



BLACKBRIGHT VNIR LED Bar



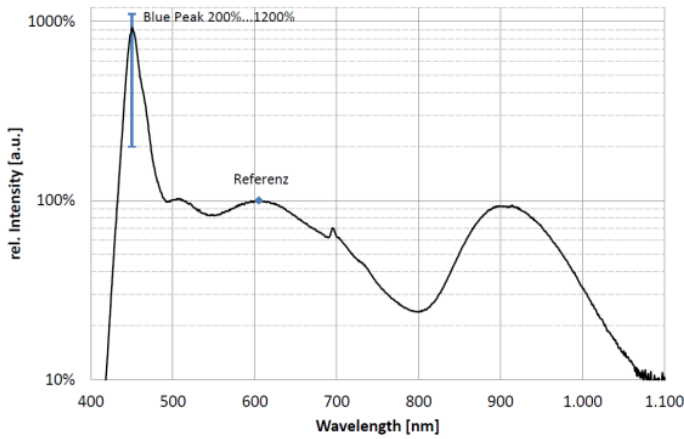
Design variable

The illumination unit is designed for hyperspectral imaging and was developed for the BlackIndustry VNIR camera. Therefore it offers a broad and stable spectral distribution in the range of 430 nm - 1050 nm.

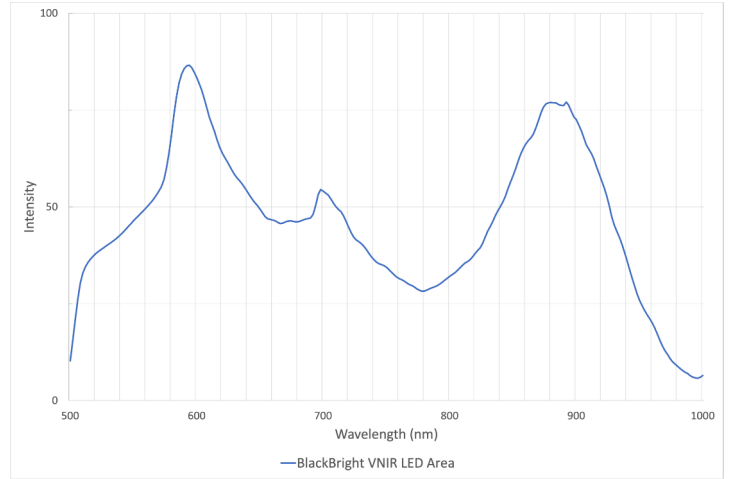
The LED line light features a compact design and homogeneous light distribution over the illuminated line. The light intensity can be dimmed segment by segment via a software controller interface. The broadband LED illumination bar is configured and supplied with power via an industrial plug.

Features

- Broadband LED line bar
- Compact design
- Homogeneous light distribution
- Light intensity dimmable
- Spectral range 430-1050 nm
- Designed for BlackIndustry VNIR V2



Spectral intensity of broadband-LED



Spectral distribution of illumination measured with HAIP BlackIndustry VNIR V2 camera

Optical and spectral characteristics	
Technology	LED
Spectral range	430-1050 nm
Working distance	300-500 mm
Illumination line length*	300 mm
Lighting intensity	35,5 klx
Lifetime	25.000 h
Mechanics	
Size	350 mm x 108 mm
Weight	4 kg (with integrated heat sink)
Housing	Anodised aluminium
Electronics	
Supply voltage	24 V DC
Power (max)	3 A
Communication interface	RS485 (USB-A adapter)
Connector	Harting HAN Q 5/0-F
Environmental conditions	
Operation temperature	-10 - 50°C
Storage temperature	-20 - 65°C
Humidity	5% - 95% non-condensing

* Mechanical length: Line length + 50mm

Broadband LED illumination unit

The BlackBright VNIR LED Bar unit can be configured via a PC using PWM modulation, thereby generating uniform illumination over the entire illumination area. In industrial in-line applications the high energy consumption of illumination units is significantly reduced, compared to standard halogen lights.

High efficiency can be achieved with very homogeneous lighting conditions by a cylindrical focus element. The standard design is configured with a working distance of approx. 300-500 mm from the measuring surface and illuminates a strip of approx. 30 mm width.

The lighting unit has a modular design. An arrangement of individual elements each 150 mm long. Variable line lengths from 300 to 1350 mm are available on request. The BlackBright VNIR LED Bar is ideal for hyperspectral sorting and inspection applications.