



Green Ideas

## eSafetyLine Greener Light

Light bulbs are another place where we asked to make the “greener choice”. The problem is that many of us don’t understand what all the fuss is about and what the differences are between bulbs. The two main types of bulbs around are incandescent and CFL (compact fluorescent lamp). They both have pros and cons that need to be considered before choosing a bulb. There are several points where CFLs and incandescent bulbs can be compared. This comparison can make it easier to choose which bulb is right for your home and family.

### Lifespan

Typically a CFL lasts between 8 and 15 times as long as an incandescent bulb. The lifetime of a CFL is affected by operating voltage, manufacturing defects, frequency of cycling on and off, lamp orientation and operating air temperatures, among other factors. If a CFL is frequently turned on and off, its lifespan is much shorter. A 5 minute on/off cycle reduces the lifespan of a CFL up to 85%, bringing its life close to that of an incandescent bulb.

Energy Efficiency- For a given light output, CFLs use 20 to 33% of the power needed by equivalent incandescent lamps. Widespread use of CFLs could decrease the total US household energy usage by 7%.

### Heating and Cooling

CFLs produce much less heat while producing light. Your home’s heating system can easily make up the difference with little effect on your energy usage. At times when your home requires both light and cooling, the use of CFLs reduce the load on the cooling system. This reduces the amount of energy used for lighting AND for cooling- a double savings!

## Energy to Manufacture

Although it's true that CFLs require more energy to make than incandescent, this difference is more than made up for by the fact that they last longer and use less energy producing light during their lifetime.

## Cost

The purchase price of a CFL is usually about 3 to 10 times that of an equivalent incandescent bulb. However, the longer life and lower energy use more than makes up for the higher initial costs.

## Starting Time

Incandescent bulbs reach full brightness almost as soon as they're turned on. As of 2009, a CFL turns on within a second but may take some time to warm up to full brightness. The color of light may also change as a CFL warms up. This combined with the shorter life when CFLs are turned on and off for short periods may make CFLs a bad choice for motion-activated lights.

Ultimately, the choice is yours and the best choice may turn out to be using both types of bulbs in your home. Certain applications in your home will be better suited for CFLs and others for incandescent. For example, in a living room where softer light is preferred, incandescent may be the way to go. In the kitchen, where brighter light is needed, CFLs will fit the bill. The bottom line is that for every CFL you change to you will be saving money and energy.

## **Discussion Questions**

If a CFL costs more money, how does it save you money?

How does CFL use affect the cooling costs of your home?

# MEETING / TRAINING ATTENDANCE ROSTER

COMPANY: \_\_\_\_\_

\_\_\_\_\_ SAFETY MEETING

JOB/DEPT: \_\_\_\_\_

\_\_\_\_\_ SAFETY TRAINING

DATE: \_\_\_/\_\_\_/\_\_\_

TIME: \_\_\_\_\_

TOPICS ADDRESSED: \_\_\_\_\_

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## EMPLOYEE'S SIGNATURES

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EMPLOYEE SUGGESTIONS AND RECOMMENDATIONS: \_\_\_\_\_

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ACTION TAKEN: \_\_\_\_\_

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Supervisor's Signature

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Date

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Safety Coordinator's Signature

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Date