



## XLAMP® PORTABLE LEDs

- Broad portfolio of high-power LEDs with consistent footprints that cover a wide range of ANSI FL 1 lumens and beam distance targets
- Industry's only portable-specific overdrive current testing enables higher maximum lumen outputs
- Leading global IP position with standard indemnification
- Most valuable portable LED brand for over 10 years

March 2024 (FS15R9)



### LUMEN-OPTIMIZED LEDs

Lumen is a measure of luminous flux, which is light output emitted in all directions.

Footprint (mm)	XLamp® LED	Light Source Size <sup>1</sup> (mm)	Voltage Class	Lumens @ Max Current <sup>2</sup> (lm)	Lumens @ Overdrive Current <sup>3</sup> (lm)	CRI Options				
3.45		XT-E HE	2.0 x 2.0	3V	511 @ 1.5A	804 @ 3.4A	70	80	90	
		XP-G3 Standard	2.3 x 2.3	3V	759 @ 2.0A	1,305 @ 5.5A	70	80	90	95
		XP-G3 S Line	2.3 x 2.3	3V	776 @ 2.0A	1,363 @ 5.5A	70			
		XP-G4 Standard	2.1 x 2.1	3V	1,045 @ 3.0A	1,488 @ 6.0A	70	80	90	
		XP-L2	3.0 x 3.0	3V	1,172 @ 3.0A	2,496 @ 10A	70	80	90	95
		XHP35.2 HD	3.3 x 3.3	3V 6V	1,952 @ 6.0A 1,952 @ 3.0A	3,016 @ 11.2A 3,016 @ 5.6A	<70			
5.00		XM-L2	2.8 x 2.8	3V	1,083 @ 3.0A	2,516 @ 10.3A	70	80	90	
		XM-L3	3.0 x 3.0	3V	1,526 @ 5.0A	1,967 @ 6.1A	<70			
		XHP50.3 HD	3.9 x 3.9	3V 6V	2,067 @ 6.0A 2,067 @ 3.0A	4,800 @ 20A 4,800 @ 10A	<70 70	80	90	
7.00		XHP70.3 HD	5.3 x 5.3	3V 6V	4,857 @ 14.4A 4,857 @ 7.2A	6,405 @ 20.6A 6,405 @ 10.3A	<70 70	80	90	95

1. Apparent optical source size as seen by the optic. In general, smaller source sizes will yield smaller beam angles through an optic. These values are not LED die sizes.
2. Simulated light output with highest available flux bin, maximum rated current, steady-state operation at  $T_c = 85^\circ\text{C}$  ( $\leq 3.45$  mm footprint) or  $T_c = 105^\circ\text{C}$  ( $\geq 5.0$  mm footprint)
3. At  $T_c = 85^\circ\text{C}$ . See the [Overcurrent Application Note](#) for more details on overcurrent limits for portable lighting.



## BEAM-DISTANCE-OPTIMIZED LEDs

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

Footprint (mm)	XLamp® LED	Light Source Size <sup>1</sup> (mm)	Voltage Class	Lumens @ Max Current <sup>2</sup> (lm)	Lumens @ Overdrive Current <sup>3</sup> (lm)	CRI Options			
3.45	XP-P	1.0 x 1.0	3V	614 @ 3.0A	---	70	80	90	
	XP-L HI	2.1 x 2.1	3V	992 @ 3.0A	1,892 @ 8.8A	70	80	90	
	XHP35.2 HI	2.8 x 2.8	3V 6V	1,691 @ 6.0A 1,691 @ 3.0A	2,530 @ 10.6A 2,530 @ 5.3A	<70			
5.00	XHP50.3 HI	3.0 x 3.0	3V	1,929 @ 6.0A	4,312 @ 18.8A	<70			
			6V	1,929 @ 3.0A	4,312 @ 9.4A	70	80	90	95
7.00	XHP70.3 HI	3.9 x 3.9	3V 6V	4,523 @ 14.4A 4,523 @ 7.2A	5,558 @ 18.6A 5,558 @ 9.3A	70	80	90	95

1. Apparent optical source size as seen by the optic. In general, smaller source sizes will yield smaller beam angles through an optic. These values are not LED die sizes.
2. Simulated light output with highest available flux bin, maximum rated current, steady-state operation at  $T_c = 85^\circ\text{C}$  ( $\leq 3.45$  mm footprint) or  $T_c = 105^\circ\text{C}$  ( $\geq 5.0$  mm footprint)
3. At  $T_c = 85^\circ\text{C}$ . See the [Overcurrent Application Note](#) for more details on overcurrent limits for portable lighting.

## CCT EXPLAINED

**Correlated color temperature (CCT)** describes the apparent tint of white light to humans with a single number.

6500K
5700K
5000K
4000K
3500K
3000K
2700K
2200K

CCTs  $\geq 5000\text{K}$ :  
Blue tint ("cool white")

CCTs 3500-4000K:  
Little color tint ("neutral white")

CCTs  $\leq 3000\text{K}$ :  
Orange tint ("warm white")

## CRI EXPLAINED

**Color rendering index (CRI)** measures how much a test light source distorts the color of objects illuminated by that source. The test light source is compared against a known-good light source of the same CCT across a variety of object colors.

- Lights with higher CRI values (closer to 100) will have less color distortion than lights with lower CRI values
- LEDs with CCT  $\geq 4000\text{K}$  and lower CRI will be brighter and more efficient than LEDs with warmer CCTs and high CRI