

OVERVIEW: LIGHTS

LITTLE BIKE LIGHTS GET BRIGHTER AND SMARTER

Just like other components, bike lights are getting smarter. Many know when it's time to turn on or off, or how much light is required based on ambient conditions. They know when a cyclist puts on the brakes, and some are so clever they don't even need external power — just a couple of magnets. For the ultimate in customization, one of the lights on our list can be controlled by a smartphone app.



Reelight C10 light

Two friend founded **The Beam** [B5-411a] to create products that make cyclists safer. The Lucia taillight is the latest product from this French-Korean start-up. It fixes securely and aerodynamically to the saddle rail. A triaxial accelerometer triggers the stoplight when the cyclist brakes, and an integrated light sensor automatically adjusts the light output based on ambient light levels. The Lucia is so smart it turns itself on when it senses movement.

Ultra-bright LEDs, as powerful as those used on cars or motorcycles, can be seen from up to a kilometer away, while a 180-degree field of view means there's plenty of side visibility as well.

The Lucia is waterproof to the IPX4 standard. A rechargeable li-ion battery runs for up to 24 hours in eco mode.

Hauteworks [A3-506] is also big on smart integration. Among its new models is the multi-sport Daze, a wearable light that's clever enough to sense whether you're riding or running. It adjust the brightness and color to your movements.

With chip-on-board and red-green-blue LEDs, it provides color-coded



Lucia taillight from The Beam

illumination through 270 degrees. It charges fully in just three minutes, so users will rarely get caught out by a dead battery.

Also very bright in both respects is the Hauteworks Cliq taillight. Its "total internal reflection" (TIR) lenses direct and focus light emitted by three Osram LEDs, so side visibility promises to be excellent. Users can fine-tune the Cliq's blinking pattern, activate the smart brake feature, or group sync modes through a dedicated app that connects to the light via Bluetooth.

The newest lights from **Oxford Products** [B3-312] also feature several smart features. The Bright Stop Rear is an automatic stoplight that illuminates when the cyclist brakes. A single, high-powered LED shines continuously for rear visibility, while five additional LEDs combine for the brake light.

The Bright Stop Rear bucks the trend toward USB charging and instead runs on tried and true — and easy to find — AAA batteries. It attaches without tools.

Up front, Oxford offers the Ultra-torch 850, a USB-rechargeable light that puts out 850 lumens. Its lithium battery lasts for 3.5 hours on its maximum setting, but more than 200 hours when used in flash mode.

Sate-Lite [A6-219] brings a truly stacked front light to Eurobike. The SPL-01 for e-bikes has 49(!) LEDs on board that crank out up to 2,000(!) lumens of light — enough to light up the block. In daylight, the ECE R113-compliant light can be tamed to just use its 40 peripheral LEDs.

To manage all of this power, Sate-Lite uses clever housing materials and

electronic components that dissipate heat, even at full power. A built-in light sensor intelligently regulates its operation, and the unit is waterproof to the IPX5 standard.

The Sate-Lite LF-12 unit is not as bright but has similar smart controls. This very compact rechargeable light uses a unique automatic light control system to adjust its intensity based on prevailing conditions.

Because e-bike lights draw power from the bike's main battery, they give product developers a lot of room to innovate. The Mini StVZO e-bike light from **Lezyne** [A3-305] uses an optimized lens with a German-standard flood and long-range beam. It puts out 210 lumens, while a CNC-machined aluminum top plate on the composite body keep the unit cool and efficient.

The light plugs into batteries from top drive suppliers including Bosch, Shimano, and Yamaha. It's bundled with a clean-looking fork mount that hides the included power cable.

The Lezyne Femto USB StVZO also meets the relevant German standard but gets its power via a USA cable and integrated battery. It's an updated version of the diminutive but popular

Femto light that's powered by CR2032 batteries. A clever lens provides up to 270 degrees of visibility. The Femto USB delivers five lumens



Hauteworks Daze

with a runtime of up to 4.5 hours. It mounts quickly and is IPX7 waterproof.

Roxim Technologies [A5-212] also caters to the e-bike market with a range of new lights.

The Z3EK Pro, a compact K-Mark-compliant pedelec front light, offers a high and low beam that's controlled by a handlebar remote. The ultra-wide beam puts out up to 700 lumens of light, but it's small enough to find a home on an electric scooter or skateboard.

Another pedelec product, the R3EK rear light, combines brake and running light functions in a compact unit that



Oxford Bright Stop Rear



Sate-Lite SPL-01

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 **HAUTEWORKS**

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Get ready for an enhanced riding experience with the most advanced and brightest taillight: Cliq. Cliq uses a set of exceptionally designed total internal reflection (TIR) lenses to direct and focus light emitted by LEDs.

The combination of three high-brightness Osram LEDs and two TIR lenses boost visibility from both the rear and the sides. It's literally an outstanding Light. Using Bluetooth, Cliq's mobile app allows you to configure Cliq's many features intuitively. Features include personalized blinking patterns, smart brakes, and group sync modes.

Cliq's universal mounting systems and rugged structure allow you to ride wherever and mount it in any



cliq

**Herrmans Mr GO headlight**

taps into the main bike battery. It's flexible enough to mount in several locations such as the rear rack, fenders, or under the saddle, it draws its power directly from the bike's battery.

And while it's important for cyclists to be seen, sometimes they need to be heard, too. Roxim offers the companion ZHRK-02 electric horn kit that draws less than one watt of power and works with most e-bike systems. Roxim has improved the horn's acoustics for a less aggressive sound. It's activated by an integrated brake lever button, making it a good fit for slick e-bikes. The ZHRK-02 adheres to the ECE R28 standard.

Low-key and stylish, the **Smart [B3-106]** BL143 light lives up to its

**Noble Glory FL400**

maker's name. This modern e-bike headlamp combines precision optics and neat construction to provide approximately 70 lux. It complies with German and most other European standards. The BL143 accepts an input voltage of between 6V and 15V, so it works with most e-bike systems. Made in Taiwan, the BL143 soon will be available to OEMs and the aftermarket.

A line of incredibly efficient lights from **Reelight [A2-328]** doesn't use batteries and never needs to be recharged. Instead, the lights use a rotating magnet, attached to the spokes of the wheel, to generate the power they need with almost zero resistance.

Reelight refreshes its current range with a couple of key new features.

Its axle-mounted AMS lights gain a ReePower back-up function that allows them to keep

flashing for up to two minutes after the bike has stopped moving, so they are a safer choice for commuters.

Reelight has revamped its even tinier CIO lights by adding a new lens that ensures better visibility from more angles. An updated ReePower backup system recharges faster and puts out a brighter beam.

The new X&O lights from **Spanninga [B4-404]** are simple and classy. They come in two versions: one powered by two AA batteries, and the other, for pedelecs, that ties into the main battery.

Throwing out 25 and 30 lux, respectively, both feature an optical system designed by Philips. They conform to

**Lezyne Mini StVZO****Roxim R3EK rear light**

relevant German standards and have robust stainless steel brackets and a stylish black finish.

Spanninga looks after the back end of your city bike with its Pimento lights, which feature chip-on-board technology. The Pimento-Brake alerts traffic when you slow down. Pimento versions attach directly to the rear rack and put out enough light to be seen for up to a kilometer.

Known for its smart locks, **Crops [A5-104]** offers a growing range of lights, too. Its H800JDC model uses a 6-36V power supply, promises extremely high optical efficiency, and is bundled with a clever fixing

mount. With the patent-pending ZP-HSB01 mount, the light attaches to a central position on the headtube. The light turns as you turn so it always points in the direction you're

going. It works regardless of other fitments you may have on the bike.

Meet Mr GO, a new entry-level light from **Herrmans. [A6-403]** Using similar optics and electronics to the brand's popular H-Black MR4 front

light, Mr GO is StVZO compliant and produces between 80 and 100 lumens. It smoothly marries electronic and optical elements, and a cut-away housing provides a window for enhanced side visibility. Available for e-bikes and dynamos, Mr GO is compatible with Herrmans' mounting hardware and

**Spanninga X&O light**

includes an integrated mounting point for its optional reflector.

Noble Glory [B4-212] adds two new front lights to its RHEEA range. The compact lights are housed in a housing made of extruded, machined aluminum. The FL400mini front light is the smaller of the two, kicking out 400 lumens. It's IPX6 waterproof and has an enhanced optical lens for uniform brightness and wide visibility. It fits all bar types and attaches with a quick-release mount on a rugged, pliable strap. The FL800 doubles the lumen count while providing similar features to its smaller sibling. ■ JD

**Smart PL143****Crops H800JDC**

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 **spanninga**

SPANNINGA STANDS OUT WITH PIMENTO

Following the introduction last year of the PIMENTO carrier rearlight, two new versions have joined the family. The PIMENTO-GUARD, which provides stylish illumination on the rear fender via a bright vertical line. Featuring COB technology, the PIMENTO series offers an amazing brightness of ca. 5 candelas (17 lumens) in a streamlined design. Available for pedelecs and dynamo-operated bikes, PIMENTO lights also have a safe-stop function and are visible up to 400m. The second version is the PIMENTO-BRAKE which features a brake-light function giving a stronger signal (up to 40 candelas) to other road users when brakes are activated. Like the PIMENTO-CARRIER, it is available

for mounting on carriers with 50mm bolt distance and its brake-light function offers visibility up to 1000m.

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X&O HEADLAMP SERIES

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With a completely different design, trendy bikes might also be equipped with the new X&O headlamp series. Coming either in battery-operated versions (incl. 2 AA batteries and with optional automatic function) with sleek built-in reflector or for pedelecs in a much more compact format, the X&O headlamps provide a powerful beam of 25 Lux (battery) and 30 Lux (pedelec) thanks to their miniaturized optical system, developed by Philips®. The battery version has a runtime of more than 10h and is equipped with a battery load indicator. All versions are conform to German standards and feature a sturdy stainless steel bracket with black finish.