

Lamp measurement report – 19 March 2019

**Blue Light Hazard comparison Sunlike vs Regular
Spot**

by

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Summary measurement data

parameter	meas. result	remark
Exposure Value Sunlike	36 W/sr/m ²	Risk group 0 (up to 100 W/sr/m ²). The distance at which was measured was such that 500 lux is measured. A DC current was used to drove the spot: 503 mA
Exposure value Regular	31 W/sr/m ²	Risk group 0 (up to 100 W/sr/m ²). The same distance is used as with the Sunlike. The DC current has been adjusted to get the same lux value: 437 mA

Both spots fall in risk group 0. However, when spots are operated such that the same lux-value is found at the same measurement distance, then the exposure value of the Sunlike spot is about 20 % higher than that of the regular spot.

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Photos setup

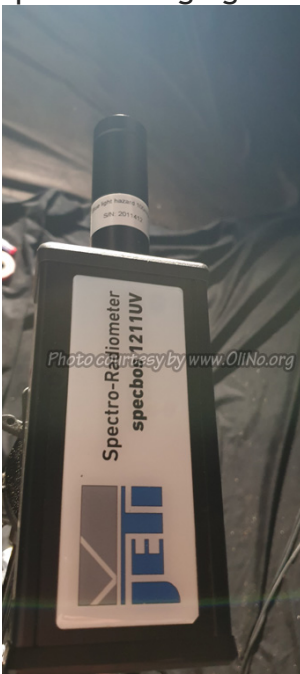


A Jeti SpecBos 1211 UV type of spectrometer is used, together with additional lenses to be able to measure at 100 mrad and 11 mrad. First spot is mount on the robot.

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A wooden plate is used to mount the spot lamp. Then the robot is positioned to have the spot emitting light sideways.



The sensor is looking at the spot. The sensor is mount on a tripod, with an adjustment setup in order to find the maximum exposure value.

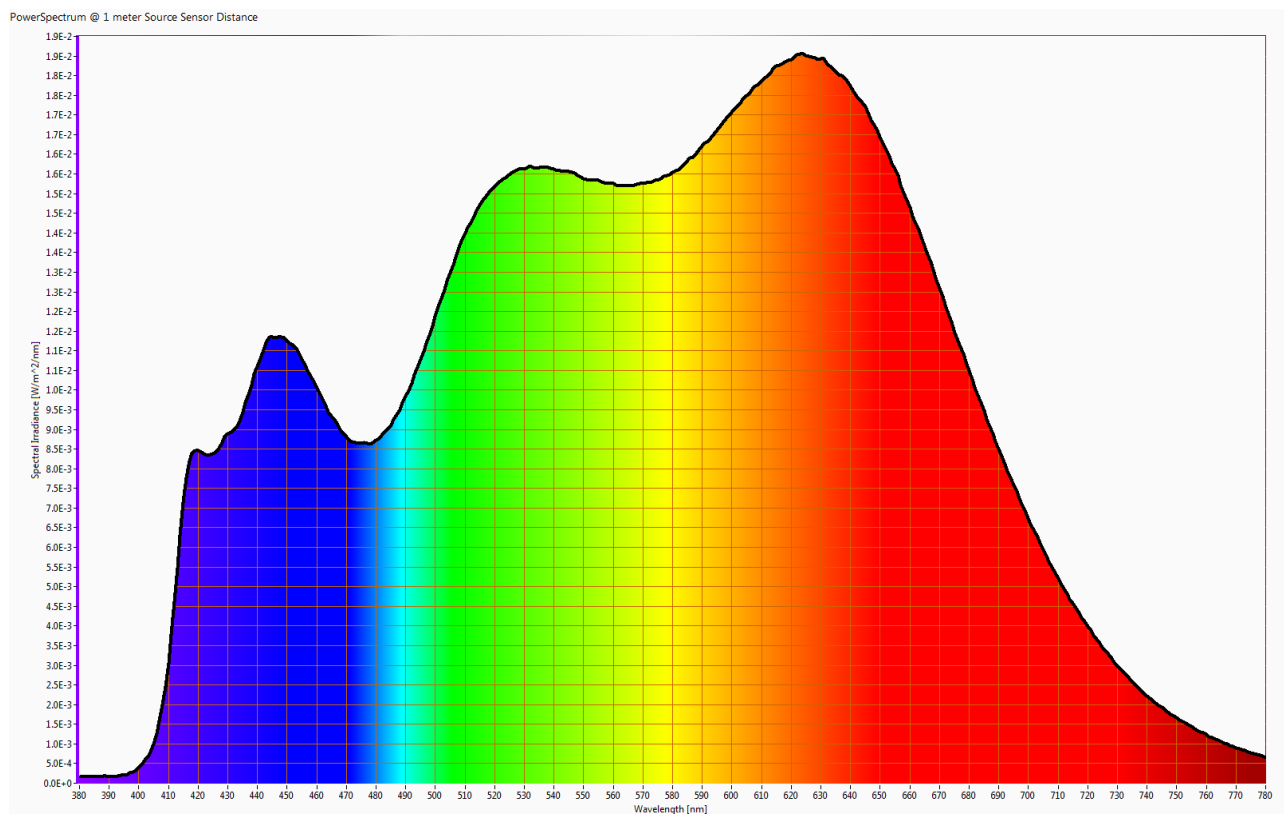
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The spot lamp has been powered by a programmable power supply, that was delivering a DC current.

For the Sunlike spot the current was set to 503 mA and a distance found where 500 lux was measured (using the SpecBos in illuminance measurement mode).

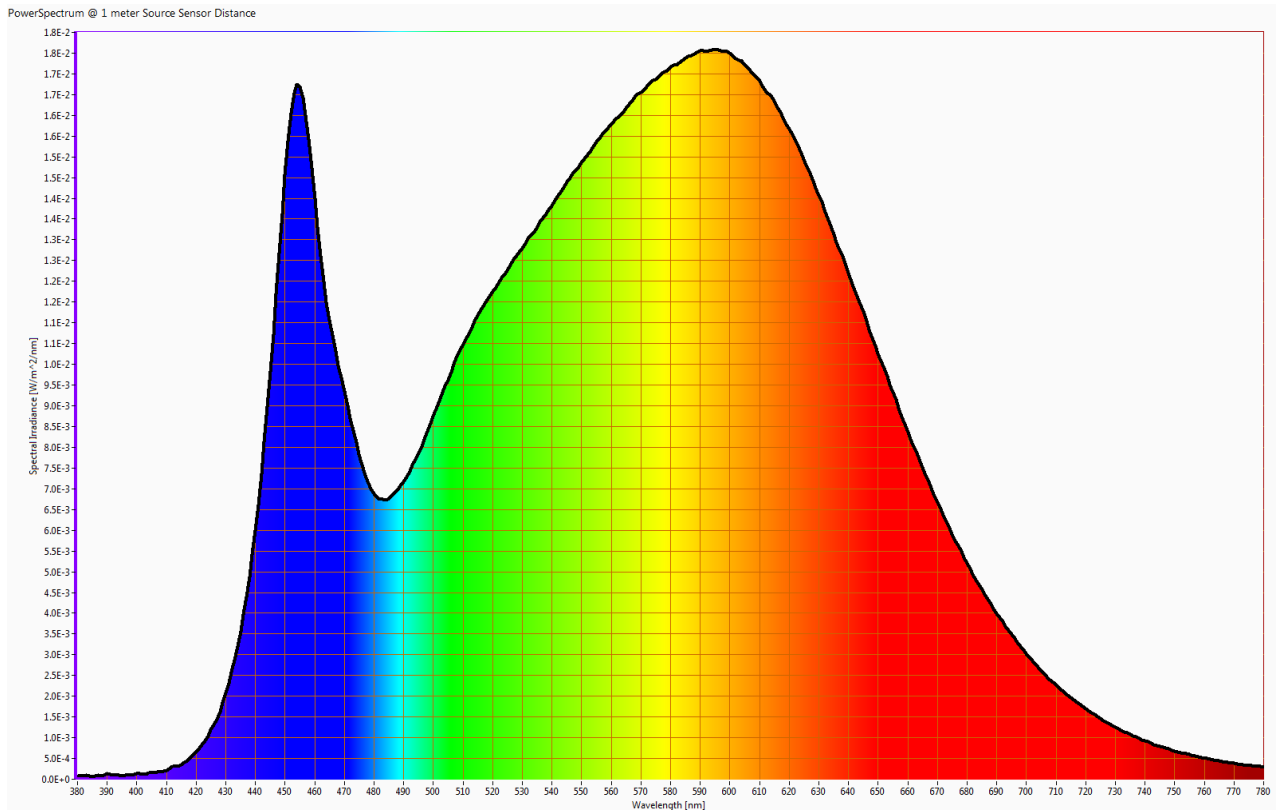
Once the Sunlike was measured, then the regular spot was mount and a DC current applied where the same 500 lux is measured at that distance: 437 mA.

Spectra of spots



The spectrum of the sunlike spot.

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The spectrum of the regular spot.

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