

Dimmable CFL Precautionary Notes

Background

For many years incandescent dimmers have successfully dimmed incandescent light bulbs. People have grown accustomed to slow, even dimming from 100 - 0% light levels with corresponding color shifts from yellow to orange. Things changed, however, as compact fluorescent light bulbs (CFL's) gained popularity. People quickly learned that these new, technologically advanced CFL's **would not work** on their incandescent dimmers. The vast majority of **dimnable CFL's** on the market today are manufacturers' attempts to marry CFL technology with incandescent dimmers. **Their efforts have met with varying success.** 1000Bulbs.com has prepared these "Dimmable CFL Precautionary Notes" after reviewing literature from seven of our dimmable CFL manufacturers. The recommendations / limitations which follow should be considered **before** purchasing dimmable CFL's.

Please review additional information presented with specific dimmable CFL's on our 1000Bulbs.com website.

In our opinion, the recommendations / limitations noted below apply to **all** dimmable CFL's unless specific manufacturer information states otherwise.

Finally, please understand that these concerns will likely "fade away" as both dimmable CFL and dimmer technologies improve. 1000Bulbs.com will continually update our offerings to bring you the "latest and greatest" lighting products available.

Dimmer Limitations

- Several manufacturers recommend incandescent dimmers manufactured after 1/1/95 (TCP, Global Consumer Products, EarthTronics).
- Several manufacturers recommend incandescent dimmers designed for a maximum incandescent load of 600 watts (TCP, EarthTronics).
- Several manufacturers caution that dimmers with "decreased mechanical ranges" may be incapable of dimming dimmable CFL's (Global Consumer Products, Neptun). For example, 16 watt dimmable CFL's may not "register" on incandescent dimmers designed to handle 100 watt incandescent light bulbs.
- Several manufacturers do not recommend "digital fade, touch (solid state electronic), or remote control" dimmers (like Lutron's Maestro or Verti series). Instead, they recommend "mechanical, rotary, slide, or toggle up & down" dimmers (like Lutron's Ariadni, Diva, Skylark, Lyneo, and Classic series). (TCP, Global Consumer Products, GE) Please note: All referenced Lutron dimmers are available on the 1000Bulbs.com website.
- One manufacturer (Global Consumer Products) cautions that
 1. dimmers "should be installed on the hot side (black wire)" (this is "standard procedure" in residential applications; commercial electricians should understand this direction), and that
 2. the "contact of the (dimmable CFL) base with the ... socket" should be tight or secure.

Operational Limitations

- Dimming Range: Dimmable CFL's should dim to 20% or 10% of full light output before they extinguish (TCP, EarthTronics); however...

- Nuisance Factors: Since there are 30 or more electrical components in a typical dimmable CFL (each with possibly differing tolerances – lamp to lamp), dimmable CFL's on the same circuit may behave differently as they dim. Some lamps may extinguish early; other lamps may flicker before they extinguish at their low end. Flickering will result in shorter lamp life (TCP, Global Consumer Products, Neptun). Additionally, "these products may cause interference with AM radios, cordless telephones, and remote control devices.... If interference continues, relocate the lamp away from the device or plug into a different outlet (Philips)." Please note: At 1000Bulbs.com, we have never heard examples of this latter form of interference; however, we understand it can occur.
- Maximum Lamp Count: Some manufacturers recommend a maximum of 6 – 21 dimmable CFL's per circuit (TCP, Global Consumer Products). For additional information, please reference brand specific offerings on the 1000Bulbs.com website.
- One Lamp Type Only: Some manufacturers recommend that only one type of dimmable CFL (make and model number) be used on a circuit. They do not recommend that any incandescent or halogen lamps be used on the same circuit with the dimmable CFL's. (Global Consumer Products, Neptun)
- Functional Limitations: Some manufacturers caution that dimmable CFL's cannot be used in 3-way lamp sockets, "touch" lamps, or turned on and off quickly. Also, dimmable CFL's that have been turned off in a "dimmed position" may need to be turned up to 100% light output before they will come on when power is restored. (TCP, Global Consumer Products)
- Warm Up Times: Some manufacturers recommend a one hour "burn in" time when the dimmable CFL lamps are turned on for the first time. "Subsequent start-ups should only require a 1 – 2 minute warm up before proper dimming can be achieved." (Global Consumer Products, Neptun)
- Heat Generation May Limit Lighting Applications: The dimming operation produces heat. This heat may limit dimmable CFL use to "open and ventilated" applications like table/floor lamps or wall sconces. (TCP) For additional information, please reference brand specific offerings on the 1000Bulbs.com website.

Summary

Dimmable CFL's are some of the most sought after products on the 1000Bulbs.com website. It's our hope that these precautionary notes will add to their intelligent use. We are committed to our customers' satisfaction. Please let us know if we can help in any other way.

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