

Flashlight Shootout

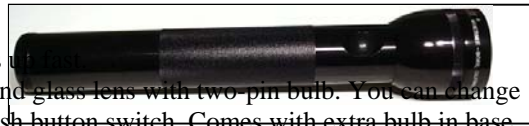
By Rick Bunzel CRI , Pacific Crest Inspections, Anacortes, Wa and Greg Wayman CRI, Foundation –2-Rooftop, Omaha, NE

As home inspectors who perform visual inspections flashlights are a tool that we use at every inspection. Our ability to see into the darkest nooks and crannies are critical to inspecting a home. It's no wonder that many inspectors feel very passionate about their choice in lights. I have had the same light for several years and wanted to look at the newer crop of lights on the market. I have bought some of the LED flashlights on Ebay and have been unimpressed. I also bought one of the million candlepower spotlights and found out the hard way that it dies after about 15 minutes. Looking at flashlights can be confusing because one cannot depend on the advertised power of the flashlight. Each manufacturer measures the power of their flashlights differently. Some use Lux; others use lumens and some candlepower. I also learned that how the light or power is measured also affects its rating. Changes in distance from device, measuring peak vs. average etc. will cause the rating to be higher or lower. Rather than make this a Consumer Reports (i.e. scientific) test, I choose to do a field test of the flashlights and ask Greg Wayman to participate. We would use the lights over a number of inspections and compare results.

I own one of the standards in the industry, the Maglite rechargeable with the halogen bulb. I have had it for several years now and come to depend on it. I decided that we would try to test lights with similar specifications: 40,000 candlepower, rechargeable and \$120.00 retail purchase price range. Originally, I was hoping to incorporate LED based lights into the tests but after looking at what was available, it was clear that LED's were not ready to compete in the same arena. However this is a rapidly developing area and LED lights with low heat and power consumption are very attractive. Once manufacturers figure out how to focus the LEDs to throw more light we will see a new crop of contenders but for now incandescent bulbs still rule.

MAGLITE 3Cell (with 3 D batteries)

Cost: \$20, but the cost of constantly buying batteries adds to the cost. Good aluminum construction with diamond grip texture and glass lens with two-pin bulb. You can change the focus from flood to spotlight by twisting the bezel. Push button switch. Comes with extra bulb in base cap. Its water resistant, really tough (don't use the head as an impact object - glass lens!), good bulb life, very bright and easy to get parts for.



Greg's Comments: Extremely durable. I've dropped it so many times and it just doesn't break. That includes the bulb. I have one rule of thumb for dogs: If they bare their teeth at me, I don't want them around during the inspection. With this flashlight, I always have the option of using it as a club if I need to. During the busy season, I find myself replacing the batteries once every 1-2 weeks! There were a few inconvenient moments at inspections where I didn't have replacement batteries and had to break away to go buy some. As a messy side note: During really cold weather, the batteries exploded inside the flashlight leaving a nice acidic mess to clean up. In comparison to the rechargeable Maglight, Stinger, and SureFire G2, the brightness is not as strong but will still get the job done.

The beam of light overall is good. You can pan in to have one strong concentrated beam, but once you pan out the beam of light gets weak fast. This flashlight is good for noticing items in basements, crawlspaces, or attics that you can focus the light on in concentrated small areas. However, I still find myself pulling out the 3,000,000 candlepower monster I carry in the back of my truck to tackle those wide angle views, such as looking at all the rafters at once for alignment or sagging issues.

Maglite 3 Cell Rechargeable with Halogen Bulb

Cost \$120



Same frame as the battery Maglite. Good aluminum construction with diamond grip texture and glass lens with two-pin bulb. You can change the focus from flood to spotlight by twisting the bezel. Push button

switch. Comes with extra bulb in base cap. Its water resistant, really tough, good bulb life, good battery life for a rechargeable, very bright and easy to get parts for.

Greg's Comments: Battery life outlasted the UltraStinger and Surefire G2 when they were fully charged. The Maglite lasted approximately 2 hours, which was twice as long as the Stinger. (This was Rick's Maglite and it was 4 years old. The UltraStinger was brand new.) When you centralized the beam of light, the area that was lit up was about ½' in diameter larger than the Stinger's and just as bright. The wide-angle view was still as bright as the Stinger to get the job done. Like the original battery Maglite, this flashlight doubles as a club. Beam is full of "rings and holes" when unfocused. Quicker charger system would have been better.

Rick's comments: Compared to the other lights in the test, this flashlight was very heavy. I wouldn't want to drop it on a tile floor because the floor would crack for sure, however the light would survive just fine. If you carry it in a holster in the small of your back like I do, you have to be careful that you don't turn too quickly or you may find yourself replacing a window or vase. Occasionally, I will forget to grab my Maglite going out to an inspection and have to fall back to a standard Eveready 3 cell flashlight. Although I don't have the specifications, I would estimate that this Maglite produces about 2.5 times the light that the Eveready produces. When the light was new I could go two days or about 4 inspections without having to worry about recharging. After 4 years the charge doesn't last as long but on a daily basis is holding up just fine and I haven't seen the need to buy a new battery pack. Compared to a standard battery powered Maglite, my cost of ownership is pretty low.

Surefire G2 with rechargeable kit

Cost \$130



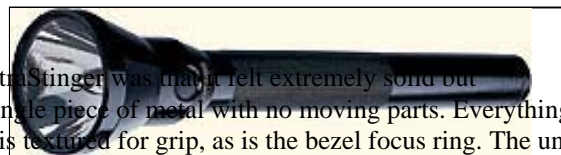
The Surefire G2 is a very lightweight, compact and versatile flashlight for anyone who needs a durable, bright light. Fit and finish are made of Nitrolon (a type of plastic) that makes it exceptionally durable, dents, etc. Flashlight is turned on temporarily by pushbutton on end cap and locked on by twisting end cap ring. The G2 is actually pretty inexpensive in its 2 cell non-rechargeable format however it does require Lithium 123a batteries. These lithium batteries are hard to find and are very expensive if bought in a retail store. However they can be purchased online for about \$15 for a box of 12. The Surefire batteries are supposed to be specially formulated for the high drain lights.

Greg's Comments: After being fully charged, the flashlight died after only 30 minutes. This summer I inspected a 1900's church with a 2,000 s.f. crawl space. I would have been extremely upset if I had to belly crawl out in the dark! Great compact light to fit in your back pocket. The beam packs a punch! However, this light is not practical for home inspections simply due to its short battery life.

Rick's Comments: This flashlight packs a lot of power into a small package but for some reason I did not like that, perhaps this was because I was accustomed to my 3 cell Maglite. I was aware of the short battery life and did not feel comfortable with it in crawl spaces. I found the power switch to be inconvenient, as I like to be able to click it on or off. The smaller format threw out a lot of light for its small size but was not in the same league as the rechargeable Maglite or UltraStinger. The charger is also inconvenient compared to the Maglite and Streamlight systems. I really don't want to have to disassemble the light each time to recharge the battery. That inconvenience alone would make this light a non-contender in my book.

Streamlight UltraStinger

Cost \$120



The first thing one notices when you pick up the UltraStinger was that it felt extremely solid but lightweight. Almost like it was machined out of a single piece of metal with no moving parts. Everything about it said quality. The anodized aluminum body is textured for grip, as is the bezel focus ring. The unit came with 2 chargers (120V and 12V). A spare bulb is in the base of the light in case of failure. The switch

is on the side of the head and is a simple click switch protected by a rubber cover. Depress partially for momentary on; press until it clicks for constant on.

Greg's Comments: This flashlight is light and packs a punch! This first thing I noticed was the strong beam of light coming from such a small light. You can shine it around easily maneuvering it with 2 fingers. You don't have to grasp it with your entire hand like the Maglite. For those of us with bad backs, carrying a heavy flashlight throughout the day in our tool belt means going home with a sore back. With the Stinger, you barely feel its presence. This light has a clean powerful beam and enough wide-angle light to see surrounding areas at the same time. The battery life didn't compare to the Maglite. The UltraStinger only lasted about 45 minutes to an hour each time I fully charged it. I'm still deciding if I can live with this. Shorter battery life vs. lightweight.

Rick comments: I really like this light. It's a quality piece of work with a very bright beam. Streamlight claim's the UltraStinger produces 75K candlepower, which I thought was overkill for most inspection needs. However, comparing it side by side with the rechargeable Maglite, the Ultra Stinger output was very similar. The charger was not as well designed as the Maglite's. It was easy to put the UltraStinger into the charger and not engage the contacts. I found that I had to wiggle the light around get it in properly.

OVERALL CONCLUSION:

Greg: I've been a "battery" flashlight guy for a long time. Upon the conclusion of this test, I'm seriously considering either the Maglite or UltraStinger rechargeable. All three rechargeable lights are brighter than my battery operated flashlights in their respective sizes. The one criticism I have for the rechargeable flashlights is there is no indicator of how much battery life you have left. If you forget to charge your light the night before or don't have time because your car charger is reviving your pocket PC and cell phone, then you may have to dig out the backup battery flashlight. Recharging both the Maglight and UltraStinger is not a fast process. Placing a dead flashlight in a charger at the beginning of an inspection will not give you much light time by the end of the inspection. At least with my batteries, I can rip open a new pack and be ready to go. Plus, if I buy the UltraStinger or Maglite, I might not have a need for my 3,000,000 candlepower monster that my wife thinks I'm nuts for buying in the first place. For all of us inspectors, brighter lights enable us to do our jobs even better. This means happier clients and more referral business. For \$120, I can't think of a better investment.

Rick: Having all these flashlights's around was like Christmas coming early. I was very impressed with the Streamlight UltraStinger and found myself grabbing it instead of my Maglite. I am slightly concerned about the battery life but since a car charger is included with the purchase, I can always throw it on the car charger between inspections. The Maglite rechargeable is a close second. It is a "battle tested" flashlight that can go the distance but carries a weight penalty. I was hoping that Maglite had some new technology available for our test but did not respond to our requests. That may suggest that they are aware they are falling behind on the technology curve. The Surefire G2 was a good product for someone who needs a lot of power in a small package for short durations. Unfortunately home Inspectors need alot of power for longer durations.

I want to thank Surefire and Streamlight for providing product for testing.

About the authors

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