation option to emulate both the intensity and colour shift characteristics of tungsten source.

d) Linear crossfade from any white to any colour.

e) Standard color preset accessible via DMX on dedicated channel.

9.The luminaire shall offer stand alone functionally including:

a) 10 presets of whites.

b) Creation of standard colour or white palette to be enabled in stand-alone.

c) Fixtures can be linked together with standard DMX cable and controlled from designated master fixture up to 32 units linked.

d) Fixtures in stand-alone state shall restore to the setting preset prior to power cycling.

10.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. The luminaire shall feature control of intensity in 8 bit or 16 bit mode.
3. 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.

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.

12. Accessories

The following accessories shall be included in fixture supplied:

1. 16 A 3G 2.5 mm Power cable (BARE END – Seetronic IP65 power connector).

The following accessories shall be available as an optional:

1. 40° and 60° fresnel lens.
2. Hanging bracket.
3. Ceiling recessed kit.
4. Ceiling mounting kit.
5. Wall mounting bracket.
6. Half snoot.
7. Full snoot.
8. Honeycomb louvre.
9. Concentric louvre.
10. UPBOX1UP5

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