



IP65

floodlighting - *Challenger*[®] 1 AL5700 series



A double asymmetric distribution, Flat Glass floodlight range, specially designed for lighting outdoor sports grounds, smaller sports stadiums and large open areas where light pollution control is an essential requirement.

For use with double ended 2KW or 1KW Metal Halide; 1KW High Pressure Sodium, double ended lamps or single ended up to 600W.

Featuring:

- Body of high-pressure die cast aluminium, finished in light grey (RAL7035), Polyester powder coating
- Medium and wide beam, asymmetric light distributions.
- Reflector system of high purity, polished and anodised aluminium. Incorporating an internal baffle to improve efficiency and reduce glare.
- Toughened front glass, secured by extruded and anodised aluminium clips.
- Galvanised steel stirrup, with additional locking screws.
- IP65; with silicone rubber gasketing.
- Electrical connection box (IP65) housing Ignitor, located on side of stirrup.
- Easy access for re-lamping via opening of the rear cover. Positive closure via large stainless steel catch.
- Designed to accept a large range of double ended 2KW & 1KW lamps.
- Variable COWL accessory AL5721 (light grey) to limit overspill and prevent Sky Glow. Variable COWL accessory AL5722 (black) for additional backward overspill control. Variable cowls provide Flat Glass at 65°/70°/75° beam elevations.

Abacus Light Control System

A combination of efficient lighting design and careful floodlight design has rewarded Abacus with an international reputation for pioneering high performance floodlighting combined with effective control of light pollution.

Specific to *Challenger*[®] 1 the Abacus Light Control System consists of a series of complementary measures to effectively control light pollution.

1. Double Asymmetric Reflector

The double asymmetric reflector is designed to ensure full flow of light over the lit area from each floodlight. With the main beam emitted from the floodlight at an angle of 45° forward from the normal to the front glass, it results in a flatter appearance (FIG 1).

The benefit is that less of the reflector is visible to spectators and onlookers, resulting in low glare to the surrounding locality.

2. Internal Baffle

The internal baffle re-directs upward stray light back into the floodlight beam, providing increased efficiency. At angles above the beam baffle shields direct lamp glare. (FIG 2)

3. Optional Cowl (Skirt) Accessory

The final element of the light control system, an adjustable cowl fitting, provides additional control of upward light and direct limitation of overspill.

The floodlight and cowl combined achieves an effective Flat Glass profile at a beam elevation of 65°/70°/75°. (FIG 3) This effectively provides full cut off at the horizontal.

Using a cowl achieves better management of overspill. However, cowls will produce a marginal increase in backward illumination due to reflectance off the back edge. This effect is eliminated by the use of a black surface finish to the cowl. (FIG 4)

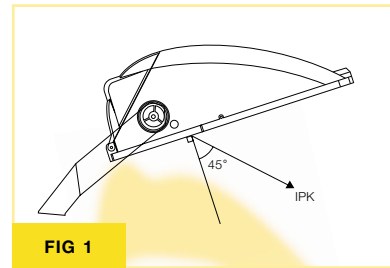


FIG 1

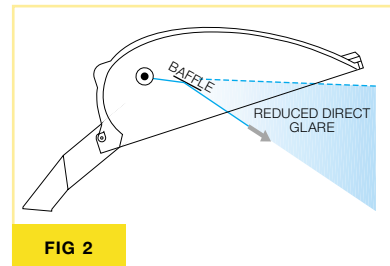


FIG 2

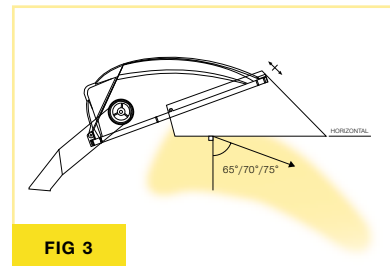


FIG 3

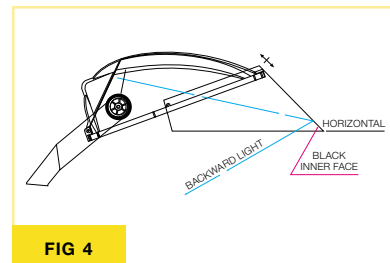


FIG 4

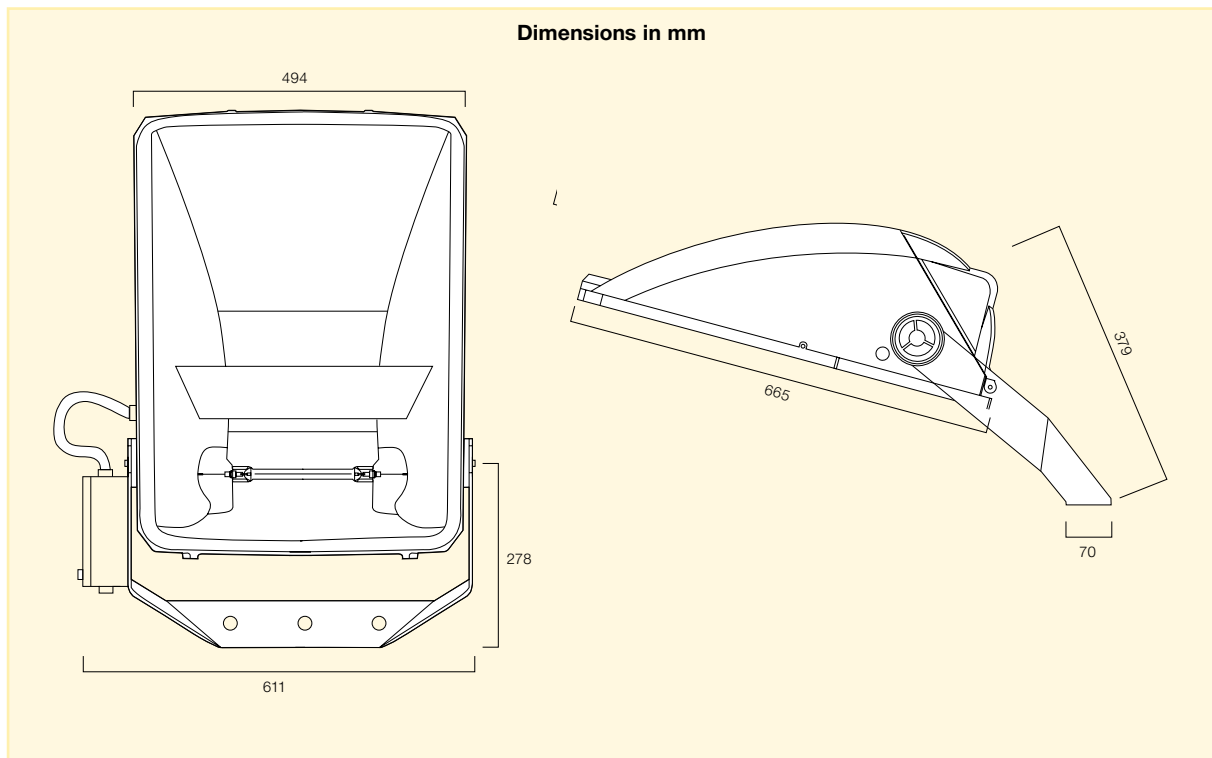
Lamp technical data (2KW)	OSRAM	PHILIPS	PHILIPS
Lamp Ref:	HQI-TS2000WNL	MHN-LA2KW400V/842	MHN-LA2KW400V/956
Colour Temperature:	4100K	4200K	5600K
Lamp Lumen Output: (Initial lm)	225,000 I.Lm	220,000 I.Lm	190,000 I.Lm
Lamp Current:	10.7A	9.6A	10.3A
Supply Circuit 3-Phase:	380/400/415V	380/400/415V	380/400/415V
Supply Current: Starting:	13A	8.3A	8.3A
Running:	6.5A	5.6A	5.6A
Total Circuit Power:	2180W	2105W	2113W
RA:	65	85	90

Weight: 16.87 Kg (with ignitor and without lamp) Windage: 0.136 sqm @ 75° elevation



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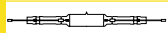
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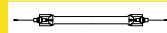
Model No.	Lamp Wattage and Type	Lamp Manufacturer	Lamp Holder/support	Description
AL5706	HQI-TS2000WNL	Osram	K12s-7 cable	Medium Beam
AL5707	2KW MHN-LA / 842 & 956	Philips	X528 cable	Medium Beam
AL5709	1KW MHN-LA / 842 & 956	Philips	X528 cable	Medium Beam
AL5710	1KW SON-TD	GE	RX7s	Medium Beam
AL5711	600W SONP-T	Osram (plus) Philips (super)	E40	Medium Beam
AL5713	600W SONP-T	Osram (plus) Philips (super)	E40	Wide Beam
AL5714	HQI-TS2000WNL	Osram	K12s-7 cable	Wide Beam
AL5715	2KW MHN-LA / 842 & 956	Philips	X528 cable	Wide Beam
AL5717	1KW MHN-LA / 842 & 956	Philips	X528 cable	Wide Beam
AL5718	1KW SON-TD	GE	RX7s	Wide Beam

Lamp Illustrations

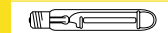
MHN-LA



SON-TD



SON-PT

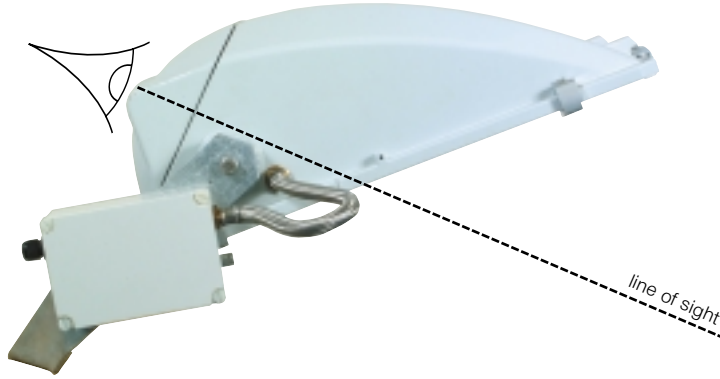


HQI



floodlighting - **Challenger[®] 1** AL5700 series

Aiming



Two aiming methods:

1. In-built line of sight aiming feature
2. Separate aiming protractor ensures optimum targeting of individual floodlights to achieve the desired lighting levels.

Registered design in the following countries

Austria	RegD No 38431
Benelux	RegD No 32055-01
Canada	RegD No 92129
China	RegD No 00301204.2
Denmark	RegD No MR2000796
Eire	RegD No D13051
France	RegD No 001139
Germany	RegD No 49911610.0
Greece	RegD No 6000682
Hong Kong	RegD No 9911680.2M001
India	RegD No 182049
Sweden	RegD No 66654
Switzerland	RegD No 126663
UK	RegD No 2086396
USA	Patent No D441889

Relamping



Simple lamp changing via opening back cover using a clip system ensures ease of maintenance.

