

## Definitions

This page overviews the definitions of the common terms used to differentiate the Xtar torch ranges.

### Light Output [ Lumen ]



Light output is a measurement of luminous flux using an integrating sphere. The unit of luminous flux, lumen, is a measurement of energy.

### Peak Beam Intensity [ Candela ]



Peak beam intensity is a measurement of luminous intensity at the middle of the flashlight beam. The unit of luminous intensity, candela, is a measurement of energy.

### Beam Distance [ Meter ]



Beam distance is defined as the distance from the flashlight where illuminance is equivalent to a full moon on a clear night.

### Runtime [ Hours ]



Runtime is defined as the amount of time, rounded to the nearest quarter hour, until output drops below 10%.

### Water Resistance [ IPX Rating ]



- IPX6 Protected against high pressure water stream from any angle
- IPX7 Water-proof, or temporary submersion at 1 meter for 30 minutes
- IPX8 Submersible or continuous submersion at some specified depth for 4hrs

### ANSI/NEMA FL 1-2009 Standard

Commonly abbreviated as the FL1 Standard, the ANSI/NEMA FL 1-2009 Standard is a set of flashlight performance guidelines.

“3W LED” was a common term used when high performance LEDs, such as the Luxeon, were first introduced. LEDs have varying efficiencies and rarely operate at the rated power, so this doesn’t really have any meaning.

With the FL1 Standard, ambiguous marketing phrases are a thing of the past, and direct comparisons can be made between flashlights from different manufacturers. Adherence to the FL1 Standard is voluntary, although the vast majority of manufacturers have adopted the standard.