Tender Specifications

LUMIPIXXB050

IP65 RGB+WW pixel-controlled linear LED fixture

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1. General

1. The luminaire shall be an high quality linear fixture disigned to meet advanced requirements from Film,Tv and Staging professionals.
2. The luminaire shall be a colour-mixing LED IP65, pixel controlled, with DMX control of intensity and colours, and the ability to change a wide range of holographic filters to change the angle projection as needed.
3. The luminaire shall be CE, UKCA, RCM, cTUVus and FCC compliant.
4. The luminaire shall comply with the USITT DMX-512 A and ANSI RDM E 1.20 protocol standards.
5. The luminaire shall be capable of delivering a variable white output from 2'800 K to 10'000 K featuring an average CRI, in excess of 90 Ra when measured across the full color temperature range and allow precise control of intensity, green-magenta point, hue and saturation.
6. The luminaire shall be capable of delivering an extensive range of saturated and pastel colours.
7. The luminaire shall feature an LED source with a rated power of 180 W.
8. The luminaire shall features an LED source containing 4 primary colours of LED.
9. An on board control shall be available to control Intendity, color temperature, green-magenta point, hue and saturation, on board pixel effects.
10. The luminaire shall be available to mount an accessory foot plate kit with tilt to be sold as accessory and mounted on demand.
11. The luminaire shall be available to mount an accessory center mount bracket to be sold as accessory and mounted on demand.
12. 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.
2. The luminaire shall feature an integral quick-release filter frame holder.
3. The luminaire shall have a rugged matte-black finishing.

a) White powder coat finishes shall be available as color option.

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

4. The luminaire shall feature integral power and electronics on board of the fixture.
5. The soft light luminaire shall have the dimensions not exceeding 509 mm (20") in length, 105 mm (4.1") in height and 85 mm (3.3") in width.
6. Light aperture shall have a dimension of 1000 mm (39.4") by 85 mm (3.3") with a sturdy accessory, barndoor and diffusion slot including a top latch to allow for additional accessories.
7. The beam angle shall range from 10° – 60° with the changing of holographic filters.
8. The luminaire shall weight no more than 3,8 kg.
9. The luminaire shall feature an active cooling system.

3. LED Emitters

1. The luminaire shall feature an RGB+Warm White LED source comprising of 18 LED emitters customized for PROLIGHTS, with a total Rated power of 180 Watt, and total Driven power of 150 Watt.
2. The luminaire shall feature an LED source comprising of 9 pcs Red LED, 9 pcs Green, 9 pcs Blue LED, 9 pcs WarmWhite LED.
3. The luminaire shall feature a pixel control of the LED linear, which can be both controlled by user, or enabled to perform the on board section macros to reproduce the effects.
4. The luminaire shall feature an LED source consisting only of LED emitters from a know production batch and bin.
5. The luminaires shall feature only LED emitters rated for nominal 50'000-hours LED life to L70 with estimated color shift over lifetime less than 200 K.
6. The luminaire shall feature a minimum of three hours burn-In test during its manufacturing process.
7. 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.
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 heigh 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:

a) The luminaire shall have a lumen output >3’800 lm.

b) 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.

c) The luminaire shall have a CRI in excess of 91 when set to a preset of 3’200 K white.

d) The luminaire shall have an output in excess of 6'000 lm when set to preset of 3’200 K.

e) The luminaire shall have a CRI in excess of 90 when set to a preset of 5’600 K.

f) The luminaire shall have an output in excess of 6'700 lm when set to preset of 5’600 K.

g) Photometric documentation available also for every holographic filter available.

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 feature a nominal power consumption of 150 W.
3. The luminaire shall feature a Seetronik® PowerCON True1 IP65 main input connector.
4. The luminaire shall feature a Seetronik® PowerCON True1 IP65 main through connector.
5. The luminaire shall feature an Amphenol 5 pin XLR IP65 connector for DMX input and DMX through.
6. The luminaire shall feature a built in Wireless DMX receiver CRMX + WDMX TRX from Sweden.
7. The luminaire shall feature an XLR 4p input connector for external battery operation at 48V.
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 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) 2014/35/EC, EMC (Electromagnetic Compatibility Directive) 2014/30/EU, RoHS (Restriction of the use of certain hazardous substances) 2014/53/EU and with the RED (Radio Equipment Directive) 2014/53/EU.

8. Environmental

1. The luminaire shall feature IP 65 rating.
2. The luminaire shall be capable of operating in ambient temperature range of -20°C (-4°F) to +45°C (113°F).
3. The luminaire shall be equipped with IP65 cooling fan.

a) Fan speed control via DMX channel shall be possible.

4. Fan speed software shall permit the fixture to override DMX fan seed setting to prevent heat damage.
5. Thermal management shall include LED array circuit board temperature sensor.
6. Users shall permit monitoring of temperature sensor via legible black OLED multi-line display.
7. Fixtures that do not provide the active thermal monitoring of LED board, shall not be acceptable.

9. 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 offer the following control protocols: DMX & RDM (both wired and wireless), Art-Net.
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, one Highlight button for fixture focusing and three rotatory encoders for manual stand alone operations.
6. The luminaire shall features a range of control modes including:

a) Control of color temperature and green/magenta adjustment.

b) Control of intensity, hue and saturation

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 a tungsten emulation option to emulate both the intensity and colour shift characteristics of a tungsten source.
9. The luminaire shall offer additional user definable options to including:

a) Display time out option.

b) Loss of data behaviour options.

c) Red shift option for tungsten dimming emulation.

10. The luminaire shall offer stand alone functionally including:

a) 9 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.

11. Fixtures without stand-alone operation features described above shall not be acceptable.

10. 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) a) PWM control of LED levels shall be imperceptible to video cameras and related equipment.

b) 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.

11. Accessories

The following accessories shall be included in fixture supplied:

1. Quick-Lock omega bracket.
2. 16 A 3G 2.5 mm Power cable with Seetronic PowerCON TRUE IP65 – Bare End.
3. Smooth light filter.

The following accessories shall be available as an optional:

- Safety steel cable.
- Flight case for 4 units.
- 20 ° Light diffusion filter.
- 40 ° Light diffusion filter.
- 60 ° Light diffusion filter.
- 60 degrees egg crate.
- Barn Door.
- UPBOX1 - Firmware uploader kit.

Approved device shall be the PROLIGHTS LUMIPIXXB050, no alternates or equals.