

AlphaBright is a broadband light source for scientists and engineers requiring intense VIS-NIR (400nm to 2800nm) light. AlphaBright's patented design ensures that more light emitted from the bulb is efficiently coupled into the optical fibre. This improves light throughput and signal-to-noise ratio when used in a measurement system.



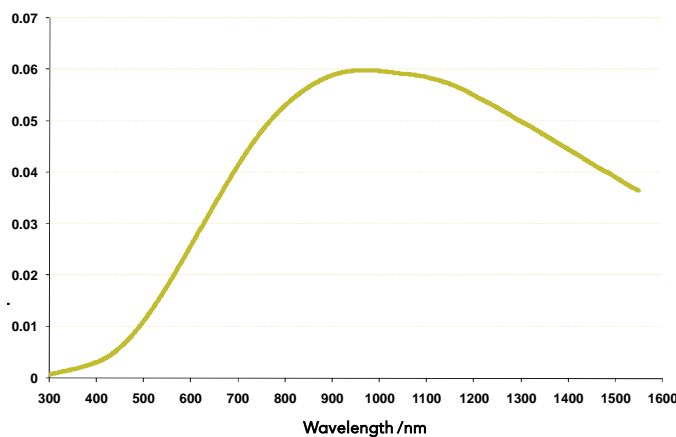
The AlphaBright design also ensures light remains efficiently focused on the optical fibre cable when optical filters (available as accessories) are inserted into the filter holder.

The power supply has been chosen for its stable output ensuring minimal light intensity fluctuations. The light source warms-up in 10 minutes after which time its intensity is stable to within 0.1%.

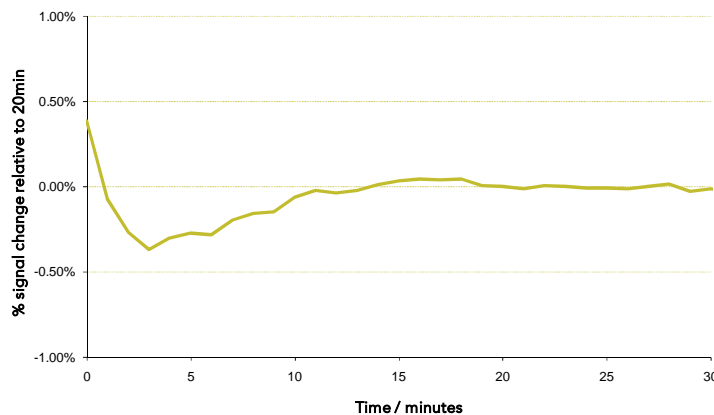
The unit arrives for immediate, optimal performance.

Typical Characteristics

AlphaBright absolute spectral irradiance
Measurements taken at a distance of 10 cm from source without fibre present



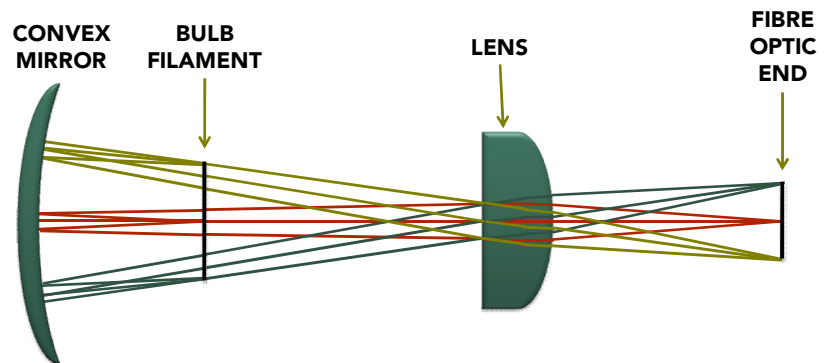
AlphaBright Light Source Warm Up Data
Integrated intensity from 600nm to 1000nm



AlphaBright performance characteristics have been tested and verified by the National Physical Laboratory (NPL), Teddington.

AlphaBright is **much** brighter than alternative designs making it the ideal choice for applications requiring an intense VIS-NIR light source. AlphaBright increases the proportion of light entering the optical fibre by positioning a plano-convex lens at its focal length from the end of the optical fibre cable.

To direct even more light towards the optical fibre cable, the AlphaBright also contains a convex mirror positioned behind the bulb.



Physical Dimensions

Dimensions	122mm x 80mm x 52 mm
Weight	500g
Fibre coupling	SMA (FC/PC and other options also available)

Technical Characterisation

Spectral Range	400nm – 3000 nm
Time to stabilise	10 minutes
Stability	+/- 0.4% from cold +/- 0.1% following 10 minute warm-up
Drift/Fluctuation	> 0.05%

Power Supply Specifications

Input	90V – 264V AC; 47Hz – 63Hz
Output	6V DC, 4.16A
Operating temperature	0°C – 70°C
Storage temperature	-40°C to +85°C

Bulb Specifications

Bulb Type	Quartz Tungsten Halogen G4 type
Bulb Voltage	6V
Bulb Watts	20 W
Bulb Lifetime	2,000 hours
Bulb Colour Temperature	2,850 °Kelvin
Luminous flux	280 lumen

The AlphaBright Design is protected by the following patents and patent applications (GB0702411.0, GB0902347.4, GB09055161.6; EP06820509.5; PCT/GB2006/004657, US12/096908; CA2633502)