



January 20, 2006

To: Mr. Richard Karney and Ms. Susan Gardner Zartman

RE: Comments on draft ENERGY STAR Specifications version 4.0, dated 12/21/05

Thank you for the opportunity to comment on the second draft of the ENERGY STAR Criteria for CFLs- Version 4.0, dated 12/21/05. Please find our comments below.

Efficacy levels for bare lamps

We note that in the second draft of V4.0 for bare lamps the efficacy levels were reduced from the first draft. The reduced lumens allow lamps to continue to be made small enough to fit most applications that consumers require. In addition, most of the current Energy Star qualified bare lamps will meet the new criteria.

Efficacy levels for covered lamps

The purpose of revising the CFL specifications is not to disqualify as many current Energy Star approved CFL models as possible, but to improve consumer acceptance of CFLs as a replacement to incandescent lamps. This should be the main goal of the Energy Star specifications. Various consumer surveys have found that home buyers rank style, size and aesthetics as their highest lighting priority. Bare lamps have been accepted by most consumers. However, they don't provide the aesthetics required when the lamp can be seen in fixtures and consumers demand a covered unit. In addition, there are also traditionalists who want a light bulb to look like a light bulb. The minimum LPW for covered lamps suggested in the second draft of V4.0 will require manufacturers to increase the CFL size to much larger than the incandescent lamp size they are intended to replace. This will hurt size, selection, aesthetics, application and ultimately market penetration of Energy Star compact fluorescent bulbs.

Higher efficacy levels are attainable if you increase the tube size of the lamps inside the covered units. That would probably eliminate making a covered A lamp the same size as a standard A19 incandescent. Manufacturers have spent a tremendous amount of time and money engineering and marketing these lamps to make them acceptable to the general consumer and only recently have been able to manufacturer covered A lamps that are almost the same size as a standard incandescent. Manufacturers have been encouraged to continually be innovative to strive to make CFLs smaller and suitable for more applications.

Currently 15 and 16 watt (60 watt replacement) covered units make up the bulk of sales in covered CFLs. Upon reviewing the current Energy Star list of qualified covered lamps in the 15 and 16 watt category there are a total of 57 lamps listed of which 46 or 81% would be disqualified based solely on the new specification of 55 LPW. This would hurt be in direct contradiction to the Energy Star goals of increasing market penetration and energy savings. New lamps made would result in fewer consumer purchases because lamp size would be considerably larger.

Feit Electric feels that both size, aesthetics and efficacy are important. We offer the following proposal for minimum lumens of covered CFLs (excluding reflectors):

Lamp power <10	45 LPW
10 ≤ Lamp power <19	50 LPW
Lamp power ≥19	55 LPW

Correlated Color Temperature

In the past submission of comments, several manufacturers including Feit Electric, addressed their concerns with the suggested changes in CCT and much to our surprise none of this seemed to warrant any response in the second draft. There is a strong link between CCT and efficacy and how it affects the chromaticity limits which still needs to be addressed. Additionally, we do not feel that providing specific color temperature ratings to the general consumer will be helpful in making a purchase decision.

There are many factors that can affect CCT but the most common problem will be the phosphor blend. Manufacturers do have the capability to try to control the blend to be more precise on each mixture but there is a significant cost increase to do so. Furthermore, chromaticity coordinates are known to shift over the lifetime of the lamp so if a consumer puts in a new bulb next to an old bulb the same issue could arise. Ultimately, if this is a new requirement it will significantly increase CFLs costs to consumers.

As we expressed in our past comments, having only six specific CCT qualified was not a specification of the previous V3.0. Many consumers are currently purchasing lamps in colors other than the six specified. These include 2600, 2800, 3100, 5800 and 6000. Millions of lamps have been sold and are being sold in current markets today that have colors outside of the six specific Kelvins listed. There is a need and a demand for CCT other than what has been suggested by V4.0 specifications and consumers want other color options.

Rather than limit CCT to the six Kelvins listed we suggest you have set CCT that describe the color of the lamp, for example.

CCT	Color Name
2700	Warm White
3000	Soft White
3500	White
4100	Cool White
5000	Natural
6500	Daylight

The designated colors would need to fall within the 7-step ANSI MacAdam ellipse to be called the color name listed. This requirement would set a scale for color temperature NAMES so consumers would always receive the same Daylight or Cool White lamps (as long as the package was marked Daylight or Coolwhite). Additional colors outside of the

scale would be allowed but require the manufacturer to state the CCT on packaging and not use the color names listed above. This would allow manufactures to produce colors outside of the Kelvin temperatures suggested by Energy Star.

We strongly urge that the Energy Star specifications do not limit approved CFLs to the six specific CCT until research on the relationship and impact of higher efficacy as it relates to chromaticity levels is completed. It should be noted that the international CFL manufacturing community is discussing CFL Labeling Harmonization which addresses similar issues as the current revision of the CFL specifications. In addition to all of this there is an inherent lower efficiency of CFLs of higher color temperatures that has not been addressed. We need to postpone any changes in the CCT until more research can be conducted. We are requesting that the current CRI and CCT remain the same as in V3.0.

CRI

We do not believe that the CRI of current Energy Star qualified lamps is a problem. We request that the specifications remain the same as in V3.0.

Lumen Maintenance

Feit Electric observed the change in the second draft for lumen maintenance at 40% of rated life where 3 (from the original 2) individual samples can have a lumen output less than 75%). However, at 1000 hour lumen maintenance, the amount of individual samples remained at 2. As stated in the past, 1000 hour is an early indicator of life which includes the life of spiral burners operating correctly. If at 1000 hours 3 lamps have a lumen output of less than 85% but at 40% of rated life still only have 3 lamps with a lumen output of less than 75% it should pass. Since the 40% was increased from 2 to 3 we are requesting that the 1000 hour be increased to the same 3 individual samples (can have a lumen output measurement of less than 85%). A lamp should not fail at 1000 hour with 2 samples less than 85% if the lamp can pass 40% with 3 samples less than 75%. We propose both 1000 and 40% be at 3 samples.

Effective Date

The effective date of requiring all manufacturers to meet the new specifications within a three month timeframe from the final announcement of Version 4.0 is not acceptable. Manufacturers must have a minimum of 12 months after the release of the new specifications to ensure all new requirements can be achieved for existing products and products under development. It is very likely that new equipment, engineering design and process will need to be implemented at the factory to ensure all products can meet the new specifications. We request a minimum of 12 months after the release of Version 4.0 to make certain we have all of the necessary equipment and process in place to meet the standards.

At this point, there has been no discussion on what steps manufacturers will have to take for existing products that are currently Energy Star qualified but do not meet some of the new V4.0 specs. In our past comments, we included suggestions that if a product meets a majority of the V4.0 specs but not all of the specs that the manufacturer be allowed to test specifically for any test criteria that did not meet V4.0. For example: A CFL meets all of V4.0 but does not meet the CCT categories. Given the costly expense of re-testing for qualification, Energy Star should allow testing for products that qualified under V3.0 to

be tested only for specific tests that do not meet the new 4.0 specifications. We feel that this needs to be addressed on a per criteria basis prior to the launch of V4.0.

Thank you for the opportunity to submit comments.

Feit Electric Company