

At 365+ we are happy to announce our second review of the new flashlights from our friends at OLIGHT. In the first half of 2016 they announced and later released several new models and this one is one of them. It's the OLIGHT S2A BATON.



This is a brand new model that was released for summer 2016 and sports several new features as well as some good old ones. So let's get right to it.

THE BASICS

So, to get the basics covered, we need to talk some numbers first. Its 132mm long and 23mm wide at the head. Without batteries, it weighs just 56g. With the batteries included, it weighs 86g. It is a compact and lightweight EDC flashlight, powered by two AA Batteries.

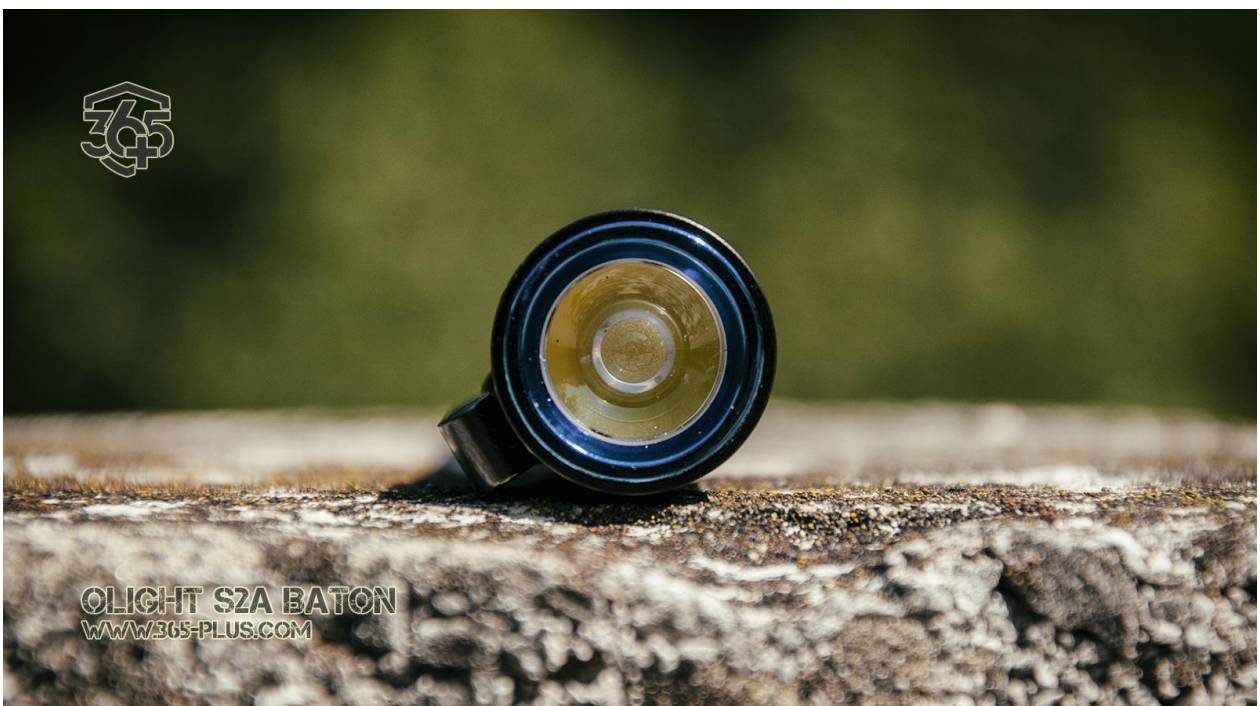


Yes, you read that right, two AA batteries. No CR123s and no 18650 cells. Just ordinary good old AA batteries. With these, it can produce a staggering 550 lumens at its max output. With its original Lithium Disulfide batteries that are included in the package, it will run for 230 minutes. On mode 2 with 260 lumens, it will run for 250 minutes, on mode 3 with 120 lumens it will run for 10 hours and on its low power setting it will run for 80 hours. It also has a power function that was available in almost all older S models. The moonlight function. It glows at 0,5 lumens, which is perfect for camping (like going to the toilet at night and don't want to wake everyone and yourself up with a bright light) or for first responders for checking pupil dilation and response.



Not to mention that on this power setting, the flashlight will continue to work for 50 days. These run times are drastically reduced when using cheap alkaline batteries, so make sure you only feed the best into your flashlight for maximum performance.

Thanks to its TIR lens which provides a balanced beam between flood and spot and the trusty Cree XM-L2 LED chip, its max throw of beam is ~100 meters with spot intensity of 3000cd.



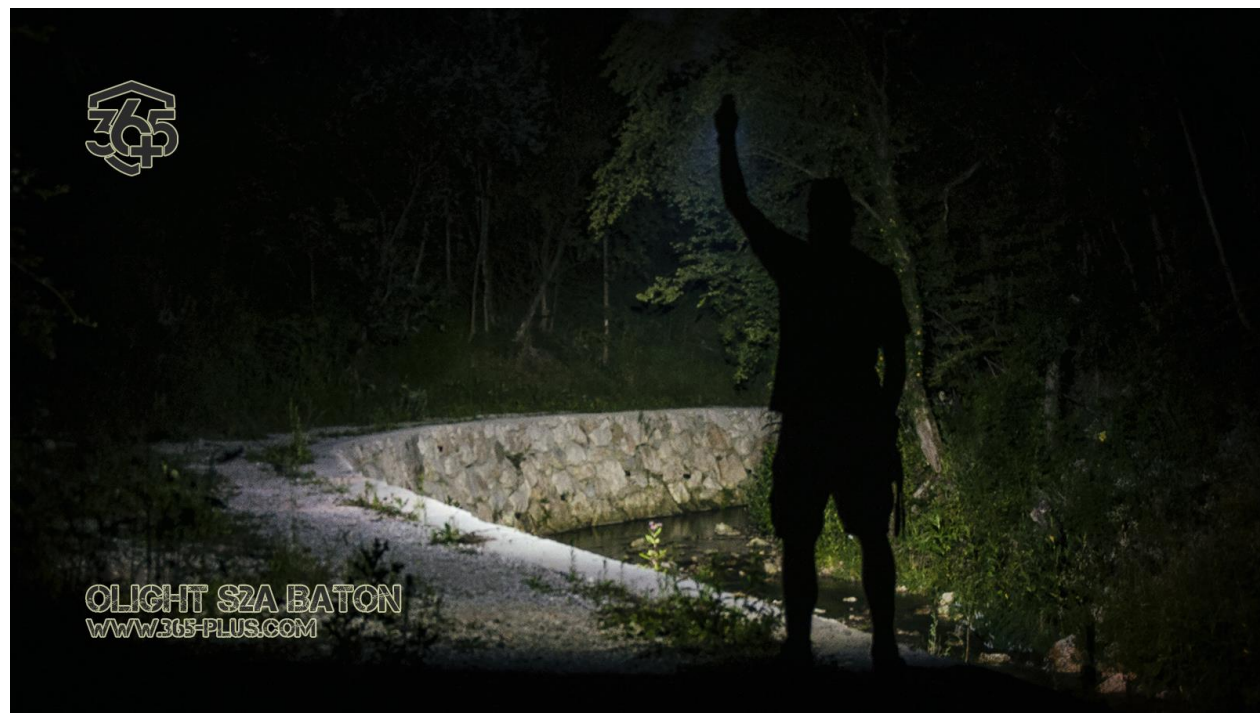
The flashlight is made following the IPX8 standard, which means its waterproof up to 2 meters. In our tests it was exposed to depths of approximately 5 meters and still worked normally. Pressing of the button is not recommended while the light is submerged (since this voids the warranty). In our tests we pressed it several times and there was no leakage on depth of 1 meter.



It is also impact resistant for drops not more than 1 meter on hard surfaces. Results may vary, as shown damage depends on the position in which the flashlight hits the ground.

DETAILS AND PRACTICAL USE

The first detail that needs more looking into is the fore mentioned TIR lens. This lens was purposely designed for all EDC flashlights. It spreads the light emitted from the chip just enough to maximize its potential. Before this lens, Olight made their flashlights with an orange peel reflector. This is ok for bigger flashlights that have wider heads and the manufacturer can play around with the shape and depth of the reflector. In these smaller EDC lights, the actual beam gets too dispersed and weak after some distance.



This is where the TIR lens comes in. It disperses the light, but at the same time it keeps it relatively focused in that area. This allows for some serious improvements in the beam throw category. To have a flashlight this thin and a 100 meter throw is truly a great improvement.



Protecting this lens is a stainless steel ring in “Olight blue” color. This helps the head keep its shape if the flashlight is dropped or ran over. So it’s a strength and style feature.



The body is made out of eco-friendly AL6061-T6 aluminum alloy with anti-scratch Mil-spec type-III hard anodized finish. This will ensure the flashlight will not scratch and show visible signs of wear and tear after several years of use. It will scratch if dropped on a hard surface like concrete or other, but will look like new if carried in backpacks, pockets, purses, etc.

Just below the operating button, you can find a pocket clip holding on to the flashlight. This is made of high quality stamped steel which keeps its shape even if rough-handled.



But this clip is not just for the pocket. It also enables you to fix the flashlight to the brim of your baseball hat, your seatbelt or whatever else you might think of.



This clip can also be removed to enable for an even sleeker profile and alternatively allow for weapon or helmet mount installation.



With or without the clip however, this flashlight is thin enough to be MOLLE-system compatible.



The button is a multi-functional switch. The whole operating of the flashlight is done through a single button. Powering ON/OFF and mode selection can all be done without changing the grip. Single click for power ON, hold button when ON to cycle through power modes and single click for OFF. When OFF, hold button for 1 second to access 0,5 lumen “moonlight” mode. The flashlight stores the last setting and uses it when you power it on the next time.



This is only false after one of the two actions. First, if OFF a double click of the button will automatically override the last stored setting and will put the flashlight in the highest power (turbo) setting. When turned back OFF it will store this setting and next time when it's turned on will also be on full power.



The other action is a triple click when the flashlight is OFF. This will also override the previously stored setting and start the 10Hz defensive strobe light. The beauty of this is, that when you switch the flashlight OFF after the strobe was active, it will recall the previous setting and turn ON at the power setting it was turned OFF before the strobe was used. Nice detail.

When the flashlight is ON, you gain access to yet another function. By double clicking the function button, you set the built-in timer. First, the flashlight flashes once. This means the 3 minute shut down timer has been activated. If you double click the button again, it will flash twice, thus indicating that the 9 minute shut down timer has been activated. If you turn OFF the flashlight any time in between, the timer function will be reset to default.

The only function missing from the switch is the lock function. The button is relatively easy to press, so some care is advised when packing the flashlight for longer trips.



The whole system is protected by a thermal protection program and timer, which ensure that no overheating of the circuitry can occur. The “turbo” mode is limited to three minutes, in which the power will decrease gradually to the next setting. The flashlight will need to cool down before the turbo mode can be used again. To be honest, turbo mode is only applicable in emergency situations, since the next setting of 260 lumens or even lower 120 lumens is perfect for 90% of activities.



The majority of the body sports a feature, not seen in Olight flashlights before. It's wrapped in skin-safe silicon material, which offers superb grip in all conditions. Warm, dry, cold, wet, gloves, sweaty palms, etc. You can be sure that the flashlight will stay in your hands until you decide to let it go. It also assists the pocket clip in retaining the position it was put in. There is also a third feature hidden and not mentioned. The silicone is made of photo-luminescent material.



This means, it glows in the dark when exposed to some light beforehand. This feature got us thinking. Mainly why it's even there. Since the flashlight is normally in the pocket, backpack, it's rarely exposed to such powerful light, that would charge the photo-luminescent material. Also the glow is relatively short, some 10 minutes in time. But then we realized this was possibly for another use. If you drop your flashlight in the dark, you can use a friend's light to scan the area. Then turn it OFF and look for the green glowing handle. If it doesn't glow, you didn't shine on it with the light. Reposition and repeat.



The flashlight is available in four different color schemes and all but the black one sport this function. Other available colors are blue, yellow and gray.



The final detail we would like to mention is the tail cap. It's built like the rest of the S series with one difference. It has a spring battery retainer so it keeps the shocks and vibrations under control.



The flashlight does not lose power when dropped or when mounted on a firearm, which makes it as reliable as all the other Olight products. It's flat, so the flashlight can be put on its tail and used as a lantern in smaller rooms.



With the addition of the optional white traffic cone, this function is only improved. It does however lack the tail cap magnet, that's present in all other S models. This is in my personal opinion a slight down side, as the magnet really multiplies the usage. This could be due to the fact that its body is quite thin and long, so horizontal positioning on metal objects could be impossible. You can always use an aftermarket magnet or just hang the flashlight using the provided lanyard. The tail cap features a hole integrated into it, which enables a reliable fixture of this lanyard.



In the package, the user will find a flashlight, two Lithium non-rechargeable batteries and a lanyard. Optional accessories include but are not limited to are; the white and orange traffic cones, colored filters including the white diffusor, rechargeable batteries and charger, weapon mounts and pressure switches. These are already in stock in our online shop or they can be subsequently ordered.



We also did a comparison test with some of the competitor flashlights and came up with some really interesting results. The flashlights in use were Olight S2A, Fenix LD22, LedLenser P6.2 and Maglite Mini PRO+

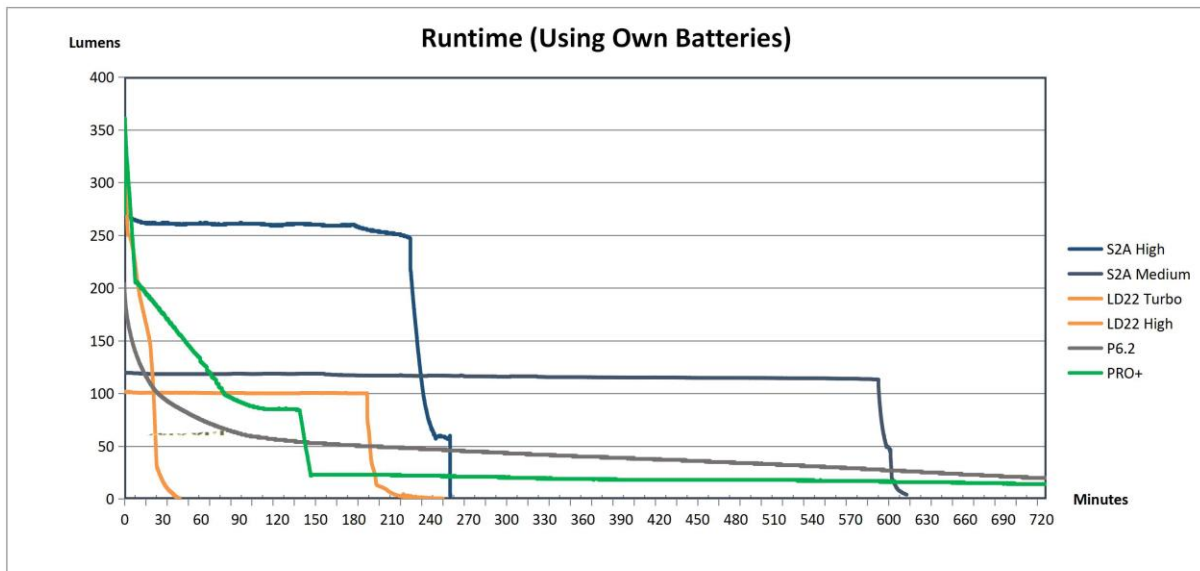


Apart from Olight, brands such as Ledlenser, Maglite and Fenix produce excellent LED flashlights powered by two AA batteries. LedLenser had established firm roots in the European market, while Maglite is a top American flashlight brand since decades ago. In recent years, Fenix has also been emerging as a strong Chinese flashlight brand. While traditional flashlights such as Maglite PRO+ and LenLenser P6.2 do not have stable output through its whole runtime, new flashlight brands such as Olight, Fenix managed to overcome this. Olight S2A however, has demonstrated better power management over the others. For example, comparing Fenix LD22 that also uses two AA batteries, S2A has similar power settings: 260 lms to 300 lms; 120 lms to 100 lms; 20 lms to 30 lms, but shows times more runtime than the LD22 on 260~300 lumens, and twice runtime on 100~120 lumens. In the charts below, the differences are clearly visible.



	Olight S2A Mode Lumens	Runtime (Olight Lithium Batteries)	Runtime (Alkaline Batteries)	Fenix LD22	Runtime (Alkaline Batteries)	Maglite PRO+	Runtime (Own Alkaline Batteries)	LedLenser P6.2	Runtime (Own Alkaline Batteries)
Level 1	550 lms (Turbo)	246 mins	149 mins						
Level 2	260 lms (High)	256 mins	135 mins	300 lms (turbo)	28 mins	281 lumens	700 mins	200 lumens	150 mins
Level 3	120 lms (Medium)	614 mins	357 mins	100 lms (High)	162 mins				
Level 4	20 lms (Low)	N/A	N/A	30 lms (Medium)	N/A				
Level 5	0.5 lms (Moonlight)								

** Brightness levels under 30 lumens are uncharted.



What can we conclude from these tests?

1. Olight S2A has unparalleled performance on all brightness levels, showing both prolonged runtime and unrivaled stability in light output.

a) Special battery: Using Olight branded lithium iron disulfide (Li/FeS₂) batteries, S2A has over twice of runtime as compared to LD22 using its own batteries on the most commonly used brightness levels. The superior performance is largely due to the higher capacity of lithium iron disulfide batteries under a high discharging current of 1A.

b) 100- 120 lumens: S2A has an extraordinary runtime for the brightness level of 120 lumens (over 10 hours) with an steady performance, which is about three times that of LD22.

c) 260 to 300 lumens: S2A greatly outperforms LD22 at the level of 260-300 lumens, exceeding the latter by five times of runtime.

d) Above 300 lumens: S2A has a turbo mode setting at 550 lumens as compared to LD22 's turbo of 300 lumens. Although it does not stay at this brightness for long, it can meet the demand for emergency situations.

2. Apart from advantages in runtime, S2A Baton also has a soft and balanced beam, compact size and light weight, a 0.5 minimum "moonlight" mode and multiple colors to choose from.

So there you have it folks, practical tests with actual results. You can take these into account when deciding upon which flashlight manufacturer to choose.

Be sure to check all of our other Olight products on our web site, where we offer Military/Police/Outdoor equipment and can provide solutions for all situations, needs and users.

<http://www.365-plus.com/olight-flashlights>