

CFL - FAQ

What is a CFL?	2
Can I turn my Compact Fluorescent Light Bulbs (CFLs) on and off frequently? I've been told I have to turn it on and leave it on all day.	2
Can Compact Fluorescent Light Bulbs (CFLs) be used in recessed cans, outdoor lights, or track lighting?.....	2
If a light fixture is rated for a maximum 75 watts with an incandescent bulb, does that mean I am limited to a Compact Fluorescent Light Bulb (CFL) with the equivalent light output to a 75-watt incandescent? Or, can I use a CFL that is the equivalent to a 100-watt incandescent as long as it uses less than 75 watts of power? .	2
How do I dispose of Compact Fluorescent Light Bulbs (CFLs)? Do they need to be recycled?.....	3
Can I use Compact Fluorescent Light Bulbs (CFLs) in the bathroom?.....	3
What's the difference between "long life" incandescent light bulbs and ENERGY STAR qualified Compact Fluorescent Lights (CFL)?	3
I've noticed some CFLs need a few minutes to warm up, or reach full brightness. Is there a way to determine which warm up fastest?	3
Does temperature or humidity affect the life of a CFL? For example, would a CFL work in extremely cold temperatures, or extremely wet climates?	4
I was told that I could not use CFLs in my home because I have "60-degree wiring" (where new homes have 90-degree wiring and CFLs are fine). Is that true?	4
Why choose ENERGY STAR qualified CFLs over a non-qualified CFL?	4
Some ENERGY STAR qualified CFLs have a bluish white hue ("cool") and others seem almost yellow ("warm") in comparison. How can I find consistent colors in lighting?.....	4
Will ENERGY STAR qualified CFLs fit into my existing fixtures?.....	5
What is a watt? What is a lumen?	5
Do CFLs contain mercury?	5
I have heard that CFLs can overheat and smoke - should I be worried? Why would this happen? Are these bulbs a fire hazard?	6
What is the difference between the coil design and the CFLs that resemble a traditional light bulb?	6
I want to start replacing my "regular" (incandescent) light bulbs with compact fluorescent light bulbs (CFLs). Should I throw away my incandescent bulbs now or wait until they burn out?	6
Can CFLs be used horizontally? I heard they could only be used vertically. Is this true and why?.....	7
How much energy does it takes to turn on a CFL, compared to leaving it on?.....	7
What's the difference between an incandescent light bulb and a CFL?.....	7
Can I use a CFL with a timer?	8
Why should people use CFLs?.....	8
What's the difference between ENERGY STAR qualified and standard fixtures?	8
Do Compact Fluorescent Light Bulbs (CFLs) produce a hazardous amount of UV light?	8
Can I use my CFL in a totally enclosed fixture?	9
Can I use a CFL with an electronic control such as an electronic timer, photo sensor, motion sensors, touch lamps, and remote light control?	9
Why use Compact Fluorescent Light Bulbs (CFLs) in the winter if they don't help heat your home?	9
Do Compact Fluorescent Light Bulbs (CFLs) cause electromagnetic interference?.....	10
Are there any Compact Fluorescent Light Bulbs (CFLs) manufactured in the US?.....	10
I hear incandescent light bulbs will be phased out by 2012. Is that true?	10
I want to replace my 60-watt incandescent light bulb. How do I select the best CFL?	10
How should I clean up a broken fluorescent bulb?.....	12

What is a CFL?

Answer

CFL stands for compact fluorescent lamp, and it is a small fluorescent light bulb that uses 75% less energy than a traditional incandescent bulb and can be screwed into a regular light socket. Don't let the fact that it is fluorescent turn you off! ENERGY STAR qualified CFLs must pass extensive testing to ensure they produce only the highest quality light.

Qualified bulbs labeled "warm white" or "soft white" produce light like typical incandescent light bulbs. CFLs that have a cooler color (similar to bright white incandescent bulbs) are usually labeled "bright white" or "daylight" on the product packaging.

Can I turn my Compact Fluorescent Light Bulbs (CFLs) on and off frequently? I've been told I have to turn it on and leave it on all day.

Answer

Turning a CFL on and off frequently can shorten its life. To take full advantage of the energy savings and long life of ENERGY STAR qualified CFLs, it is best to use them in light fixtures you use the most and are on for at least 15 minutes at a time. Good locations include outdoor light fixtures, indoor fixtures in the living room, family room, kitchen, bedroom, recreation room, etc. This is not to say you should leave your lights on all day if you use ENERGY STAR qualified CFLs. It is still a good habit to turn the lights off when you leave the room for an extended period of time.

You may also have heard that CFLs use a lot of energy when turning on and off. While there is a brief surge in energy use when a CFL is turned on, with today's starting technology, that surge usually lasts about a tenth of a second and consumes about as much energy as five seconds of normal operation. So, even when turned on and off frequently, a CFL uses less energy than its incandescent equivalent. But because turning a CFL on and off more frequently can shorten its life and CFLs are more expensive than incandescents, we recommend consumers use CFLs in applications where they are on for at least fifteen minutes.

Can Compact Fluorescent Light Bulbs (CFLs) be used in recessed cans, outdoor lights, or track lighting?

Answer

Yes! Always read the packaging of the CFL to be sure of its proper application, but there are a wide variety of ENERGY STAR qualified CFLs that are designed for use in most fixtures in your home, including recessed cans, outdoor lights, and track lighting.

If a light fixture is rated for a maximum 75 watts with an incandescent bulb, does that mean I am limited to a Compact Fluorescent Light Bulb (CFL) with the equivalent light output to a 75-watt incandescent? Or, can I use a CFL that is the equivalent to a 100-watt incandescent as long as it uses less than 75 watts of power?

Answer

The watt rating on the fixture is a description of how much electricity the internal wiring of the fixture can accept safely. A watt is a measure of power consumption. Since the light fixture can accept up to 75 watts of power, you can use any light bulb with a rated wattage of 75 or less. While you can use a 75-watt equivalent CFL, if you want more light in this fixture, then yes, you can use a CFL that produces as much light as a 100-watt incandescent. Most 100-watt equivalent CFLs use between 23 and 30 watts of power much less than

the 75-watt rating of the fixture. That's the great thing about ENERGY STAR qualified CFLs you get more light for less power!

How do I dispose of Compact Fluorescent Light Bulbs (CFLs)? Do they need to be recycled?

Answer

Because CFLs contain a small amount of mercury, EPA recommends that consumers take advantage of available local recycling options for CFLs. EPA is working with CFL manufacturers and major U.S. retailers to expand recycling and disposal options. Consumers can contact their local municipal solid waste agency directly, or go to epa.gov/bulbrecycling or www.earth911.org to identify local recycling options. IKEA stores take back used CFLs, in addition to batteries and other toxic household items.

If your state permits you to put used or broken CFLs in the garbage, seal the bulb in two plastic bags and put it into the outside trash, or other protected outside location, for the next normal trash collection. CFLs should not be disposed of in an incinerator.

ENERGY STAR qualified CFLs have a 2 year warranty

Can I use Compact Fluorescent Light Bulbs (CFLs) in the bathroom?

Answer

You can use ENERGY STAR qualified CFLs in bathrooms; however, high humidity can shorten the life of CFLs. To avoid moisture problems generally, control humidity in your bathroom by running your ventilating fan during and 15 minutes after showers and baths.

What's the difference between "long life" incandescent light bulbs and ENERGY STAR qualified Compact Fluorescent Lights (CFL)?

Answer

While a "long life" bulb does last longer than a standard incandescent bulb, it still uses a lot of energy and it doesn't last as long as a Compact Fluorescent Lights (CFL). A long life 60-watt incandescent bulb usually lasts for 2,000 hours, but an equivalent 13-watt ENERGY STAR qualified CFL will last 6,000 hours or more, and use 75% less energy. ENERGY STAR qualified CFLs help you save money in energy and household costs and you won't have to buy and change bulbs as often.

I've noticed some CFLs need a few minutes to warm up, or reach full brightness. Is there a way to determine which warm up fastest?

Answer

By choosing an ENERGY STAR qualified CFL, you are assured that it will turn on in less than a second, and reach at least 80% of full light output within 3 minutes. If the CFL doesn't have the ENERGY STAR, both start time and warm up time could be much longer.

Additionally, many lighting manufacturers offer "instant on" CFLs. Some spiral and mini-spiral products incorporate "instant-on" technology in their products and display this feature prominently on the product packaging. Some covered or reflector CFLs actually do take longer to warm-up, but the tradeoff is that they last longer than regular CFLs. ENERGY STAR qualified CFL products that are covered (like incandescent shaped, reflectors, globes, candles) have a higher operating temperature so they require a compound called amalgam to perform properly. This compound actually increases the bulb life and the light output! The one

tradeoff is that these CFLs cannot offer “instant full brightness” The CFL will turn on, but may take up to three minutes to warm-up to reach full light output.

Does temperature or humidity affect the life of a CFL? For example, would a CFL work in extremely cold temperatures, or extremely wet climates?

Answer

Extreme temperatures can affect CFLs. Some CFLs can be used outside in temperatures down to –10 degrees Fahrenheit and up to 120 degrees Fahrenheit, though when it is very cold they may take longer to reach full brightness. There are some ENERGY STAR qualified CFLs that are weatherproof and can be used outside where exposed to rain, so check for “weatherproof” models before installing it in your outdoor spot light.

I was told that I could not use CFLs in my home because I have "60-degree wiring" (where new homes have 90-degree wiring and CFLs are fine). Is that true?

Answer

No. In this instance, using CFLs in your house would actually be preferable to using incandescent bulbs. “60-degree C” refers to the temperature (in Celsius) up to which the insulation around your household wiring will protect the wire safely. If the temperature exceeds that, the insulation becomes brittle and there is a danger of electrical shorts and fire. Around light fixtures, this can be an issue since incandescent light bulbs generate a lot of heat. It’s also an issue if a circuit in your house is overloaded, since drawing an excess of electricity will cause the wire itself to heat up. Since CFLs are cooler than ordinary light bulbs, and draw less electrical current, they are perfectly fine to use with older 60-degree C wiring.

Warning! If the wiring has already been exposed to excessive temperatures or electrical currents, the insulation is already damaged! While CFLs do nothing to harm the wire if it is still intact, they cannot undo damage that has already occurred. If the insulation around your wiring has already failed, it should be replaced.

Why choose ENERGY STAR qualified CFLs over a non-qualified CFL?

Answer

ENERGY STAR qualified CFLs are different than other CFLs on the market because they have been tested to meet stringent performance criteria established by the U.S. Department of Energy and the U.S. Environmental Protection Agency. The criteria ensure that all CFLs earning the ENERGY STAR meet minimum lifetime and efficacy requirements, and are within maximum allowed product start and warm-up times. Manufacturers are also required to label the product if the light output is different than that of a soft white incandescent. If you choose a CFL that is not ENERGY STAR qualified, you might not get the performance you were looking for.

Some ENERGY STAR qualified CFLs have a bluish white hue ("cool") and others seem almost yellow ("warm") in comparison. How can I find consistent colors in lighting?

Answer

Just like incandescent bulbs are labeled soft white, cool white, bright white, etc., you will find ENERGY STAR qualified CFLs labeled soft white, cool white, or daylight (similar to bright white). When selecting a new CFL, it is a good idea to use the same color type as the incandescent you are replacing. Another way to do this is to look for the scientific color designation known as correlated color temperature (CCT) on the packaging: 2,700K, 3,000K, 5,100K, etc. Lower CCT numbers mean the light will be warmer white (yellowish), while

higher numbers mean it will be cooler light (bluish). Matching these numbers gets you consistent color. The majority of CFLs available in the market offer soft or warm white light (2700K–3000K), which is comparable to an incandescent bulb. When changing out multiple bulbs in one room, select ENERGY STAR qualified CFLs with the same color and the same manufacturer to help ensure more consistent light color. More information on CFL colors.

Will ENERGY STAR qualified CFLs fit into my existing fixtures?

Answer

ENERGY STAR qualified CFLs can replace regular, incandescent bulbs in almost any fixture. They come in a wide variety of sizes and shapes including globe lamps for your bathroom vanity, chandelier bulbs, lamps for recessed downlights (now commonly found in kitchens, hallways, and more), and larger or more compact standard light bulbs.

Check the packaging of the CFL to ensure that it may be used in an entirely enclosed fixture. Additionally, some ENERGY STAR qualified CFLs are specifically designed to provide dimming and 3-way functionality -- these options will be identified on the products' packaging.

What is a watt? What is a lumen?

Answer

A watt is the measure of power consumption, and is the common way incandescent light bulbs are identified -- for example 60-watt, 75-watt and 100-watt. When purchasing a light bulb, however, what you really should look for is lumens, which is the measure of light output. When you purchase a 60-watt incandescent bulb, you are getting about 800 lumens. By selecting a 13-watt ENERGY STAR qualified CFL instead, you can still get 800 lumens, but it requires much less power.

Do CFLs contain mercury?

Answer

CFLs contain a very small amount of mercury sealed within the glass tubing – an average of 5 milligrams, which is roughly equivalent to an amount that would cover the tip of a ball-point pen. No mercury is released when the bulbs are intact or in use. By comparison, older thermometers contain about 500 milligrams of mercury. It would take 100 CFLs to equal that amount.

Mercury currently is an essential component of CFLs and is what allows the bulb to be an efficient light source. Many manufacturers have taken significant steps to reduce mercury used in their fluorescent lighting products. In fact, the average amount of mercury in a CFL is anticipated to drop by the end of 2007, thanks to technology advances and a commitment from the members of the National Electrical Manufacturers Association.

Because CFLs contain mercury, they should be disposed of properly.

SunBlaster CFL Mercury (Hg) content is 3.0 mg or less per bulb!

I have heard that CFLs can overheat and smoke - should I be worried? Why would this happen? Are these bulbs a fire hazard?

Answer

Unfortunately, there have been some instances of CFLs smoking or smoldering. While this usually occurs when the product is defective or installed improperly, it is nonetheless a concern to consumers and the government. Currently, the Department of Energy (DOE) is working with industry to address this phenomenon. Meanwhile, all CFLs are currently designed to meet UL 935, which requires the CFL materials to be self-extinguishing. So in the case of defective products, although the base or glass tubing may darken, and it may be possible for the product to smoke, it will NOT catch on fire. As with most light bulbs, CFL manufacturers recommend that you install and remove the CFLs by grasping the plastic portions of the base only. If the CFL is screwed into a light socket by twisting the tube rather than the plastic base, it can cause the vacuum seal or glass tubing in the CFL to break. Once certain parts are exposed to oxygen, they are more liable to become defective and/or overheat.

If you have a product that does begin to smoke or smolder, immediately shut off the power to the CFL and, once it has cooled, remove it from the light socket. Then, send us e-mail at cfl@energystar.gov to alert us of this incident. Please include the product manufacturer's name and model information that is included on the CFL base and if possible an electronic photo. Also please tell us how the CFL was used – open or enclosed light fixture; indoors or outdoors; base orientation – up, down or sideways. Then visit the manufacturer's web site to find customer service contact information to inform them of the early failure. Manufacturers producing ENERGY STAR qualified CFLs are required to offer at least a 2-year limited warranty (covering manufacturer defects) for residential applications. In some cases, the manufacturer may request the failed product to be shipped to them so they can determine why the smoking happened, so make sure to keep the product until you speak to the manufacturer. The manufacturer will most likely provide a replacement product or a refund.

What is the difference between the coil design and the CFLs that resemble a traditional light bulb?

Answer

There are a handful of differences between the coil or "spiral" CFLs and the CFLs that resemble a traditional lightbulb (A-line shape). The first difference is the amount of light each will produce. Most times, a CFL that looks like an incandescent light bulb is really the "coil" shaped CFL with a plastic or glass cover. This cover will slightly reduce the amount of light that is produced. If you compared a 14W bare spiral CFL and a 14W "incandescent" shaped CFL, the bare product will provide more light for the same wattage. Also, bare CFLs usually have longer lifetimes than covered products.

Second, most bare spiral CFL products will perform like incandescent light bulbs - they will turn on instantly and provide full brightness. Covered CFLs may take slightly longer to reach full brightness

The last difference is the price - covered CFLs generally cost slightly more than bare spiral because of the additional materials required to manufacturer the products.

I want to start replacing my "regular" (incandescent) light bulbs with compact fluorescent light bulbs (CFLs). Should I throw away my incandescent bulbs now or wait until they burn out?

Answer

Replacing incandescent bulbs with ENERGY STAR qualified CFLs right away, rather than waiting until they burn out is beneficial because you can begin to enjoy the energy savings right away. By replacing your home's five most frequently used light fixtures or the bulbs in them with ENERGY STAR qualified CFLs can save you more than \$65 each year. ENERGY STAR qualified CFLs use 75% less energy while providing the same amount of light.

You can save the incandescent bulbs for your fixtures where CFLs aren't suitable (like in a closet where the light would only be on for a few minutes at a time, or for a dimmable fixture if you don't have a dimmable CFL). CFLs provide the most savings in applications where the light is on for at least two hours a day.

Can CFLs be used horizontally? I heard they could only be used vertically. Is this true and why?

Answer

ENERGY STAR qualified CFLs generally can be used both horizontally and vertically. The operating position of a CFL can affect how well the lamp performs, which can affect the product's lumen output. However, while the exact light output may differ slightly between the lumen rating stated on the packaging and the light output based on the installed position, the difference generally is so small that it would be unnoticeable.

ENERGY STAR qualified CFLs are tested in both the base-down and base-up positions, which are the two most extreme positions within the range of possible installation options. If there is greater than 5% difference between the base-up and base-down lumen output ratings, manufacturers are required by the Federal Trade Commission (FTC) to put that disclosure on the packaging. Additionally, the ENERGY STAR CFL Program Requirements allow manufacturers to test products in a horizontal or other alternative position, if it is the position for the CFLs intended use, and subsequent marketing. If a manufacturer wants to market an ENERGY STAR qualified CFL for use in one particular position only, they must state this explicitly on the packaging. For example, if installing a CFL horizontally or base-down would cause a noticeable change in the lumen output or performance, the packaging would be required to state "For use in base-up position only."

How much energy does it takes to turn on a CFL, compared to leaving it on?

Answer

Even when turned on and off frequently, a CFL uses less energy than its incandescent equivalent. While there is a brief surge in energy use when a CFL is turned on, with today's starting technology, that surge usually lasts about a tenth of a second and consumes about as much energy as five seconds of normal operation.

However, turning a CFL on and off more frequently will also shorten its life. Because of this, and because CFLs are more expensive than incandescents, we generally recommend that consumers use CFLs in applications where they are on for at least fifteen minutes. This is where CFLs have the biggest impact and make the most sense economically.

What's the difference between an incandescent light bulb and a CFL?

Answer

Incandescent light bulbs work by heating a tungsten filament, or wire, until it glows. This is what produces the light you see. Unfortunately, 90% of the energy used to generate that light is wasted as heat, making incandescent bulbs a very inefficient way to light your home. CFLs, on the other hand, create a chemical reaction among gasses located inside the glass tube, causing phosphors to illuminate. ENERGY STAR qualified CFLs provide bright, warm light and use 75% less energy, produce 75% less heat, and lasts up to 10 times longer.

Can I use a CFL with a timer?

Answer

While CFLs can be used with mechanical timers, electronic or digital timers may cause interference with the electronic ballast, and can adversely affect product performance. Typically, CFLs used on electronic or digital timers will fail far before their rated lifetime. Remember, ENERGY STAR qualified CFLs are required to state any incompatibility with controls on the packaging, so be sure to read and follow the manufacturer recommendations.

Why should people use CFLs?

Answer

Switching from traditional light bulbs to CFLs is an effective, accessible change every American can make right now to reduce energy use at home and prevent greenhouse gas emissions that contribute to global climate change. Lighting accounts for close to 20 percent of the average home's electric bill. Changing to CFLs costs little upfront and provides a quick return on investment.

If every home in America replaced just one incandescent light bulb with an ENERGY STAR qualified CFL, it would save enough energy to light more than 3 million homes and prevent greenhouse gas emissions equivalent to those of more than 800,000 cars annually.

What's the difference between ENERGY STAR qualified and standard fixtures?

Answer

Most ENERGY STAR qualified fixtures come with pin-based compact fluorescent lamps that are tested to last at least 10,000 hours (about 7 years, on average) versus standard screw-in bulbs which last about 1,000 hours or up to 1 year. Some ENERGY STAR qualified outdoor fixtures will accept an incandescent light bulb because they save energy through a motion sensor and/or a photocell that turns the light on only when someone is present or on and off at night and in the morning. Qualified fixtures come in hundreds of popular styles, including table, floor and desk lamps and in hard-wired styles for ceilings, walls, bathroom, kitchen, dining room, and outdoors.

Replacement pin-based CFL bulbs can be found at most hardware or home improvement centers, at lighting showrooms, and on the Internet.

Do Compact Fluorescent Light Bulbs (CFLs) produce a hazardous amount of UV light?

Answer

Regular fluorescent light bulbs used in your home and office, including CFLs, do not produce a hazardous amount of ultraviolet light (UV). Ultraviolet light rays are the light wavelengths that can cause sunburn and skin damage. Most light sources, including fluorescent bulbs, emit a small amount of UV light, but the UV light produced by fluorescent light bulbs is far less than the amount produced by natural daylight. The amount of UV given off by regular fluorescent light bulbs used in your home and office are not hazardous. A recent report from E Source indicates a level of UV radiation from CFLs at a range of 50-140 microwatts/lumen. In comparison, this report also sites that some incandescent products have been found to have UV levels exceeding 100 microwatts/ lumen.

UV filters may be available through some manufacturers. Additionally, some manufacturers have low UV bulbs in their product lines, for especially sensitive areas.

Can I use my CFL in a totally enclosed fixture?

Answer

Before using a CFL in a totally enclosed fixture, you should consult the product packaging. CFLs that are not designed for totally enclosed fixtures will typically carry a disclaimer that indicates that they are not intended for this type of application. Because totally enclosed fixtures do not allow air to circulate around the lamp, it causes heat to build up, which can lead to performance issues.

Though CFLs do not produce nearly as much heat as incandescents, they are more sensitive to heat, which can effect their performance. Some of the components in a CFL can not withstand high heat, unless specifically engineered to do so. The excess heat that is created in a totally enclosed fixture can cause the light output to be diminished, the bulb to appear to "dim" more quickly than CFLs used in applications that allow airflow, and a shorter bulb lifetime. The most effective way at this time to ensure that the particular product you are interested in purchasing is designed to withstand high-heat applications, is to check the packaging or contact the manufacturer directly.

Can I use a CFL with an electronic control such as an electronic timer, photo sensor, motion sensors, touch lamps, and remote light control?

Answer

Most electronic controls such as electronic timers, photo sensors, motion sensors, touch lamps, and remote light controls are designed to work with the simple technology of an incandescent rather than the complex circuitry of a CFL. Electronic controls draw a small amount of electricity to operate that would concurrently run a small amount of electricity through the CFL ballast, placing stress on the electronics. Since CFL ballasts are designed for a specific input voltage and are not designed to handle deviations, imposing them can cause the circuitry to malfunction or not be able to effectively light the lamp or keep the current through the lamp well regulated. The result is that operating CFLs on controls can significantly shorten the lifespan of the product, though it should not pose a fire hazard.

It is possible for electronic controls to be designed to work with fluorescent technology, so check with the manufacturer of the electronic control device for compatibility.

Note that CFLs can be used with mechanical timers (those that do not use electricity to operate) without adversely affecting the performance.

Why use Compact Fluorescent Light Bulbs (CFLs) in the winter if they don't help heat your home?

Answer

While incandescent light bulbs produce both heat and light, it is important to keep in mind they are both an inefficient heat source and an inefficient light source. Incandescent light bulbs use only about 10% of the energy they consume to produce light, and the other 90% is given off as heat, whereas ENERGY STAR qualified CFLs use 75% less energy and last 10 times longer, while producing the same amount of light (lumens) that you are used to receiving from an incandescent product.

Although incandescent light bulbs uses 90% of the energy consumed to produce heat, it is not efficiently producing this heat. First, the filament is in essence a resistance heater, which is far less efficient in terms of total energy consumption than an oil or gas furnace or electric heat pump. Furthermore, light bulbs are not designed to be used for heating and they therefore lack the design to effectively distribute the heat within your living space. By using your primary heat source for heating, and ENERGY STAR qualified CFLs for lighting, you will save energy, money, and limit the emission of greenhouse gases into the atmosphere.

Do Compact Fluorescent Light Bulbs (CFLs) cause electromagnetic interference?

Answer

Similar to linear fluorescent lighting and other electronics, it is possible for CFLs to cause electromagnetic interference (EMI). Electromagnetic interference is regulated by the Federal Communications Commission (FCC), and ENERGY STAR includes these requirements by reference for CFLs. In addition, ENERGY STAR requires CFLs to use ballasts that operate at greater than 40 kHz, which limits the potential for interference. Finally, ENERGY STAR requires that the product package clearly state any devices that the CFL has potential to interfere with. This information is usually found along with other statements of known incompatibility with controls and application exceptions.

Are there any Compact Fluorescent Light Bulbs (CFLs) manufactured in the US?

Answer

No, there are not currently any CFLs manufactured in the US.

Last Updated
12/04/2007

I hear incandescent light bulbs will be phased out by 2012. Is that true?

Answer

The Energy Independence and Security Act of 2007 (the "Energy Bill"), signed by the President on December 18, 2007 requires all light bulbs use 30% less energy than today's incandescent bulbs by 2012 to 2014. The phase-out will start with 100-watt bulbs in January 2012 and end with 40-watt bulbs in January 2014. By 2020, a Tier 2 would become effective which requires all bulbs to be at least 70% more efficient (effectively equal to today's CFLs).

It's not entirely correct to say "incandescents" will be "phased out" because the standards set by the bill are technology neutral, and by 2012, a next generation of incandescent bulbs could satisfy the 30% increased efficiency. The law applies to the sale of bulbs, not the use of existing stock of bulbs.

Lighting is approximately 20% of the average household's energy bill. NRDC estimates this law could cut our nation's electric bill by more than \$10 billion a year.

There are many types of incandescent bulbs that are exempt from this law:

- any kind of specialty light (ie. bulb in refrigerator)
 - reflector bulbs
 - 3-way bulbs
 - candelabras
 - globes
 - shatter resistant
 - vibration service
 - rough service
 - colored bulbs (i.e. "party bulbs")
 - bug lights
 - plant lights
-

I want to replace my 60-watt incandescent light bulb. How do I select the best CFL?

Answer

Finding an ENERGY STAR qualified CFL that will put out the same amount of light as your current incandescent bulb is easy. Manufacturers include product equivalency information on the packaging to help

consumers choose a bulb that produces enough light. For example, if you are looking for an ENERGY STAR qualified light bulb to replace your 60-watt incandescent, look for words like “Soft White 60”, or “60 Watt Replacement” on the packaging.

You can also refer to the chart below to as a guide for selecting the right bulb. A watt is actually a measure of power consumption. When purchasing a light bulb, what you are really after is light output, which is measured in lumens. When you purchase a 60-watt incandescent bulb, you are getting about 800 lumens. By selecting a 13-watt ENERGY STAR qualified CFL instead, you can still get 800 lumens, but it requires much less power.

Energy Use for Incandescent Light Bulbs

(Watts)
Minimum Light Output

(Lumens)
Energy Use for common

ENERGY STAR qualified CFLs (Watts)

Energy Use for Incandescent Light Bulbs (Watts)	Minimum Light Output (Lumens)	Energy Use for common ENERGY STAR qualified CFLs (Watts)
25	250	4 to 9
40	450	9 to 13
60	800	13 to 15
75	1,100	18 to 25
100	1,600	23 to 30
125	2,000	28 to 40
150	2,600	30 to 52

Be sure to look for the ENERGY STAR mark on the product packaging. ENERGY STAR qualified CFLs must pass product quality and performance tests to earn the ENERGY STAR, so CFLs with the ENERGY STAR mark are a notch above the others.

Also, make sure you choose the right light for the right place, and that you read the CFL packaging. For example, for popular recessed ceiling fixtures (also called recessed cans), choose a CFL made for this application. In addition, only a handful of CFLs currently work well on dimmer and remote switches, or come with a 3-way switching feature. Read the packaging to be sure you properly place your new CFL and get the best performance.

How should I clean up a broken fluorescent bulb?

The following steps can be performed by the general public:

1. Open a window and leave the room for 15 minutes or more.
2. Carefully scoop up the fragments and powder with stiff paper or cardboard and place them in a sealed plastic bag. Use disposable rubber gloves, if available (i.e., do not use bare hands). Wipe the area clean with damp paper towels or disposable wet wipes and place them in the plastic bag. Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.
3. Place all cleanup materials in a second sealed plastic bag. Place the first bag in a second sealed plastic bag and put it in the outdoor trash container or in another outdoor protected area for the next normal trash disposal. Wash your hands after disposing of the bag.
4. If a fluorescent bulb breaks on a rug or carpet:
First, remove all materials you can without using a vacuum cleaner, following the steps above. Sticky tape (such as duct tape) can be used to pick up small pieces and powder. If vacuuming is needed after all visible materials are removed, vacuum the area where the bulb was broken, remove the vacuum bag (or empty and wipe the canister) and put the bag or vacuum debris in two sealed plastic bags in the outdoor trash or protected outdoor location for normal disposal.

What is mercury?

Mercury is an element (Hg on the periodic table) found naturally in the environment. Mercury emissions in the air can come from both natural and man-made sources. Coal-fired power plants are the largest man-made source because mercury that naturally exists in coal is released into the air when coal is burned to make electricity. Coal-fired power generation accounts for roughly 40 percent of the mercury emissions in the U.S.

The use of CFLs reduces power demand, which helps reduce mercury emissions from power plants.

For more information on all sources of mercury, visit <http://www.epa.gov/mercury>.

For more information about compact fluorescent bulbs, visit http://www.energystar.gov/index.cfm?c=cfls.pr_cfls