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Research reinvented

Lamp Labeling Focus Group  
for the  
Federal Trade Commission

Conducted October 30, 2008

NOTE: This report has been prepared by Synovate for the FTC and does not necessarily reflect the views of the FTC staff, the Commission, or any individual Commissioner.



## **BACKGROUND AND PURPOSE**

The Federal Trade Commission (FTC) is interested in exploring the effectiveness of the FTC's current energy labeling requirements for lamps (*i.e.*, light bulbs) and the effectiveness of alternative labels.

This activity is part of the FTC's effort to examine the current labeling program as required by section 321 of the Energy Independence and Security Act of 2007 (see 42 U.S.C. 6294(a)(2)(D)). The FTC's Rules currently require manufacturers to label their lamp packages with information about energy use, lamp life, and light output (16 C.F.R. Part 305). These labels help provide consumers with energy-efficiency information about products sold in stores.

Therefore, the overall purpose of this research was to examine the effectiveness of various alternative label designs in accurately conveying energy-efficiency and other attributes of lighting products.

Specific objectives were to explore:

- The purchase dynamics of light bulbs;
- Basic consumer awareness and perceptions of light bulb technology;
- Consumer priorities when buying light bulbs; and,
- Reactions to alternative light bulb labels.



## **METHOD**

One focus group was conducted in a market research facility in Philadelphia, PA on October 30, 2008.

Respondents were recruited to be:

- Past 30 day purchasers of light bulbs
- Individuals who pay for their own light bulbs and utility bills
- A mix of home owners and renters
- Males and Females (approximately 50%/50%)
- A range of incomes, ages and education levels

## **CAVEAT:**

*Qualitative research cannot be projected to the population at large. Results should be used for insight and direction only. The following observations are made from the limited context of this single focus group and should not be used as a substitute for quantitative research.*

## **KEY CONCLUSION**

There is a dearth of technical knowledge about light bulbs among respondents that could potentially serve to limit acceptance of new light bulb technologies. The most significant gap in understanding concerned the issue of brightness. With possibly one exception, all respondents believed that wattage was a measure of brightness, not electricity consumption.

Therefore, the most critical challenge will be to educate consumers that brightness is measured by lumens, not watts.

## **RESPONDENTS' GENERAL OBSERVATIONS**

Respondents suggested the following categories of information on the label, in this priority order and with this specific language:

### 1. Brightness

All respondents agreed that “Brightness” was a far superior communication than “Light Output.” “Brightness” was direct, easy to understand, and most importantly, the word respondents already use when referring to this attribute.

### 2. Color

There was little awareness of “color” among respondents. Color was generally referred to in vague terms such as “frosted” or “not frosted,” “harsh” or “soft.”

“Frosted,” or “soft,” bulbs were thought to be “easier on the eyes.”

Respondents had no idea of how light color was measured. They were largely unfamiliar with the term “color temperature” and entirely unfamiliar with the Kelvin scale.

However, the respondents had an easy time understanding range of color options (Warm White, White, Cool White and Daylight), and seemed to incorporate this with the dimension of “Brightness”.

### 3. Life

Respondents accepted bulb life displayed on the label in both hours and years. Respondents did not seem to have a problem with estimating life in years based on an “average daily usage.”

### 4. Energy Cost

The term “Energy Use” was entirely acceptable to respondents. In initial discussions of lamp attributes, having a relatively low yearly operating cost seemed to be the least important of these four attributes to respondents. After respondents had reviewed the compact fluorescent bulbs and become familiar with the operating cost savings they offer, energy use became a more important consideration.

#### Respondents preferred simple graphic designs.

First reactions to a comparison of labels, one using graphs, the other depicting single numbers (e.g., Light Output - 825 Lumens, Energy Cost - \$2.15, etc.), favored the single number label. Respondents initially felt that the graphs “had too much small print” and were “hard to read.”

However, after they had more time to examine, consider and discuss the alternatives, respondents strongly preferred the graph execution. They felt that graphs put measurements in a broad, easy to understand context, and that the information provided was richer overall. This would provide greater confidence when choosing a bulb.

It was noted that the “graph” label exposed to the group would need to shrink considerably in order to fit on a light bulb package. This could serve to reinforce initial reactions to this execution that the label is difficult to read.

The design challenge does not seem to be insurmountable, as much white space exists in the design.

The “Star Rating System” was very well received by respondents.

The idea that the energy efficiency of a bulb could be determined in the blink of an eye was very appealing. However, respondents felt that it was important that these ratings be consistent over bulb types. They wanted to compare the efficiency of an incandescent bulb to a fluorescent or CFL. Understanding that one incandescent was more efficient than another, an intra-category comparison, was much less motivating.

It was observed that respondents associated stars with customer ratings of quality, such as for “hotels and restaurants”.

## **OTHER FINDINGS OF THE RESEARCH**

### Purchase Dynamics

A burnt out bulb was most often cited as the motivation to buy light bulbs. Most respondents claimed that they seldom planned purchases when all bulbs were in working order, though one respondent claimed to “look for deals,” usually at a big box retailer such as Home Depot or Loews, and then “stock up.”

However, most respondents stated that one bulb burning out was a cue to purchase additional back-up bulbs of all types.

While the big box retailers were the preferred places to buy bulbs, respondents claimed that convenience was an important factor as well. If they really needed a bulb, they would go to CVS, the grocery store, or whatever retailer was convenient, often in conjunction with other errands or shopping.

Some respondents described the light bulb aisle at stores like Home Depot to be “overwhelming,” due to the wide range of bulb choices, but none described having problems buying or selecting bulbs. If the bulb was not an ordinary incandescent, respondents would simply bring the burned out bulb to the store, get help from a sales clerk, and find the identical bulb type.

### Light Bulb Attributes

The most important attribute when buying bulbs was said to be “Brightness.” However, respondents mistakenly understood the measure of brightness to be wattage, and this was how they selected bulbs. For example, 100 watts would be “bright” and 60 watts would be “less bright.”

“Brand” was thought to be the measure of “Bulb Quality,” so both attributes were ranked together, just under “Brightness.”

“Retail Price” was next in terms of importance. This seemed to apply to one technology versus another, e.g. that compact fluorescents, “high hats” and other specialty bulbs were more costly than ordinary incandescent bulbs, as well as price comparisons within technologies.

“Energy Use,” “Operating Cost” and “Bulb Life” were far less important. Most respondents could not recall how many working lights they had in their home, nor had any idea of what percentage of their electricity bill was accounted for by lighting.

There did not seem to be much distinction between “Energy Cost” from “Energy Use.” Again, neither seemed very important when considering light bulbs, especially compared to large appliances such as refrigerators or dishwashers. Of the two, “cost” may have been slightly more relevant, as there were few, if any, spontaneous or prompted mentions of strong support for energy conservation.

### More on Technology

Supporting the point that a dearth of knowledge exists about light bulb technology, during a comparison of three 60 Watt incandescent bulbs, respondents were surprised to see that each had a different level of brightness as measured in lumens. They expected them all to have the same level of brightness.

The point was reinforced further when respondents compared a current CFL bulb with an incandescent bulb, and were surprised to see roughly equivalent brightness but a sharp difference in wattage.

**APPENDIX A**  
**FTC**  
**LIGHT BULB LABELING FOCUS GROUP**  
**DISCUSSION GUIDE**  
**OCTOBER 30, 2008**

- I. Introduction/Warm-Up 10 mins.
- II. Light Bulb Purchase Dynamics 15 mins.

A. Purchase Motivation

When was the last time you bought light bulbs? What prompted you to buy light bulbs on that occasion? Is this the kind of purchase you plan or do you just see them in the store and decide to stock up?

B. Shopping Habits

How many did you buy? Where did you buy them? Is that where you typically buy light bulbs? Do you generally keep spares around the house or do you just buy them when they burnout?

C. Source of Information

Where do you get information about different kinds of light bulbs and what is right for you? (Probe: word of mouth, government website, manufacturer, advertising, newspaper/magazine articles, store clerk, POS displays, etc. or do you not seek information, "A bulb is just a bulb.")

D. Past Purchases

Thinking about this past purchase, other than finding the right size bulb for the lamp or socket, how did you decide which kind of bulb to buy? What was important to you?

E. Knowledge of Light Bulb Market /Choices

Were there choices? What were they? Did you know what you wanted before you got to the store or did you make your decision there? Why did you buy that particular kind of bulb?

Have you ever purchased a light bulb that did not suit your needs? If so, what was the issue?

F. Rank Importance of Lamp Attributes

I have some index cards here, each with an attribute or characteristic of light bulbs. Let's go through them one at a time. Please give me your first reactions to these characteristics, and then, let's separate them into two piles: "Important" and "Not So Important." (Probe responses, e.g., "How do you decide on color, brightness, etc.?" )

Cards to include: Brightness, Color, Brand, Retail Price, Energy Usage, Operating Cost, Bulb Life, Technology, "Other?")



Now, as a group, let's put these in priority order, from what matters to you most to what matters least when you buy light bulbs.

Do these factors vary according to where in the home you will use the bulbs? How so?

#### G. Shopping Process

Thinking of this last time you bought light bulbs, did you need any help or information to purchase the right bulb? How did you get this information? Did you ask someone in the store for help? Did you look at the box, the bulb itself, or any other signage or printed materials in the store for information? Did you ask for help from a store clerk? What was helpful, and what was not? Is there additional information that you would like to see on light bulb packaging? Has the information that you find important changed over time? Do you expect to be giving more or less weight to certain factors in your purchasing decision in the future?

### III. Awareness & Knowledge of Light Bulb Technology 5 mins. {Make sample lighting products available to focus group participants.}

I'd like to get a better understanding about what you know and don't know about different kinds of light bulbs and the technologies behind them. This is not a test! Most people aren't light bulb experts! I just want to get an idea of how well the manufacturers of bulbs are communicating with you.

- Awareness of light bulb market (technologies, present & future)

First, what are the basic types, or technologies of light bulbs? What do you think are the basic differences between them and how they work? (Probe: incandescent, fluorescent, halogen. Include long life and high efficiency varieties.)

How have you learned about different technologies? What factors have influenced your purchase decisions regarding these new technologies? (Probe: promotions, rebates)

What are the advantages and disadvantages of the different technologies?

Are there newer light bulb technologies? What's the latest? Have you tried any of the new technologies? Why/why not? Do you have concerns about buying new light bulb technology? What are they and why? (Probe: Solid State Lighting: LEDS)

### IV. Light Bulb Attributes 30 mins.

#### A. Brightness (10 mins.)

How is brightness measured for lighting? What on the package indicates brightness? (**Probe lumens, wattage.**) Is this easy to read and understand? Is there a better way to communicate brightness?

Have you ever made the wrong decision in terms of brightness? What was your mistake? (Have you bought a lamp that was too bright or too dim?)

Thinking of the different types of light bulb technology, do they vary in brightness between types? How so?

B. Lifetime (5 mins.)

How long do light bulbs last?

How important is light bulb life to you? How do you know how long a bulb will last?

Does any information on the package help you? How else can you get this information?

How is lamp bulb lifetime measured or rated? If a light bulb is said to last 1 year, what does this mean to you? (Probe: Continuous usage or average daily use based on a number of hours?)

How important is it for you to see expected lifetime on the package? What is the ideal way to communicate this information? (Hours, days, months, years, continuous usage, average daily usage, etc.)

Does the life of a bulb vary by technology? How so?

C. Color (5 mins.)

When I say light bulb “light color,” what comes to mind? What does “light color” mean to you when you think of light bulbs? (Steer conversation away from “red” or “green” specialty bulbs, etc.)

Is color a factor when you buy bulbs? For what types of lighting situations? Why? What are your considerations? How do you know the right color to buy?

How is color measured for lighting? Have you ever heard the term, “color temperature?” What is it? What does it describe?

What would be the best way to describe light bulb color to when you are buying bulbs? (Probe: Warm, Warm White, Cool White, Daylight – Other systems? Numerical systems?)

Again, thinking of these different light bulb technologies, is there a difference in colors between them? Is the difference in color greater between or within technologies?

D. Energy Use & Cost (10 mins.)

When thinking of light bulbs and lighting your house, do you ever think about what this costs over a month or a year? Do you know how many light bulbs, on average, you use to light your home? Do you know how much it costs to use an average light bulb in your home for a month?

**How do watts relate to energy use?**

Gather thoughts on energy bills and thoughts on light bulbs on this matter.  
Do you think that you can reduce your energy bill? How important is this? Why? Of all your budget priorities, where do you think this falls?

Would you like more information on the amount of energy that you use and its cost for lighting and other household energy uses? What is the best way to communicate this? (Probe: Monthly or annual cost? Monthly or annual watts usage? Some energy efficiency number? Some kind of “energy rating system?”)  
How would such a system work?

Is it important for you to see information on the package that compares the energy use of the product to others on the market? How else might this information be communicated?

Do all types/technologies of light bulbs use roughly the same amount of energy, or are some more efficient than others? Which kinds are more efficient? Do you use those kinds of bulbs? Why/why not? (Probe for overall knowledge, availability of bulbs, price, color/quality of light, etc.)

V. Reactions To Sample Labels 15 mins.

Again, when buying light bulbs, what information is important for you to see on the label? How much information do you really want? How should it be formatted, that is, what should be in big and bold print, what should be in smaller or fine print? Would it be more helpful in a different format?

{DO NOT DISPLAY SAMPLE LABEL COMPONENTS PRIOR TO NEXT QUESTION}

I would now like to show you a few different ways in which light bulbs might be labeled in the future. These are just ideas at this point. I am not so interested in judgments, what you “like” or “don’t like” or what is “good” or “bad.” I am more interested in what information you see here and how easy it is for you to understand. (Show current label first, then work through alternative label components. (For each sample ask the following:)

What is your overall reaction to this label? What information does it communicate? Is that information meaningful and relevant to you? Why/why not?

How easy is it to understand this information? What, if anything, could make it easier to understand?

Is there any information missing, or something else you’d like to see? What would that be? Why? How would it be incorporated into this label?

(Probes to include: lifetime, energy costs, brightness, light quality, color, label formatting (e.g. numbers, stars, letters, scales) etc.)

What information would you consider “essential?”

Would you like to see comparisons to other light bulb alternatives?

Does this label imply some type of official approval? By whom? Is that important to you?

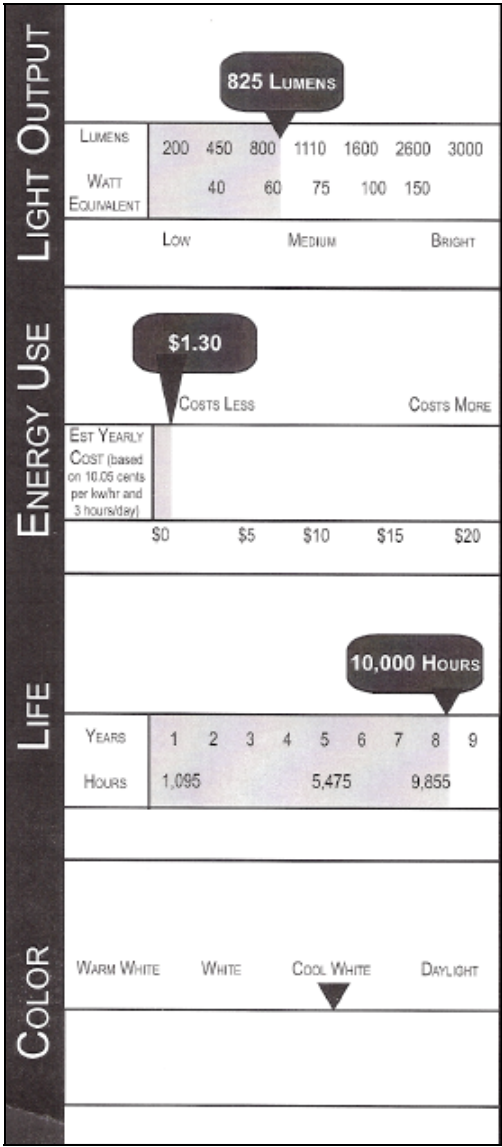
VII. Summary/Wrap-Up/Back Room Questions

10 mins.

Do you know of any other programs (government or independent) that can help you in selecting light bulbs that (use less energy) (help reduce your energy bills)?

Does it make a difference to you if the information/ label on the package indicates that it is required by the government?

**LABELS**  
**SHOWN IN FOCUS GROUP**



LIGHT OUTPUT

**825 LUMENS**

ENERGY COSTS

**\$1.30**

EST YEARLY COST  
(based on 10.05 cents per  
kwhr and 3 hours/day)

LIFE

**10,000 HOURS**

COLOR

**WARM WHITE  
3000 K**

**ENERGY EFFICIENCY**



5 star rating is the most energy efficient