

Lights

Unless you tuck your bike up for winter, you are going to have to face night riding soon. But with a good set of the latest LED-powered off-road lights trepidation will soon turn to anticipation. Time to cross over to the dark side.

HOW WE TEST...

It's all very well looking at lumen counts on paper, beam patterns in theory and battery life on quoted tables, but it is out on the trail that everything is

brought together. We took two to three hour night riding sessions, using three or more sets of lights on each bike, always riding with comparable lights

within the group – there is no point riding a 200 lumen with a rider using a 900 lumen set bringing up the rear, as they will just cast a strong shadow.

Every experienced night-riding tester fitted their own lights to check the mountings, checked them over afterwards and rated them on all points.





FENIX LD20 £47.95

Being made of hard anodised aircraft-grade aluminium gives this neat little torch a really nice 'heft' in the hand. It feels solid, as do all the controls — the push-button at the rear and the silky smooth bezel turn for 'turbo' power setting of 180 lumens.

It comes with no mounting system, but a bar mount is available as an extra. We would argue that, unless you want it for general commuting purposes, it isn't a whole lot of use. The beam is just too focused to be worth placing on the bars. And why do that when it is so effective as a helmet mount? It took us only five minutes, a block of light foam rubber and a length of Velcro (can you tell what it is yet?) to secure it effectively on a helmet, and it stayed put throughout the test.

Once the direction is set on your helmet, the power and beam pattern are superb for the price, and better than others on offer at more than three times the price. A great multi-purpose helmet or back-up light on a budget.



Weight: 302g (with AA batteries)
 Burn time on max: 2 hours 42min w/ Energizer 2500mah rechargeables
 240 lumens
 Battery type: 4 x AA in plastic case
 Brightness settings: 4 + Flash
 Comes with bar, helmet and headtorch mounts
 Contact: www.hopetech.com

Weight: 120g (with AA batteries)
 Burn time on max: 1 hour 55min w/ Energizer 2500mah rechargeables
 180 lumens
 Battery type: 2 x AA in torch body
 Brightness settings: 4 + Flash
 Bar mount extra
 Contact: www.moorelarge.co.uk



HOPE VISION 1 ADVENTURE £99.99

For under £100, this superb and flexible light is just the job if you want your purchase for more than just mountain biking. The beam packs plenty of power with a smooth, if fairly tightly focused, beam. This meant it wasn't great on the bars for off-roading, but was ideal for helmet mounting. The bar mount would be necessary if you wanted it to cross over to some commuting duties though, so was still nice to see in the kit. The headtorch harness is a real bonus for general outdoor pursuits, camping at events and bike tinkering.

On the helmet it feels a bit too heavy — it could do with an extension cable option to take the battery into a back pocket — and we aren't convinced about Hope's approach of starting the power-up cycle on the lowest setting, with three more presses up to high being a bit of a pain on most start-ups.

Finally, using AA batteries is a cheap source of power, and it opens up the possibility of carrying extras in your hydration pack to extend ride time.



TOPEAK WHITELITE HP DUAL £179.99

The Whitelites are an extremely neat and well-made set of lights, in a lightweight and small package. A few details pigeon-hole them as more of a commuter or road light, though. The plastic battery pack feels brittle and easily damaged, and the mount for each light was also quite long and fragile looking — unlikely you would want to leave them on, but a bit of a pain to put on and take off.

We didn't like the battery pack mount for off-roading either. It is a replacement headset stem cap with locking rail above to slide on the battery. It left the battery hanging too far behind the stem — in fiddly singletrack there is every chance your knee would come up and break it off. Not good. Also, it only came with a 1.125in fitting.

Out in the open, the light was a bit too weak to penetrate far down the trail, and the light pattern was a bit patchy in places, so it was pretty poor if there were riders around with other more powerful lights — and that includes most of what is out there. Not cheap for something that really doesn't cut it off-road.



Weight: 350g
 Burn time on max: 2 hours 48min
 Lumens not quoted
 Battery type: stem mount hard case
 Brightness settings: 2 + flash
 Comes with bar mount
 Contact: www.extrauk.co.uk



Weight: 138g (with bar mount)
 Burn time on max: 1 hour 15min
 700 lumens
 Battery type: integrated
 Brightness settings: 3 + Flash
 Comes with bar mount, helmet mount and lanyard
 Contact: www.exposurelights.com



EXPOSURE DIABLO £225

Everyone, without exception, was amazed at the sheer grunt of this tiny unit when they switched it on the first time. With Exposure's 'Cable Free Design' there is no extra battery pack to worry about; it is all contained in the uncluttered body. It is light and compact enough to throw into the pocket 'just in case', but has more than enough power and smooth beam spread to act as an excellent bar light for everyday use, or a super-powerful helmet light using the natty mount.

This has been done at the expense of run time, of course, with only one hour riding at maximum power possible, even if you juggle the power settings.

This is where the Exposure system kicks in. For another £40 you can buy an extra battery cell to plug into the power socket (total weight becomes 210g), doubling the run time. £90 will get a triple to get you up to four hours on max. You can also get an ultra-bright 'Red Eye' rear clip-on light, powered off the rear socket, among other options.

It all leads to a very flexible system you can build on, taking out only the parts you need for each ride.



NITERIDER MINEWT 400 DUAL £249.99

As we've come to expect with Niterider, the MiNewts are very well made, solid-feeling units, with a similarly built battery pack. The rubber band attachment to the bars is quick and easy, but could be more secure at times, we found, and could be a faff to fit or remove if your hands are cold.

You have to keep the battery pack handy because the switch is on it, but that is really no hardship as it straps securely to the stem and is plenty compact enough. It has a battery gauge built in too, showing red when there is around 30 minutes of juice left, and this is handily repeated in the head units, should your battery be stowed out of the way.

On the trail, we found the light adequate for off-roading, but not much more. Having two heads means you can tweak the light to where you need it the most, but with both lights putting out an identical light pattern, we felt they could have been improved with a spot/flood combo. A few testers would also have liked them independently switchable for an ultra-low-power single commuting light.

Overall, very pricey for a decidedly average light output and low burn time.



Weight: 326g
Burn time on max: 1 hour 47min
400 lumens
Battery type: Velcro on hardcase
Brightness settings: 2 + Flash
Comes with bar mount
Contact: www.2pure.co.uk



LIGHT AND MOTION STELLA 300 £274.99

As a lightweight twin light system, the Stellas are extremely well made and finished, and pack a lot of run time into a small unit. The rubber band bar mounts are quick and easy to place on the bars, and the battery pack is small enough to squeeze nicely out the way under the stem.

Power output was acceptable, and Light and Motion has actually made good use of having two units by making one a flood and one a spot, meaning you can tweak the light placement to your own preferences — all great stuff. They only come with a bar mount, and wouldn't be great for helmet placement anyway.

Out on a ride, they are perfectly capable and they can be ridden quite hard once you add a helmet mounted light like the Fenix torch to the package.

The price bracket is pushing up towards the likes of the Ay-Ups and Hopes though, where you get a chunk more power with just a little more weight, so have a think on it....



Weight: 316g
Burn time on max: 3 hour 23min
300 lumens
Battery type: Velcro on hardcase
Brightness settings: 3 + Flash
Comes with bar mount and helmet mount
Contact: www.madison.co.uk



HOPE VISION 4 £299

With few changes from last year's offering, the Vision 4 continues to push out great performance at a very reasonable price. This time round, you are getting an extra headtorch harness as a bonus — very useful for paddock tinkering or as a general camping light.

The light is powerful, even and very well placed down the trail for fast and technical riding. We particularly like the gradual power drop-off at the edges, rather than a focused cut-off line like that exhibited by the Lupine Tesla.

As usual, we had a minor gripe about the power-up sequence on the unit — it starts at low power and needs three stabs to bring it up to full whack. We'd prefer it to start on full or, better still, remember where you switched it off and start up there. It is also missing a battery-level indicator, which can be a ride saver at times.

It is worth noting that we tended to ride on high, rather than max all the time, giving a burn time of nearly 3.5 hours with almost as bright a light.



Weight: 404g
Burn time on max: 2hrs 32min
960 lumens
Battery type: rubberised hard case with Velcro strap
Brightness settings: 4 + flash
Comes with bar, helmet and headtorch mounts
Contact: www.hopetech.com



Weight: 498g
Burn time on max: 3 hours 12min
Lumens not quoted
Battery type: Velcro on bag
Brightness settings: 4
Comes with bar mount, helmet mount and headtorch harness
Contact: www.silva.se



SILVA ALPHA 6 £299.99

We didn't get off to a great start with the Silva. After a particularly wet night ride of about 1.5 hours, the battery seemed fine, then flashed a few times and turned up its toes for good.

The replacement battery has performed fine since (yes, we deliberately got it very wet again!), but it certainly put us on alert to a potential problem.

On the trail, the lights seem pleasantly warmer than other LEDs on test, and some thought has definitely gone into the light spread — Silva call it 'Intelligent Light.' With a strong beam going up the trail and a more diffused close-in flood integrated, it does make sense on paper, but testers complained of a weak patch of dimmer light between the two areas. This seemed to be just positioned where you are assessing the trail when riding at medium speed, so it was quite noticeable.

Another gripe is that the battery-level indicator is of no use when riding — it is a coloured LED, pointing forward within the lens, that only activates for five seconds or so when the light is plugged into the battery pack.

One to consider if you want more than just mountain biking from your light, but there are better riding lights out there for the cash.





AY-UP V4 ADVENTURE SET £310 (AT CURRENT EXCHANGE RATE)

Ay-Up no longer has a UK distributor, so you now have to order direct from Australia. This is not as big a headache as you may think though — the company prepays any import duty and VAT before your lights hit this country, and its long-range customer care appears to be excellent.

The light sets have changed slightly too, for the better. The latest V4 Adventure set now has even more packed into a fancy (but probably slightly unnecessary) hard case. In addition to last year's tiny 2x 3-hour and 1x 6-hour batteries and accessories, they now throw in an excellent headtorch strap (great for runners) and a pair of 'Saxon' clip-on red filters to quickly convert one pair into a bright rear light. This also works well with the new dimmer and flashing modes built into the battery packs.

On paper, the output doesn't quite measure up to some of the others on test, but with one light on the bars and the other on your helmet, the placement of the beams can be tweaked to be just about perfect, which more than makes up for it. All you could possibly need for not a lot of cash.



Weight: 322g (w/3hr batteries)
Burn time on max: 3hrs 15min (3-hour battery) or 6hrs 15 min (6-hour battery)
340 lumens per light (680 total)
Battery type: Neoprene bag with Velcro strap
Brightness settings: 2 + flash
Comes with 3x batteries, 2x red filters, 2x bar mounts, car charger, helmet mount, headtorch mount and cable extension
Contact: www.ayup-lights.com



LUPINE TESLA 5 £325

For the lighting power and burn time, the Tesla 5 is a superbly lightweight and small package that appealed to everyone who squeezed it onto their bars. I say squeezed because the rubber band mount caused a few curses from testers as they struggled with cold hands to manoeuvre it into place.

On the trail, it was undoubtedly one of the best lights on test, with a very usable beam pattern of hot centre spot and even flood surround to light up the trail for fast riding — the only ones we felt were slightly better for all-round riding were the Hope Vision 4 and the Seca 900.

It also comes with a very usable helmet mount and extension cable, so could appeal to those who want ultimate power on their head, too. The very lightweight and neat head unit was just as happy on the head as on the bars.

The programmable feature might appeal to some, but all of our testers were just happy to leave settings where they found them and ride without faffing around — we felt it was more of a gimmick than a useful feature worth spending money on.



Weight: 338g
Burn time on max: 3 hours 10min
700 lumens
Battery type: Velcro on bag
Brightness settings: up to 3 (programmable)
Comes with bar mount and helmet mount
Contact: www.zyro.co.uk



LUMICYCLE SYSTEM 3 SPOT/ FLOOD X ELITE26 £469.99

At first glance, these Lumicycles sport some very well-made head units with a lot of lumen firepower and a really workable spread of light on both the flood and the more focused helmet spotlight. The flick toggle for power on and level selection also works well, while the excellent 'smart indicator' simultaneously reads out battery and power levels in a few well coordinated flashes. All great so far, although we would like to see the power-up sequence remember your last settings, or at least start on high.

Unfortunately, the strap and buckle helmet mount was widely cursed for awkwardness. The bar mount was OK, but switching between normal and oversized bars involves pushing a pin through and adding a section to the mount every time — very faffy, and we needed to enlarge the hole on ours with a drill.

For a light unit of this price you really would expect better; the mounts seem to be a bit of an afterthought. As mounting and bike swapping is a big part of night riding, we knocked them down a few points for this alone.



Weight: 816g
Burn time on max: 3 hours 34min
1,700 lumens
Battery type: Velcro on bag
Brightness settings: 3 + flash + 3 minute boost
Comes with bar mount and helmet mount
Contact: www.lumicycle.com



LIGHT & MOTION SECA 900 ULTRA £599.99

It is unfortunate that on such a capable and well-specified light, the first thing that catches your eye is the battery pack. OK, it does push out 900 lumens for over three-and-a-half hours, but every tester slated the battery for being too big and unwieldy for everyday (or night) use. It is 570g on its own, over six inches long and could be tricky to frame-mount for that reason.

That is a real shame, though, because those same testers universally loved the light. It packs a lot of power and places it very effectively down the trail, with a piercing long-range beam combined with close-in flood achieved with clever use of the six LEDs and lens diffusers.

The switching is easy to use too, with a large metal push-button illuminated and easy to stab at with gloves when you want to switch between brightness settings.

You will just need to consider whether you need the extra run time on the Ultra. If not, take a look at the standard 900 Race and you will still get 2.5 hours run time with 200g less battery weight. Well worth considering either of these, but very pricey.



Weight: 720g
Burn time on max: 3 hours 43min
900 lumens
Battery type: Velcro on hardcase
Brightness settings: 3 + flash
Comes with bar mount and helmet mount
Contact: www.madison.co.uk

CONCLUSION

If price is the top priority for you, we would be most tempted to go with the Fenix — it produced a high-power beam and could be easily attached to a helmet to back up a bar system, or used around the campsite. A great all-round light that just needed a bit of ingenuity to mount up.

For sheer portability, power and flexibility we loved the Exposure Diablo. Small enough to shove in a pocket 'just in case,' but capable of plugging in more battery capacity to take out on long night rides when necessary.

Of the more expensive offerings, we were very impressed with the power and light weight of the Lupine and the Hope Vision 4, and the sheer grunt of the Seca 900. We would need a strong reason to go for the huge battery Seca 900 Ultra that we tested here though, probably opting for the more compact Race version. The Lumicycles had it in them to be test winners, but with the current mounting system we just had to mark them down.

Ultimately though, the Ay-Ups were favourite with all the testers. In the comprehensive Adventure V4 kit, you get both helmet and bar lights with more than enough power and battery life to satisfy any riding need.



| | PRICE | WEIGHT | BURN TIME ON MAX | OUTPUT | BATTERY TYPE | BRIGHTNESS SETTINGS | MOUNT | CONTACT | RATING |
|--|---------|--------|---|----------------------------------|--|----------------------------|--|------------------------|--------|
| Fenix LD20 | £47.95 | 120g | 1 hour 55min w/Energizer 2500mah rechargeables | 180 lumens | 2 x AA in torch body | 4 + flash | Bar mount extra | www.moorelarge.co.uk | 8 |
| Hope Vision 1 Adventure | £99.99 | 302g | 2 hours 42min w/Energizer 2500mah rechargeables | 240 lumens | 4 x AA in plastic case | 4 + flash | Comes with bar, helmet and headtorch mounts | www.hopetech.com | 6 |
| Topeak Whitelight HP Dual | £179.99 | 350g | 2 hours 48min | Lumens not quoted | Stem mount hard case | 2 + flash | Comes with bar mount | www.extrauk.co.uk | 5 |
| Exposure Diablo | £225 | 138g | 1 hour 15min | 700 lumens | Integrated | 3 + flash | Comes with bar mount, helmet mount and lanyard | www.exposurelights.com | 9 |
| Niterider Minewt 400 Dual | £249.99 | 326g | 1 hour 47min | 400 lumens | Velcro on hardcase | 2 + flash | Comes with bar mount | www.2pure.co.uk | 6 |
| Light & Motion Stella 300 | £274.99 | 316g | 3 hours 23min | 300 lumens | Velcro on hardcase | 3 + flash | Comes with bar mount and helmet mount | www.madison.co.uk | 6 |
| Hope Vision 4 | £299 | 404g | 2 hours 32min | 960 lumens | Rubberised hard case with Velcro strap | 4 + flash | Comes with bar, helmet and headtorch mounts | www.hopetech.com | 9 |
| Silva Alpha 6 | £299.99 | 498g | 3 hours 12min | Lumens not quoted | Velcro on bag | 4 | Comes with bar mount, helmet mount and headtorch harness | www.silva.se | 6 |
| Ay-Up V4 Adventure | £310 | 322g | 3 hours 15min (3hr batt) or 6 hours 15 min (6hr batt) | 340 lumens per light (680 total) | Neoprene bag with Velcro strap | 2 + flash | Comes with 3x batteries, 2x red filters, 2x bar mounts, car charger, helmet mount, headtorch mount and cable extension | www.ayup-lights.com | 10 |
| Lupine Tesla 5 | £325 | 338g | 3 hours 10min | 700 lumens | Velcro on bag | up to 3 | Comes with bar mount and helmet mount | www.zyro.co.uk | 8 |
| Lumicycle System 3 Spot/Flood X Elite 26 | £469.99 | 816g | 3 hours 34min | 1,700 lumens | Velcro on bag | 3 + flash + 3 minute boost | Comes with bar mount and helmet mount | www.lumicycle.com | 8 |
| Light & Motion Seca 900 Ultra | £599.99 | 720g | 3 hours 43min | 900 lumens | Velcro on hardcase | 3 + flash | Comes with bar mount and helmet mount | www.madison.co.uk | 8 |