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AL-81 AAA 5mm led light

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- Gear reviews and tests - Lamps and Lanterns -



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Description :

a review of a simple, cheap, but useful flashlight.

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AL-81 AAA 5mm led light

Having reviewed some high powered flashlights in the past, i though it was time to review a less powerful one. Although powerful flashlight are great to illuminate big area's, but will also take away your night vision badly and can blind you if you using it to light something to close. In the woods they create a lot of light pollution and have relative short battery life.



size comparison left Fenix L1P, middle Nuwai Q3 and right the AL-81

The light reviewed here is a light with a 5mm Nichia LED. A Nichia LED has twice the output for the same energy consumption as other LED's. This is possible by the use of a new, more transparent material to hold and protect the actual light giving part of the LED. This light has such a Nichia LED, combined with a convex lens. This prevents light from being wasted by sideways scatter. The convex lens focuses the light in to a reasonable tight bundle, but not too tight like some other flashlights. Unfortunately the beam isn't perfect. The hotspot is slight of center compared to the outer rings produced by the light, because the LED isn't place exactly in the middle of the reflector.



Beamsot

The body is pretty big for an AAA battery light, it's made from aluminium with some grooves machined in to it, to give grip for the twist switch and reduce its ability to roll away. It's made from 3 separate pieces; the head with lens, LED and boost circuit, the middle piece that holds the battery and the tail that's only used to opening up the middle to change batteries. The light goes on and off by turning the head. This is not really a switch and not as simple to use as a clickie, but dead reliable. The threads are well lubricated and have o-rings for water resistance. At the end of the light there is a keychain attachment thing. It prevent it from being used in a candle like mode and the light is really too big for a keychain.



The light taken apart. note the long head.

The circuit has good regulation effect; the output was about the same, when i put in a half empty AAA battery and compared it with another AL-81 with a new battery. I have seen Nichia led light with better initial output, but they usually drop noticeably when the battery starts to get drained.

Good points: uses a very efficient Nichia Led, long run time, uses easy to get AAA batteries and little side scatter.

Bad points: light is a bit large for what it is, twist button is not as easy to use (but very reliable), beam is not perfect.

Overall it's a good light when you priorities are on long run time, easy to get batteries and a well focused beam. I would say that it is a good general purpose light for emergency kits and for campers, because of its use of a AAA battery and long runtime. MSRP is unknown, but around \$15. I bought 3 of them and paid 3.98 euro each during a group buy. Manufacture unknown and I haven't seen another source for this light. There is an AL-91 on the market, which is almost the same. Except it uses an AA battery and is more available. Other reviews of the AA version can be found [here](#) and [here](#)

Any additions or corrections will be posted on the comment section below.