



Bid Specification Sheet

600W / 800W / 1000W Pacific

Ellipsoidal Profile

This is the specification for the 12°-28°, 14°-35°, 23°-50°, 45°-75° and 90° Zoom Profile luminaires, complete with all accessories.

The base down Axial Profile shall comply with the following performance specifications when using a BP1000W, 240V 25,000 lumens lamp.

The luminaire shall be able to operate with BP1000W compact filament lamp.

The luminaire shall not exceed 9.6kg in weight. The optical design shall produce a beam with a white light to produce a higher apparent brightness. Peak/ flat field adjustment shall be by a planetary gear system for ease of adjustment for lamp alignment and distribution.

The luminaire shall incorporate an Active Heat Management System to channel heat away from the lampbase, gate, and lenses. The lampbase shall be mounted base down for maximum cooling, and an axial aluminium reflector shall be used for improved optical efficiency. A flat dichroic cold mirror shall reflect the light beam at right angles, and allow the heat to pass through onto an aluminium heat sink. For increased operator safety, there shall be a heat shield guard incorporated on the back of the luminaire that will have a surface temperature of less than 50% of the lamp house. Due to lower heat stress on sensitive components, a limited three year warranty shall be offered with the luminaire.

The access to the lamp shall be by removal of the lamp module unit mounted on the underside of the lamphouse. A microswitch cut-out shall disconnect power to the lampbase once the lamp module unit has been removed. It shall be possible to interchange the lamp module with a 600/800W module. For ease of identification, the lamp module handles shall be coloured red (1000W), and blue (600/800W). The lamp module shall be constructed from an engineering plastic.

To further enhance the operational flexibility, it shall be possible to use the following lamp modules without any special modification:

80V 1200W Lamp Module and Power System

MSR/MSD 575W Lamp Module and Electronic Ballast

For increased operational flexibility, the luminaire shall use a zoom profile system. It shall be possible to replace the zoom lens house with

another zoom lens house, without the aid of special tools. Using the 600W lamp module, it shall be possible to use plastic gobos in the luminaire. The luminaire shall be of compact dimensions, not exceeding 600mm in length, and 410mm in height

It shall be possible to rotate the shutter gate assembly through a full 360°. An engineering plastic shall be used for the gate assembly to ensure smooth operation of the shutters. It shall be possible to use both an iris accessory and gobo holder accessory concurrently if required. The front of the lens housing shall have extruded runners for a DIN size filter frame and safety mesh or effect accessory. Two separate safety anchor points shall be used, one on the lamp house, and the other on the lens house.

Operational Data

FOCUS ADJUSTMENT:

The lens position shall be adjusted by releasing a lamp focus knob, and sliding the lens to a new position. The lens carrier shall be constructed from an engineering plastic to ensure no metal to metal contact. A numerical scale for focus setting indication shall be provided. There shall be a large plastic handle on the lamp housing for focus positioning. It shall be possible to grip the handle firmly with all four fingers and not touch the lamp housing. When the luminaire is not in use, it shall be possible to coil the supply cable inside the handle.

DISTRIBUTION:

The adjustment of the lamp on the optical axis and peak/flat field adjustment shall be by a planetary gear system comprising a master gear, and three smaller gears. No tools shall be required for adjustment, and it shall be possible to operate the adjustment controls without gloves, even after the luminaire has been in operation for several hours.

LAMP:

The lamp replacement shall be by loosening the lamp module retaining knob, and removing the lamp module from the lamp house. Power to the lampbase shall be disconnected by a microswitch cut out when the module is removed from the lamp house.

LENS ACCESS:

The lenses shall be mounted in carriers constructed from engineering plastic. For cleaning and maintenance, the carriers shall slide out of the



front of the lens house once the focus knob, Colour Frame and safety mesh have been removed.

MAINTENANCE ACCESS:

It shall be possible to access the reflector and flat dichroic mirror by removing one screw from the lamp house, and lifting out the heat shield and aluminium heat sink.

COLOUR FRAME:

The Colour Frame shall be inserted and removed by one insertion hand. The Colour Frame shall be inserted by releasing color frame retention catch and locating in desired slot. Removal shall be by reversal of the above process.

Electrical/Environmental Data

Supply Voltage: 220V -240V 50/60 Hz.

Max Wattage: 1000W

Lamp Type/Socket: GY9.5 BiPin base/socket.

BP1000 1000W, 3200K 400hr lamp shall be provided.

Supply Cable: 1.5 metres (3 x 1.5mm conductors) heat resistant silicon rubber cable.

Temperature:

The maximum ambient temperature shall be at 45°C. Maximum surface temperature shall not exceed 272°C.

Angles of use: 45° above to 90° below horizontal.

Standards

The luminaires shall be tested and approved to the following international standards:

EN 60-598-2-17 1989 incl amendments 1 & 2

EN 60-598-1 1992 incl amendment 1

Electromagnetic Compatibility Directive 89/336/EEC as amended by Directive 91/263/EEC and 92/31/EEC

Mechanical Data

LAMP HOUSING:

The lamp house shall consist of pressure die cast aluminium left and right castings, and a pressure die cast aluminum heat sink. There shall be a heat shield guard over the heat sink. There shall be a lamp module constructed of engineering plastic. There shall be a separate safety anchor point. There shall be a large plastic handle on the lamp housing for focus positioning.

LENS HOUSE:

The Lens House shall consist of a shutter gate assembly constructed from engineering plastic, a tube in which two plastic lens carriers are mounted, and a front casting constructed from engineering plastic. The shutter gate assembly shall be rotatable through 360°. The front casting shall have runners for a DIN size filter frame and safety mesh or effect accessory. There shall be a separate safety anchor point on the lens house.

MOUNTING:

The luminaire shall have a steel alloy yoke suspension with a M12 centre hole, and shall be supplied with a M12 bolt, nut and two washers for pan adjustment. Holes shall also be provided for DIN plate fixing. It shall be possible to reduce the height of the yoke by using the secondary pivot holes on the yoke. Tilt adjustment shall be possible by pivoting the yoke and locked by interlocking cup and disc assembly operated by heat insulated plastic knob. There shall be a tilt reference scale on the disc assembly.

REFLECTOR:

The luminaire shall have a 99.9% pure anodised aluminium hemispherical reflector polished to high reflectivity.

LENS:

The lenses shall be constructed from heat resistant clear borosilicate glass mounted in engineering plastic carriers for smooth focus movement. The lenses shall be optically coated to improve the beam quality.

BEAM ANGLES:

12-28° lens house, 14-35° lens house, 23-50° lens house, 45-75° lens house, 90° lens house.

It shall be possible to use the following fixed beam angles in the 23-50° lens house: 20°, 30°, 40°, 50°.

GATE:

There shall be four non-removable beam shaping shutters constructed from stainless steel alloy, and fitted with ergonomically designed heat insulated operating handles. These shall be mounted within a gate assembly constructed from engineering plastic that shall be rotatable through 360°. The gate shall incorporate runners for both an iris accessory and gobo holder accessory. There shall be an accessory cover to seal the gate when not in use.

COLOUR FRAME:

There shall be a DIN sized colour frame supplied with the luminaire.

FINISH:

The finish shall be high temperature stoved black epoxy powder paint on the aluminium lamphouse sides. The engineering plastic components shall be matt black. The aluminium heat sink shall be unpainted aluminium to aid in heat dispersion.

Performance Data

The performance of the luminaires shall be as follows on the following chart based on the BP1000 1000W 240V lamp.

PROFILE 12/28

Narrowest Angle 12°

Distance/m	4	8	12	16	20
Brightness/lux	16200	4050	1800	1013	648
Diameter/m	.84	1.68	2.52	3.36	4.2
Widest Angle 28°					
Distance/m	4	8	12	16	20
Brightness/lux	4070	1018	452	258	165
Diameter/m	1.99	3.99	5.98	7.98	9.97

PROFILE 14/35

Narrowest Angle 14°

Distance/m	4	8	12	16	20
Brightness/lux	16200	4050	1800	1013	648
Diameter/m	.98	1.96	2.95	3.93	4.91



Widest Angle 35°				
Distance/m				
4	8	12	16	20
Brightness/lux				
4070	1018	452	258	165
Diameter/m				
2.52	5.04	7.57	10.09	12.61

PROFILE 23/50				
Narrowest Angle 23°				
Distance/m				
4	8	12	16	20
Brightness/lux				
6300	1575	700	393	252
Diameter/m				
1.63	3.26	4.88	6.51	8.14
Widest Angle 50°				
Distance/m				
4	8	12	16	20
Brightness/lux				
2835	708	315	177	113
Diameter/m				
3.73	7.46	11.19	14.92	18.65

PROFILE 45/75				
Narrowest Angle 45°				
Distance/m				
4	6	8	10	12
Brightness/lux				
2130	947	533	341	237
Diameter/m				
3	5	7	8	10
Widest Angle 75°				
Distance/m				
4	6	8	10	12
Brightness/lux				
1000	444	250	160	111
Diameter/m				
6	9	12	15	18

Profile 90				
Angle 90°				
Distance/m				
4	8	12	16	20
Brightness/lux				
1031	257	114	64	34
Diameter/m				
8	16	24	32	40

The Zoom profile luminaire shall be supplied with a limited three-year warranty when used in normal theatrical applications.

Full warranty details shall available for download from the manufacturer's website at:
www.seleconlight.com