

# Tender Specifications



## ARCSHINEM18FC

18 X 4 W IP66 RGB + Warm White  
architectural linear bar, 100 cm

## 1. General

1. The luminaire shall be a LED RGB+Warm White bar, with DMX control of intensity and colours.
2. The luminaire shall be CE, UKCA, RCM, cTUVus, FCC compliant.
3. The luminaire shall comply with the USITT DMX-512 A and ANSI RDM E 1.20 protocol standards.
4. The luminaire shall be capable of delivering an extensive range of saturated and pastel colours and Tunable white output from 2'800 K to 10'000 K.
5. The luminaire shall feature an LED source with a rated power of 72 W.
6. The luminaire shall features an LED source containing 18 pcs LED emitters, each with four (4) colours being R, G, B, W (warm white).
7. 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, conceived for long time durability.
2. The luminaire dimensions shall be:
  - a) W: 1001 mm (39.4") H: 106 mm (4.2") D: 71 mm (2.8")
  - b) The luminaire shall weight 4,9 kg (10.80 lbs).
3. The luminaire shall be able to be mounted or stand on a surface. Fixture shall be suitably designed for operation in any enviromental conditions, for long and permanent outdoor use.
4. The luminaires shall have a tilt angle of 180 degrees.
5. The base of the luminaire shall have two fixing points for permanent installaitons.
6. Power Supply and driver electronics shall be integral to the luminaire.

## 3. LED Emitters

1. The luminaire shall feature 18 LED emitters manufactured and customized for Prolights, with a total Rated power of 72 Watt, and total Driven power of 57 Watt.
2. The luminaire shall feature an LED source consisting only of LED emitters from a know production batch and bin.
3. The luminaires shall feature only LED emitters rated for nominal 50'000-hours LED life.
4. The luminaire shall feature a minimum of three hours burn-In test during its manufacturing process.
5. Fixtures shall have PWM frequency of 25KHz 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: minimum beam angle, medium beam angle, maximum 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 and Opticals**

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 > 3'500 lm at full on.
  - b) The Red wavelenght should be  $620 \pm 2.5$  nm.

- c) The Green wavelength should be  $530 \pm 2.5$  nm.
  - d) The Blue wavelength should be  $460 \pm 2.5$  nm.
  - e) The White Led shall have a CCT of  $3000K \pm 100K$  with a CRI >80.
2. The luminaire shall provide, Standard Lens Optic 8 degree.
  3. The luminaire shall provide a range of Holographic Filters to spread the horizontal or vertical beam angle.
  4. Symmetric Holographic Filter shall be  $20^\circ$ ,  $40^\circ$ ,  $60^\circ$
  5. Elliptical Holographic Filter shall be  $10^\circ \times 60^\circ$ ,  $30^\circ \times 60^\circ$ .

## **6. 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 80 W.
3. The luminaire shall feature a watherproof main input connector.
4. The luminaire shall feature a watherproof main through connector.
5. The luminaire shall feature a watherproof connector for DMX input and DMX through.
6. The luminaire shall not feature with an on board display, to ensure higher IP rate protection in any hard weather condition.
7. The luminaire shall feature to be linked with DATAMASTER external coder for settings and addressing of the luminaire.
8. The luminaire shall be compatible with the USITT DMX-512A RDM protocol.
9. The luminaire shall support firmware upgrades using a dedicated UP-LOADER device via the 5 pin XLR Connector/waterproof DMX input adapter.
10. The luminaire shall meet all requirements of the LVD (Low Voltage Directive) 2014/35EC and with the EMC (Electromagnetic Compatibility Directive) 2014/30/EU.

## **7. Environmental**

1. The luminaire shall feature IP 66 rating.
2. The luminaire shall feature IK 08 rating.
3. The luminaire shall features a C2 minimum environment classification.

4. The luminaire shall features a C5M environmental classification available on request.
5. The luminaire shall be capable of operating in ambient temperature range of -20°C (-4°F) to +45°C (113°F).
6. Thermal management shall include LED board temperature sensor.
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.

## **8. 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 6 DMX control profiles.
  - a) Standard DMX control profile shall have 5 channels control.
  - b) Extended DMX control profile shall have 14 channels 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.
  - f) 2 controllable LED sections.

## **9. 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.

## **10. Accessories**

The following accessories shall be included in fixture supplied:

1. Power cable adapter with IP 67 connector – BARE end.
2. DMX adapter with IP67 connector - XLR 5 pin male.
3. DMX adapter with IP67 connector – XLR 5 pin female.

The following accessories shall be available as an optional:

- a) Barn Door to adjust the light beam.
- b) Outercase box for in-ground installation.
- c) 20 degrees holographic filter.
- d) 40 degrees holographic filter.
- e) 60 degrees holographic filter.
- f) 10x60 degrees holographic filter.
- g) 30x60 degrees holographic filter.
- h) Power extension cable IP67 3m, 5m, 10m, 20m.
- i) DMX extension cable IP67 3m, 5m, 10m, 20m.
- j) DATAMASTER
- k) Upbox 1.

Approved device shall be the PROLIGHTS ARCSHINEM18FC; no alternates or equals.