

## Strand Lighting Specification

### I. PIROUETTE AUTOMATED SPOTLIGHT

#### A. GENERAL

1. The Pirouette shall be an automated 2000W (1200W, 2000W or 2500W at 240V) spotlight, with motorized pan and tilt control, and a variable 4° to 58° beam angle.
2. The Pirouette shall be supplied fitted with 200mm PC lens and an optional 200mm fresnel lens and 1200W lamp adapter.
3. The luminaire electronics shall feature surface mount circuit technology to ensure reliability and shall be modular for ease of servicing.
4. Power and data distribution boxes shall incorporate opto isolation as well as buffering of control signals.
5. All functions shall be tested to high duty cycle.

#### B. OPERATIONAL

1. The Pan shall have a range of 395°, accuracy of 0.3°, and 1° resolution.
2. The Tilt shall have a range of +30° to -95°, accuracy of 0.3°, and 1° resolution.
3. The Focus shall have a range of 4° to 58°, accuracy of 1%, and 2.5% resolution.
4. The Yoke Controls shall include 'menu' select and 'up/down' buttons, along with a four character LED display enable a number of set up functions to be selected and then entered by the 'entry' button.
5. The Yoke Controls shall also give access to the error log for servicing.
6. The Set up options shall be:
  - a. Select 8bit DMX, 16bit DMX or MRL
  - b. Set DMX or MRL address
  - c. Select Velocity channel
  - d. Select MRL Baud rate
  - e. Select software stops on Pan Tilt and Focus
  - f. Select presets for display routine without separate console
7. The operation of the rear catch releases shall drop down the lower cover to give access to the reflector and the slide down lamp holder assembly. Power shall be automatically disconnected on European 230V model during access to lamp.
8. Installation of the luminaire shall require two suitable hook or C-clamps to suspend from and hold rigid from a suitable lighting bar.

#### C. MECHANICAL

1. The lamp housing shall be constructed of pressure diecast aluminum with extruded tie bars and formed lightweight aluminum covers.
2. The luminaire shall be finished in a high temperature stoved epoxy powder coat in black and dark grey
3. The yoke construction shall be a 6mm x 75mm bar with vacuum formed ABS covers. Yoke support beam shall be an extruded aluminum channel section with a formed sheet cover.
4. A secondary suspension system shall be provided should the primary suspension fail. The secondary suspension system shall be provided integrally by the unique yoke support beam design.
5. The motion mechanics shall be 24V servo motors mated to precision reduction gearboxes with a mechanical clutch between tilt gearbox and motor and with user selectable software clutches on all movements.
6. Pattern and gobo size shall be 11.75" x 11.75".
7. Overall length of the unit shall not exceed 33.7" (855mm).
8. Weight shall not exceed 26 lbs. (11.8kg).

#### D. ELECTRICAL

1. Luminaire
  - a. Supply Voltage shall be 90/240V, 50/60Hz.
  - b. Maximum Lamp Watts shall be 2500W.

## Strand Lighting Specification

- c. Electrical cable shall be 1.5m of 3 x 2.5mm<sup>2</sup> silicone cable with bare ends.
  - d. Yoke Supply Voltage shall be 24VDC.
  - e. Control Protocol shall be user selectable between 8 bit DMX, 16 bit DMX or PALS MRL.
  - f. Data Connection shall be a 5 pin female XLR connector mounted on the yoke support beam
  - g. Scroller connection shall be a 5 pin male XLR connector mounted below the color runner assembly
2. Power/Data Buffer Box
- a. Supply Voltage shall be 90/250V 50/60 Hz via a IEC 320 recessed male connector, and the fuse rating shall be 5A.
  - b. Output Voltage shall be 4 x 24VDC, and the fuse rating 4 x 3.15A
  - c. DMX/MRL Connections shall be 5 pin male XLR. The input shall be male and the output shall be female.
  - d. There shall be a switch for end of line termination.
  - e. Data/Power out connectors shall be (4) 5pin female XLRs
  - f. There shall be LED Indicators indicating data OK (4), 24V OK (4), and DMX terminated.
  - g. The buffered DMX/MRL signals shall be opto isolated for extra reliability.

### E. ENVIRONMENTAL

- 1. Maximum operating ambient temperature shall be 35°C.
- 2. Maximum surface temperature shall be 290°C.

### F. OPTICAL TRAIN

- 1. The lamp holder and hemispherical reflector assembly shall be designed to ensure lamp filament is placed at the focal point of the reflector. Entire assembly shall be adjustable relative to PC lens or optional Fresnel lens.
- 2. The lens shall be a 200mm molded plano convex borosilicate glass lens with rear break up texture and mounted behind 25mm safety mesh. A 200mm molded fresnel borosilicate lens shall also be supplied.
- 3. The reflector shall be a 160mm hemispherical reflector of electro-polished and anodized high reflectivity aluminum.

### G. PERFORMANCE

#### Lux levels based on CP91 2500W lamp

##### Pirouette PC

|                 |      |     |      |      |     |
|-----------------|------|-----|------|------|-----|
| Throw in meters | 5    | 10  | 15   | 20   | 25  |
| Spot            | -    | -   | 2500 | 1400 | 900 |
| Flood           | 1150 | 290 | 128  | -    | -   |

##### Pirouette F

|                 |      |     |      |     |     |
|-----------------|------|-----|------|-----|-----|
| Throw in meters | 5    | 10  | 15   | 20  | 25  |
| Spot            | -    | -   | 1610 | 910 | 580 |
| Flood           | 1370 | 342 | 152  | -   | -   |

#### Beam diameter in meters

##### Pirouette PC

|                 |     |      |      |      |      |
|-----------------|-----|------|------|------|------|
| Throw in meters | 5   | 10   | 15   | 20   | 25   |
| Spot            | .4  | .8   | 1.2  | 1.6  | 2.0  |
| Flood           | 5.7 | 11.4 | 17.1 | 22.8 | 28.5 |

##### Pirouette F

|                 |     |      |      |      |      |
|-----------------|-----|------|------|------|------|
| Throw in meters | 5   | 10   | 15   | 20   | 25   |
| Spot            | .64 | 1.3  | 1.9  | 2.6  | 3.2  |
| Flood           | 6.2 | 12.4 | 18.6 | 24.8 | 31.0 |

##### Pirouette PC 2500

|       |               |                |             |
|-------|---------------|----------------|-------------|
|       | 1 /2 Pk Angle | 1 /10 Pk Angle | Pk Candelas |
| Spot  | 47°           | 78°            | 561903      |
| Flood | 59°           | 64°            | 28858       |

##### Pirouette F 2500

## Strand Lighting Specification

|       | 1 /2 Pk Angle | 1 /10 Pk Angle | Pk Candelas |
|-------|---------------|----------------|-------------|
| Spot  | 74°           | 138°           | 362672      |
| Flood | 64°           | 13°            | 34239       |

### H. INCLUDED FURNISHINGS

1. Fitted with 200mm PC lens
2. 1.5m of 3 x 2.5mm<sup>2</sup> power cable to bare ends
3. Optional 200mm fresnel lens
4. Optional 1200W lamp adapter

### I. ACCESSORIES

1. Lamp
2. ColorCall scroller

### J. SUPPLY THE FOLLOWING:

| Qty. | Cat. No. | Description   |
|------|----------|---|
| #    | 17503    | Pirouette Automated Spotlight, 120V, requires Power/Data Distribution Box |
| #    | 17502    | Pirouette Automated Spotlight, 230V, requires Power/Data Distribution Box |
| #    | 17550    | Power/Data Distribution Box (controls up to 4 luminaires)                 |
| #    | 43921    | CP92 2000W lamp, 120V   |
| #    | 43923    | CP92 2000W lamp, 230V   |
| #    | 43924    | CP92 2000W lamp, 240V   |
| #    | 43933    | CP93 1200W lamp, 230V   |
| #    | 43934    | CP93 1200W lamp, 240V   |
| #    | 43913    | CP91 2500W lamp, 230V   |
| #    | 43914    | CP91 2500W lamp, 240V   |
| #    | 55001    | ColourCall scroller CC1   |
| #    | 55103    | Data /Power Cable - 3m  |
| #    | 55105    | Data /Power Cable - 5m  |
| #    | 55127    | Data /Power Cable - 300mm   |
| #    | 55126    | Scroller Adaptor Cable - 5 pin to 4 pin                                   |
| #    | 17551    | Programming and Diagnostics Cable PC to Pirouette                         |
| #    | 66081    | DMX Control Cable - 10m   |
| #    | 66082    | DMX Control Cable - 25m   |