

**The following letter was written in response to
Consumer Reports February 2012 article.
Consumer Reports has not published the letter.**

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To the Editor – Consumer Reports

The article, “New bulbs, new choices,” in the February 2012 issue of your magazine is well intentioned but does more to mislead your readers than present the usual helpful advice you provide. The first paragraph starts out by pandering to the misconception that the incandescent light bulb is an inefficient light source. While it is true that the source produces more heat than light, that metric is flawed when it comes to lighting and therefore should not be used.

The design of lighting is the creation of a system to light a space. When you take the total energy used to light many typical spaces, including the lighting controls, the total connected load and energy consumed when using incandescent light sources the result is, in many cases, equal to or more efficient than the new sources you are touting. By separating the source from system, that includes the light fixtures and the room characteristics you have essentially destroyed the true ability to measure the end result. It is that end result that is the only valid measure. Unfortunately the Energy Independence and Security Act of 2007 did not follow design practice and, as a result, made that same error as well. Fortunately the ban of the incandescent lamp has been postponed so there is time to correct that mistake.

Then you make a serious technical error when you state that lumens measures brightness. Lumens are a measure of radiant energy in the visible spectrum – not brightness. More lumens do not mean more brightness or visibility – nor that you will prefer the light illuminating the scene or object it is falling upon. What is critical in this case is the Spectral Power Distribution of the light source. In this case, when evaluated by most viewers, the incandescent light bulb wins – most of the time. That does not mean there are not several applications where alternative light sources perform perfectly well and are preferred. But to ban the incandescent light bulb is a serious detriment to the design of good lighting for many applications. People will sort that out by themselves without the help of legislation.

You also fail to caution your readers of some of the drawbacks of using Compact Fluorescent Lamps (CFLs). They contain mercury and have a draconian clean up procedure to follow if you accidentally break one – like leave the room and air it out – turn off the heat and ventilation systems in your home. Further CFLs require recycling – an onerous procedure few will follow. They will be tossed in the trash and when mercury mixes with soil it converts to methyl mercury – a deadly poison. When billions of these hit the landfills over time what will happen to our water supply? Those same CFLs have caused fires when used in the wrong fixtures. Again, these CFLs will probably not dim on the currently installed dimmers in most houses. How much energy and money will it take to replace those dimmed circuits? The initial price of these replacement bulbs is also a problem for many lower income families.

What I have listed above is just the tip of the iceberg in the long list of shortcomings in all the analyses' you have put forth in your article. To get a better picture of what you should be publishing on this subject start with the *COMMENTARY* section of my web site, www.concerninglight.com. The site will also give you a clear view of my credentials and experience in the field of light and lighting design. I would greatly appreciate a response as I am prepared to work with you to present a more honest and useful guideline for your readers.

Sincerely,

Howard M. Brandston, FIES, Hon. FCIBSE & SLL, FIALD, LC.