

The Relationship between Luminosity and Luminous Flux

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Two commonly used units for LED brightness are luminous intensity (cd) and luminous flux (Lm). The following is an explanation of the relationship between these two units of brightness.

Luminosity and Luminous Flux

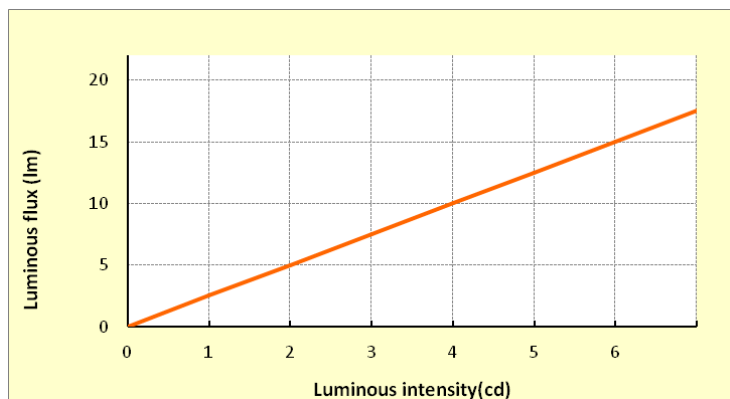
Luminous flux is the total amount of all light emitted from a light source, or in other words, the amount of light energy a light source has. The luminous flux is measured in Lm (lumens) and does not change even if the directionality is changed by the package.

On the other hand, luminous intensity is the brightness per unit solid angle emitted from the light source in a certain direction. Luminous intensity is the luminous flux per unit solid angle and is measured in cd (candela). Luminous intensity is not the same as luminous flux, but it is a value that changes by changing the directionality with lenses and reflectors, etc. Even if the light source has the same light flux, it is possible to increase the luminous intensity in a certain direction by focusing light with lenses and other devices.

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The relationship between LED luminous flux and luminous intensity is determined by the packaging of the LED product. If the directivity is constant depending on the package, then there is a proportional relationship between the two.

As an example, the relationship between luminous intensity and luminous flux of the SMLK1/K2 Series is shown below.



The relationship between luminous intensity (cd) and luminous flux (Lm) depends on the directionality of the product.

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