

Enlightened! Lighting Solutions from CatEye® and Nite Ize®

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Boulder PD (CO)

IPMBA Industry Relations Committee

While on nighttime bike-ops this past fall, I tested some unique products using some of the latest LED technology. What is an LED? Essentially, LED is an acronym for *light-emitting diode*, which according to online *LEDs Magazine*, is “a semiconductor device that emits light when an electric current is passed through it.” More importantly, the highly adaptable LED bulbs are appearing in many illumination products suitable for patrol. Why? Several reasons. Longer run times, better performance, and durability are some common traits.

Some Boulder-based companies are manipulating the LED technology in products suitable for bike patrollers. Cateye Electronics and Nite Ize Innovative Accessories are two that are producing some bright ideas. I'll try to shed some light on their creations....

Cateye Electronics Triple Shot

Over the span of a few weeks, I had the good fortune to trial-test Cateye's flagship, triple-LED headlight, aptly named the Triple Shot.

First, the Triple Shot headlight extracts high power from its LEDs due in large part to Cateye's proven Opticube lens and crystal-like reflector technology. The process works. The light pattern cast on objects reveals no dead spots and beats the clarity and broad beam performance of our other fleet headlights. This, with only *three* LEDs! The company claims the headlight has “the brightness of a 20-watt halogen and a wide beam.”

As far as features go, the whole package is relatively light at 710 grams. The lamp body is die-cast aluminum and the compact NiMH (Nickel-Metal Hydride) battery comes encased in a black neoprene bag. The lamp body swivels on its mounting base to center the beam. The only way to move the lamp up or down is to loosen the handlebar bracket enough to rotate it, but not so much that the unit shifts due to road vibration. There are a few battery-mounting options, but I like the security of mounting it in a vacant bottle holder. The only nit to pick about the battery bag was that it started to show some wear from the repeated use of the hook and loop straps (Cateye has said they are looking into means to address the bag surface wear.) The cables come in different lengths to allow for bikes of different sizes and configurations and have locking cable connectors for unexpected blackouts.

On the subject of “blacking out,” I was pleased that it was not necessary to cycle through light levels. The light is either push-buttoned ‘on’ or ‘off’. Simple is best. I mounted the switch on my handlebar and didn't have much difficulty manipulating it with full-fingered gloves.

I also liked the ease of setup on my patrol bike. In fact, I *neglected to read the directions* (gender-specific of me, I know) and still had no installation problems. Once you charge the battery overnight and fit the right handlebar shim, you're set to go. While on the prowl, there were no deficiencies in lighting up the path or people. I went most of an evening (five hours) with the light activated in order to deplete the battery, to no avail. This came in handy when my fellow patrol cyclists lost their battery charges and needed my beam to show the way. It seems the LED bulbs don't run hot enough to warrant much juice. The literature claims an LED lifespan of 100,000 hours.

What's the asking price for the Cateye Triple Shot? MSRP is around \$300 (depending on the retail source), but Cateye offers IPMBA members the Triple Shot for \$169 and the Double Shot for \$139, plus shipping. Contact Cateye for more details and to place your order.

Given the effectiveness of Cateye's lens-reflector-LED combination, I highly recommend the Triple Shot as a primary headlight source. It'll outshine the competition. See the full range of lights and computers that Cateye offers on their website.

CatEye Electronics is not listed in the IPMBA Product Purchase Program. Contact: CatEye Service & Research Center, 1705 14th St., #115., Boulder, CO 80302 USA, (303) 443-4595, (800) 5-CatEye, fax (303) 473-0006, email service@cateye.com or via the web at www.cateye.com.

Nite Ize Innovative Accessories: Combo Upgrade, Marker Band, and Helmet Marker

Nite Ize produces some novel gadgets targeted towards work and leisure. During some bike patrol last fall, I sampled a few of their LED products.

The Nite Ize Marker Band is a nifty, reflective and flashing LED band for securing a loose pant leg or wearing on the upper arm. The Marker Band utilizes highly adjustable, elastic straps on each end of the band, which are secured via a quick-release buckle. There is a push-button power switch to cycle through flash and glow modes and you get long battery life from a three volt button battery. When the unit is switched 'off', the band material is red reflective. I got the most use from the Marker Band when on a traffic accident or directing traffic. The Marker Band is great for public safety bicyclists who need some extra conspicuity at night. The Nite Ize Marker band retails for roughly \$15, which seems reasonable for its value and benefit.

The Nite Ize Helmet Marker is similar to the Marker Band in that it uses a reflective band incorporating a long life LED lamp. However, the Helmet Marker has a different job – its band is attached via hook & loop material to the front, back, or sides of a bike helmet. Weather and shock resistant, the Helmet Marker has the same, easy, push button 'on-off' as its brethren Marker Band, which activates the flash or glow modes. I found the Helmet Marker enhanced my conspicuity in vehicular conditions. The \$15 price is a reasonable investment given the flexibility of affixing the Helmet Marker onto just about any smooth surface.

The item I came away most impressed with was the Nite Ize Combo Upgrade Kit for an AA battery-powered Mini Maglite® flashlight. The kit includes an LED bulb conversion along with a push-button switch that replaces the end cap for a Mini Maglite. Given that many service workers use Maglites, and often times the AA Mini Maglite finds itself in a CSI kit, medic bag, etc., I find the stock AA Mini mainly serves as a cheap backup. But for those patrollers who carry an AA Mini Maglite, the kit upgrade is a significant improvement. Three bright, white LEDs take the place of a dull yellow incandescent bulb and a rugged push button end cap conveniently displaces the cumbersome twist on-off method.

The question is, "Is it worth upgrading a \$10 light with a \$10 accessory?" You be the judge. When the battery life is improved, the lamp life is extended, and the LED lamps are notably sturdier and brighter, it's hard not to justify an upgrade to a flashlight you depend on. When I compared the Nite Ize LED bulb upgrade to another manufacturer's upgrade for the same Maglite, I found the Nite Ize version was cheaper *and* brighter!

So there you have it. Nite Ize is a company that is introducing their LED products to bike patrol. You can find Nite Ize Innovative Accessories on the web, in your local hardware store, or contact them below for more info. The "Ize" has it and their ideas are enlightening.

Nite Ize Innovative Accessories is not listed in the IPMBA Product Purchase Program. Contact: Nite Ize, Inc., 5735-E Arapahoe Ave, Boulder, CO 80303 USA, (303) 449-2576, (800) 678-6483 (US & Canada), fax (303) 449-2013, email info@niteize.com or via the web at www.niteize.com.

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