

Tender Specifications



EclPanel IPHard2x1

2x1 Hard Source LED Panel, IP65 with 550W power
and 6 colors source

1. General

1. The luminaire shall be a colour-mixing LED Hard Light with DMX control of intensity and colour, and the ability to change the diffusion panel as needed.
2. The luminaire shall be CE, RCM, FCC, cTUVus 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 1'850 K to 20'000 K, featuring an average CRI, in excess of 94 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 550 W.
7. The luminaire shall features an LED source containing 6 different colours of LED, controllable in 8 section, producing a 20° native beam angle to enhances lux intensity for long throw uses and broadens the light spectrum, resulting in superior light quality.
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, RGB, Gel with Source Emulation and Real Shift, HSI, Source Emulation, Colour preset, Base CCT Temperature, colour macros and CTO on colours.
11. The luminaire shall be available to mount an accessory pole operated yoke 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 weatherproof (IP65) and constructed from durable die cast magnesium alloy, finished in black.
2. The luminaire shall feature an integral frame holder including safety locks and a top latch.

3. 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.
4. The luminaire shall feature a secure locking mechanism for the tilt axis.
5. The luminaire shall feature integral power and electronics on board of the fixture.
6. The luminaire shall feature an option for pole operated control of both the pan and tilt axes.
7. The luminaire shall feature an option for barn door.
8. The luminaire shall be supplied with a 28 mm extruded aluminium spigot suitable for attachment to industry standard accessories.
9. The luminaire shall feature integral power and electronics on board of the fixture.
10. The hard light luminaire shall have the dimensions not exceeding 819 mm (32.24") in length, 433 mm (17.05") in height without spigot, and 142 mm (5.59") in width.
11. The luminaire shall weigh no more than 19,8kg (43.65lbs).
12. The luminaire shall feature an active cooling system and low noise fan for quiet operation with multiple fan modes.

3. LED Emitters

1. The luminaire shall feature an LED source consisting of 128 LED emitters customised for PROLIGHTS and driven at a power output of 550 watts.
2. The luminaire shall feature an LED source comprising of 128 pcs RGB LEDs, 128 pcs Royal Blue LEDs, 128 pcs Mint LEDs, 128 pcs Warm White LEDs.
3. The luminaire shall feature a section control of the LED panel being 8 section, 4 horizontal and two verticals, 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 known production batch and bin.
5. The luminaires shall feature only LED emitters rated for nominal 50'000-hours LED life to L70.
6. The luminaire shall feature a minimum of three hours burn-In test during its manufacturing process.
7. 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 which shall 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 a CRI greater than 95,5 when set to a preset of 3'200 K. The luminaire shall have a luminous flux exceeding 36'904 lm when set to a preset value of 3'200 K in HB Mode.
 - The luminaire shall have a luminous flux exceeding 35'755 lm when set to a preset value of 3'200 K in HQ Mode.
 - The luminaire shall have a CRI greater than 96,3 when set to a preset of 5'600 K. The luminaire shall have a luminous flux greater than 38'770 lm at a preset of 5'600 K in HB Mode.
 - The luminaire shall have a luminous flux greater than 33'409 lm at a preset of 5'600 K in HQ Mode.

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 shall feature a Low Voltage power input: 24-36V via batteries and a 48V DC input.
3. The luminaire shall feature a nominal power consumption of 550 W.
4. The luminaire shall feature a Seetronik® IP65 PowerCON TRUE1 IN/OUT connectors.
5. The luminaire shall feature an IP65 Seetronik® XLR 5p IN/OUT connectors.
6. The luminaire shall feature a Weipu SF12 4P-F data connector.
7. The luminaire shall feature an Seetronik® XLR 3p for 48V DC IN.
8. The luminaire shall feature an Seetronik® XLR 4p for 24V-36V DC IN.
9. The luminaire shall feature an IP65 RJ45 IN/OUT data connection with Ethernet pass through in the event of PSU or Master PCB failure.
10. The luminaire shall feature an on board 3,5" OLED graphic display.
11. The luminaire shall be compatible with the USITT DMX-512A RDM protocol.
12. The luminaire shall support firmware upgrades using a dedicated UP-LOADER device using a 5 pin XLR connector.
13. The luminaire shall meet all requirements of the LVD (Low Voltage Directive) 2014/35EC and with the 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.

12. Environmental

1. The luminaire shall feature IP 65 rating for temporary outdoor application, not for fixed installations.
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 a cooling fan.
4. Fan speed control via DMX channel shall be possible.
5. Fan speed software shall permit the fixture to override DMX fan speed setting to prevent heat damage.
6. Thermal management shall include LED array circuit board temperature sensor.
7. Users shall permit monitoring of temperature sensor via legible black OLED multi-line display.
8. Fixtures that do not provide the active thermal monitoring of LED board, shall not be acceptable.

13. Control And User Interface

1. The luminaire shall feature a temperature sensor which shall be accessible in real time via RDM.
2. The luminaire reports its internal temperature on its graphical display.
3. The luminaire shall feature local control using four RGB backlight push-encoders.
4. The luminaire shall feature a range of control modes including:
 - Control of colour: XY, CCT, RGBW, Gel, HSI, Source Emulation, colour macros, CTO on colours.
 - Colour mixing with 6 colour custom LEDs source (red, green, blue, royal blue, mint, warm white).
 - CCT control, + / - green correction, tungsten emulation.
 - White presets range 1,850K – 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, CCT, colour correction from knob.
6. The luminaire shall feature Silent operation with multiple fan modes.

7. The luminaire shall feature color space and camera profile LUTs selection.
8. The luminaire shall feature 8 section pixel control and built-in lighting effects for film applications.
9. The luminaire shall feature output management, linear crossfade from any white to any colour and virtual CTO on colours.
10. The luminaire shall feature with DMX512, RDM, ArtNet, sACN, CRMX protocols.
11. The luminaire shall feature with LumenRadio TimoTwo DMX/RDM compatible with both CRMX, CRMX2 (Lumen Radio) and W-DMX (Wireless DMX), Bluetooth capable.
12. The luminaire shall feature with a 3,5" display graphic user interface.
13. The luminaire shall feature to upgrade the firmware via DMX interface (UPBOXPRO/UPBOX1).

14. 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. The luminaire shall feature a minimum of 4 options for dimming curves, selectable from the on board menu.
4. LED control shall be compatible with broadcast equipment in the following ways:
 - PWM control of LED levels shall be imperceptible to video cameras and related equipment.
 - PWM rates shall be adjustable by the user at the fixture if necessary to avoid any visible interference on video camera and related equipment.
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

15. Accessories

The following accessories shall be included in fixture supplied:

1. 28 mm conical connector adapter for stands or pantographs.
2. Medium Density Diffusion Filter.
3. 16 A 3G 2.5 mm Power cable with Neutrik PowerCON TRUE – bare end.

The following accessories shall be available as an optional:

1. Flight case for 2 units.
2. Flight case for 3 units.
3. Trolley bag for 1 unit.
4. Pole operated aluminium yoke bracket.
5. Modular yoke for installation of up to 3 units on a single yoke.
6. Center mount bracket.
7. Ball head joint for center mount bracket.
8. Rigging metal plate for ECLPANELIP series to mount the products in arrays, 2U.
9. Rigging metal plate for ECLPANELIP series to mount the products in arrays, 4U.
10. Dome diffuser filter.
11. Front high diffusion filter.
12. Front low diffusion filter.
13. 30 degrees egg.
14. 60 degrees egg.
15. 8 chamber egg.
16. Barn Door with 4 directional flaps to adjust the light beam.
17. UPBOXPRO - Firmware uploader kit.
18. All DoPchoice accessories shall be available as an optional.
19. Up-loader Tool (UPBOXPRO) and it's PC Software.

Approved device shall be the PROLIGHTS ECLPANELIPHARD2X1; no alternates or equals.