

# MySurvivalAlliance



## Lumens and the Brightness of an LED Flashlight (Torch)

By: Chris Mills

### Early Flashlights



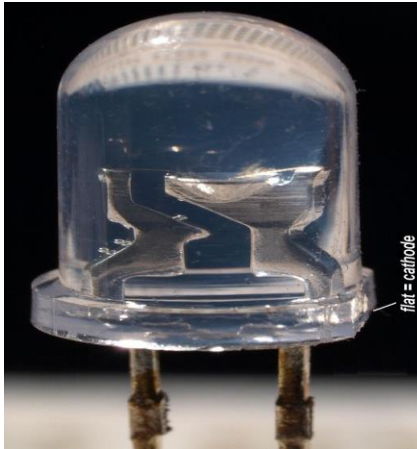
*(This flashlight was invented in 1899 by David Misell)*

### Flashlights of Yesterday and Today

Do you remember the flashlights of days gone by? If you wanted a lot of bright light, the flashlight weighed several pounds and even then you might have that big dark spot in the center of the beam. Either that or the area the beam covered was so small as to be completely impractical for some uses. Flashlight technology has changed with the development of LED bulbs. Flashlights can now weigh mere ounces and deliver a lot of light, either in a concentrated beam, in a wide field or both.

## LED Technology

## A Little History of the Flashlight



In the late 1880s the first dry cell battery was invented making flashlight technology possible. In 1897, David Misell invented a flashlight made of a paper tube, brass end caps and a bullseye bulb. It operated on three, size D dry cell batteries. These were passed out to officers in the NYC police department with positive feedback. Early flashlights produced 8 to 10 lumens per watt.

Before LED technology, incandescent bulbs were used. These glass bulbs were under a vacuum or contained argon, krypton or xenon gas inside and had a tungsten filament to provide the light. LED technology changed flashlights considerably. Since these bulbs are more efficient, fewer batteries are needed to produce the light desired. These flashlights have shrunk in size and grown in total output of light. LED lights produce about 100 lumens per watt or ten times that of incandescent bulbs.

## Lumens and Related Terms

Lumen-Maximum amount of light delivered at the source  
Candlepower (cd)-An obsolete, unregulated measurement.  
Candela (cd)-Replaces Candlepower in terminology  
Maximum/Total Output

## Lumens as a Measurement

A quick check on Amazon revealed flashlights being advertised according to the number of lumens. They began on the low end with 19 lumens, then 28, 55, 600 and 2000 lumens. But what does this tell us about the flashlight. Does it tell us how bright the light will be?

One flashlight on Amazon was referred to as a 300 lumens, ultra bright flashlight. But do lumens measure brightness? In the comments on one flashlight for sale, a man said that the 2,000 lumens light he bought wasn't as bright as his 750 lumens light. He implied the company producing the light was not being truthful.

One way of looking at this is that both were speaking the truth. The 2,000 lumen light was not as bright as the man's 750 lumen light. But the one for sale truly was a 2,000 lumen light.

What was the problem? The problem has to do with the definition of the word lumen and the misunderstanding people have of this measurement of light.

### **Lumens is Total Output of Light**

What is a lumen? Lumens are the total output of light from the source. It is described as being the total amount, or volume of light being delivered from a light source such as a flashlight. Each lumen is one candela (cd) or candlepower. A 2,000 lumen flashlight will have a total light output of 2,000 candlepower. Think of your garden hose. Open the faucet feeding into the hose to maximum. Let's assume the water is flowing out of the faucet at 5 gallons per minute. That is the total output of water. Compare that to our 2,000 lumen flashlight. At its maximum battery strength, the total output is 2,000 candlepower. In this comparison, the light from the flashlight is just like water from a hose.

When we put a nozzle on the hose, the power of the water stream can be increased. We can set it as a narrow, powerful stream for washing mud off tires, or as a wide pattern good for sprinkling flowers. The power between the two is very different, but don't forget that the water from the faucet is still open to 5 gallons per minute. But does the flashlight come with a nozzle, like the hose? Yes it does. It's called a lens. The lens focuses the light. It can be concentrated into a narrow, bright beam or opened up into a broad, relatively dimmer beam. But there is always the same total output, the same 2,000 lumens.

So when you purchase a flashlight, and the number of lumens is touted as a measurement of the flashlight's brightness, you know that is not necessarily true. Brightness depends on the kind of lens that is already on the flashlight. Is it a narrowly focused lens or a broadly focused lens? Some flashlights come with a movable lens so that the concentration of light can be changed from narrow to broad, but it does not change the total output, the number of lumens.

### **LED Flashlight With Multiple Intensity Settings**

#### **Output vs Radiance**

So there are actually two things to measure on a flashlight, aren't there? One is the total output of light, which is called lumens. The other measurement is of the power of the light, called radiance. It is a measurement of the effect of the light on its target. Suppose a flashlight is pointed at a person's eye. Radiance is the



power, strength or intensity with which the light hits the eye. Again, compare it to the water hose. A narrowly focused stream will destroy flowers and a narrowly focused beam of light is strong enough to harm a human eye. This strength, or power of the light is its radiance.

When we purchase flashlights, what we are really interested in is the radiance of the light, how bright it is. This has more to do with the lens of the light than it does the lumens or total output of the flashlight. Now, common sense tells us that if we open the water valve fully, there is more water for the nozzle to work with and focus. Less water gives the nozzle less water to focus, so there is a relationship between output and power, but the nozzle, or in the case of a flashlight a lens, is required to produce the power.

### **Measuring Output vs Radiance**

One final way of understanding the light from a flashlight is to consider the source of the light and the object, or target of the light. Lumens, the measurement of output, is related to the source of the light. Radiance, the measurement of power, is measured at the object, or target, of the light.



### **Flashlight Advertising**

The next time you pick up a flashlight at the hardware store, and you look at the information on the package, don't fall for the advertising gimmick that touts lumens as brightness. You might or might not be disappointed, depending on the lens attached to the light. If the lens is set to focus into a narrow beam, the radiance will be high. If the lens gives out a broad beam, radiance will be low. One way of getting around this problem is to purchase a flashlight with movable lens. These lights allow the front of the light to slide backward and forward, changing the focus and the concentration of

the light. The narrow light will be the highest radiance. The broad beam will be the lowest radiance.

### **Lumens and Advertising**

Why don't companies which sell flashlights do a more thorough job of explaining these concepts on the packaging? Probably they are attempting to avoid confusing the consumer. What they are doing is combining the output and intensity measurements and simply referring to them as lumens. This can be seen on the package label above. "Peak Intensity" is advertised to be 6,000 cd. The cd refers to candlepower or lumens, but the word intensity refers to

radiance. The company selling this product feels that it is easier to combine the definitions than it is to explain them. The way I interpret the advertising for this product is to assume that Peak Intensity is radiance and High Beam intensity is output or lumens. This particular flashlight, according to the packaging, has a "High beam," meaning it evidently also has a low beam. This is a good way to go in my mind, because you aren't stuck with a single intensity setting.

## Tips for Securing Your Home from Burglars

By: Jennifer Arnett



With crime on the rise, how do you secure your home against theft? Every year about 3 million US homes get broken into, but there are some things you can do proactively to keep the boogie man from picking your house as his next target. There is no price tag to feeling safe and secure in your home. Not only do you want to keep your most prized possessions safe, securing your family is the most important consideration. You want to sleep soundly at night and go on vacation without worrying about your home.

*Disclaimer: This article addresses proactive measures for securing your home against theft. It will not address home invasions where people are targeted, or robberies are planned with intended use of force against persons. This article will focus on how you can make your home less attractive to thieves and help defend your home against their attempts. This author assumes no liability for your actions or changes, nor does she promise that these implementations will ward off all theft. For professional advice, call your local police station and request a home inspection.*

## **Security Companies**

There are dozens of home security companies that can make sure that your home is locked down tight with motion detectors and surveillance cameras. These companies can be very expensive and might not be an option for renters. Keep in mind that they will generally have installation fees, as well as a monthly subscription.

## **DIY Options**

### **1. Get Inside the Mind of a Burglar**

Burglars want the path of least resistance. They want a high return and low risk. Think of it as shopping. They drive down the street, looking for the house with the lowest amount of security features and the seemingly highest payout. On your block are two homes with visible big screen TV's in the front living room, do you think the burglar is going to target the house that has bright lights, a large guard dog, and a security camera? Or, is he going to target the house that hasn't been mowed in months, is dark, and the mail had piled up on the porch?

You should ask yourself, "Does my house look like a good return on investment for a thief?" The thief's choice of one house over another could come down to something as simple as a Mercedes parked in the driveway. To the thief, this screams out that there is probably money inside the house too. If the owners keep \$100,000 in their driveway, there's bound to be plenty of goodies inside the house. Whether or not the thief attempts a robbery will then come down to if his expected payout is worth attempting to overcome the security features you have placed.

### **2. Talk to Local Law Enforcement**

Every neighborhood is different, and what works in keeping away thieves in one, may not work in another. Often the same gangs or players are involved, creating patterns of crime that law enforcement keeps track of. If you have any concerns or you see any suspicious activity, report it immediately to your local law enforcement office. Often they will have their own tips for securing your property. Burglars are becoming increasingly sophisticated and have learned how to hack their way into houses where the owner implemented some visible security features. Your local police department is the best resource for staying one step ahead of the game.

Different neighborhoods also attract different types of thieves. The junkie looking for his next fix is going to act differently than the Jewel thief in Beverly Hills. One might smash a window of a vacant looking house and just climb inside, while the other might try to use a device to open your electric garage door.



### 3. Don't Let Your House Stand Out

Going back to the idea that thieves want the path of least resistance, don't let your house stand out from the rest of your block. Is your fence in worse shape than your neighbor's? Is your house the fanciest on the block? Do you live in a low income neighborhood, but have expensive cars and possessions? Does your house look dark and unoccupied every night because you work the graveyard shift? These are all things to consider in your game plan against

crime. Remember that old joke about swimming with sharks? If you swim in a group of people, you don't have to out swim the shark, you just can't be the slowest. Now applied to your home, just don't let your house look like the weakest link in the neighborhood. Blending in is a huge asset when it comes to home security.

### 4. Location, Location, Location

If you are searching for a new home, keep in mind that there are several tactical positions you might want to look for. For one, a house backing up to a trail, a canal, a school, a park, or any other public space is way more likely to get burglarized.

There are several reasons why this could be:

- Bored school kids looking for something to do might raise crime for that location.
- A public space allows a thief to observe your house from a public place where he is allowed to be and most people won't notice someone loitering the area.
- A public space allows a thief to observe your house from a public place where he is allowed to be and most people won't notice someone loitering the area.

Before purchasing a home, read as many reports as you can about the statistical crime in the area and what items are being targeted. It might even be helpful to dig up information on the house itself and its crime history.

## 5. Get a Dog

Dogs are excellent theft deterrents. Even a small dog may help keep the burglars at bay because their bark can alert the neighbors or tenants that something is amiss. A good watch dog can bark to warn you that there is an unusual person on your property, as well as help defend you against any intruders. If you had neighbor with a usually quiet golden retriever, who all of the sudden starts growling and barking bloody murder, you might call your neighbor or the police to see what's up. Hopefully, your neighbors will do the same for you, if your dog starts going ballistic at a probable threat.



If you don't have a dog, putting up a BEWARE OF DOG sign can keep a thief from picking your house when he is shopping for his next target. It's a \$2 fix that might save your house from a burglar.

## 7. Put in a Camera

You have two choices that can help protect your property: A visible camera and an invisible one.

**Outside** - Surveillance cameras are a cheap and highly effective way to keep away the boogie man. Remember, career thieves, especially, don't want to be caught or identified, so a visible security system can do wonders. Even if you can't afford a full on security system, a fake or cheap surveillance camera is better than nothing. Be sure to capture every entry point and the pathways leading up to your home. If it is legal, in your area, getting a shot of the sidewalk and street view will help warn you of intruders, help you decide who is about to come to your door, and may help record the license plate of the thief's vehicle.

**Inside** - Setting up invisible nanny cams can help identify even the sneakiest thieves who let down their guard once they are in a home. They may not think they are being watched, which puts the ball in your court. ADT offers remote viewing of your security feeds onto your smart phone. It's a great way to check on your family while you are away, and keep an eye on your house while on vacation. Through their services, you can even disarm and arm your alarm, as well as turn on and off your lights.



## 8. Band with Your Neighbors

One of the best things you can do to keep your neighborhood safe is to get to know your neighbors. Let them know that you will keep an eye out for suspicious activity and they will most likely return the favor. If you've created a trusted bond with a close neighbor, letting them know when you are going on vacation will help them watch out for any unwanted house guests. Also, knowing who your neighbors are helps you spot loiterers who don't belong there.

## 9. Beware of Solicitors

Most burglaries happen between 10 am and 3 pm when the family is assumed to be out working, going to school or shopping. Since those are daylight hours, the thief must operate in plain sight. There are several tactics they use to slip in and out of someone's house undetected.

## 10. Other Tips to Keep Your House Safe

- **Never give your house key to the guy at the car wash or to your mechanic.** When you hand them your keys, be sure to only give them the key to your car. Be sure to keep all keys to your house, safe, and your garage door opener. While your car is being worked on, the key can be duplicated.
- **If you live in a hot climate and sleep with your windows open at night that is a huge risk.** Crack open your window and use a window block—an adjustable rod that secure the window from being slid farther open. It is also a great addition to your window for when you are not at home.
- **Be Careful of What You Post Online.** Posting pictures of your birthday present—a \$20,000 diamond bracelet, or of your gun collection, your jewelry collection, or baseball collection can give thieves something to drool over and target you for. They know what you have so they know the payout might be worth the risk. I've seen collectors and preppers post their entire coin collection online to show off—stupid, stupid, stupid! It's easier than ever to find someone's address. Most modern cameras store the GPS information into the picture's file. With a little software a thief can look at a picture you've posted online and figure out where the picture was taken.
- **Don't Live-Post Your Vacation on Facebook.** You post a picture of you and your husband smooching under the Eiffel Tower. Your best friend likes your photo and asks how long you will be there. An innocent question to see if you have time to check out some destinations she recommends. Boom! Now the thief knows you are gone for three weeks and has tons of time to steal your whole house, down to the copper wiring.
- **Get a Safe.** A safe that is bolted to the wall or ground is the best option for securing your valuables. Given the right tools and enough time, most safes can eventually be broken into. However, the common burglary takes 8 to 10 minutes, so make it hard enough that

an amateur can't crack it or walk off with it in a reasonable amount of time. Keep important financial and personal documents in there as well.

- **Call the police.** If something doesn't feel right, you feel unsafe, or you see suspicious behavior, call 911. It's better to have a false alarm than to be a victim of a crime.
- **Stop! If you come across a potential crime scene.** If your house is expectantly unlocked or a window is busted, do not enter the house. Call 911! You do not know if the thief will be violent—and if the police get there first, they might catch him in the act. Also, getting an official police report will help your insurance company with their paperwork. It is a crime scene and you shouldn't tamper with it until police arrive. They might want to take pictures and look for evidence.
- **Get Insurance.** Get a renters or homeowners policy that includes theft and damage caused by theft. If you come home from vacation to see that your glass door has been busted, your soft furniture has been ripped open, and your house has been trashed, the insurance company may help pay to repair the damage and replace broken items. Create a video and written inventory of everything in your house so the insurance company knows what you need to be replaced. You may need it to prove the dollar amount for everything you've lost.



## 5 Home Security Gadgets to Keep You Safe

By: Michael Kismet

### Home Alarm Monitoring Services

- There are relatively many, very affordable home security gadgets that are readily available to ward off and deter the criminal element. No matter where one lives, they are susceptible to becoming a victim, and many become victims of lack of proper vigilance and proactive defensive measures.

A good combination of home security devices, working in conjunction will keep a home much more secure, whether you're not home or sound asleep in bed. Yet, protecting one's home is easier said than done, and should be looked upon as an ongoing necessity, rather than an overnight operation. Maybe you're a parent and do not feel comfortable with having a firearm in the house, so other options must be considered.

Also, keeping a home efficiently secure shouldn't cost an arm and leg. Taking these factors into consideration, the following home security gadgets aren't weapons, nor are they wildly expensive. These are inexpensive, highly reviewed by real consumers from Amazon, feel free to read the multitude of positive reviews for yourself.

### **Home System Alarms**

-Almost nothing comes close to a home security system to put one's mind at ease. The Simplisafe2 Wireless security system allows people to setup their own system, and that passes a substantial amount of savings on to their consumers. Installation takes less than an hour and costs less than half of other standard home alarm systems.

With this highly rated and reviewed security device, you receive an eight piece, pre-programmed sensor units that automatically work in conjunction with one another. They all can be set up in 20 minutes or less. Additionally, this home security package also includes a built-in wireless modem, making it next to impossible for robbers to circumvent.

### **Solar Powered Security Motion Light**

-This security gadget is a standalone unit that requires no power-source, just position and mount where you need it. This motion detection device will automatically turn its high intensity, bright LED light (800-lumen output) on when movement is detected.

This security floodlight is powered by a solar panel and charges up to work throughout the night, no wiring is required. Intended for use to add additional illumination for possibly compromised areas, such as a dim driveway, dark pathway, garage, shed, or front porch.

The possibilities are up to the owner, considering this unit can be moved and mounted virtually anywhere. The solar powered motion LED lights are housed in a durable ABS plastic and aluminum. Makes a great addition to a home security network. Also ideal for non-security purposes, a handy secondary or supplementary light source.

### **Fake TV Burglar Deterrent**



-This nifty security gadget is another inexpensive deterrent for a curious burglar, utilized when the homeowners are away. The fake television break-in deterrent produces a series of bright LED lights that project many combinations of lights and hues to simulate a real HD television.

From outside the home through a window will appear as if someone is home enjoying some late night TV shows. Studies show burglars are less likely to break in a home that is occupied. Why not just leave your own television on you might ask? Simply because it wouldn't be energy conscious, this security device uses little to no electricity, and the LED lighting doesn't need much power to operate. The unit comes with an integrated sensor switch that activates when it's dark enough. A couple of these babies in strategically visible rooms will make your home a more unappealing target for thieves.

### **Dummy Security Camera with Blinking Light**

Yes, this home security gadget is, in fact, a dummy surveillance camera, made to look like an actual working one, even comes with a small flashing light. This fake security measure is a deterrent to theft. The one thing home invaders and burglars dislike is being videotaped and will move on to softer targets.



Includes a rain shield, easily mounted for indoor or outdoor use. Perfect security gadget for the home or office to make criminals think twice towards stealing or vandalizing your property. Also works great in front of the driveway, where it will be most visible, and therefore more effective in its purpose. Simple to set in position, and also tilts downward and left to right. Powered by a 1.5V AA battery. An extremely useful and cost productive method in home defense.

### **Electronic Watchdog, Barking Dog Alarm**

A truly cheeky way for a homeowner to guard his castle, with an electronic watchdog gadget that is always ready to greet would be intruders. Also, it has an option for soothing sounds of a rainforest or a pleasant alert chime to let you know guests have arrived and are nearing the front entrance. However, when you're away or in bed and want a little extra home security intimidation, the electronic watchdog might be right for you. This clever security gadget is

essentially a motion detector, plugged in it will emit a real life recorded bark of an aggressive and protective guard dog. Place it near a front door, and it will alert you of approaching movement, and as the target comes closer to in proximity, it will increase its rate of barking. Plugs into any outlet and is a reliable source of 24-hour security. Most intruders will not want the hassle of subduing a canine, moreover, some burglars will not want to hurt a dog, and will opt for a better opportunity elsewhere. A great inexpensive alternative for an actual dog, the electronic watchdog doesn't eat, sleep, or rest.

### **Ways to Improve Your Home Security**

To reiterate, keeping your home safe and secure is an ongoing endeavor, that requires being aware of your home's weakness and vulnerabilities. Active burglars will search for a home that is particularly unprotected, thieves, don't relish the thought of a challenge. Here are a few nearly effortless things you can do to make your home less at risk for break-ins.

- Career thieves will always choose an unoccupied residence, rather than meet resistance, so create the appearance of an occupied home. Lights that are on timers are effective for this when you plan to be out.
- Use metal or iron bars to reinforce sliding glass doors and windows. The idea is to make it as hard for the burglar as possible, making your home a less savory target.
- Make sure the locks in your home are all up to date, many break-ins occur in the happenstance of the intruders possessing a key.
- Use effective lighting, especially around dark vulnerable areas. Burglars are like vampires or cockroaches, they scatter away from the light.
- Keep in contact with your neighbors, they can help watch out for your home, and you can watch out for your neighbors. If you're planning to be out of town, let them know.
- Even if you don't have a home security system in place, buy a sign. Criminals will think twice before seeing if the sign is really legitimate, they won't take the chance.
- The best front line of home security is a dog, one that is protective and will bark when any intruders are close by.



# 5 Recycled Container Gardening Ideas

By: Suzanne Ridgeway

## Why Recycled?

For many who are challenged with space and lifestyle, container gardening for flowers, shrubs, vegetables and herbs provides the perfect platform to get the creative juices flowing. Apart from having a unique look, using recycled items will create a focus in your garden or living space that oozes originality, making the usual containers seem boring!



### 1. Ceramic Watering Can as Planter

Thinking outside the box on what types of Containers can be utilized for gardening; can be enlightening, fun and very easy on the finances. Household budgets are tighter with less disposable income available today. Different containers are all around us and are often everyday items crying out to be recycled and reused.

Before planting up your new containers, please do spare a thought for drainage issues and what the items are made of.

### 2. Chinese food takeout cartons



### 3. Shoes – Not your favorite

Jimmy Choos or Louboutins but it is amazing how an old pair of stilettos, pumps, work boots or wellie boots can be transformed!



4. **Baby Stroller** – The vintage ones are the best and you never know where one may pop up, so keep it in mind. Storage Units, Auction Houses, Warehouse Clearance and Thrift shops are worth remembering if this idea appeals to you.



5. **Old Tyres/ Tires** – These may be used alone or stacked for an unusual feature. Paint them plain or in a design, do it as a fun activity with the kids, they will love it!

