PROLiGHTS

Tender Specifications

EclFresnel CT+L

600W indoor Led Fresnel with 6 color source
250mm-10”lens

1. General

1. The luminaire shall be a colour-mixing LED Fresnel with DMX control of intensity and colour.
2. The luminaire shall be CE, UKCA, RCM compliant.
3. The luminaire shall comply with the USITT DMX-512 A and ANSI RDM E 1.20, CRMX protocol standards.
4. The luminaire shall be capable of delivering a variable white output from 1’800 K to 20’000 K, featuring an average CRI, in excess of 96 Ra when measured across the full colour temperature range.
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 600 W.
7. The luminaire shall features an LED source containing 6 different colours of LED.
8. The luminaire shall be capable of making adjustment to the green and magenta value any point on the CCT range.
9. The luminaire shall feature a selectable HSI colour mode, and colour gels matching and RGB.
10. The luminaire shall feature several colour control systems: XY, CCT, RGBW, Gel with Source Emulation and Real Shift, HSI, Source Emulation, Colour preset, Base CCT Temperature and Single Emitter Colour Correction.
11. 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 sturdy die cast magnesium and high quality thermo plastic all finished in black.
2. The luminaire shall feature a Fresnel glass lens with an AR coating to provide a classic light fall-off.
3. The luminaire shall feature a lens diameter not exceeding 250 mm.
4. The luminaire shall feature an integral frame holder including safety locks and a top latch.

5. The luminaire shall feature an adjustable yoke constructed from die-cast aluminium and finished in black that allows a minimum of 180° tilt rotation and 360° pan rotation.
6. The luminaire shall feature a secure locking mechanism for the tilt axis including sliding bracket system for hanging and positioning.
7. The luminaire shall feature an option for pole operated control of both the pan and tilt axes as well the zoom.
8. The luminaire shall feature control of beam diameter by knobs situated on both sides of the luminaire requiring no more than 3 complete revolutions for the full range of adjustment.
9. The luminaire shall feature integral power and electronics.
10. The luminaire shall weigh no more than 17,4 kg.
11. The luminaire shall feature a combination of heat pipe cooling system and low noise fan.
12. The luminaire shall be supplied with an eight leaf barn door.
13. The luminaire shall be supplied with a 28 mm extruded aluminium spigot suitable for attachment to industry standard accessories.
14. The luminaire shall be supplied with a Filter holder.

3. LED Emitters

1. The luminaire shall feature an LED source comprising an array of 138 LED emitters manufactured by Cree and branded Xlamp XE-G LEDs.
2. The luminaire shall feature an LED source comprising of 24 pcs Red LED, 32 pcs Amber LED, 16 pcs Green LED, 6 pcs Cyan LED, 16 pcs Blue LED, 44 pcs Mint 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 a flicker free adjustable PWM frequency selectable from 600Hz 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 its smallest, middle and largest 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 height of 10 meters.

5. Photometric performance

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

- The luminaire shall have a colour temperature within 100 K of the target colour temperature when set to a preset of 3’200 K or 5’600 K.
- The luminaire shall have an output in excess of 16’165 lm at maximum beam angle when set to preset of full on.
- The luminaire shall have a CRI in excess of 97 across the entire zoom range when set to a preset of 3’200 K.
- The luminaire shall have an output in excess of 14’090 lm at maximum beam angle when set to preset of 3’200 K.
- The luminaire shall have a CRI in excess of 97 across the entire zoom range when set to a preset of 5’600 K.
- The luminaire shall have an output in excess of 13’135 lm at maximum beam angle when set to preset of 5’600 K.

10. Calibration

1. The luminaire shall be factory Spectra Calibration 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.

11. 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 feature a Low Voltage power IN 48V DC.
3. The luminaire shall feature a nominal power consumption of 600 W.
4. The luminaire shall feature a Neutrik® PowerCON TRUE1 IN/OUT connectors.
5. The luminaire shall feature an Amphenol XLR 5p IN/PUT connectors.
6. The luminaire shall feature a Weipu SF12 4P-F data connector.
7. The luminaire shall feature a Amphenol XLR 3p for 48V DC IN.
8. The luminaire shall feature an on board OLED graphic display.
9. The luminaire shall be compatible with the USITT DMX-512A RDM protocol.
10. The luminaire shall support firmware upgrades via USB or via 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.

12. Optical

1. The luminaire shall offer continuous beam adjustment from 10° to 77°.

13. Environmental

1. The luminaire shall feature IP 20 rating.
2. The luminaire shall be capable of operating in ambient temperature range of -10°C (14°F) to +45°C (113°F).

14. Control And User Interface

1. The luminaire shall feature a temperature sensor which shall be accessible in real time via RDM.
2. The luminaire report its internal temperature on its graphical display.
3. The luminaire shall feature local control using four push encoder RGB with backlight.
4. The luminaire shall feature a range of control modes including:
   - Control of colour: XY, CCT, RGBW, Gel with Source Emulation and real Shift, HSI Source Emulation, Colo preset, Base CCT Temperature and Single Emitter Color Correction.
   - Colour mixing with 6 colour custom LEDs source (red, green, blue, cyan, mint pc amber).
   - CCT control, + / - green correction, tungsten emulation.
   - White presets range 1,800K – 20,000K.
   - Colour gels matching and RGB / HSI selectable colour mode.
   - Several pre-built macros with adjustable speed.
5. The luminaire shall feature a manual adjustment of intensity, CT, colour correction from knob,
6. The luminaire shall feature different fan modes, output management, linear crossfade from any white to any colour and virtual CTO on colours.
7. The luminaire shall feature with DMX512, RDM, CRMX protocols.
8. The luminaire shall feature with 4 push encoder RGB with backlight.
9. The luminaire shall feature with LumenRadio TimoTwo DMX/RDM compatible with both CRMX, CRMX2 and W-DMX(Wireless DMX), Bluetooth capable.
10. The luminaire shall feature with a display graphic user interface.
11. The luminaire shall feature to upgrade the firmware via USB or DMX interface (UPBOX2).

15. 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. The luminaire shall feature a minimum of 4 options for dimming curves, selectable from the on board menu.

16. Accessories

The following accessories shall be included in fixture supplied:

1. 28 mm conical connector adapter for stands or pantographs.
2. 8 way Leaf barn door.
3. Filter holder.
4. 16 A 3G 2.5 mm Power cable with Neutrik PowerCON TRUE – bare end.

The following accessories shall be available as an optional:

1. 2 Unit flight case, with 4 wheels and 8 handles to house 2 fixtures plus their accessories.
2. Empty ABS case for 1 fixture.
3. Pole operated aluminium yoke bracket and zoom kit.
4. 28mm spigot M12 bolt.
5. CRMX Timo Two SPI Kit.
6. Up-loader Tool (UPBOXPRO).
7. Up-loader Tool (UPBOX2) and it's PC Software.

Approved device shall be the PROLIGHTS ECLFRESNELCT+L; no alternates or equals.