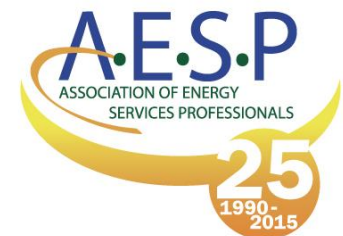


# AND IN THIS CORNER, THE REIGNING CHAMPION COMING IN AT 800 LUMENS...

Steve Cofer, Cadmus Group

Scott Dimetrosky, Apex Analytics

February 10, 2015



With LEDs looking more and more promising, one question looms large

Can LEDs take the energy efficiency title belt of lighting away from the CFL?

[Insert graphic of CFL and led boxing each other]

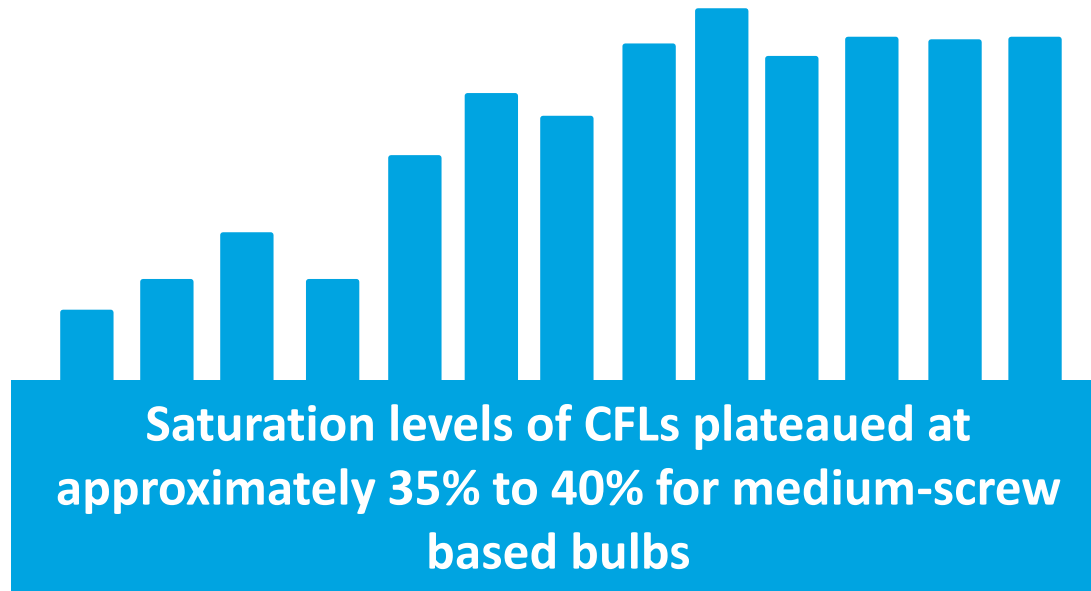


# Title Fight Predictions

	<b>[insert CFL graphic]</b> <b>Reigning Champion</b>	<b>[insert LED graphic]</b> <b>Contender</b>
<b>Strengths</b>	Familiarity Lower Cost Alternatives	High satisfaction More applications Lots of Interest
<b>Weaknesses</b>	Mercury Poor specialty performance	Cost-effectively challenged Higher upfront cost

# Round 1: The Fight for Socket Share

Approximately **\$450 million nationwide** have been spent to promote and install CFLs in homes and businesses...**BUT**



# Round 1: The Fight for Socket Share

In 2014, a lighting inventory for a northeastern utility showed **nearly 25%** of all households have at least one LED installed

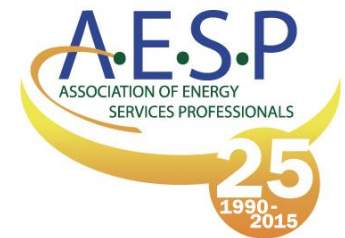
That same utility saw lower CFL saturations than expected, and **penetration of CFLs was at 80%** (meaning 20% of homes did not have a single CFL installed)

Even more compelling evidence that consumer behavior is changing, is that this study **found zero incandescent bulbs in the 75 to 100 watt range** installed in homes (likely due to EISA regulation)



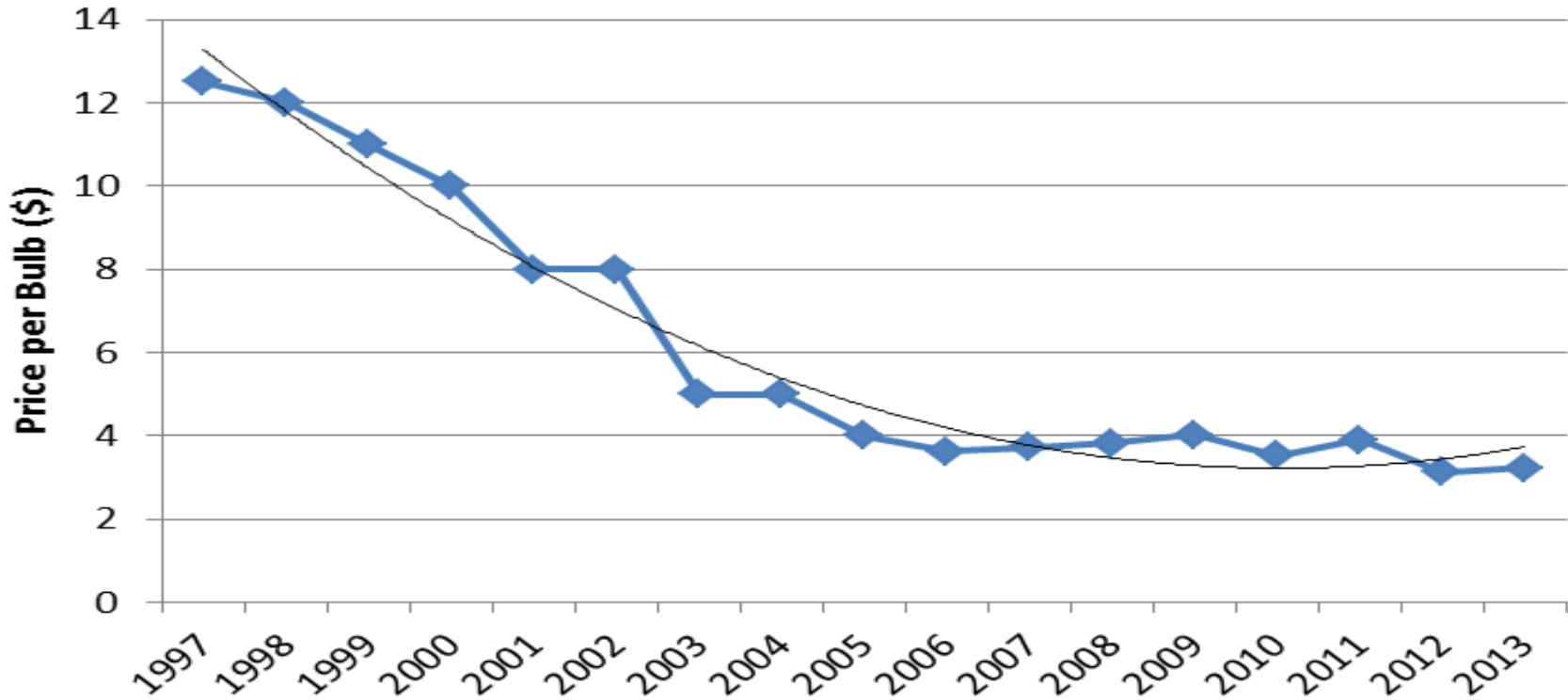
# Round 1: Winner

[CFL Winner Graphic]



# Round 2: Pricing

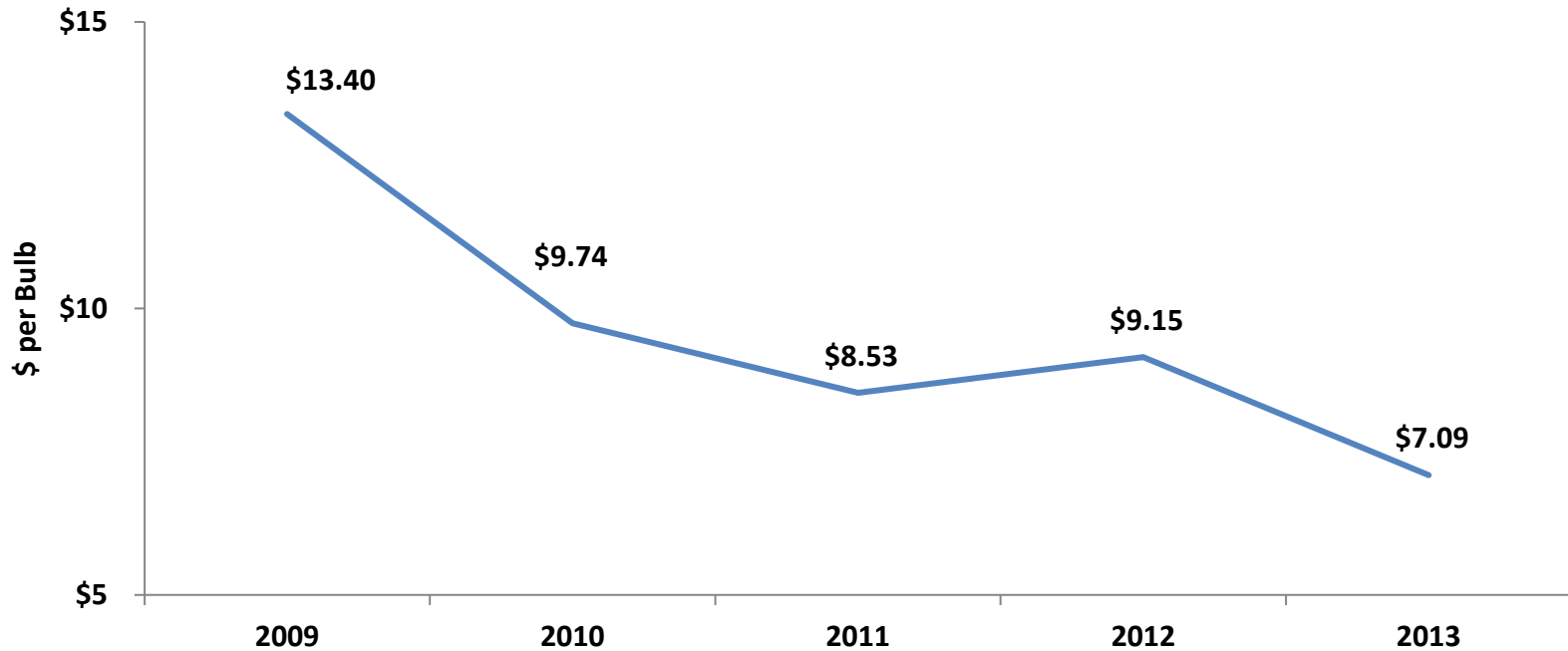
## CFL prices



Holland, C. Northwest Energy Efficiency Alliance. *Are LEDs the Next CFL: A Diffusion of Innovation Analysis*. American Council for an Energy Efficient Economy. 2014.

# Round 2: Pricing

## LED Prices



LightTracker, Inc



# Round 2: Winner

[CFL Winner Graphic]



# Round 3: Annual and Lifetime Savings

Watts consumed

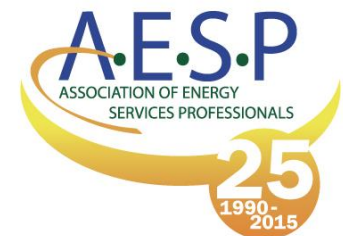
[LED Winner Graphic]

Longevity

[LED Winner Graphic]

Track record

[? Graphic]



# Round 3: Winner

[LED Winner Graphic]



# Round 4: Product Innovation & Trends

CFL innovation seems to be **obsolete**

LEDs are **changing and adapting** to how consumers interact with other technologies, such as our tablets and smart phones



# Round 4: Product Innovation & Trends



Philips Hue



alba by Stack

# Round 4: Winner

[LED Winner Graphic]



# Round 5: Opportunity

Utility	CFL Saturation	LED Saturation	Technical Potential	% Specialty	% Standard
Utility 1	23.9%	1.1%	89%	20%	80%
Utility 2	22.3%	0.9%	87%	20%	80%
Utility 3 (SF)	31.2%	1.5%	91%	20%	80%
Utility 3 (MF)	34.0%	1.4%	90%	18%	82%
Utility 4	32.7%	1.4%	91%	19%	81%
Utility 5	27.8%	2.2%	87%	25%	75%
Utility 6	28.5%	1.5%	89%	15%	85%
Average			89%	20%	80%

# Round 5: Opportunity

Application	CFLs	LEDs	Both
Omnidirectional: general			X
Omnidirectional: three-way	X		
Omnidirectional: dimmable		X	
Bulged Reflector		X	
Candelabra		X	
Globe	X		
Multifaceted Reflector		X	
Parabolic Aluminized Reflector: Indoor		X	
Parabolic Aluminized Reflector: Outdoor	X		
Reflector		X	



# Round 5: Winner

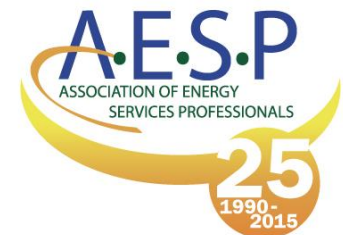
[LED Winner Graphic]



# And the Winner is.....

[LED Winner Graphic]

Not all is lost for the CFL. The CFL will still play a role in lighting our homes for several more years; however it may not be the consumer's first choice when it comes to energy efficient lighting.



# Save The Dates

May 19-21, 2015

AESP's Spring Conference  
Portland, OR

August 25-27, 2015

AESP's Summer Conference  
Niagara Falls, ON

February 1-4, 2016

AESP's National Conference  
Phoenix, AZ

For more information - [www.aesp.org](http://www.aesp.org)

