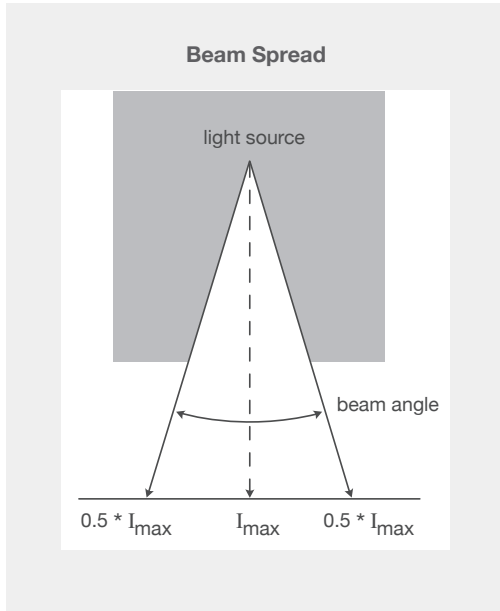


## LED Flashlights Fact Sheet

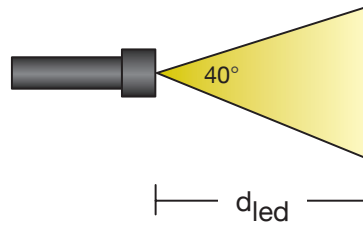
### What is a Lumen?

A Lumen is a unit of standard measurement used to describe how much light is contained in a certain area. One lumen is equal to the amount of light a candle lets fall on 1 square foot of area, 1 foot away. Starline presents the Lumen rating to help you quantify the relative brightness of each flashlight in our line.

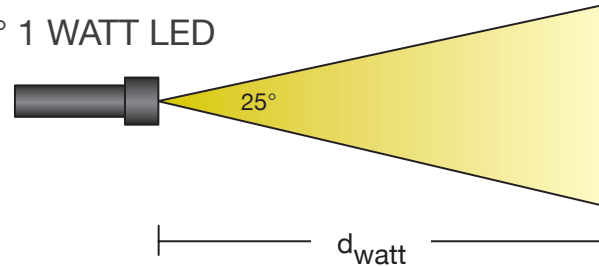
Starline has field tested our flashlight selection to determine the Lumens and Beam Spread. We have presented those results to express the brightness (Lumens) that is emitted from the flashlight.



### 40° MULTI BULB LED



### 25° 1 WATT LED



### Lumens vs. Watts for LED Flashlights

The number of watts represents the power consumed by a bulb. Lumen measures the brightness of a bulb. There is no relation between watts and lumens and it is best not to use watts when comparing the brightness of LED flashlights.

### LED Brightness and Beam Angle

The total brightness of a LED bulb or flashlight is best to be measured in lumens. The common range is 10 to 1200 lumens. Minimal practical brightness is 10 lumens. 30 lumens are bright enough for most common uses of a flashlight. The super bright "tactical" flashlights start at 90 lumens. These are good for lighting up objects at a great distance and are often used by police or the military.

It is important to understand the negative correlation relationship between the beam angle and luminous intensity (lumens). As the beam angle increases, the lumens can decrease and vice versa. What this means is that the light from a flashlight with a narrow beam angle will appear more intense as the light is concentrated over a smaller area. Light from a flashlight with a wider beam angle will appear less intense as the light is being dispersed over a broader area.

### What is CREE® Brand LED Lighting?

CREE® Brand LED lighting is highly energy-efficient ultra bright light source. CREE® leads the LED lighting revolution and is making energy-wasting traditional lighting technologies obsolete through environmentally friendly LED lighting. The CREE® LED provides over 50% more lumens of brightness when compared to the standard LED. Please reference the CREE® Fact Sheet for more information on the CREE® LED lighting in Starline's flashlights.