

# NIGHT-OPS

REMOVING ANY SHADOW OF DOUBT

## The Gladius™

High Intensity LED Multi-purpose Illumination Tool

Available Q1 - 2005



[www.night-ops.com](http://www.night-ops.com)  
email: [info@night-ops.com](mailto:info@night-ops.com)

Toll Free: 1-888-LOW-LIGHT  
(1-888-569-5444)  
Outside the U.S. 1-816-347-9771  
Division of BlackHawk Products Group

**BLACKHAWK!**  
PRODUCTS GROUP

# The Gladius

## Conquers Again

From the beginning of time, cultures have etched their place in history by the armaments they forged to conquer and protect themselves from their ever-present enemies.

These tools were carried by warriors who often endured unspeakable hardships and agony, most of this sacrifice unnoticed by the vast majority of the society they were sworn to protect.

Inevitably warriors and conflict have always had a tremendous influence on the evolving design of these tools, as victory and mission success depended on the effectiveness, durability, and portability of their equipment.

In the spirit of these warriors and their contributions, Blackhawk Products Group introduces its latest set of proprietary tools, Night-Ops illumination equipment. The mission of Night-Ops is to design, and manufacture the world's finest illumination tools. Night-Ops illumination tools are designed to be the most durable, dependable and technologically advanced in the world. In short, Night Ops illumination tools are manufactured to meet the demanding requirements of those warriors that go into harms way by choice.

The Night-Ops team has dedicated itself to listening to those who serve as guardians of society as a whole. We value their experience, knowledge, and practical wisdom.

History tells us over and over again that a single tool can radically change the landscape of the battlefield. Perspective, strategy, and tactics, can all be significantly affected with the introduction and understanding of a crucial piece of equipment.

Night-Ops' first illumination tool is the "Gladius". It is the first in a long series of projected releases.

This "Gladius" is a high-powered, compact illumination product that is named after one of the most famous battle implements in history. Many accounts indicate that original Gladius was developed after the Romans encountered a sword of the highest iron quality that was designed to puncture the enemy. It caused such terror and anguish among the Roman legionnaires that the Roman Senate decided to adopt a similar weapon, replacing the Greek sword of the hoplite. Of this sword design it has been said that no other weapon has killed more men throughout history until the invention of the firearm. That being said, there was room for notable improvement of design and the Romans exploited this. We take note of these lessons learned.

The Roman soldier himself was one of the toughest and most acclaimed on the planet, carrying over 90 lbs of equipment often 20 miles a day only to face prolonged battle under the harshest conditions.

Like the Roman sword serving these soldiers before us, the Night-Ops "Gladius" is specifically designed to be a critical, practical, and powerful mainstay for our frontline troops in Law Enforcement and Military Operations involved in Close Quarter Confrontations.

The Night-Ops "Gladius" will provide our modern warriors with a readily available illumination option to tip the scale of conflict in their favor.

**NIGHT-OPS**  
REMOVING ANY SHADOW OF DOUBT

[www.night-ops.com](http://www.night-ops.com)

email: [info@night-ops.com](mailto:info@night-ops.com)

Toll Free: 1-888-LOW-LIGHT (1-888-569-5444)

## The Gladius is the most Innovative Tactical Illumination Tool to Arrive on the Scene

This waterproof illumination tool is designed primarily for handheld use, but is robust enough for weapon mounted applications. The Gladius is powered by two 3-volt lithium batteries (CR123A) for a total runtime of 90 minutes at the full power setting. The Gladius is designed from the ground up to be immersed into the realities of close quarter conflict and should significantly enhance the capabilities of those operating in low light environments. The Gladius is born of years of low light operational and training experience and simply outclasses the competition.

### Featuring

- High quality glass
- Superb fit and finish
- Excellent balance and ergonomics
- Multi-function capability
- Intelligent digital power management system
- Thermal management
- High intensity output
- Extended runtime
- Exceptional beam quality
- Durability for combat applications



### Illumination Tools Not just to See Anymore

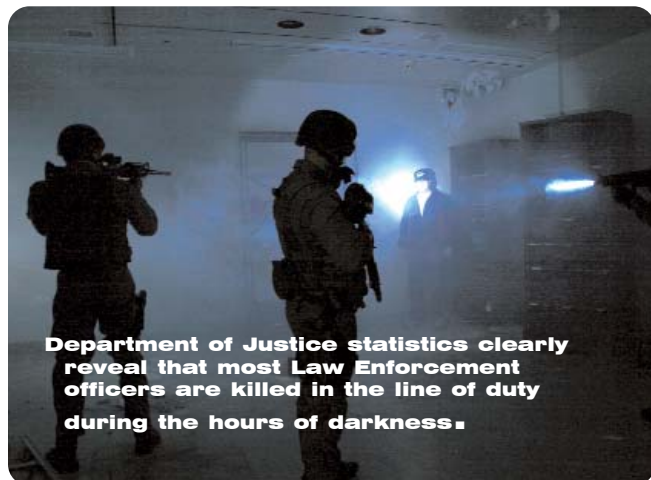
Traditionally, flashlights have been used to navigate, search for contraband or important evidence, identify and classify threats, and in some cases serve as impact weapons. In the past several years there has been a strong undercurrent that has been largely generated by the teaching staff at Strategos International in applying handheld and weapon mounted white light tools in an important new role; that is, deliberately disorienting seen and even unseen threats.

The Gladius features a revolutionary intelligent electronics package. With the embedded capabilities of this light, a user can navigate in hostile conditions (adjustable levels of light), while maintaining the immediate option of activating the rear tailcap button for momentary switching. The Constant-On feature and System Lock-Out are also seamlessly accessed with the thumb.

What really sets this illumination tool apart from the pack is its incredible **strobe capability**.

The strobe rate is set so that many non-compliant individuals will exhibit the same behaviors desired in any less-lethal light distraction device. That is, they will turn away, become confused or frightened, distracted and disoriented.

**The individual using the light is not affected by the strobe,** as the majority of the light energy is directed away from the officer.



This whole concept is of critical importance. If officers can carry a device that will generally give them a predictable edge when forced to close the gap and get "hands on" with an individual before that individual can formulate a retaliatory response, it follows that reduced levels of force will be required.

If officers can deploy other less-lethal options such as Taser, O/C, Baton while the subject is in the state of disorientation, those tools will have a stronger and more immediate effect as the subject does not have the opportunity to prepare mentally or physically for the next impending action on the officers part.

#### Bottom Line:

Law Enforcement officers, military personnel, professional security and civilians concerned with self-defense, will have at their immediate disposal a tool that will appreciably bring down the level of force required to subdue many threats encountered in diminished light conditions.

**NIGHT-OPS**  
REMOVING ANY SHADOW OF DOUBT



WWW.NIGHT-OPS.COM

## Serious Professionals Need Professional Grade Tools

This light is factory pre-focused for optimal use in close quarter situations. Protecting the reflector and the LED is an O-ring suspended UCL glass lens that maintains a 99% light throughput, the highest in the industry.

The body design allows for a variety of handgun flashlight technical applications. It features an excellent center of gravity and well-placed anti-roll/retention flares. This light will not slip in your hand during stressful situations or when it gets wet; it just feels right.

At the heart of this fighting tool is a robust electronics package that can only be described as REVOLUTIONARY.

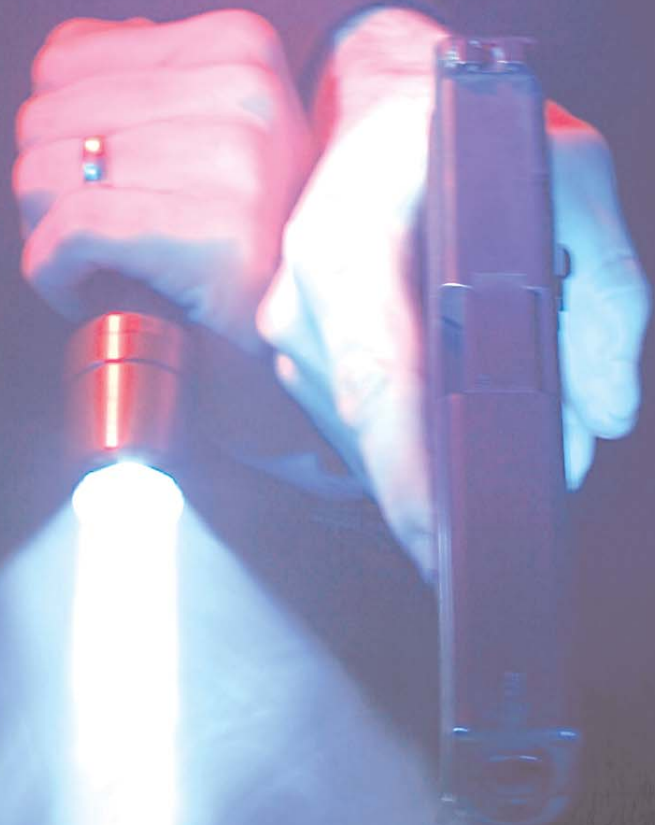
This electronics package of the Gladius is the most technologically advanced ever developed for a handheld illumination tool.

It has been tested in the laboratory and more importantly field tested to ensure it can withstand the rigors of operational deployment.

It starts with a factory programmed, intelligent power management system that allows Night-Ops to take the current technology to the edge. This intelligent power management system allows the LED to be driven at a very high level while maintaining an extremely high degree of reliability, usability and efficiency as heat and current are digitally regulated.

This tool has automatic temperature control to ensure transport safety. If the light is inadvertently activated in a confined storage container and reaches unsafe levels of heat, the light will automatically dim slightly while maintaining usable levels of light or completely shutdown. Again this is to address the potential fire hazard if the light remains in a non-ventilated space. With the applications this light is intended for, the auto-shutdown will never manifest itself to the user.

If the batteries run low, the intelligent power management system will signal the operator of this condition by a presenting a unique flashing pattern every 15 seconds.



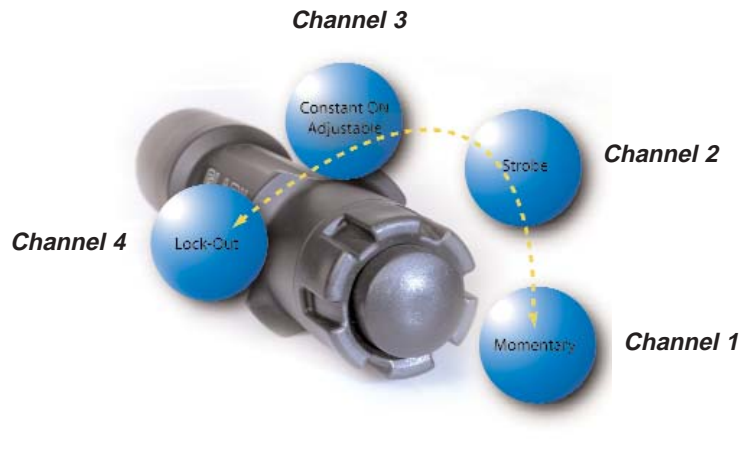
**NIGHT-OPS**  
REMOVING ANY SHADOW OF DOUBT

www.night-ops.com

email: info@night-ops.com

Toll Free: 1-888-LOW-LIGHT (1-888-569-5444)

# Channels and Modalities



The Gladius features a unique multi-function switching design that sets the new standard for single hand functionality, ergonomics and usability.

The switching is separated into two components; a familiar thumb activated push-button tailcap and our new patent pending rotary dial.

## Main Channels

Momentary - Strobe - Constant ON / Adjustable - Lock-Out

## Using the Rotary Dial and Tailcap in Combination

Note: The factory programming is such, that no matter what Channel you select, the light initially comes on Full-Power as the light was primarily designed to address close quarter confrontations where threat identification and assessment is critical.

### 1. Standard Momentary Activation [Rotary Dial in the Full Clockwise position - Tailcap PRESS ON and RELEASE OFF] - **Channel 1**

As long as the tailcap button is pressed the light is ON. As soon as it is released the light is extinguished. This is of vital concern in a tactical environment as often it is as important to get the light extinguished as it is to energize it on demand.

### 2. Strobe [Rotary Dial in the Middle Setting - Tailcap PRESS ON and RELEASE OFF] - **Channel 2**

As long as the tailcap button is pressed the light will cycle in a pre-programmed rapid strobe pattern. This is deployed when the operator wishes to close the gap or disorient threats. While operating in the strobe channel, the power sent to the LED is increased to its maximum safe output to increase the disorienting effect on the threat's visual perception.

### 3. Constant On Mode Or Adjustable [Rotary Dial at the Full Counter-Clockwise position] - **Channel 3**

#### a. Constant On, Full Power [Tailcap PRESS AND RELEASE]

The light will stay ON. To turn the light OFF, Quickly PRESS AND RELEASE the tailcap button again.

#### b. Adjustable Light Levels [Tailcap PRESS AND HOLD]

The first is **Factory Default Mode I**. The light starts off at Full Power and if the button is held it will begin to auto dim to the lowest level of output. Hold the tailcap button down for at least 1.5 seconds to begin dimming. Releasing the button stops the adjustment and the light stays on at that level. This light has a 100:1 dimming ratio. The process of going from full power to the lowest level takes 3 seconds once the dimming sequence has started. To reverse the process and cause the light to brighten, just press and hold the button again for 1.5 seconds until the light level increases to the desired level and release the button. If the operator needs just enough light to navigate in difficult terrain, to signal, or complete some administrative functions, the light can be adjusted accordingly.

Once the light level is established, if you wish to turn the light OFF, simply press and release the button. To instantly cause the light to go to full brightness from any dimmed level, press and release the button twice.

#### c. Enabling a different protocol for Channel 3

Users have requested that the light in Channel 3 start off low instead of high or simply remember where the light was when last adjusted. With the Gladius digital interface you can reprogram the light to meet your operational requirements.

We have built in 2 other protocols, Mode II and Mode III and they are enabled by the user through a specific set of actions while the rotary dial is on Channel 3.

The first alternative is Mode II and it is simply the reverse of Mode 1. The light starts at its lowest level and increases to its highest level.

The second alternative is Mode III and it is a Memory Mode. The light "remembers" where you last left it and begins from there. The light level will initially adjust down from the existing level.

This hidden reprogramming feature gives the Gladius a wide range of versatility to meet operational requirements never previously available in this category of illumination tools. The user can return to any previous Mode by initiating the proper sequence outlined on the next page.

#### Instructions for User Initiated Channel 3 Mode Changes:

Note the Mode changes are cycled in a set sequence:  
1-2-3-1 and so on.

To change from Mode I (factory default) to Mode II, press and HOLD the tailcap button when the rotary dial is set for CONSTANT ON-OFF operation until the light blinks twice (approx. 10 seconds). Repeat the process. The next time you activate the tailcap, the light will start off in Mode II

To change to the next Mode, Mode III, initiate the same sequence.

To change from Mode III back to Mode I (factory default), initiate the sequence again.

Note: If you are a member of a team that carries the Gladius, having several different configurations of lights (*different Channel 3 programming*) within that team could lead to confusion. Please consider this when changing the factory default settings for this channel.

#### 4. System OFF Mode - Lock Out - Channel 4

Press the tailcap button halfway down when the rotary dial is in the full counter-clockwise position to access additional rotation. Rotate the knob one more position clockwise. Once the additional rotation is achieved, the light is "Locked Out" and the tailcap button will not depress. This allows the light to be stored in a "go-bag", with other personal gear, or in a holder without accidental light activation. To Unlock the light, simply move the rotary dial clockwise.

#### Switching Modes Dynamically

Once you become familiar with the operation of the Gladius, you will appreciate the powerful capability of switching channels on the fly.

You can preset to another channel by simply turning the rotary dial without changing the current level or type of light output you are currently accessing.

The next time the tailcap switch is cycled it will be in that new channel.

For example, you may be navigating using the Gladius at its lowest level of light. During that navigation task, you can switch the rotary dial to Momentary. The light will remain at its lowest level until you press the tailcap again. At that point you will be at full power and in the Momentary channel.



# Specifications

## Contact-Free Switching

The rotating switch uses a revolutionary, totally enclosed, contactless design which eliminates electrical connections between the tailcap and the power management system circuitry. Contacts ultimately wear and corrode, causing intermittent or loss of function. This equates to having a much more dependable and durable switch in all types of environments.

## Waterproof to 50 meters

Additionally, the design of the tailcap allows the end user to take the light to depth without water pressure activating the switch. The switch design allows pressure equalization inside and outside of the switch and is not subject to depth restrictions.

## Digital Communication

The Gladius features a proprietary system that allows the tailcap switch to communicate with the intelligent power management system located in the front area of the flashlight. This is a first in this category of lighting tools.

## Auto Temperature Control

Within the electronics package of the Gladius is a proprietary feature that automatically regulates the temperature. If a user neglects to Lock-out the tailcap and the light is inadvertently activated causing the temperature to become excessive, the automatic temperature control feature cuts the LED power by 50% (a 30% light reduction), allowing the temperature of the Gladius to gradually reduce. The light will continue to emit light at useful levels.

If for some reason the temperature is not reduced and it continues to increase past a critical temperature threshold, the power sent to the LED is automatically terminated to protect the LED and battery from being damaged. In an emergency, this shutdown mode can be reset by turning the light OFF and back ON. The light will remain ON for 15 seconds and then shutdown again if the temperature is still too high.

You will also note this feature is activated when the light is placed on Constant ON for more than a few minutes (ambient temperature dependent). Due to the high light output of this light, heat is generated. The light will auto-dim and then cool. Simply cycle the tailcap switch to reactivate full-power output.

## Low Battery Power Indication

The Gladius uses two 3-volt Lithium CR123A batteries

Run-time of the battery can vary greatly depending on the type of usage and dependent on ambient temperature conditions. When the battery life reaches a pre-determined point it will begin a process of two noticeable, consecutive, rapid pulses every 15 seconds until the batteries are replaced. This low battery indication is active for the momentary and constant on modes ONLY.

## Runtime

90 minutes of maximum light output at the full power setting  
400+ hours @ lowest setting. (approx. 0.8 lumens)

## Storage temperature range of the Flashlight w/o batteries

-40C(-40F) to +66C (+150F)

## Temperature Specifications (battery)

Storage: -20°(-4°F) to 45°C(113°F) storage  
Operating: -40°C (-40°F) to 48°C (120°F) operating

## Battery Type

CR123A Camera battery  
ANSI: 5018LC  
IEC: CR17345

## Changing the Batteries

(See Maintenance Page)



**Lumen Output** - Specifications forthcoming (est. 90+ Lumens at Full Power - .8 Lumen at lowest Dim Setting)

**Size & Weight Specifications**

Bezel & Tailcap Diameter	1.25"
Body Diameter	1" (for weapons mounted applications)
Length (Bezel to Tailcap)	6.23"
Weight (w/o batteries)	6.63 oz or 188 grams

**Finish - Exceptionally Hard Liquid Ceramic Coating**

This finish maintains excellent bond strength even after exposure to extreme high temperatures. Other performance properties include high chemical and corrosion resistance, unmatched hardness, and outstanding UV resistance. Uses include clear protection, performance motor sports, industrial coating applications, firearms coatings, gas turbine engine coatings, and decorative performance coatings. Available in Black, OD Green, Coyote Tan and Sniper Grey

**Reflector**

Specifically chosen to create an intense "Hot Spot" and maximize downrange "Throw" yet still producing a large, useful corona for area searching.

**UCL Glass Protecting the LED and Reflector**

UCL (Ultra Clear Lens): This glass (in its 3mm thickness) passes over 99% of all visible light. This results in a brighter beam with the truest colors. This glass also has an Anti-Reflective coating on it. Anti-Reflective coatings allow more light to pass through the glass, which is the main reason behind its incredible light transmittance. This is by far one of the most advanced lenses available and is recommended for those looking for the ultimate in optical performance.





# Choosing a Flashlight from a Law Enforcement Perspective

## Ergonomics

The flashlight should be naturally retained in the hand. The flashlight should not easily slip when involved in other tasking. The flashlight should be suitable to deploy using a variety of handgun/flashlight techniques and searching protocols.

## Balance

This is an often overlooked consideration. Like all tools that man develops, a balanced tool that is easily directed and handled is much preferred over an unbalanced tool that wanders in unwanted directions or causes the user to drop it altogether. Since these tools may be called upon during times of extreme stress, a balanced flashlight is a critical factor when selecting which one to buy. You want a tool that will naturally remain aligned, as you will not have the mental resources available under duress to consciously think about it.

## Durability

This applies to all flashlight components: body, reflector, bulb, switch, and electronics. If dropping or banging the light puts it out of order, it is simply not suitable for LEO or combat use. LED's are exceptionally strong and have thousand of hours of runtime.

## Waterproof

The light may be carried and used in the rain or completely immersed in water. It must not be susceptible to either water infiltration or corrosion from dampness. If you plan on diving with your handheld light, you do not want the switch to activate under the water pressure of depth.

## Bright

The light will be used to clearly identify targets and to temporarily incapacitate an assailant. Traditional 2-D cell flashlights using traditional bulbs are inadequate sources of light. We believe a minimal level of light should be in the 60+ lumen range.

## Color Temperature

Carefully attention must be afforded to selecting an LED that matches the mission requirements. For tactical applications, a color temperature that is in the white spectrum is important. Current Gladius models feature 8000K (nm) - Cool White.

## Adjustable Levels

Ideally, a light used in military, law enforcement, professional or personal security applications should have the ability to provide lower levels of light output in order to perform tasks that do not require maximum output. Examples include locating contraband, navigating on higher risk approaches, recons, map reading, or writing reports, etc.

## Beam Quality

Many manufacturers claim high output in terms of lumens or candlepower. This is only part of the story or what we consider the "light signature". The light must be properly focused and free of dark holes within the beam pattern in order to facilitate threat identification and threat disorientation.

## Beam Diameter

This directly affects how much of the area you can observe and evaluate and ultimately act upon. This is primarily affected by light output and the reflector/optic chosen. There is no "one-size fist all" illumination tool in this regard. An array of tools must be developed to meet mission, range and terrain requirements. If your mission requires you to stay indoors or out on patrol in open areas, lighting tool selection must be matched in accordance with these realities.

## Beam Throw

This is defined as the distance that the user can use the beam to accurately identify or locate persons or items. Again, the reflector/optic must be carefully evaluated and selected to meet the mission requirements of the operator. Given the same light output, the reflector or optic will have significant impact on how well your light will penetrate downrange.

## Momentary On/Off Switch

Frequently, proper use of flashlights in LEO or combat situations requires activating them for brief moments - sometimes literally a fraction of a second. Ideally, this activation should be possible with just the thumb or a single finger. Therefore:

- (1) A flashlight with only a "twist" on/off mechanism is unacceptably slow to operate.
- (2) Flashlights with a slide-on/off switch (most of which are not waterproof) are undesirable, since a positive and rapid on/off cycle is possible only with a thumb.
- (3) A flashlight whose momentary switch is integral with its regular on/off switch is undesirable, since accidental activation at the wrong moment could prove disastrous.
- (4) A separate momentary switch, operable with one finger or one thumb while holding the flashlight in its normal grip, is by far the best.

## Constant-On Switching

A separate, mode for keeping the light on should be provided with the proper lighting tool. I.E, directing traffic, searches, and holding on threats.

**The Gladius Meets all these Requirements and More...**

**NIGHT-OPS**  
REMOVING ANY SHADOW OF DOUBT

www.night-ops.com

email: info@night-ops.com

Toll Free: 1-888-LOW-LIGHT (1-888-569-5444)

# Maintenance, Warranty and Repair

## Installing New Batteries

Remove the tailcap housing by rotating the metal sleeve (not the rotary dial) counter-clockwise until the housing is released.

Install new, high-quality batteries, positive terminal first into the light. Night-Ops recommends Panasonic, Duracell or Night-Ops branded batteries. Carefully insert the housing into the body of the Gladius with light pressure and rotate it using the knob until you feel it drop into its proper position. Then turn the entire sleeve clockwise until tight.

Test the light to make sure everything is working properly.



**DO NOT REMOVE the Bezel (unscrew the front end of the Flashlight)**

**This will void your warranty!** The glass can be safely cleaned with a soft cloth and lightly wetted with mild window cleaner.

Night-Ops illumination tools have a limited lifetime warranty that covers parts and labor in everything with the exception of incandescent lamps & batteries.

For each light submitted for warranty consideration, you must first obtain a Return Merchandise Authorization (RMA) number from Blackhawk Products Group.

The following conditions & exclusions do apply:

Disassembly of any light other than for battery replacement by an unauthorized person will void the warranty as will obvious abuse situations. Normal wear is to be expected and is not covered under this warranty.

**Call 1-800-694-5263 or 1-757-436-3101**

to obtain a Return Merchandise Authorization Number



## Other Warnings

- The Gladius™ is not a toy and should not be treated like one.
- Keep Gladius away from children.
- The illuminated LED will generate heat; do not hold bezel or lens of an activated Gladius against any portion of the human body.
- Do not stare directly into the LED; momentary blindness and/or eye damage could result.
- Use caution when using the light as it can cause momentary blindness and/or disorientation within the subject and surrounding individuals.





