

PERFORMANCE STANDARDS AND RATINGS

ANSI STANDARDS

(American National Standards Institute)

Why create standards? While Pelican was one of the first manufacturers to use quantifiable test procedures, the need was recognized to develop a common language that customers could use to select the right flashlight for their specific needs. As a result, the American National Standards Institute (ANSI), with input from the flashlight industry, developed performance standards and symbols to effectively communicate a flashlight's features and benefits.

These standards are accredited by ANSI, which is a private non-profit organization that oversees the development of voluntary consensus standards for products, services, processes, systems, and personnel in the United States. The organization also coordinates U.S. standards with international standards so American products can be used globally. Resulting ANSI/NEMA FL 1 Standards include the six criteria.



LIGHT OUTPUT

Light Output is the total luminous flux. It is the total quantity of emitted overall light energy as measured by integrating the entire angular output of the portable lightsource. Light output in this standard is expressed in units of lumens.



PEAK BEAM INTENSITY

Peak Beam Intensity is the maximum luminous intensity typically along the central axis of a cone of light. The value is reported in candela and does not change with distance.



RUN TIME

Run Time is defined as the duration of time from the initial light output value – defined as 30 seconds after the point the device is first turned on – using fresh batteries, until the light output reaches 10% of the initial value.



WATER RESISTANT

Water Resistant – IPX4
Water splashed against the device from any direction shall have no harmful effects.



BEAM DISTANCE

Beam Distance is defined as the distance from the device at which the light beam is 0.25 lux (0.25 lux is approximately the equivalent of the light emitted from the full moon “on a clear night in an open field”).



WATER PROOF/SUBMERSIBLE

Water Proof – IPX7 – Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed in water under standardized conditions of pressure and time. Submersible – IPX8 – Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water under conditions which shall be stated by manufacturer, but which are more severe than for IPX7.

GLOSSARY OF TERMS

CANDELA

A unit of measurement of the intensity of light that is emitted by a light source in a particular direction.

LUX

The unit of luminous flux in the International System, equal to the amount of light given out through a solid angle by a source of one candela intensity radiating equally in all directions.

LUMEN

A unit of measurement of the amount of brightness that comes from a light source. Lumens define “luminous flux,” which is energy within the range of frequencies we perceive as light.

INTEGRATING SPHERE

An integrating sphere is a measurement device with an entrance port that can accept all the directional light output of the

device under test, or can totally enclose the device itself. The walls of the sphere should be highly diffuse with high reflectivity (>80%) and the spectroradiometer should be shielded from direct view of the device under test by a baffle system.

IP

(Ingress Protection) –Ingress Protection (IP) ratings specify the environmental protection the enclosure provides. The IP rating normally has two numbers (IPXX). The first number represents protection from solid objects or materials (dust) where the second number represents protection from liquids (water). With the IP rating IP 54, 5 describes the level of protection from solid objects and 4 describes the level of protection from liquids.

RECHARGEABLE

Denotes a flashlight which contains rechargeable batteries and charging station. These models are shown with the rechargeable icon.

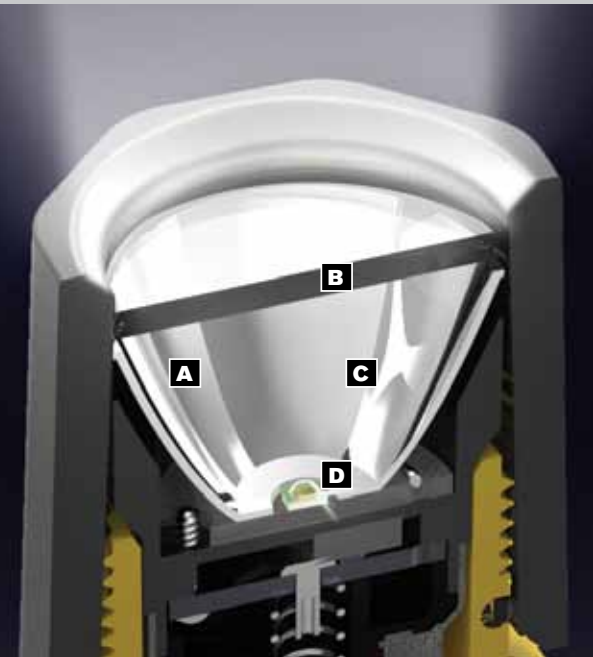


NEW DEEP MOUNT LED TECHNOLOGY:

Our engineering team has designed a new high performance LED lamp module (Deep Mount LED Module) for all current 35mm Recoil™ LED flashlights. These lights are now brighter, with close to 100% increase in lumens and a 2.5 times increase in lux value over previous versions as well as offering a more robust design.

Effected models:

- | | | |
|--------|--------|--------|
| ■ 2010 | ■ 2460 | ■ 3660 |
| ■ 2410 | ■ 3610 | |



- | | |
|--|---|
| A: New deep dish reflector provides up to 2.5 times lux increase, and 100% lumen increase | C: Opti-mechanical design gathers and focuses 100% of the light |
| B: Robust, over-molded polycarbonate lens won't yellow | D: LED is mounted directly to the PCB board, creating a strong and efficient design solution |

LED LIGHTS

LED PRESCRIPTION FOR THE NEAR OR FAR SIGHTED

From the garage to the refinery, from expeditions up to K2 to deep dives in Vanuatu – you'll find your bright, efficient, and durable LED lighting tool here. All are engineered with leading-edge technology and a strong build quality.

STEALTHLITE™ 2410 LED
■ **RUN TIME:**
7 hrs. 30 mins.
■ **LIGHT OUTPUT:**
126 LUMENS

L4™ 1830 LED				
LIGHT SOURCE	LED			
BATTERIES	3 AAAA Alkaline (Included)			
LENGTH	6.2" (15.7cm)			
COLORS	<div><div></div><div></div></div>			
APPROVALS	CI D1			
ANSI STANDARDS	<div><div>FL1 STANDARD</div><div>5 LUMENS</div></div>	<div><div>FL1 STANDARD</div><div>32h</div></div>	<div><div>FL1 STANDARD</div><div>13m</div></div>	<div><div>FL1 STANDARD</div><div>44cd</div></div>
	LIGHT OUTPUT	RUNTIME	BEAM DISTANCE	PEAK BEAM INTENSITY

L1™ 1930 LED				
LIGHT SOURCE	LED			
BATTERIES	4 LR 44 Alkaline (Included)			
LENGTH	2.64" (6.7cm)			
COLORS	<div><div></div><div></div></div>			
APPROVALS	CI D1			
ANSI STANDARDS	<div><div>FL1 STANDARD</div><div>12 LUMENS</div></div>	<div><div>FL1 STANDARD</div><div>4h 15min</div></div>	<div><div>FL1 STANDARD</div><div>17m</div></div>	<div><div>FL1 STANDARD</div><div>70cd</div></div>
	LIGHT OUTPUT	RUNTIME	BEAM DISTANCE	PEAK BEAM INTENSITY

MINI FLASHER™ 2130 LED				
LIGHT SOURCE	LED			
BATTERIES	2 L1154 Alkaline (Included)			
LENGTH	1.73" (4.4cm)			
COLORS	<div><div></div></div>			
APPROVALS	N/A			
ANSI STANDARDS	<div><div>4.7 LUMENS (Non ANSI)</div></div>	<div><div>130h (Non ANSI)</div></div>	<div><div>N/A</div></div>	<div><div>FL1 STANDARD</div><div>1m</div></div>
	LIGHT OUTPUT	RUNTIME	BEAM DISTANCE	PEAK BEAM INTENSITY

MINI FLASHER™ 2130IR LED				
LIGHT SOURCE	LED			
BATTERIES	2 L1154 Alkaline (Included)			
LENGTH	1.73" (4.4cm)			
COLORS	<div><div></div></div>			
APPROVALS	N/A			
ANSI STANDARDS	<div><div>N/A</div></div>	<div><div>65h (Non ANSI)</div></div>	<div><div>N/A</div></div>	<div><div>FL1 STANDARD</div><div>1m</div></div>
	LIGHT OUTPUT	RUNTIME	BEAM DISTANCE	PEAK BEAM INTENSITY

VB3™ 2220 LED				
LIGHT SOURCE	LED			
BATTERIES	2 CR2032 Lithium (Included)			
LENGTH	3.5" (8.9cm)			
COLORS	<div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div>*translucent</div>			
APPROVALS	CI D1			
ANSI STANDARDS	<div><div>FL1 STANDARD</div><div>9 LUMENS</div></div>	<div><div>FL1 STANDARD</div><div>34h</div></div>	<div><div>FL1 STANDARD</div><div>12m</div></div>	<div><div>FL1 STANDARD</div><div>38cd</div></div>
	LIGHT OUTPUT	RUNTIME	BEAM DISTANCE	PEAK BEAM INTENSITY

VB3™ 2220NV LED				
LIGHT SOURCE	LED			
BATTERIES	2 CR2032 Lithium (Included)			
LENGTH	3.5" (8.9cm)			
COLORS	<div><div></div></div>			
APPROVALS	CI D1			
ANSI STANDARDS	<div><div>1.0 LUMENS (Non ANSI)</div></div>	<div><div>100h (Non ANSI)</div></div>	<div><div>N/A</div></div>	<div><div>FL1 STANDARD</div><div>1m</div></div>
	LIGHT OUTPUT	RUNTIME	BEAM DISTANCE	PEAK BEAM INTENSITY

2365 LED FLEX NECK				
LIGHT SOURCE	LED			
BATTERIES	2 AA Alkaline (Not Included)			
LENGTH	21.92" (55.7cm)			
COLORS	<div><div></div></div>			
APPROVALS	N/A			
ANSI STANDARDS	<div><div>FL1 STANDARD</div><div>49 LUMENS</div></div>	<div><div>FL1 STANDARD</div><div>7h</div></div>	<div><div>FL1 STANDARD</div><div>81m</div></div>	<div><div>FL1 STANDARD</div><div>1644cd</div></div>
	LIGHT OUTPUT	RUNTIME	BEAM DISTANCE	PEAK BEAM INTENSITY

SABRELITE™ 2010 LED				
LIGHT SOURCE	LED			
BATTERIES	3 C Alkaline (Not included)			
LENGTH	8.11" (20.6cm)			
COLORS	<div><div></div><div></div></div>			
APPROVALS	CI II III D1			
ANSI STANDARDS	<div><div>FL1 STANDARD</div><div>109 LUMENS</div></div>	<div><div>FL1 STANDARD</div><div>32h</div></div>	<div><div>FL1 STANDARD</div><div>144m</div></div>	<div><div>FL1 STANDARD</div><div>5189cd</div></div>
	LIGHT OUTPUT	RUNTIME	BEAM DISTANCE	PEAK BEAM INTENSITY

SABRELITE™ 2010 LED PHOTOLUMINESCENT				
LIGHT SOURCE	LED			
BATTERIES	3 C Alkaline (Not included)			
LENGTH	8.11" (20.6cm)			
COLORS	<div><div></div></div>			
APPROVALS	CI II III D1			
ANSI STANDARDS	<div><div>FL1 STANDARD</div><div>109 LUMENS</div></div>	<div><div>FL1 STANDARD</div><div>32h</div></div>	<div><div>FL1 STANDARD</div><div>144m</div></div>	<div><div>FL1 STANDARD</div><div>5189cd</div></div>
	LIGHT OUTPUT	RUNTIME	BEAM DISTANCE	PEAK BEAM INTENSITY