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DESIGN PRO  
TECHNOLOGY

DOE  
Solid State  
Lighting  
Workshop  
San Francisco  
2009

2008 Lighting for  
Tomorrow Solid  
State Winner  
Comments

# Kichler's Involvement in LED Lighting

- Why Did Kichler Get Involved in LED Lighting?
- A Short History of That Involvement
- The “Stones” In the Path of a Successful Product
- Problems That Need To Be Resolved As We Move Forward

# Kichler? Making LED?

- Kichler has generally been regarded as the “Pretty” Company
- Not known for technological advances
- Like Elle Woods in “Legally Blonde” there is more to Kichler than what meets the eyes
- Landscape and Cabinet lighting have always been more complex





# After the First, Benefits Were Noted / Detractors Were Vocal

- The “EV 1” customer vs. the Buggy Whip buyer
- EV noted the benefits:
  - Wider usable voltage
  - “it really works!”
- “Buggy-whippers” decided to:
  - “wait and see”
  - Previous product was questionable



# The Noted Benefits

- The noted benefits pushed us to add more LED
- The second generation LED accent lights have been a **HUGE** success



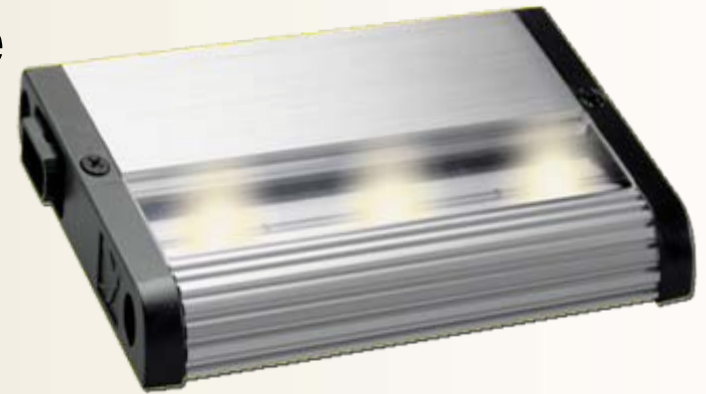
# Again, New Demand



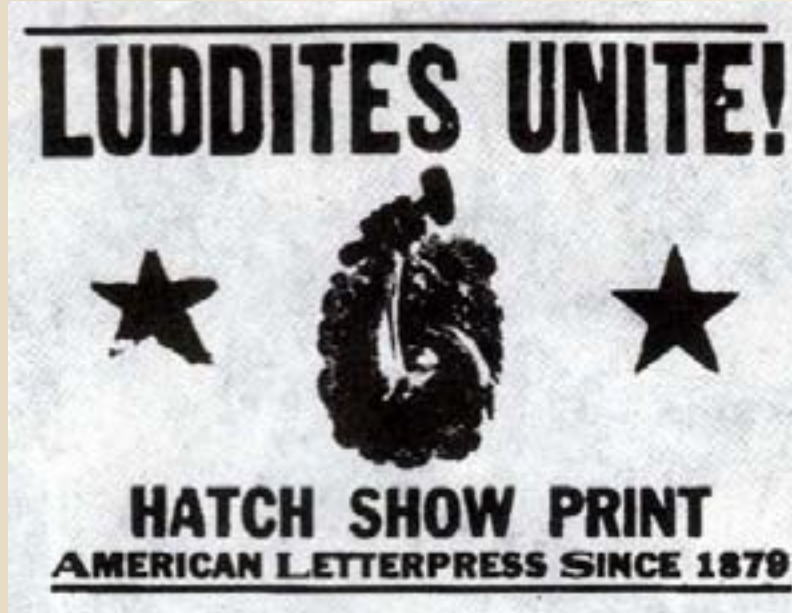
- Cabinet Manufacturers have started to create smaller undersize on kitchen cabinets
- European Cabinets have come into vogue
- 1" industry standard no longer fit
- Customers rejected the wood "skirt" solution

# The 1/2" & 3/8" Solution

- LED light source was the only viable option
- Immediate praise from the design community



# The Luddites Speak



- Not sure if LED is a viable light source for residential use
- “Does anyone really know if these things will last 40,000 hours?”
- Too expensive

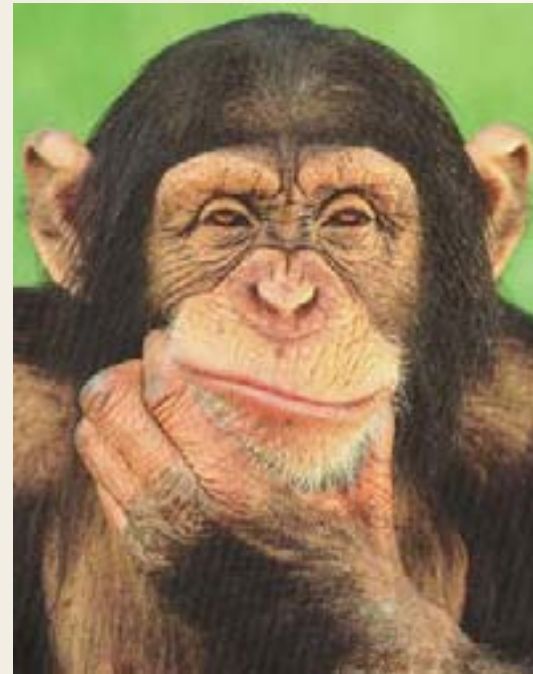
# Problems We Encountered



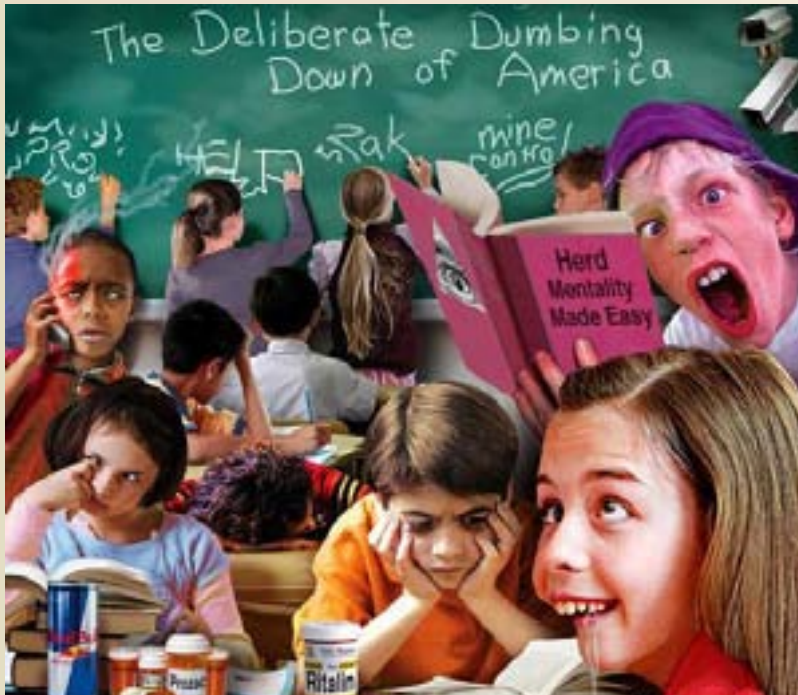
- Packaged driver and circuitry solutions assume the lighting fixture won't change
- UL (and CSA, etc.) barely understands the technology
- Binning
- LED Light Bulbs

# Things to Think About as LED Technology Matures

- Residential lighting manufacturers could use the following help



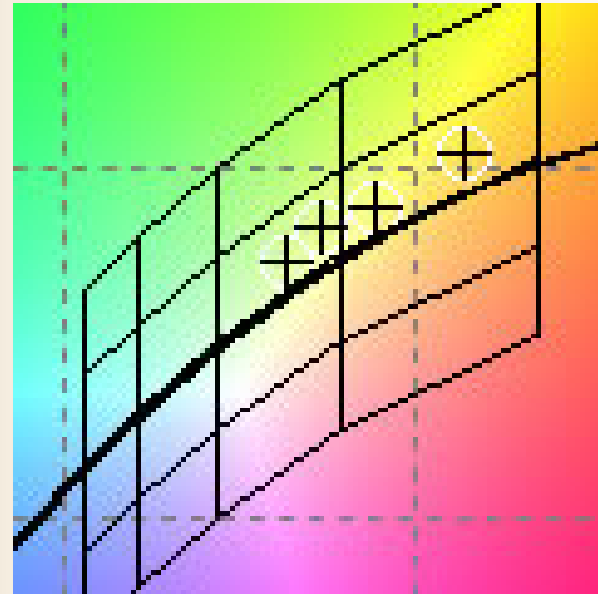
# The Downside of Pre-Packaged LED/Driver Combinations



- Plugging-in a package does not necessarily make a good light source
- Taking full advantage of LED as a light source becomes difficult
- The fluorescent “platform” concept does not necessarily work with LED lighting

# The Need For Tighter Binning

- First generation residential buyers are at the high end
  - Designers involved
  - More critical
  - Distributors waiting for the technology to fail
  - Color variation has been an issue



# Dueling Energy Star Standards



- The DOE and EPA must find a resolution to the duel standards for LED lighting
  - Risk of marginal product tainting the good product
  - Customer confusion
  - Brand value deterioration
  - The “CFL Syndrome”

# Customer Unfamiliarity

- Consumer does not understand
  - Lumen output (as opposed to wattage)
  - Color Temperature
  - Color Rendering Index (CRI)
- Partially responsible for fluorescent backlash



# Lighting for Tomorrow - DOE - Energy Star Alliance Benefits



- Affirmation of a good product
- Recognition
- Advertisement
- Instills a belief in the consumer that there is a lighting option that will save money

# Thanks!



- We appreciate the recognition
- Thanks for listening to the concerns of industry
- Together, we can make beautiful light!