Advancements in technology and energy efficiency standards have created more options when shopping for lightbulbs. Not all lightbulbs are created equal, and it can be difficult to choose the right one. Fortunately, lightbulbs are required to label brightness, appearance, and efficiency specifications on their packaging. This fact sheet can help you choose the right lightbulb and understand the features you may want or need.

Lighting Facts

Brightness
Your first step when shopping for lightbulbs is looking for lumens (lm). While consumers used to purchase their bulbs based on wattage, the best measure is lumens. Watts measure the energy a lightbulb uses while lumens measure brightness. The fewer watts you use, the lower your electric bill will be. More lumens translate to a brighter light. Use the chart below to convert incandescent wattage to lumens.

<table>
<thead>
<tr>
<th>Incandescent watts (energy used)</th>
<th>Lumens (brightness)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 w</td>
<td>450 lm</td>
</tr>
<tr>
<td>60 w</td>
<td>800 lm</td>
</tr>
<tr>
<td>75 w</td>
<td>1,100 lm</td>
</tr>
<tr>
<td>100 w</td>
<td>1,600 lm</td>
</tr>
<tr>
<td>150 w</td>
<td>2,600 lm</td>
</tr>
</tbody>
</table>

Light appearance
You should also consider the light appearance, which is measured in Kelvins (K) and based on two shades, warm and
How to shop for LIGHTBULBS

CONSUMERS’ FACT SHEET

The Office of the Ohio Consumers’ Counsel (OCC), the residential utility consumer advocate, represents the interests of 4.5 million households in proceedings before state and federal regulators and in the courts. The state agency also educates consumers about electric, natural gas, telephone and water issues.

For more information, please visit the OCC website at www.occ.ohio.gov.

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cool. The Lighting Facts label indicates the light appearance on a spectrum between warm and cool. Lower Kelvin numbers mean more yellow light while higher Kelvin numbers mean whiter or bluer light. A soft white light is typically 2,700-3,000 K. This lighting is great for bedrooms, living rooms, and dens. It also highlights dark woods in your home. Warm white lights are between 3,000K-4,000K and work well in kitchens, workspaces, and bathrooms. A bright white light between the white and blue ranges will be 4,000K-5,000K. This shade accentuates chrome and white fixtures in bathrooms or kitchens. The shade most similar to daylight is a cool, white light between 5,000-6,500 K. These bulbs are recommended for reading spaces.

Another measure of color is the Color Rendering Index (CRI). The CRI tells you how the light source renders colors based on natural sunlight. CRI is measured on a scale from 1-100, where 100 equals the color rendering of a 100-watt incandescent lightbulb. A CRI of 80 is common for indoor usage. CRI is sometimes indicated on the Lighting Facts label.

Types of Lightbulbs
As energy efficiency standards improve, incandescent lightbulbs are becoming less common. Instead, LED and CFL lightbulbs are now becoming more widely available and affordable. Learn more about each bulb type and its features below.

LEDs: Light-Emitting Diodes
LED lightbulbs can last for decades; a typical incandescent lightbulb only lasts 1,000 hours, but a typical LED lightbulb can last 20,000 hours or more. LED lightbulbs use up to 75 percent less power than incandescent lightbulbs. LED lightbulbs do not get hot, unlike incandescent lightbulbs that generate unnecessary heat. This can help save on air conditioning. LED lightbulbs do not burn out, but after thousands of hours their brightness dims and their color may change. LED lightbulbs reach full brightness as soon as you flip the switch unlike CFLs that may require a few seconds to reach full brightness. For a bulb that last longer and uses less energy than a traditional incandescent bulb, try LED lightbulbs.

CFLs: Compact Fluorescent Lights
CFL lightbulbs use about 70 percent less energy than incandescent lightbulbs. They have an average lifespan of 10,000 to 15,000 hours. They are an affordable lighting option, averaging about $3 to $10 per lightbulb. However, CFLs may take 30 seconds to 3 minutes to reach their full brightness and are not be ideal for areas that require instant light, such as stairways.

CFLs, like all fluorescent lightbulbs, contain a small amount of mercury, which is harmful to your health and the environment when broken. For this reason, it is dangerous to dispose of CFL lightbulbs in regular trash receptacles. Learn more about proper disposal of CFLs from the Environmental Protection Agency: www.epa.gov/cfl.

There are also halogen lightbulbs, which are similar to incandescent lightbulbs but more energy efficient because of a halogen gas inside the filament. They resemble incandescent lightbulbs in price and quality. These bulbs usually last around one year.

It’s hard to beat the value offered by LED lightbulbs. Not only are they becoming more affordable, but they also last up to several years longer than CFL and incandescent lightbulbs.