



**Consumer Federation of America**

## **THE POTENTIAL FOR CONSUMER COST SAVINGS THROUGH RETAILER DISPLAY AND SIGNAGE ABOUT LED LIGHT BULBS**

**REPORT FROM THE CONSUMER FEDERATION OF AMERICA\***

NOVEMBER, 2017

### **INTRODUCTION**

In the U.S. and the world a light bulb revolution is taking place. Light bulbs are becoming much more energy efficient in large part because new light emitting diode (LED) light bulbs are replacing traditional incandescents and CFL bulbs, and are competing with halogen bulbs. According to data from the National Electrical Manufacturers Association (NEMA), in the past three years, the LED light bulb market share has increased from under 5 percent to nearly 30 percent. And a recent national survey commissioned by the Consumer Federation of America (CFA) found that, when their home light bulbs burn out, nearly half (48%) of Americans plan to replace these bulbs with LEDs.

This LED light bulb revolution offers huge pocketbook benefits to consumers. In a survey of several dozen popular 60-watt equivalent light bulbs undertaken in the spring of 2017, CFA estimated that a household using at least 20 light bulbs could save \$1,000 or more in a decade by using LEDs in place of incandescent or halogen bulbs. Taking into account the price, longevity, and reduced energy use of these bulbs, CFA found that the total average 10-year cost of surveyed individual LED bulbs, including electricity used, was \$13.63 while the average 10-year cost of incandescents and halogens was \$69.49. Moreover, by curbing the nation's electricity consumption, consumer purchases of LEDs potentially reduce the need for expensive new power plants eventually paid for largely by consumers.

However, the light bulb revolution is far from over. For the past two years according to NEMA, halogens have held nearly 50 percent of the socket bulb market. And, more than half of consumers in the CFA survey said they would not replace light bulbs that burned out with LEDs. (The national poll was conducted for CFA by ORCI International, which surveyed a representative sample of 1000 adult Americans by cell phone and landline, September 20-October 1, 2017.) A large majority of these individuals know little about LEDs. In the same survey, when consumers were asked to identify (in a multiple-choice format) "the type of light bulb that lasts the longest and uses the least electricity," only about half (51%) correctly identified LEDs as that bulb. This group was highly correlated with those who said they would replace burned-out bulbs with LEDs. Only 26 percent of those not aware of the superior longevity and energy efficiency of LEDs would replace burned-out bulbs with LEDs. In

\*This report was prepared by Stephen Brobeck, CFA Executive Director with assistance from Mel Hall-Crawford, CFA Director of Energy Programs.

contrast, 69 percent of those aware of this longevity and efficiency said they would replace burned-out bulbs with LEDs.

To advance the light bulb revolution – to the benefit of consumers and the economy – nonprofits, government, manufacturers, and retailers must play important roles. Nonprofits need to urge governments to set and enforce energy efficiency standards for light bulbs and also inform consumers about the huge cost savings from using LEDs. Governments need to set, implement, and enforce standards for these bulbs. Manufacturers need to embrace the standards. And retailers need to prominently display LEDs and use signage to inform customers about their lower costs. (According to a June 2016 survey commissioned by CFA, only two percent of respondents said they purchased light bulbs online.)

Now that governments have established energy efficiency standards for everyday light bulbs and manufacturers are making available LED bulbs whose efficiency usually far exceeds these standards, retailers should prominently display and inform customers about these LEDs. The amount and prominence of shelf space they give to LEDs, and their signage about the consumer benefits of LEDs, can strongly and positively influence consumer knowledge and acceptance of these low-cost bulbs.<sup>1</sup> For that reason, in September and October 2017, CFA surveyed retailer displays and information about LED socket bulbs at 16 major retailers selling light bulbs – supermarkets, drugstores, discounters, and four large general retailers (Walmart, Target, Lowes, Home Depot). Fifty-two retail outlets in DC and five states – Maine, Pennsylvania, Delaware, Maryland, and Virginia – were visited to compile information about display and signage about LED “general purpose” bulbs.

## **SURVEY METHOD**

At least two stores were surveyed for each retailer in the sample. Research in stores within the same chain usually revealed a strong consistency of display and signage. It appears that individual stores are given uniform instructions about how to display their light bulb inventory. These instructions may have been influenced by the manufacturer when the retailer carries only their product. Accordingly, we assume that there is usually strong consistency of display and signage throughout all the stores nationally of one retailer.

At these stores, the following information was collected:

- Availability of LEDs: What percentage of shelf space was occupied by LEDs?
- Prominence of displays: Were LEDs displayed at or just below eye level where customers are most likely to focus initial attention? Were LEDs displayed separately at the end of aisles or in aisles? At the general retailers which typically display light bulbs in 10-12 bays, were LEDs displayed in the first bays on the aisle?
- Signage: Were there signs with messaging about LEDs? How powerful were these messages? How prominent were the signs?

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<sup>1</sup> The following paper summarizes research on the subject: Tijmen Elbers. “The effects of in-store layout and shelf designs on consumer behavior.” Published by Wageningen University and Research, Netherlands (January 23, 2016).

This retailer research did not include pricing for two reasons: CFA released information on pricing in June, 2017. And, there are no longer huge price differences between most traditional bulbs and most LEDs. At most stores, LEDs can be purchased for less than \$3 a bulb.

CFA then used this information to identify best practices – the most effective displays and signage – and also assigned a letter grade to the display and signage of each of the 16 major retailers – A for excellent, B for good, C for fair, and D for poor. To help distinguish among retailer practices, plus and minus grades were utilized. The retailer earning an A grade mainly displayed LEDs, gave them prominence, and provided good information about cost savings. Those receiving a B grade had to prominently display LEDs, or display them while providing good information. Those receiving a C grade had to include at least a significant minority of LEDs in their displays. The retailers receiving a D grade displayed only a few LED bulbs and, in one store, none at all.

## FINDINGS

Retailers received the following grades:

General Retailers	
Home Depot	A-
Lowe's	B+
Walmart	B+
Target	B
Supermarkets	
Safeway	B+
Giant	C+
ACME	C+
Wegmans	C
Shoppers	C-
Food Lion	D+
Drugstores	
Rite Aid	B-
Walgreens	C+
CVS	C
Discounters	
Dollar General	C+
Family Dollar	C
Dollar Tree	D+

Here is key information about how each retailer displays LED socket light bulbs that was the basis for the grades:

## Home Depot (A-)

- In three stores, the most prominent bay – 1 or 2– displayed only LEDs in 5-6 shelves. In the fourth store, the most prominent bay had 8 shelves of LEDs and 3 shelves (lowest) of non-LEDs.
- Other bays – 4, 5, 6 – contained LEDs as well as non-LED bulbs.
- Most stores had an end-of-aisle display of LEDs.
- All stores had at least several aisle displays of LEDs.
- Three stores had prominent end-of-aisle signs – “Get the look of a traditional light bulb with the long life and energy efficiency of a LED.”
- Two stores had a sign in a prominent bay – “Smart lighting your way. Look for ENERGY STAR certified LED bulbs. They use less energy, save money, and help protect the environment.”
- Two stores displayed different types of lit LED bulbs.
- Stores participated in available utility rebate programs.

## Lowe's (B+)

- In the two most prominent bays, the top three shelves displayed only LEDs and the bottom two shelves only non-LEDs.
- All four stores had end-of-aisle displays of LEDs. At three stores, these displays had signs indicating “low prices” or “special pricing.”
- One store had 5 aisle displays of LEDs.
- One store had a sign above bay 1 – “LED bulbs 5-year warranty. Halogen bulbs no warranty.”
- Stores participated in available utility rebate programs.

## Walmart (B+)

- Most prominent two bays typically had 8-9 shelves of socket bulbs, with LEDs exclusively on top 4-8 shelves.
- In most stores, there were mainly LEDs in other bays.
- Three stores had end-of-aisle displays of LEDs, two with the sign – “Everyday low price.” Another store had an end-of-aisle display of halogens with the sign – “Great value.”
- Stores participated in available utility rebate programs.

## Target (B)

- Stores mainly displayed GE light bulbs.
- Light bulbs were sorted mainly by wattage, with all bulbs with a similar wattage in one bay.
- The most prominent bay usually carried GE Reveal bulbs, usually non-LED.
- In the bay with 60-equivalent watt bulbs, the top three of five shelves usually displayed just LEDs while the bottom two shelves contained non-LEDs.
- In one store, there was one end-of-aisle display of LEDs and one display of non-LEDs. In another store, there was one end-of-aisle display of LEDs. In a third store, there was one end-of-aisle display of LEDs and non-LEDs. In the fourth store, there was one end-

of-aisle display of LEDs with sign – “Less energy more brilliance. One LED lasts as long as 15 incandescents.”

- Stores participated in available utility rebate programs.

#### Safeway (B+)

- Displayed mainly LEDs in 5 shelves with incandescents in top shelf and LEDs only or mainly in the next two shelves.
- There was a large sign over the two light bulb bays. On one side – “Lighting Tech Guide” with information about wattage, life, lumens, and annual cost that indicates incandescent is good, halogen is better, and LED is best. On other side – “Benefits of LED lighting. Long lifespan. Energy saving. Always ready. No mercury – instant full brightness.”

#### Giant (C+)

- Only GE bulbs were displayed.
- One store earned a C-. There were four shelves with LEDs on the top shelf. A sign promoted incandescents – “Try the bulb that pays you back. Start saving energy and money with GE-energy-efficient soft white light bulbs.”
- Another store earned a C+. Four shelves had only LEDs on top shelf, mainly LEDs on the next shelf, and some LEDs on the next shelf. A shelf sign compared life expectancies only of halogen and CFL bulbs.
- A third store earned an A-. Four shelves, with only LEDs on the top shelf, and some LEDs on next two lower shelves. Shelves had a sign – “One 60 watt replacement LED bulb last 15 times longer and saves \$82 in energy vs. a 60 watt incandescent bulb.”

#### ACME (C+)

- Only GE bulbs were displayed, about one-half LEDs among socket bulbs.
- Five shelves had non-LED bulbs on top shelf, LEDs exclusively or mainly on next two shelves, and non-LEDs exclusively or mainly on bottom two shelves.
- One store had an aisle display – “LED 60 watt. Light that’s just right.”

#### Wegmans (C)

- Only Philips bulbs displayed.
- Most socket bulbs displayed were non-LEDs.
- Five shelves had non-LEDs on the top shelf, LED and non-LED on the second and third shelves down, and non-LED on the bottom two shelves.
- LED Bright Sticks were featured in one store.

#### Shoppers (C-)

- Only Sylvania bulbs were displayed.
- Most socket bulbs displayed were non-LEDs.
- LEDs were mixed in with non-LEDs.

#### Food Lion/Hannaford (D+)

- Only Sylvania bulbs were displayed.
- Very few LEDs were displayed on 4 shelves at Food Lion Stores and on 7 shelves in the Hannaford store.

#### Rite Aid (B-)

- Only GE bulbs were displayed.
- About half of bulbs displayed were LEDs.
- Only LEDs were on the top shelf (of three or four). Some LEDs were found on the next shelf down as well.
- One store promoted LED bright stiks with a shelf sign indicating: “Energy Saving – saves \$82 on energy/bulb. Long lifespan – last 13 years. Multi-use – unique shape fits most sockets. Instant on – instant brightness.”

#### Walgreens (C+)

- About half of socket bulbs displayed were LEDs.
- In two stores with six shelves, only LEDs were on top shelf, and LEDs mainly or exclusively on next two shelves down. In third smaller store, LEDs were on top shelf and non-LEDs on the next two shelves down.

#### CVS (C)

- Mainly non-LEDs were displayed.
- Three shelves. Only LEDs were usually displayed on the top shelf. Non-LEDs were mainly displayed on the next two shelves down.

#### Dollar General (C+)

- One store displayed mainly LEDs. The top two rows and bottom shelf (of 4) in one bay displayed only LEDs. The top two shelves (of 3) in the second bay displayed only LEDs.
- Another store displayed mainly non-LEDs. The top (of 6) shelves displayed bright stik LEDs and non-LED bulbs, and only one other LED was found on the shelves.
- Participated in an available rebate program in one state.

#### Family Dollar (C)

- Only Sylvania bulbs were displayed.
- Mainly non-LEDs were displayed, but only LEDs were displayed on the top shelf of four stores.

#### Dollar Tree (D+)

- One store had no LED bulbs displayed. Another store had very few LEDs. A third store mainly displayed non-LEDs. In a fourth store half the bulbs were LEDs.
- LED bulbs were not featured in any store.

## CONCLUSIONS

The following general conclusions were reached:

- Comparing retailer visits a year ago with recent visits reveals that most retailers have increased the availability and prominence of display of LEDs. Moreover, recent visits revealed that all but one store in the sample displayed LEDs, and the other stores within that retail chain did show LEDs.
- There are significant differences among retailers – grades range from A to D – with the general retailers scoring the highest. A number of supermarkets, drug stores, and discounters would benefit their customers simply by displaying LED bulbs most prominently.
- Most retailers do not use signage, but a couple that do so prominently convey very effective messages. The above-the-shelf signs displayed by Home Depot and by Safeway were particularly informative. In stores selling a single brand of light bulb, there was little evidence that the manufacturer was urging the store to inform consumers about the lower costs of LEDs.

*The Consumer Federation of America is an association of more than 250 non-profit consumer and cooperative groups that was founded in 1968 to advance the consumer interest through research, advocacy, and education.*