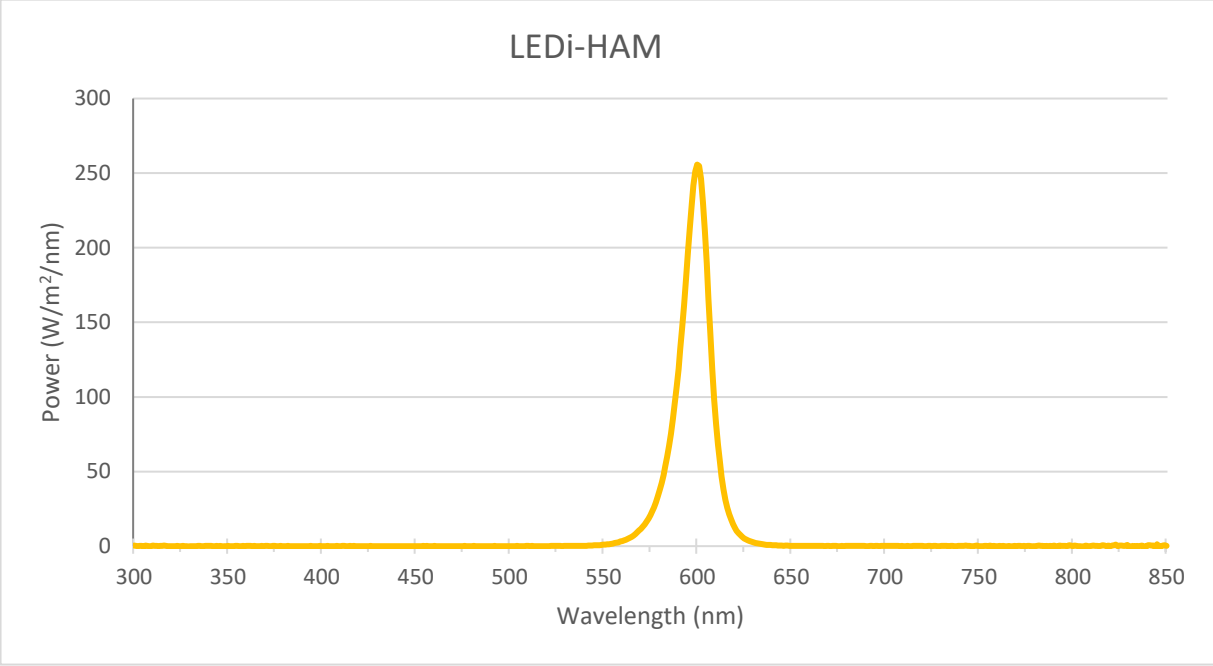
June 2018

TECHNICAL RELEASE
LUZCHEM EXPOSURE STANDARD: LEDi-HAM

General information: Luzchem Research, Inc. produces and freely distributes exposure standards as a service to scientists involved in research in photochemistry, photobiology and photostability. These standards are available in Luzchem's website for reference. They can be used to characterize conditions of exposure and should allow other scientists to readily replicate irradiation conditions. Measurements were made using a calibrated Luzchem SPR-4001 (s/n 047) spectroradiometer (calibration valid until June 2018). To the best of our knowledge spectral information is accurate within the experimental resolution of ±2 nm.

Lamp Part Number	LEDi-HAM	Measurement Temperature	25 ˚C
Description	7 Amber LEDs	Measurement date	February 16 2018
Measurement distance	~ 3.8 cm lamp to target	Monitored range	300 to 850 nm
FWHM (nm)	16	FWHM peak range(1)	591-607 nm(2)

(1) As output current is adjusted the peak wavelength can vary within the resolved peak range specified above with an additional ±5 nm margin of error (information provided by LED manufacturer).
(2) FWHM based on power at 50% of value at maximum.



Power(3)(4)

Total Power in Visible Region (400-700 nm)	W/m^2	5200
Total Power under main peak (571-619 nm)(5)	W/m^2	5021
Estimated dose for a cuvette with 2 cm^2 exposure area	Watts	1.0

(3) Power measured at maximum output available for LEDi-HAM. Power output of individual units may vary ±10%;
(4) Conversion factor for W/m^2 to W/cm^2: divide by 10,000.
(5) Based on power exceeding 5% of value at maximum.

Luzchem Research, Inc.

Toll free 1-800-397-0977
Phone: (613) 749-2442
Fax: (613) 749-2393
E-mail: sales@luzchem.com

5509 Canotek Road, Unit 12
Ottawa, Ontario
Canada K1J 9J9
www.luzchem.com