TEC DEFINED

WATERPROOF RATING SYSTEM

Princeton Tec has been designing lights that are compatible with the water for 40 years. Our lights are rated according to the International Electrotechnical Commission (IEC) standard.

IPX4

rated lights are designed for water resistance to splashing and quick dunkings. If a light with a IPX4 rating is accidentally submerged for a longer period of time, the batteries should be removed and the cabinets should be carefully inspected for signs of battery leakage. If water has entered the housing, the light should be dried and batteries replaced.

IPX6

IPX6 rated lights are designed for water resistance to powerful water jets from any direction for at least three minutes.

IPX7

rated lights provide waterproof integrity down to 1 meter for up to 30 minutes.

IPX8

rated lights provide waterproof integrity for continual submersion in water at depths down to 100 meters. Lights that conform to this rating are commonly referred to as diveable.

RECHARGEABLE

USB rechargeable lithium batteries are not only convenient, they also represent an economical and environmentally-friendly choice by eliminating the need for multiple sets of batteries over the life of your light.

BATTERY POWER METER

The battery power meter provides continuous feedback on the condition of the batteries, indicating high, medium or low battery life. This information allows you to make educated decisions about changing batteries or packing a spare set.

WEIGHT

Princeton Tec's advertised product weights always include batteries. For many products, battery weight is a large percentage of overall weight. Weight can be significantly reduced by using lithium batteries in lithium-compatible products.

HEATSINK TECHNOLOGY

Princeton Tec's proprietary ultralight heatsinks protect LEDs from overheating. Even though LEDs operate at much lower temperatures than traditional incandescent bulbs, they still generate heat. If this heat is not dissipated, the LED will suffer irreversible damage. By using heatsinks, Princeton Tec lights can burn at extreme brightness levels for long periods of time. The heatsink may be incorporated internally or externally depending on the product and its application.

BLUETOOTH

Select Princeton Tec products feature Bluetooth wireless technology, allowing full control from a smartphone or tablet. No wifi or cell signal required.

SWIPE

Select Princeton Tec product incorporate a flushmount switch that allows control by simply gliding a finger over the control surface.

UL CERTIFICATION

Underwriters Laboratories Inc. (UL) is an independent, not-for-profit product-safety testing and certification organization. They have been testing products for public safety for more than a century. In order for a product to bear the certified UL Mark, it must pass all UL requirements at their testing facility.

Princeton Tec lights that are UL certified fall into one of the following classifications: Class I – Division II – Groups A, B, C, & D, Class II - Division II – Groups F, & G, or Class I - Division I - Groups A, B, C, & D. Refer to the comparison chart in the rear of the catalog. Class I – Division II – Groups A,B,C,& D will be noted with one (+) Class II – Division II – approved for Groups F, & G, will be noted with two (++) - Class I - Division I Approved for groups A, B, C & D will be noted with three (+++)

George Chevalier

LED

Light Emitting Diodes, commonly called LEDs, are illuminated by the movement of electrons in a semiconductor material. Unlike ordinary incandescent bulbs, LEDs are extremely efficient, don't have a filament that will burn out, and virtually last forever. LEDs are small, lightweight, and encased in a hard epoxy, making them virtually indestructible. LED technology is advancing rapidly to produce longer-throwing, brighter, whiter and more efficient light sources. All of the LEDs used in Princeton Tec's products are the highest quality available

MAXBRIGHT LED

The highest quality LED available. Princeton Tec's Maxbright LED is extremely bright and efficient. This single LED emits a smooth, powerful, white light useful for a wide range of tasks. Princeton Tec uses collimators or reflectors with the Maxbright LED depending upon the application.

ULTRABRIGHT LED

The Ultrabright LED is bright and efficient. The smooth, white, wide-beam light emitted by Ultrabright LEDs is ideal for close to mid-range tasks. Ultrabright LEDs are usually grouped together to offer a more powerful light source. Advances currently underway will continue to improve the efficiency and brightness of Ultrabright LEDs.

LED OPTIC COLLIMATOR

A collimator gathers all available light from an LED in the form of scattered rays and re-emits the light as parallel rays, making it more optically efficient than a standard reflector. Princeton Tec calibrates each collimator to the type of LED and application of each light. With proprietary optimized collimator/lens systems, Princeton Tec continues to advance LED technology.

REGULATED LED / CONSTANT BRIGHTNESS

Princeton Tec lights that feature regulated LEDs have a sophisticated regulating circuit that maintains initial brightness as long as the batteries have sufficient voltage. Traditional lights are very bright initially, but immediately begin to dim and continue to dim until the batteries are drained. Constant Brightness is a term used to describe products that have regulated LEDs.

LUMEN

The light output of Princeton Tec lights is measured in lumens. A lumen is unit derived by the International System of Units (SI) for measuring light output.

DIMMABLE LEDS

Dimmable LEDs provide the precise output needed for a given task, and help conserve battery power for maximum efficiency.

BEAM DISTANCE

Princeton Tec measures beam distance as the distance from the light source at which the light emitted is greater than .25 lux, an amount of light which is similar to the amount of light that is cast by a full moon on a clear night.

BEAM PATTERNS

FOCUSED NARROW BEAMS

This pattern creates a long, powerful beam of light excellent for illuminating distant areas, or for use during fast paced activities.

FOCUSED WIDE BEAM

This beam pattern is an excellent choice for multipurpose activities. At close range, wide beams simulate normal daylight conditions and allow you to take advantage of your peripheral vision.

MULTIPLE MODE

Multiple settings on many of our products give you the flexibility to adjust your light's brightness to illuminate greater distances or to conserve battery power, depending on your needs.

MULTIPLE BEAM

This beam pattern combines focused narrow and wide beams to allow for the most versatility. At close range, the wide beams simulate normal daylight conditions so you can take advantage of your peripheral vision, while focused narrow beams provide distance illumination.

BURN TIME/LIGHT DURATION

Burntime is the time from the initial light output using fresh batteries, until the light output reaches .25 lux. This testing procedure is commonly referred to as the "Moonlight Standard," which was agreed upon by several headlamp manufacturers around 2002.

360° LIGHT

This light is designed for area illumination, and disperses light in a 360 degree pattern to light up a campsite or other area.