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Nuwai Quantum 3 and rechargeable cr123 review

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Description :

a review about this amazing little light and about the rechargeable batteries that can go in to it.

Nuwai Quantum 3 and rechargeable cr123 review

The Nuwai Quantum 3 is a small flashlight powered by a single cr123a lithium battery. The bulb is a 3 watt luxeon led. This led kicks out a lot of light. On the packaging it says up to 75 Lumens, it's probably less. Other users that opened up the head of the light say that the Led has a maximum output of 67 lumens printed on it. I didn't open my so I don't know. But it sure looks bright! This led is not only very powerful; the flashlight also has a regulation circuit in it. This will let the Led burn on full power until the battery isn't able to provide enough energy for it. After about 45-55 minutes lighting time it will slowly reduce it's light output. A button on the end provides continues on or off mode. No temporary switch. The light comes in a blister packaging, with one Panasonic cr123a battery and a nylon carrying holster.

Nuwai Q3 and charger

Although it only uses one cr123 to give good output for about 1.5 hours. I still find it a bit uneconomical and environment unfriendly. So I also bought a pair of protected lithium ion rechargeable cr123a's and a charger. Just like normal lithium's, these batteries can hold a lot of energy and are not effected by cold. The disadvantage of these batteries are it's higher voltage, 3.7 volt nominal, it's even higher when it comes straight of the charger. (Note that there are also regulated rechargeable cr123 in 3 volts on the market.) So don't use it in any equipment that can't handle the extra voltage. My Nuwai quantum 3 can take it. The batteries are 650 mAH, not the most powerful. But they do have a protection build it. This prevents you from overcharging them, over discharging them and short circuiting. The charger is powered by 12 volts, with either a car plug or a 220- 12 volt adapter. It has place to charge 2 batteries at the same time. It's made in china, but I could not find a brand name. Compaired to other chargers, this thing is very small and light!

Size comparison CR123 charger next to a AA quick charger

size comparison from left to right: SAK huntsmen, 2x CR123A xenon light, Nuwai Q3, sheath and battery

I have been using this combination of a Nuwai Quantum 3 and the rechargeable cr123a for awhile. And this review is all about it. I generally only use them for short moments, instead of lighting things up for longer periods.

I only ever need one cr123, so I always charge a single one at a time. Charging time from empty to full for one battery is less than 1,5 hours. I didn't stand next to it with a stopwatch and waited till the light turned green, just have a peak every now and than, so no exact numbers. I don't own a car, so I don't know how well it works with the car plug. When one in my Nuwai Q3 it works just like a normal lithium cr123a. But because the light is regulated and the batteries have over discharge protection, the light goes from high output to none at once. I did not notice any output change when it was still giving light. Problem of this is, is that you never really know how much power you have left in the battery. Other people whom tested it the run time, say it last about 45 minutes. In the way I use it, I get about 14 days between charges. The light will quickly get quite warm when left on for more than a few minutes. Have not heard of anybody burning there Luxeon led in this light, though. I personally only use it a few minutes or less a time, so it's not a problem for me.

The beam produced by this light is the best I have ever seen; it's flawless, bright white light! And wenn i say white, i mean really white. No blue-ish, no nothing, just white! Better than any other light I own. I only produce less light than my high powered Xenon light. But not even by much! The combination of the faceted aluminium reflector and the Led are great in this respect.

Nuwai Q3 kicking out light Light appears to be yellow, but that due to the table. Light in reality is bright white

The small body is only 9.5 cm long, fits my hand right and gives a lot of gripe. The head sticks out, so the lens is well

protected. Also the head isn't flat, but has some arche shapes in it. This way you can see it being on when you have put it on its head and forgot to turn it off. You can not put in on the back, it will fall, but the button is far enough is. So you can not put the light by pressing the back on a flat surface. The small size also makes the light not noticed by other when carrying it. Saves you from questioning by others.

Nuwai Q3 on its head, with light "leaking" out

Nuwai Q3 in my hand

The anodized aluminium finish is the type 2 kind, nothing really fancy. Actually a relative inexpensive kind of finish, that only gives limited protection. On some of the square/sharp-ish parts of my flashlight the finish has worn off and is exposing the shiny bare aluminium, but only at a couple of small spots. The flat surfaces are holding up very well.

The protecting lens is made of polycarbonate. This is pretty strong plastic used in many so called unbreakable bottles. It is easy to scratch, though! I don't touch the lens often, only to get some dust and stuff of. And I already can see a lot of light scratches.

The end cap can be screw off, to replace the batteries. Just screw it open, put the cap safely away and let the old battery slide out. I have noticed some batteries slightly sticking on the rest of the lamp, I don't know why. Than just insert a new one and screw it back on. I discovered that the battery spring on the end cap is scratching my batteries when I'm turning it shut again, leaving scratch marks on the bottom of my rechargeable batteries. After some bending it much better now, but still not fully cured.

Nuwai Q3 with endcap removed and battery sticking out.

The belt clip is at first way to tight; I couldn't get it to slide over even thin things easily. After doing that a couple of times I guess I bend it to much and now it stick out one mm. Now it does fit over things. However the clip only is close to the flashlight body at the end point. The rest of the clip is made in such a way, that there is big gap. Gaps don't hold things well. The clip can be removed by unscrewing two Torx screw. Also at the end of the clip there is a small hole for a lanyard.

Nuway Q3, with belt clip visible

The holster is made of relative fine nylon, with some padding. It closes with a flap equipped with Velcro. There is a small belt loop to fix it to your belt. I found the loop to be very small and hard to put on thicker belts. They should make it larger in my opinion. After extensive use, the padding of the flap right under the Velcro has ripped. Outside nylon was not damaged. I guess the force of pulling the flap open often was too much. I fixed it by using a few stitches to prevent further tearing and than use double stitching to sewn a box shape with a X in it, to reinforce that area. It looks bad, but that because my sewing skills aren't that great. Sewing some reinforcement like I did wenn you buy it, will probably prevent tearing. The side of the sheath goes to far up. They should have made U shape cuts out on the 2 side, so it is easier to draw.

The Nuwai Quantum 3

Good points: A lot of good, bright and flawless bright light packed in a very small inexpensive package. Has regulated circuit and takes rechargeable batteries.

Bad points: This finish is a bit on the lower end, the lens is a little sensitive for scratching and the carrying sheath is not very well designed/made.

Overall it is a heck of a bargain compared to other regulated 3 watt luxeon light! So it isn't finished in the highest standard, but for the price I'm not complaining! Buy one, you will love it. Price range for ¬ 45, down to $ 20 depending on the source.

A excellent review of this light can be found here, here and here.

The rechargeable batteries:

Good points: Lots of power, small, fast, cheap and easy to use. No need to fully discharge them, before charging.

Bad points: Higher voltage can be a problem for some equipment, no way to determine left over power, until the over discharge protection kicks in.

Overall I like the rechargeable batteries and its charger. It lets me run high end equipment, without making me bankrupt. Even though there are some cheap courses for cheap cr123a, they do pollute the earth more than these rechargeable versions and are still more expensive in the long run.

A excellent review of this charger and it's batteries can be found here