

### **The Right Choice for High Performance Handheld LED Lights**

LED Lenser technology brings you the world's most advanced handheld lighting devices. They offer you all the many advantages of LEDs—energy efficiency, durability, and long life—and a lot more. In fact, Coast LED Lensers far surpass standard LED lights. Our proprietary optical technology increases the depth and brightness of LED Lenser light beams. Our quality construction features 24-carat gold contacts, metal casings, and o-ring seals for watertight integrity. Coast's equally secure Lifetime Guarantee backs each LED Lenser you buy. When you want the best, you want Coast LED Lenser.



**Coast LED Lenser** PO Box 5821 Portland, OR 97228

#### LIFETIME GUARANTEE

COAST™ Products guarantees its products to be free of defects in materials and workmanship for the life of the original purchaser. This guarantee does not cover normal wear and tear, nor dam age resulting from misuse or neglect. Batteries are not included in this guarantee. If this product is defective, return it to us for repair or replacement. David C. Brands



**TECHNOLOGY** 

**OVERPOWERS** 

THE COMPETITION

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# LED TECHNOLOGY

#### The LED Advantage

Coast LED Lenser offers many advantages over standard incandescent flashlights:

- LEDs are incredibly energy
  efficient. LEDs generate almost
  no heat and can therefore use all
  of their electrical energy to
  generate light. Incandescent
  lightbulbs give off most of their
  energy in the form of
  heat-carrying infrared light
  photons—only about 10% of the
  light produced is in the visible
  spectrum. This wastes a lot of
  electricity, or battery power in the
  case of flashlights. LEDs can be
  as much as 70% more energy
  efficient than incandescent lights.
- LEDs are longer lasting. The lifespan of LEDs is measured in years rather than hours for incandescent bulbs. LEDs are rated to burn brightly for 100,000 hours of service that's almost 11.5 years of continuous light. This compares to just 11 hours for a standard incandescent flashlight bulb.
- LEDs are compact. A great deal of light can be created and emitted in a very small space. LEDs are easy to carry and store.
- LEDs are durable. With their tough construction, small size, and no breakable filaments, LEDs can stand up to much rougher handling than incandescent bulb-based lights. This solid-state design enables them to withstand shock, vibration, and environmental extremes without compromising their long life.

## Incandescent Bulb vs LED



The Basic Light Bulb

Light bulbs have remained more or less the same since their invention in 1879. A light bulb consists of two metal contacts attached to a thin metal filament that is housed in a thin, glass bulb filled with inert gas.

When the bulb is connected to a power source, an electrical current flows from one contact to another, heating the filament. When the filament reaches a temperature of around 4,000° F, it glows, giving off visible light.

Incandescent bulbs give off most of their energy in the form of heat. Only about 10% of the energy they produce is in the visible light spectrum.



The Basic LED

A diode is the type of electronic circuit used in semiconductors. Light Emitting Diodes (LEDs) not only conduct electricity, but also produce radiant energy—light—while they do it.

A basic LED consists of a semiconductor diode chip mounted in a frame, connected to electrical wires, and encased in protective epoxy. Electrical charges change the energy levels in the diode, causing light to be produced. Depending on the type or combination of semiconductor materials used, the wavelength of the light-and therefore the color of the LED-can be controlled.

#### Incandescent Illumination vs Coast LED Lenser







Quality incandescent light



Coast LED Lenser

## Incandescent vs Coast LED Lenser Energy Use



Compare Energy Used in

**Hours of Service** 



Incandescent:

**B** batteries

17 bulbs

#### Coast LED Lenser:

**3** batteries

n bulbs

## All LEDs Are NOT the Same

Some manufacturers save money by using cheap LEDs. Coast LED Lenser uses only the highest quality Nichia™ and LumiLED™ LEDs. Further, Coast LED Lenser engineers match the technology of each light to the precise configuration of the LED to ensure optimum performance from every Coast LED Lenser.



# OPTICAL TECHNOLOGY

#### Coast LED Lenser Technology Leads the Industry

- This patent-pending technology is designed to focus and increase the light output from the high-intensity LED. The light is lined with highly reflective Italian crystal that intensifies the light output, providing a much brighter beam than comparable LED lights. LEDs generate almost no heat and can therefore use all of their electrical energy to generate light. LEDs can be as much as 70% more energy efficient than incandescent lights.
- Like the Crystal Reflector Tube System, this patent-pending technology focuses and increases the light output from each high-intensity LED in the "cloverleaf" array. The reflective crystal in the cloverleaf intensifies the light to produce a brighter, broader beam than ordinary LED flashlights.
- Prism Reflector System

Other Coast LED Lensers feature the patent-pending Prism Reflector System. In this case, a prism lens is used to step-up the light output from a single high-intensity LED. The result is an incredibly bright beam of light that uses very little energy. Not only is the beam brighter, it is more focused and "deeper," too, that is, it penetrates further into the darkness.

Compare Coast's Patented LED Lenser Beams to Standard LED Lights



#### Standard LED

- Unfocused beam
- Standard contacts
- Plastic casing
- Standard-quality LED









Coast LED Lenser Crystal Reflector Tube System



Provides a brighter beam than comparable LEDs Coast LED Lenser Cloverleaf Reflector System



Provides a brilliant, broad

Coast LED Lenser Cloverleaf Multi-Reflector System



 Provides an even more brilliant, broad beam Coast LED Lenser Prism Reflector System



 Provides a brighter, more focused, deeper beam

In addition, all Coast LED Lenser lights feature:

24-kt. gold contacts
 Metal casing
 Higher wattage LEDs
 OPI rated for output



# DIGITAL TECHNOLOGY

#### Coast LED Lenser's Power Transformation Technology (PTT) overpowers other LED lights

PTT lights use a microprocessor to digitally increase the voltage supplied to the LED and regulate the current at the same time. This allows you to get a brighter light in a smaller package as well as more consistent brightness from the LED for the life of the battery.

For instance, our DigiTac lights run a 1.25-watt LED with a single AA battery. This means you are getting the power of a 3-C-cell flashlight from a single AA battery. PTT also provides for more steady use of the power in your batteries. Standard lights start to diminish in brightness as soon as they're turned on. But with PTT, your flashlight maintains its peak brightness until the batteries are close to being used up.



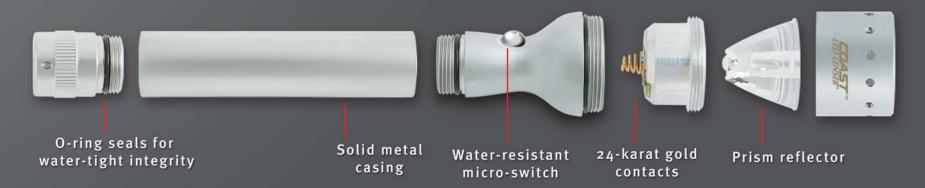
# MANUFACTURING TECHNOLOGY

#### Coast LED Lenser Advantages

- Reflector Systems— Coast LED Lenser flashlights feature advanced technology that "pumps up" the light produced by the LED. The result is a broader, deeper, and more powerful beam of light.
- More energy efficiency— Our patented technology enables us to create more useful light with fewer LEDs than comparable flashlights.
- PTT— Power Transformation
   Technology uses a microprocessor
   to digitally increase the voltage
   supplied to the LED and regulate
   the current at the same time.
- 24-karat gold contacts— Gold is a superior energy conductor, minimizes energy lost at the contact points, and maximizes the energy for light production.
- Solid metal casings— Most competitors only have a plastic casing. Coast LED Lensers are encased in solid brass with a nickel-alloy coating and rated 54 on the Rockwell Hardness Scale.
- Patented, higher quality, higher wattage LEDs— LEDs come in a variety of wattages and quality, but Coast LED Lenser uses only patented Nichia and LumiLED LEDs, carefully matching the LED configuration to each light's use.
- **OPI (Optical Power Index) rated** COAST LED Lensers have been tested to determine their precise milliwatt output to give consumers a convenient way to choose the light that suits their application.

Precision Engineered for Durability, Reliable Service, and Backed with a Lifetime Guarantee



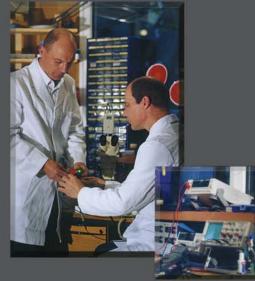


#### **Coast LED Lensers:**

- High performance LEDs
- Patented optical and digital technology
- Technology matched to application
- Highest quality construction



Coast LED Lensers are designed and manufactured in state-of-the-art facilities in Germany and Asia.





# TECHNOLOGY IN ACTION

#### There's a Coast LED Lenser for Every Need

Coast LED Lensers are "usage rated" for easy selection. With nearly 100 Coast LED Lensers to choose from, Coast has instituted a threefold rating system intended to help consumers select the right Coast LED Lenser light for their application.

#### **General Use**

General Use lights represent the best combination of quality, efficiency, and value. Our exclusive Cloverleaf Reflector System, combined with the highest quality Nichia LEDs, produce the brightest, most energy efficient flashlights available today. General Use lights include everything from keychain-sized lights to full-sized C-cell powered lights with multiple LEDs, and are perfect for home or emergency use.



#### **Professional Use**

Professional Use lights feature our most advanced optical and digital technology, combined with our highest wattage LEDs to create lights that meet the highest professional standards. Specially designed for heavy and continuous use, these lights will stand up to whatever abuse your job puts them through. Incredibly bright, professional lights use our best technology, including the Prism Reflector System, Power Transformation Technology (PTT), and the Cloverleaf Reflector System.



#### **Tactical Use**

Tactical Use lights combine our most advanced optical and digital technology with tactical style and technical designs for law enforcement, military, and extreme outdoor situations. Tactical lights feature compact design, lightweight aluminum casing, and rear switches with momentary and permanent on/off capabilities.



## OPI Ratings—Only from Coast LED Lenser

Under strict laboratory conditions, Dr. Lee Casperson and the Portland State University Electrical Engineering Department test Coast LED Lensers to determine the precise light output. Using carefully calibrated testing procedures, the researchers determine the total optical output of each of the lights tested. The result is the Optical Power Index rating system. The OPI provides an easy way for customers to determine which light is best suited to their needs.

The higher the OPI number, the more light output. Whether you want a lower light output in order to preserve night vision or higher output for brilliant illumination, Coast LED Lenser has the light for you.





# There's a Color for Every Application

LEDs come in a full array of colors, each with its own benefits in specific applications. Use this guide to help you choose the one best suited to your needs.



White—provides perfect color distinction and clarity. White is the most popular beam color. Ideal for General use Law enforcement Outdoor use



Red—preserves night vision because it does not cause the pupils to constrict. Ideal for Motorists Surveillance Law enforcement Marine use Astronomers Military use Emergency use



Green—preserves night vision, but also provides adequate color distinction. Green light allows hunters to safely recognize each other without spooking or scaring off game. Ideal for Hunters Surveillance Law enforcement Marine use Astronomers Military use Pilots



Orange—offers some of the night vision benefits of red light, but with increased illumination. Ideal for Motorists Surveillance Law enforcement Marine use Astronomers Military use Emergency use



Blue—preserves night
vision and is one of the
few colors of light that will
cut through fog. Ideal for •
Marine use • Outdoor use
• Law enforcement •
Safety personnel • Military
use • Pilots



Ultraviolet—can be used to expose counterfeit money and art, identify minerals, follow blood/protein trails, and accelerate the glue-curing process. Recharges luminescent products like fishing lures and watch faces. Ideal for Medical staff use Cashiers Law enforcement Collectors Military use Pilots