

Comments on Energy Star Lamps V1.0 Draft

As illustrated in figure 1 below it is possible for a CFL lamp to be made to conform to the ANSI dimensional envelope for A-lamps. Therefore, there is no reason for treating CFLs differently from LED omnidirectional lamps and allowing CFLs to exceed the ANSI dimensional envelope while requiring LED omnidirectional lamps, in particular A-lamps to meet the ANSI dimensional envelope. Contrary to the Energy Star programs stated objective of establishing a technology neutral specification, the proposed draft establishes this dichotomy between CFL and LED technology right from the get go.

The EPA should define a new dimensional envelope that fits 90% of the commercially available typical CFL A-lamps such as shown in FIG. 2. The EPA should determine the new dimensional envelope itself based on basic measurements of a large sampling of commercially available CFL's. In this way there would be no unnecessary bureaucratic delay. Both CFL and LED A-lamps should then be allowed to qualify under either the ANSI dimensional envelope of the new dimensional envelope. In this way, the standard will be truly technology neutral and LED and CFL technology can compete on a fair and equal basis.



Fig. 1

Fig. 2

If CFL and LED technology compete on a fair and equal basis, LED is already ahead. The ANSI envelope CFL in FIG. 1 produces 800 lumens and consumes about 15 watts whereas an ANSI envelope LED A-lamp produces 800 lumens while consuming only 12.5 watts. Moreover the LED lamp is instant on, whereas CFL in FIG. 1 has a significant warm up time. Whereas in the case of CFL technology the lower electronics housing shown in FIG. 2 reduces light intensity in the lower hemisphere, in the case of LED because LEDs are small point sources the presence of the lower

electronics housing does not necessarily compromise the light intensity in the lower hemisphere. Note also that the ANSI CFL shown in FIG. 1 has better light intensity in lower hemisphere compared to non-ANSI CFL in FIG. 2.

Cordially,
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