BRETON 12

PYROIS TECH

Broadband multiLED Light Source

BRETON 12 is a broadband multiLED light source with 6 different peak wavelengths and 12 LEDs in the UV-VIS-NIR range. The current through each LED can be controlled with 1% precision through a touch screen or a USB connection to the computer.

This light source has been designed to obtain a high optical fiber coupling efficiency. It has been conceived by Pyroistech as a user-friendly, compact and silent tool, being ideal for fluorescence, spectroscopy and general fiber illumination applications.
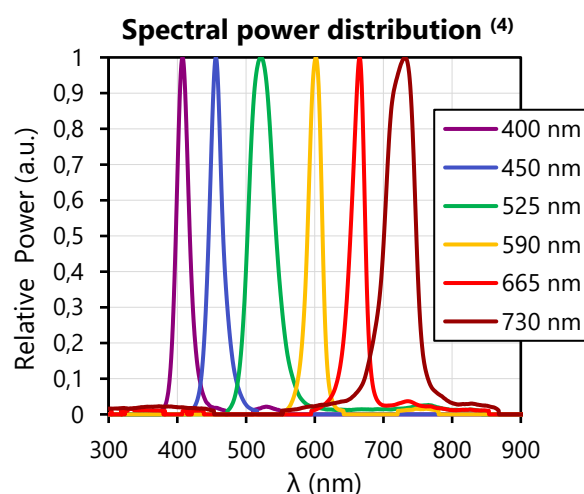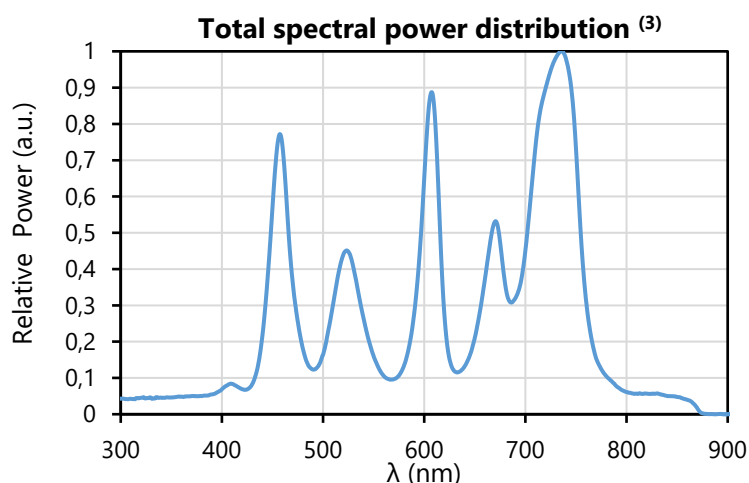
Characteristics

Optical characteristics [1]			
Output connector			SMA
λ (nm)	Nº of LEDs	Power (mW) Ø 1 mm, NA 0.5	Power (mW) Ø 1.5 mm, NA 0.5
400	1	1.25	3.47
450	3	8.49	22.15
525	1	2.10	4.27
590	1	1.99	4.85
665	3	6.50	18.68
730	3	6.22	13.89

(1) Typical configuration of LEDs. Power measured with a Si photodiode (OPHIR™)

Electrical characteristics		
Power input [2]	Input Voltage	12 V
	Input Current	3 A max
	Connector type	DC female 2.1 mm

(2) AC/DC adapter is included with the source. Input 100-240V 50-60Hz.

Other characteristics	
Working T, %RH	<50ºC, <80 % HR
Cooling	Fan
Stabilization time	1 min typ.
Size	152x152x135 mm
Weight	1 kg

Total spectral power distribution [3]
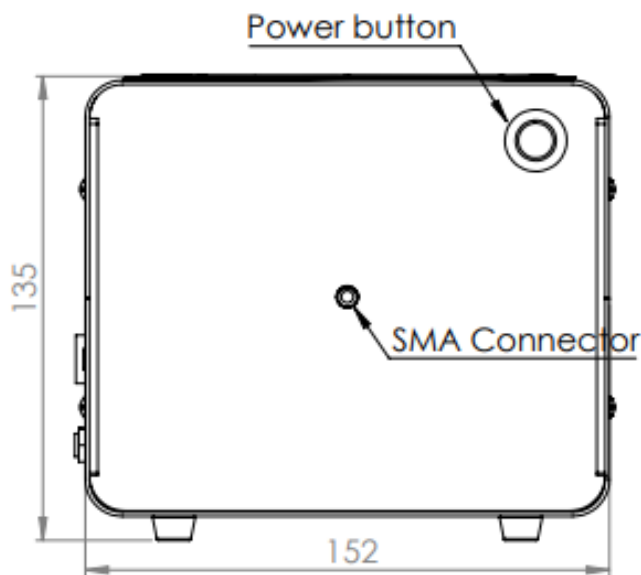

Spectral power distribution [4]

(3) Normalised spectrum of the model BRETON 12 measured with all the LEDs at their maximum current using a CCD-based spectrometer.
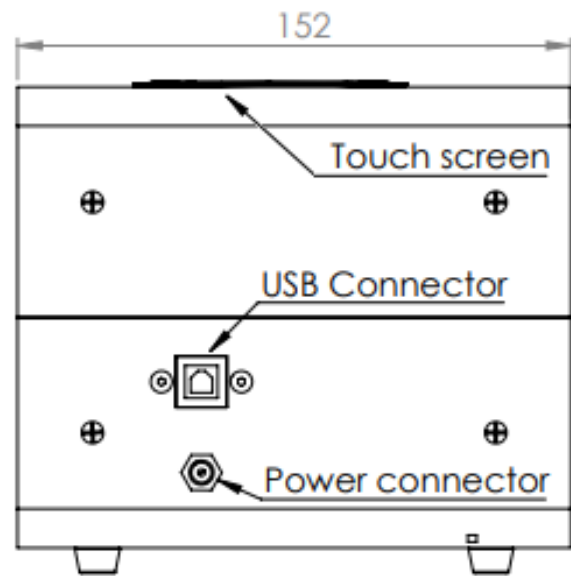(4) Normalised spectrum of the LEDs contained in the model BRETON 12.

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Power button

Touch screen

135

USB Connector

SMA Connector

152

152

Power connector

Front view

Side view

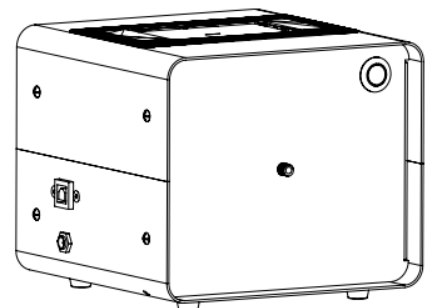*all the dimensions are in mm

Operation

Connect a proper power source (included with the light source) prior to operation.

The light source has an On/Off power button. Push the button to turn the light source on (a green light will shine the power button when the light source is on). Press the On/Off button to turn off the light source.

Control and monitor the current through each LED by using the touch screen or the USB remote control. This way, you will be able to configure your desired output spectrum.

Safety Notes

- Do not remove or modify any installed safety device on this equipment. Doing so will void your warranty and create an unsafe operating environment.
- Dangerous currents are present in this device. There are NO user serviceable parts inside.
- Only allow qualified personnel to service this unit.
- Inspect this unit and its power supply before using it for the first time.
- Do not use the unit if it is damaged in any way. Contact your dealer for repair or replacement information.
- During operation do not cover the source.
- Optical radiation can damage your eyes. Do not stare directly at the light source output.

Warranty

BRETON light source is covered by Pyroistech's 1 year warranty.

The specifications indicated in this datasheet are subject to change without prior notice.