

Tender Specifications



ECLMINIDAT

18W White LED Gallery light, with data control
(DMX, DALI T6, knob-dimming)

1. General

1. The luminaire shall be an architectural projector which shall be completed by profile framing optics (19°,26°,36°,50°) or washlight (15°-30° / 25°-50°) optics.
2. The luminaire shall be CE compliant.
3. The luminaire shall comply with the USITT DMX-512 A and ANSI RDM E 1.20 protocol standards, DALI, and also be equipped with on board Knob Dimming.
4. The luminaire shall be available in the following light source variants: 2.700K, 3.000K, 4.000K, 5.600K; all featuring an average CRI in excess of 90 Ra.
5. The luminaire shall feature an LED source with a power of 18W.
6. The luminaire shall not infringe any Intellectual Property unless licenced by the owner.

2. Physical

1. The luminaire shall be constructed from a combination of rugged die cast aluminium, free of burrs and pits, and high quality thermo plastic all finished in black.
2. The following shall be provided:
 - a) Lens secured with silicone shock mounts.
 - b) Shutter assembly shall allow for +/- 25 rotation.
 - c) 0.95 mm stainless steel shutters.
 - d) Interchangeable zoomable optics for washlight.
 - e) Gel frame holders with one accessory slot, and a top mounted quick release gel frame retained.
 - f) Rugged yoke with sliding positive locking and tool operated yoke clutch.
 - g) Slot with sliding cover for indexal pattern devices.
3. The luminaire shall feature an integral frame holder including safety locks and top latch.
4. The luminaire shall feature an adjustable yoke constructed from die-cast aluminium that allows a minimum of 300° tilt rotation and 360° pan rotation.
5. The luminaire shall feature a secure locking mechanism for the tilt axis.
6. The luminaire shall have a rugged powder coat finishing.
 - a) Black or White powder coat finishes shall be available as color option.
 - b) Other powder coat colour options shall be available on request.

7. The luminaire shall feature integral power and electronics.
8. The luminaire shall feature a passive cooling system.
9. The luminaire dimensions shall be:
 - a: W: 126 mm (5.0") H: 170 mm (6.8") D: 95 mm (3.6")
 - b: The luminaire shall weight no more than 1,15 Kg (2,53 lbs) without optic.

3. LED Emitters

1. The luminaire shall feature a LED source comprising of a single 18W White LED emitter available in 2.700K, 3.000K, 4.000K, 5.600K designed and customized for Prolights.
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 to L70.
4. The luminaire shall feature a minimum of three hours burn-In test during its manufacturing process.
5. The luminaire shall feature adjustable PWM frequency to include 25'000 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 the following beam angle: 20°-40° Profile Zoom, 15°-30° Wash Zoom and 25°-50° Wash Zoom.
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 should be supported by the photometric documentation:
 - The luminaire shall have a colour temperature of ± 125 K from the selected White LED source (2.700K, 3.000K, 4.000K, 5.600K) with LEDs at full on.
 - The luminaire shall have a CRI in excess of 90 for all White LED source variant.
 - The luminaire shall have an output in excess of 1'100 lm with mounted 26° profile or 15°/30° - 25°/50° zoomable wash lens with white light source of 2.700 K.
 - The luminaire shall have an output in excess of 1'100 lm with mounted 26° profile or 15°/30° - 25°/50° zoomable wash lens with white light source of 3.000 K.
 - The luminaire shall have an output in excess of 1'200 lm with mounted 26° profile or 15°/30° - 25°/50° zoomable wash lens with white light source of 4.000 K.
 - The luminaire shall have an output in excess of 1'200 lm with mounted 26° profile or 15°/30° - 25°/50° zoomable wash lens with white light source of 5.600 K.

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 25 W.
3. The luminaire shall feature main input through DIN connector.
4. The luminaire shall feature DIN connector for DMX and DALI input. with a switcher to select DMX or DALI protocol.
5. The luminaire shall feature setting through standard RDM protocol.
6. The luminaire shall be compatible with the USITT DMX-512A RDM protocol.
7. The luminaire shall support firmware upgrades using a dedicated UP-LOADER device using the signal connectors.
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.

7. Optical

1. The light beam should have a 2-to-1 centre-to-edge drop-off ratio.
2. The luminaire shall provide, but not be limited to:

- a) Low gate and beam temperature.
- b) Sharp imaging through a three plane shutter design when using Profile lens.
- 3. The units shall provide, but not be limited to:
 - a) 19, 26, 36, 50, degrees Profile Lens.
 - b) 15 - 30 and 25 - 50 degrees Zoom Wash Lenses.
 - c) High quality pattern imaging.
 - d) Sharp shutter cuts without elation.
 - e) Shutter warping and burnout in normal use shall be unacceptable.
 - f) Adjustable hard and soft beam edges.

8. 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).
- 3. The luminaire shall be passive convention cooled.
- 4. Thermal management shall include LED array circuit board temperature sensor.
- 5. Users shall permit monitoring of temperature sensor via RDM.
- 6. 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 be compatible with the ANSI RDM E 1.20 standard.
- 3. Fixtures not offering RDM compatibility features access or temperature monitoring via RDM shall not be acceptable.
- 4. The luminaire shall have all of the following on board control options supported: DMX, DALI T6 (White), and on board Knob Dimming.
- 5. The luminaire shall be equipped with on board switch to select among DMX / DALI input signal.
- 6. The luminaire shall feature multiple DMX control modes.

7. The luminaire shall offer additional user definable options to including:
 - a) Selection between four Dimmer curves.
 - b) Selection between four Dimmer speeds.
 - c) Loss of data behavior options.
8. The luminaire shall offer stand alone functionalities:
 - a) Fixtures in Stand-Alone state shall restore to the setting preset prior to the power cycling.
9. 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) 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.
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 available as an optional:

1. Full Snoot.
2. Half Snoot.
3. Anti-glare louvre.
4. Barndoor and Filter frame holder.
5. Zoomable Wash Lens 25-50 degrees.

6. Zoomable Wash Lens 15-30 degrees.
7. Profile Lens 19, 26, 36, 50 degrees with gobo holder included.
8. Track Accessories.
9. Up-loader Tool (UPBOX1) with Microsoft Software.

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