Cachen in der Sächsischen Schweiz

Foto: ©PIXMatex/ fotolia.com

A new flashlight for 007?

In the James Bond film "Dr. No", Sean Connery is given a Walther PPK as a replacement for his service pistol, a Beretta. Ever since that time, the Walther PPK has been the signature weapon of Her Majesty's famous secret agent. Now Walther has brought out a new generation of LED flashlights in its Pro series, the aim being to grab a share of the market from established manufacturers. We've matched the Walther PL80 against the LED Lenser P7, which is as popular with geocachers as the Beretta was with the secret agents of its time. The top-selling P7 got a facelift in late 2013 and came with a number of new features. So we'll be looking at two flashlights for one and the same target group, but with different basic concepts. Daniel Guthannß examines whether the brand-new Walther PL80 has what it takes to supersede the veteran LED Lenser P7.

Walther is currently putting a large number of new products on the market under its Walther Pro brand. The series, which is targeted mainly at recreational and outdoor users, also includes flashlights. The word "Pro" emphasizes their high-end quality. They are designed not only to appeal to hobbyists, but to meet the needs of professionals as well. Geocaching magazine presented the new flashlight series in the previous issue. To summarize, there are now a dozen different models, from the Nano Lights (NL) for key chains to the X-treme Lights (XL) with outputs exceeding 2000 lumens. The most interesting models for geocachers are those in the head lamps (HL) and pocket light (PL) series. The latter include the PL80 with its focusable head, featuring what is called the Beam Adjustment System (BAS). The PL80 is Walther's direct challenge to one of the best-selling flashlights in this segment, the LED Lenser P7 with its well-known Speed Focus. The P7.2, which succeeded the P7, has now been on the market for more than two years. Walther is ready for direct comparisons, so we've pitted the Walther Pro PL80 against the LED Lenser P7.2 in a series of tough tests.

To make them as objective as possible, we purchased three models from each manufacturer on the open market. We bought two

LED Lensers at Media Markt and one at Saturn. Two Walther flashlights were obtained from the PW Store in Frankfurt and one from the PW Online Store. The manufacturer's suggested retail price for the Walther Pro, which just recently came onto the market, is €69.90 (the same as for the LED Lenser). We should mention that both companies designed their flashlights in Germany but manufacture them in China. If they were made entirely in Germany, customers would have to shell out several hundred euros.

Packaging: The Walther flashlight comes in a package of surprisingly high quality: a rugged hard plastic shell. Nowadays customers don't get such good protection even for premium smartphones – although not everyone will want to have so much plastic in the packaging. The blister pack of the LED Lenser is made of plastic as well. In fact, the package is so tightly sealed that you'll hardly get into it without a sharp knife. It also has a lever on the outside so that you can test the light in the store. If you press it, a small mirror directs the beam right into your face – a nice gimmick. Alternatively, the P7.2 is available in a black cardboard box in the manufacturer's usual style.

What's included: The two flashlights are supplied with the same items: a hand loop, black nylon holster, batteries and in-

struction manual. The LED Lenser loop with its elastic cord makes a higher quality impression. Walther, however, provides a pair of rubber sealing rings as spares. Walther also scores a point with its holster, which has pockets for spare batteries on the sides. The belt pouches of both manufacturers have Velcro closures and a metal snap on the back. Thus you'll never need to worry about losing either of these flashlights. The LED Lenser in the blister pack already holds a set of AAA cells, and both flashlights come with a fresh set of batteries (Duracell for the LED Lenser, Energizer for Walther).

Body: Both flashlights are made of black coated aluminum. With a total length of 134 mm and a head diameter of 40 mm (defocused), the PL80 is slightly larger than the P7.2, which measures 130 mm in length and has a 37 mm head. The result is a weight difference of about 30 grams, which matters little in practice, especially since the two have almost identical body diameters of 30 mm (PL80) and 29 mm (P7.2).

The bodies have a fine checkering, which provides a good grip surface. On the head of the PL80 there are thin ridges which give the thumb extra support in focusing. Both flashlights thus have an excellent feel. The LED Lenser P7.2 also has a coating called "Frozen Black" which improves the grip even more, especially under moist conditions. The body feels almost rubberized, with a more pronounced matte look. The button on the tail cap of the P7.2 is larger than in the previous model, allowing the light to be set upright on a flat surface for indirect illumination of a room. Walther's model can do this too, of course. Perfection? Not quite. With their round bodies, both flashlights have a tendency to roll away. To prevent this, the LED Lenser offers two accessories: either an anti-roll protection ring that can be attached to the head of the flashlight or a ring that is screwed in between the body and

Similar, but not identical. The PL80 (left) has a Cree XM-L2 LED, whereas the P7.2 has a Cree XP-G2. The head of the PL80 is slightly larger for technical reasons.

the switch on the tail cap. Walther will soon be offering a similar solution, which will be screwed into the head in place of the blue ring.

Structure and function: The two flashlights are quite similar in form and function, but this is not because two former Zweibrüder employees, Jürgen Meurer and Alexander Wirth, are now working for Umarex. The focusing systems work very differently: the LED Lenser Speed Focus consists of an integral plastic lens, while the Walther Beam Adjustment System (BAS) has an additional reflector in the head that boosts the intensity of the already-focused beam. This patented two-piece design is responsible for the somewhat larger size.

The P7.2 is what is known as an unregulated flashlight. For this reason it cannot be operated with high-current batteries or recharge-

able batteries. And when the battery power declines, so does the output. The brightness of the P7.2 is regulated solely by changing the resistance. Wirth explains it as follows: "It's like driving a car with the engine at full throttle and slowing down by pulling the handbrake." In contrast, the PL80 is regulated by a microswitch and reduces the current directly. This makes much more efficient use of battery capacity. A temperature sensor on the head of the PL80 dims the light if necessary and ramps it up again when it has cooled. To save power during continuous operation, the controller gradually reduces the output to the next lowest level, but when you turn the light on again you're back at 100 percent. Of course, the LED Lenser is also available with microcontrollers, but this is only for models in the higher-priced M series. Both flashlights use four AAA batteries, and the PL80 can

also take four NiMH rechargeable batteries that provide slightly greater output and range.

Operation: Both flashlights are turned on and off by means of a switch on the tail cap. But they operate very differently. The switch of the P7.2 has an additional push-button function that allows it to be used for signaling. And when it's held all the way down, the so-called power-boost function is activated. Only then, and only as long as the button is held down in this way, do you get a full-power beam, which according to the manufacturer is 320 lumens. If you press the button once and then release it, the light burns in so-called power mode with 250 lumens. Press it again and you're in low-power mode, which at 40 lumens is enough for most situations. To turn the flashlight off, you have to press the button again. One annoying thing is that the

flashlight goes briefly into boost mode each time you push the button – which also drains the battery. In contrast, the flashlights in the Walther Pro series are refreshingly simple; their only drawback is the absence of a signal function, but it's easy enough to signal by blocking and unblocking the beam. The first time you press the switch you get 100% output (535 lumens with alkali batteries, 600 lumens with NiMH rechargeables). Press again for 40% and again for 10%. And no matter what mode you're in, the light can be turned off with a single press of the button if it has been on for at least three seconds. Another useful feature is the tactical stroboscopic defense mode. Here too, it makes no difference what mode you're in or whether the flashlight is off at the moment; hold the switch down for three seconds and the result is a dazzling barrage of flashes (20 Hz) at maximum output to ward off any threats.
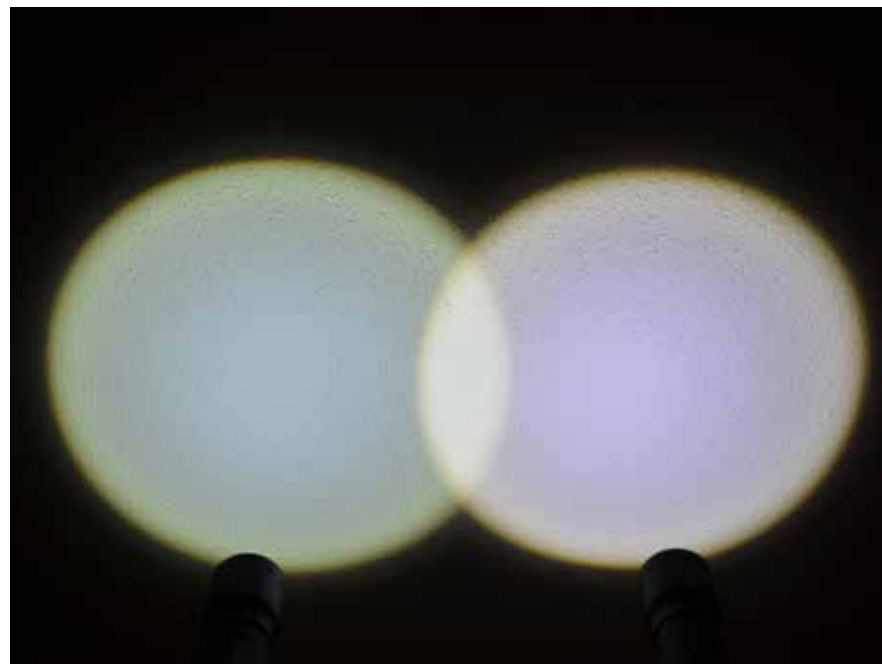
Walther's hidden feature: Most users of the PL80 will be fully satisfied with these mode settings. But some, like police officers who check IDs or geochachers who go out at night, may want a flashlight that offers different options – for example, in which the weakest beam is activated first. For such users Walther offers a number of other modes that are accessible at the press of a button. To gain access to this hidden feature, the user must switch off the flashlight for three seconds, switch it back on, wait for eight seconds and press the on/off button eight times. The flashlight acknowledges by flashing repeatedly. This procedure can be repeated to switch between a total of five different sequences. The chosen setting is saved by the flashlight, but only as long as the battery remains in its compartment, after which the factory settings are restored. We think it's a great idea.

Practical tests: First we went out caching at night with our test specimens. Right away we noticed that their beams were very different in color. The Cree XP-G2 chip in the LED Lenser had a warmer light. What mystified us was that one of our P7.2 specimens had a greenish tint, whereas the other two were clearly reddish, even after removal of the head with its interior red lining. In contrast, the Cree XM-L2 installed in the three Walther flashlights invariably produced a cool white beam.

The Walther flashlight is focused by pushing the head forwards. We noticed that at maximum throw the beam covered a much larger area than that of the LED Lenser. But it has to be that

You can see the difference in the head: at the left, a cutaway view of the lens of the LED Lenser Speed Focus. The two-part design of the Walther BAS requires a little more space, but the aluminum reflector increases the intensity.

The LED Lenser P7.2 (left) has a greenish tint, whereas the two others are reddish. The Walther flashlight has a clear white beam.

way, because the P7.2 surpasses the PL80 in range by a full 90 meters in spite of its lower output. Walther states that its flashlight has a range of 170 meters (with AAA batteries). Intensity measurements of the two flashlights provided rough confirmation of these figures. We performed all of our tests in darkest night and were able to recognize large objects at the stated distances – quite easily with the Walther flashlight at 170 meters and just barely with the LED Lenser at 260 meters. Measurements with a commercially available lux meter, which were not representative, showed that both flashlights achieved an intensity of more than 0.25 lux at the given distance, with the Walther model performing slightly better. The Walther flashlight, which is actually brighter, illuminates a larger area owing to its greater throw but has a shorter range, as mentioned above.

When the flashlights are defocused, both illuminate a wide area for short-range use. The P7.2 excels with a round, perfectly homogeneous beam that is free of shadows and rings. In comparison,

the flood of the PL80 seems almost angular in shape and has a noticeable dark spot inside. But this flaw is only apparent against a white background; out in the field it makes little difference. We should also mention that the head of the P7.2 moves a little more smoothly, whereas the head of the PL80 can be locked. This function can only be found in the tactical LED Lenser model, the T7.2.

The output values in lumens, in comparison with flashlights of known and tested output, agree on the whole with the manufacturers' data. This is true in spite of the fact that LED Lenser measures output in a totally different way than Walther, which adheres strictly to the ANSI-FL1 standard.

Of course, we also checked the information given on maximum battery lifetime. For each test specimen we used a set of Duracell AAA batteries. The LED Lenser was operated in power mode and the Walther flashlight in 100 percent mode, which gradually dropped to the next lowest level. But whether regulated or unregulated, both diminished in

strength as the hours went by. After about three hours they were considerably weaker (according to our estimate less than 10 percent of the starting output), and after five hours we had just enough light to find our way in the dark. Both stayed at this level for what seemed like forever. After 24 hours they were still burning, and each still produced enough light for a survival situation. At that point we broke off the test. Passed!

Stress test: First the flashlights were put under a shower to simulate a strong rain. Then they were even briefly submerged, and that failed to produce any damage. Of course, flashlights of this type must never be refocused when under water. The change in pressure would draw in water, causing permanent damage to the electronics. For this reason the manufacturers only declare their flashlights to be splashwater protected (IPX4).

Next we exposed our flashlights to cold temperatures. We put them in the freezer overnight at 20° C. The next morning we took them out to see if they worked. Both models could still be operated and focused. However, the bodies were coated with ice and so cold that we had to use gloves. And even with gloves they were easy to use, although the focusing was a little stiffer in the Walther model. Finally, we applied the drop test, which for many flashlights is the end of the line. Walther lists a maximum drop height of two meters; LED Lenser provides no information. Both flashlights survived several falls onto bare concrete from a height of two meters. Except for a few nicks on the body, the PL80 was none the worse off. In one of the P7.2s, the focusing mechanism was a little jerky and the on/off button didn't always respond. But they too continued to work after several falls from two meters.

Summary: To sum up, Umarex has made a successful entry into the premium range with its Walther Pro series. A direct comparison with flashlights that have

Small differences are apparent even in the belt pouches. The Walther pouch (left) has pockets for spare batteries.

been sold by the thousands in this segment shows that Walther's flashlights work very well and in many ways are better designed than LED Lenser's long-favored models. For example, the PL80 has a microcontroller that permits operation with NiMH rechargeables (multi-battery system). The modes are simpler and easier to activate.

Those who want or need different modes can take advantage of the hidden features. The quick-access strobe is a great idea. Moreover, by using the ANSI-FL1 standard for its specifications Walther quotes values that are more honest, which means more realistic. And the drop test shows that Walther's flashlight is better able to take abuse.

Walther has room for improvement when it comes to the body coating, head movement and lens configuration for a homogeneous beam.

On balance, the PL80 is already the better of the two. So for those who are in Her Majesty's Service, it's time to replace the LED Lenser with the new Walther Pro PL80.

Technical data:

Model	Walther Pro PL80	LED Lenser P7.2
Length when defocused	134 millimeters	130 millimeters
Head diameter	40 millimeters	37 millimeters
Empty weight	161 grams	130 grams
LED chip	Cree XM-L2	Cree XP-G2
Max. light output	600 lumens with rechargeable battery	320 Lumen
Battery type	4 x AAA	4 x AAA
Rechargeable	yes (NiMH 1.2V)	No
Drop height	2 meters	No data
Water resistance	IPX4	IPX4
MSRP (only for Germany!)	69.90 Euro	69.90 Euro

Carl Walther GmbH, Donnerfeld 2, 59757 Arnsberg
Tel. +49 2932 / 638100, E-Mail: info@walther-pro.de, Internet: www.walther-pro.de

Zweibrüder Optoelectronics GmbH & Co.KG, Kronenstraße 5-7, 42699 Solingen, Tel. +49 212 / 59480
E-Mail: info@zweibrueder.com, Internet: www.ledlenser.com

UNIVERSAL FUNCTION SYSTEM (UFS)

All Walther Pro flashlights (PL30 and above) and all head lights feature the Universal Function System (UFS), a simple, user-friendly operating concept. The first time you push the microswitch, you get 100 percent output. Further pushes, if they are repeated within three seconds, take you to the lower brightness levels of 40 percent and 10 percent respectively. A fourth click turns off the light. However, if you stay at one brightness level for more than three seconds, the next click will turn off the light instead of taking you to a lower level. This system is very well suited to everyday use and avoids time-consuming clicking through all levels. You will quickly come to appreciate this short cut-off (SCO) function.

Another feature found in all models is the Tactical Defense Strobe (TDS), a rapid flashing mode for warding off attackers. It can be activated from any brightness level, or even from Off, by pressing the microswitch for longer than 0.5 seconds. As a self-defense feature, the TDS is always immediately accessible. It can be activated without long deliberation or clicking through a menu.

Did you know? Each Walther Pro Light carries its own serial number!

NL10 NL20 PL30 PL50 PL70 PL70r PL80

WALTHER PRO LIGHT DIMENSIONS

HL11 HL17

40 cm

35 cm

30 cm

25 cm

20 cm

15 cm

10 cm

5 cm

0 cm

XL1000 XL3000 XL7000r

TECHNICAL DATA

	NL10 3.7088	NL20 3.7089	PL30 3.7080	PL50 3.7081	PL70 3.7082	PL70r 3.7083	PL80 3.7084	XL1000 3.7085	XL3000 3.7086	XL7000r 3.7087	HL11 3.7090	HL17 3.7091
Lens diameter [mm]	-	-	12	22	35	35	35	42	3 x 35	7 x 22	22	28
Front diameter [mm]	11	15	16	26	40	40	40	55	90	90	Dimensions (W x H x D) 87 x 66 x 37 mm	Dimensions (W x H x D) 87 x 74 x 41 mm
Back diameter [mm]	11	15	16	18	26	26	30	39	39	39		
Length [mm]	36	45	99	115	143	143	134	325	400	310		
Weight net [g]	4,8	8,7	31	52	142	142	161	510	860	885	150	175
Max. Light Output [1]	15	20	100	120	935	935	600	1070	2550	2200	340	405
Included batteries	4 x AG3	4 x AG13	1 x AAA	1 x AA	2 x CR123	1 x ICR18650	4 x AAA	3 x D	4 x D	2 x ICR26650 (Pack)	3 x AAA	3 x AAA
Focus	Fix-Fokus	Fix-Fokus	Turn	Slide	Slide	Slide	Slide	Slide	Slide	Slide	Slide	Slide
100 % Light Output (Lumen [lm]) [2]	15	20	90	110	935	910	535	920	1850	2200	205	235
100 % Run Time [h:min] [2]	00:20	01:00	00:50	02:40	01:20	01:50	01:20	16:00	05:20	03:30	04:00	03:30
100 % Beam Distance [m] [2]	15	20	45	70	215	205	170	270	320	325	100	140
40 % Light Output (Lumen [lm]) [2]	-	-	35	45	375	365	215	370	740	880	80	95
40 % Run Time [h:min] [2]	-	-	02:40	07:10	02:15	04:30	03:10	40:00	12:00	10:00	10:00	9:00
40 % Beam Distance [m] [2]	-	-	30	50	155	150	120	185	220	225	70	90
10 % Light Output (Lumen [lm]) [2]	-	-	10	10	95	90	55	90	185	220	20	25
10 % Run Time [h:min] [2]	-	-	06:20	22:00	09:00	18:00	13:00	117:00	60:00	36:00	18:00	18:00
10 % Beam Distance [m] [2]	-	-	15	25	90	85	75	100	115	105	35	45

(measured with the included batteries)

	NL10	NL20	PL30	PL50	PL70	PL70r	PL80	XL1000	XL3000	XL7000r	HL11	HL17
Body	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum & reinforced polymer	Aluminum & reinforced polymer
IP-class	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Voltage Booster	-	-	•	•	-	-	-	-	-	-	-	-
Microcontroller	-	-	•	•	•	•	•	•	•	•	•	•
Beam Adjustment System	-	-	•	•	•	•	•	•	•	•	•	•
Functions & Tactical Defence Strobe (TDS)	-	-	•	•	•	•	•	•	•	•	•	•
Time Control System (TCS)	-	-	-	-	•	•	•	•	•	•	•	•
Temperature Protection System (TPS)	-	-	-	-	•	•	•	•	•	•	•	•
Battery Box System (BBS)	-	-	-	-	•	•	•	-	-	-	•	•
Multi Battery System (MBS)	-	-	•	•	•	•	•	•	•	-	•	-
Fast Focus Change one-handed (FFC)	-	-	•	•	•	•	•	•	•	•	•	•
Fast Focus Fixing (FFF)	-	-	-	-	•	•	•	-	-	-	-	-

	NL10	NL20	PL30	PL50	PL70	PL70r	PL80	XL1000	XL3000	XL7000r	HL11	HL17
Scope of delivery	Batteries Manual Keyring	Batteries Manual Keyring	Batteries Manual Lanyard Belt pouch	Batteries Manual Lanyard Belt pouch	Batteries Manual Lanyard Belt pouch Battery box for 3 x AAA Adapter for 1 x ICR18650 / 2 x CR123	Rechargeable Battery Manual Lanyard Belt pouch Car charger (12 V - 24 V) Charging base USB cable (1 m) Power charger 110 - 240 V / 50 - 60 Hz Battery box for 3 x AAA Adapter for 1 x ICR18650 / 2 x CR123	Batteries Manual Lanyard Belt pouch	Batteries Manual Belt rope	Batteries Manual Shoulder strap and two fixing rings Polymer case	Rechargeable battery-pack Manual Power charger Shoulder strap and two fixing rings Polymer case	Batteries Manual Adapter for 1 x ICR18650 / 2 x CR123 Battery Box for 3 x AAA	Batteries Manual Adapter for 1 x ICR18650 / 2 x CR123 Battery Box for 3 x AAA

[1] with best possible battery-types

[2] according ANSI FL1 standard

WALTHER® PRⓌ
L I G H T

HL11
49,90 €

HL17
69,90 €

NL10
6,99 €

NL20
7,99 €

PL30
29,90 €

PL50
34,95 €

PL70
89,90 €

PL70r
99,90 €

PL80
69,90 €

XL1000
99,90 €

XL7000r
279,00 €

XL3000
199,90 €

WALTHER PRⓌ XL1000

WALTHER PRⓌ XL7000r

WALTHER PRⓌ XL3000

WALTHER®
GERMAN DEVELOPMENT®
www.walther-pro.com

8.1.146 U.07-15.2.35