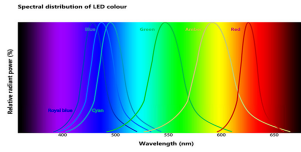


What flux value to choose for royal blue?

www.lec-expert.com

[Read this article on the website \(URL\)](#)



Royal blue is a very deep blue. Usually, LEC gives values in watts rather than lumens, because in this lightwave range:

- human eye perception is decreases considerably acco,
- the value expressed in lumen is low,
- daytime and night-time vision are not the same.

Note: As photopic (daytime) and scotopic (night-time) vision are different, lumen values vary depending on the ambient light.



For example, here are two LED wavelengths for a flow of 489 mW.

Daytime luminous flow

- at 455 nm = 16.3 lm
- at 460 nm = 20 lm

Night-time luminous flow

- at 455 nm = 425 lm
- at 460 nm = 471 lm

Two measures of light energy

Watts and lumens are two ways of describing the same thing, only using different units.

- **Watt (W)** characterizes the universal and absolute size of electrical power. This value corresponds to the **energy flow**.
- **Lumen (lm)** is the size used in the world of lighting technology. This value takes into account eye response, and corresponds to the **visual flow**.

Thus, a watt in green and a watt in blue do not give the same response in terms of lumens. There are many more lumens in green, than in blue where the eye is not very sensitive.

To read more

- [Contact us](#) to see our document on Superwatt photometric data on powerful LEDs specially for exterior lighting
- See the formulas for [light spectrum efficiency](#).
- [Loue River lighting in Ornans](#), an LEC project using royal blue.

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