



BLACKBRIGHT VNIR LED Area

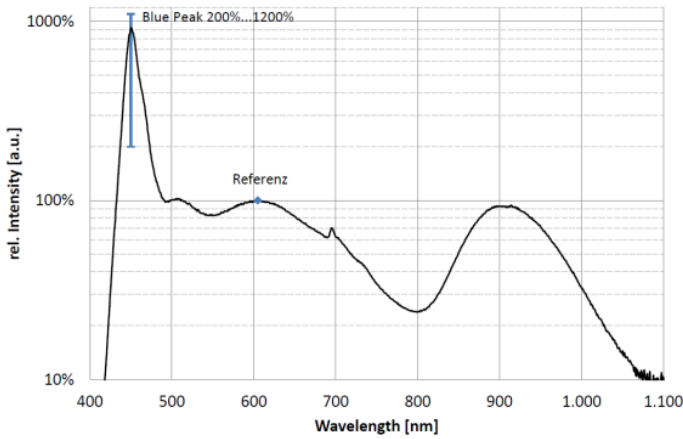


The BlackBright VNIR LED Area illumination unit is specifically designed for single shot hyperspectral imaging applications. It offers both a broad and stable spectral distribution in the range of 430 nm - 1050 nm with an even illumination of the surface area.

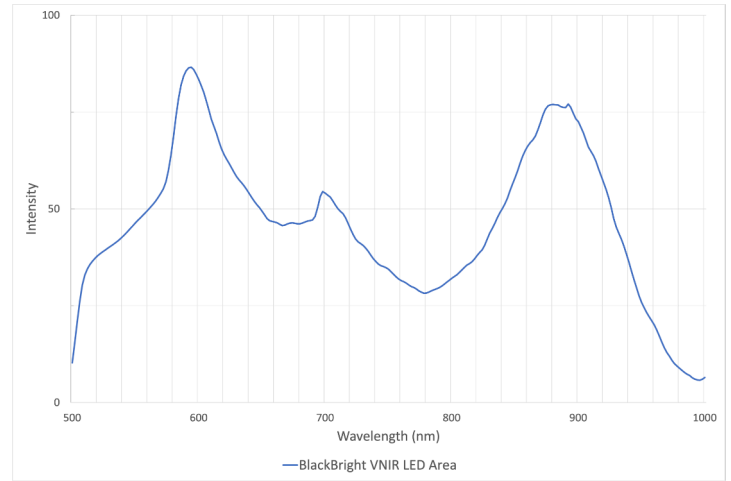
The special broadband LEDs were manufactured according to specific specifications for the needs of HAIP Solutions hyperspectral imaging cameras. Each product consists of two identical illumination panels combined through a controller and power supply unit.

Features

- Broadband LED-area array illuminator
- Compact design
- Homogeneous light distribution
- Light intensity dimmable
- Spectral range 430-1050 nm
- Designed for single-shot HSI cameras



Spectral intensity of broadband-LED



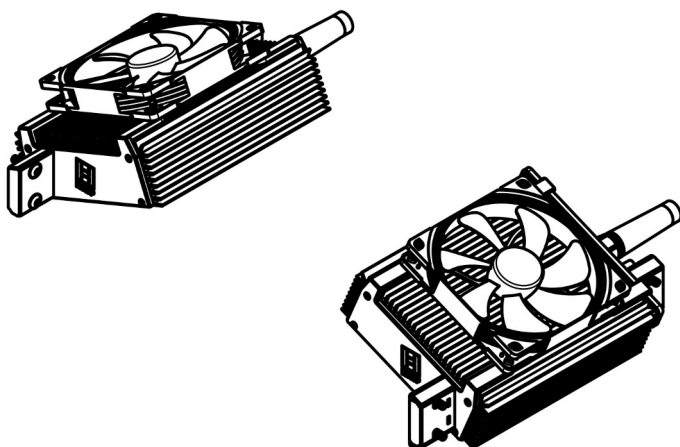
Spectral distribution of illumination measured with HAIP Solutions BlackBullet V2 camera

Lighting Properties

Technology	Broadband LED
Spectral range	430-1050 nm
Lighting intensity	35,5 klx
Lifetime	25.000 h

Device Properties

Operation temperature	0 - 30°C
Transport temperature	-10 - 45°C
Storage temperature	15 - 26°C
Power consumption	100-240 VAC / max. 3,8 A
Size (one unit)	210 * 170 * 92 mm
Weight	2.500 g



Suggested arrangement of two illumination panels

Broadband LED lighting unit

The use of LED technology enables a long service life and the elimination of thermal light sources, which are more susceptible to faults and have a shorter service life.

Moreover your measurement setup benefits from less heat development, which can have bad influence on your sample, for example with plants in phenotyping applications.

By combining broadband LEDs with special reflector technology, high efficiency can be achieved with very homogeneous lighting conditions for spectral imaging.

The standard design is configured with a working distance of approx. 50 cm from the light emission surface and illuminates an area of approx 20 x 20 cm.