

# Tender Specifications



## SMARTBATPLUSG2

4X20W hybrid battery uplighter/spot, IP 65,  
with RGB+Warm White LED source,  
wireless or wired

## 1. General

1. The luminaire shall be a Battery Powered LED RGB+Warm White, Full Colour fixture, with DMX control of intensity and colours, offering wireless control of DMX signal and fast-charge system.
2. The luminaire shall feature a removable Battery.
3. The luminaire shall be CE, UKCA, RCM, cTUVus, FCC compliant.
4. The luminaire shall comply with the USITT DMX-512 A protocol standards.
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 rated power of 80W.
7. The luminaire shall feature an LED source containing 4 pcs LED emitters, each with four (4) colours being R, G, B + Warm White.
8. 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. Body colour shall be RAL 9004 finish as a standard; white, chrome and gold body cover kits should be available as optional.
3. The luminaire dimensions shall be:
  - a) W: 257 mm (10.1") H: 211 mm (8.3") D: 188 mm (7.4")
  - b) The luminaire shall weight 6 kg (13.2 lbs).
4. The luminaire shall be able to be mounted or stand on a surface. Fixture shall be suitably designed for operation in any environmental conditions, not for long and permanent outdoor use.
5. The luminaire- shall have an adjustable 0-20° foot support for tilt focusing.
6. Battery and driver electronics shall be integrated to the luminaire.

## 3. LED Emitters

1. The luminaire shall feature 4 LED emitters manufactured and customized for Prolights with a total Rated power of 80 Watt, and total Driven power of 70 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.

#### **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 > 3000 lm at full on with standard lens.
  - b) The Red wavelenght should be  $641 \pm 2.5$  nm.

- c) The Green wavelength should be  $517 \pm 2.5$  nm.
  - d) The Blue wavelength should be  $450 \pm 2.5$  nm.
  - e) The White Led shall be a colour temperatur of  $3000K \pm 100K$ .
2. The luminaire shall provide, but not be limited to:
- a) Standard Lens optic 15 degree.
  - b) Available range of filters to achieve 20, 40, 60, 10x60 degrees.

## 6. Electrical

- 1. The luminaire shall feature a nominal power consumption of 80W during the battery re-charge time.
- 2. The luminaire shall feature with 16,8V removable Lithium Battery.
- 3. The luminaire shall feature with a fast-charge connection in case for battery pack.
- 4. The luminaire shall feature a selectable battery life setting at 3h, 6h, 8h, 12h, 16h, 20h.
- 5. The luminaire shall feature a re-charge time of 5h max.
- 6. The luminaire shall feature with an on board display.
- 7. The luminaire shall feature battery status in real time, in on board display.
- 8. The luminaire shall meet all requirements of the LVD (Low Voltage Directive) 2014/35EC and with the EMC (Electromagnetic Compatibility Directive) 2014/30/EU.
- 9. The luminaire shall meet all requirements of the MSDS normatives for the storage and handling of batteries products.

## 7. Environmental

- 1. The luminaire shall feature IP 65 rating (for temporary outdoor application).
- 2. The luminaire shall features a C2 minimum environment classification.
- 3. The luminaire shall be capable of operating in ambient temperature range of  $-0^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ ) to  $+45^{\circ}\text{C}$  ( $113^{\circ}\text{F}$ ).
- 4. Thermal management shall include LED board temperature sensor.
- 5. Users shall permit monitoring of temperature sensor via user Touch Graphic Display.

6. 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 features on board CRMX+W-DMX, DMX512, RDM.
2. The luminaire shall offer 5 DMX control profiles.
3. The luminaire shall offer additional user definable options setting using the Touch Graphic Display to including:
  - a) Static colour mode in Stand Alone, with selection of colours.
  - b) Several pre-built macros with adjustable speed.
  - c) IR: infrared sensor controlled by remote commander.

## **9. Dimming**

1. The luminaire shall feature continuous smooth and linear dimming of intensity from 0% to 100%.
2. The luminaire shall features 4 selectable dimmer curves.
3. The luminaire shall feature a flicker free operation.
4. The luminaire shall feature a selectable PWM frequency from 600 to 25.000Hz.

## **10. Accessories**

The following accessories shall be included in fixture supplied:

1. Filter frame
2. Half top hat
3. Battery Pack
4. Connector cover plate.
5. 1,5 meters power cable (Bare-End – SEETRONIC IP65 power connector)

The following accessories shall be available as an optional:

- a) Flight Case for 6 pcs with battery charger included.
- b) Floor bracket in Black, White, Chrome and Gold finishing.
- c) Hanging bracket in Black, White, Chrome and Gold finishing.
- d) Cover Kit in Black, White, Chrome and Gold finishing.
- e) 20, 40, 60 degree symmetric filter.
- f) 10x60 degree asymmetric filter.
- g) Upbox 1.

Approved device shall be the PROLIGHTS SMARTBATPLUSG2; no alternates or equals.