

# Lamps V2.0 Proposal Discussion (3 of 4) November 20, 2015 1-2:30pm EST

Taylor Jantz-Sell LC, U.S. Environmental Protection Agency
Dan Rogers LC, IES, LEED AP, ICF International





# Today's Agenda

- Recap discussion from previous calls
- Open Discussion

<u>This meeting is being recorded</u>. EPA intends to post recordings of the four scheduled meetings to inform stakeholders unable to attend.

Recordings of the 11/12 and 11/13 calls are available on the <u>Lamps</u> <u>Specification Version 2.0 webpage</u>.





### Welcome

- Questions/comments welcome
  - For everyone's benefit, please state name and organization before commenting
  - Can ask questions via the webinar chat at any time





# Top-Level Re-Cap of 11/12 Discussion

### Rated Life:

- Support was shared by multiple stakeholders for the proposed 15,000 hour life requirement for Omnidirectional lamps
- One manufacturer suggested EPA consider a 15,000 for directional lamps as well (for residential customers)
- Several efficiency advocates suggested EPA maintain 25,000 hour life requirement for directional lamps
- Testing would be the same as for decorative lamps, 86.7% lumen maintenance at 6,000 hours (93.1% at 3,000 hours for initial cert)

#### Power Factor:

- No strong support or opposition
- Some cautionary comments were shared and one proposal to require
   0.7 for directional products





# Top-Level Re-Cap of 11/12 Discussion

### Omnidirectional Proposal:

 One manufacturer expressed concern that the proposed change was not as generous as they had hoped but has since submitted written comments in support of this proposal.

### Efficacy Proposal

- One efficiency advocate expressed concern about 61 LPW requirement for directional lamps with CRI ≥90
- EPA explained that the level would allow for the specification to accommodate a wide range of performance for these products that would be necessary to accommodate a variety of markets and customers.





# Top-Level Re-Cap of 11/12 Discussion

### Misc. Topics – Effective Date/Transition Period:

- One efficiency advocate recommended a more gradual transition time (18 months rather than 12 month) to give CFLs more time in the market.
- EPA reminded partners that the program provides an archive QPL for reference that utility programs can reference for ongoing rebates past the effective date.





# Top-Level Re-Cap of 11/13 Discussion Efficacy Omnidirectionality

- One program implementation stakeholder suggested that the efficacy levels in the proposal were too high and that preventing cost effective CFL programs will severely hinder utilities abilities to meet their goals.
- A manufacturer suggested that efficacy levels were appropriate and that LED bulb prices are dropping to a cost effective point and that they offer more value than CFLs so they don't have to be as cheap.

 One efficiency advocate supported the modest adjustment in omnidirectional requirements and expressed her concern that it should not be adjusted further.

#### Rated Life

 A manufacturer was opposed to the decrease in omnidirectional rated lifetime from 25,000 to 15,000 hours.





# **Specification Development Process Overview**

- Draft 1
  - Draft 1 released February 13, 2015
- Draft 2
  - Released April 10, 2015
- Draft 3
  - Released August 6, 2015
- Final Specification
  - Estimated completion January 2016
- Effective date
  - Estimated January 2017







# Rated Life (proposed)

EPA is proposing a rated life requirement of 15,000 hours for all LED omnidirectional lamps

- This matches the current requirement for decorative LED lamps.
- Based on the FTC reporting requirements, this equates to 13.7 years based on 3-hour/day operation.
- At the same time EPA is proposing to tighten the requirements for passing the life and lumen maintenance test by requiring that all units (versus the current 9 of 10) be operational throughout the duration of life testing.





### **Rated Life - Questions**

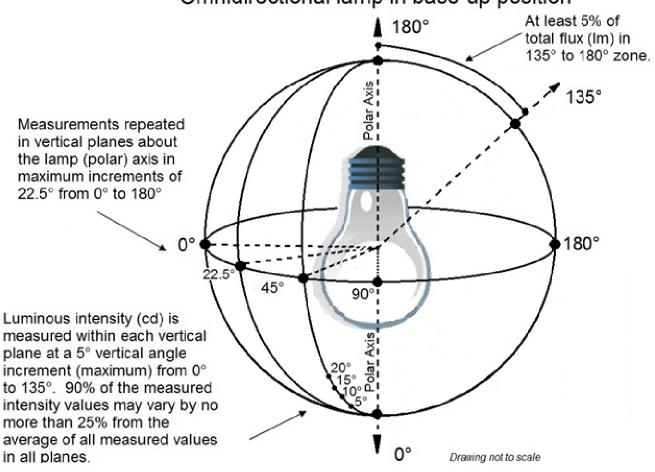
- 1. EPA has only received suggestions that rated life be reduced for omnidirectional products. Is there any interest in reducing rated lifetime requirement for directional lamps?
- 2. EPA has received some confidential pricing and performance quality information related to lifetime. Is there any additional information EPA should examine for considerations of lifetime?





# **Omnidirectionality (current)**

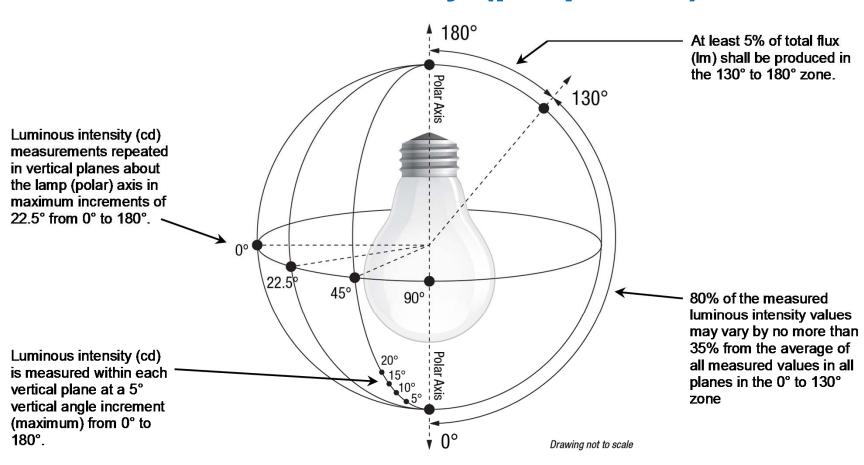
Omnidirectional lamp in base-up position







# **Omnidirectionality (proposed)**







### **Power Factor**

EPA is proposing to lower the minimum power factor requirement for LED lamps to 0.5, consistent with the current requirement for CFLs.

#### Questions:

- 1. EPA has received some confidential pricing information related to power factor. Is there any additional pricing information EPA should examine for considerations for the minimum power factor requirement?
- 2. Is there any research on potential market implications for reducing power factor that EPA should be aware?





# Efficacy (proposed for 2017)

Lamp Type	ENERGY STAR Requirements		
	Reported values for each lamp model shall meet the applicable requirement in the table below.		
	Additionally eight or more units individually shall		
	meet the requirement.		
	Minimum Lamp Efficacy		
	(initial lm/W)		
	CRI ≥ 90	CRI < 90	
Omnidirectional	70	80	
Directional	61	70	
Decorative	65		





## **Rated Life - Questions**

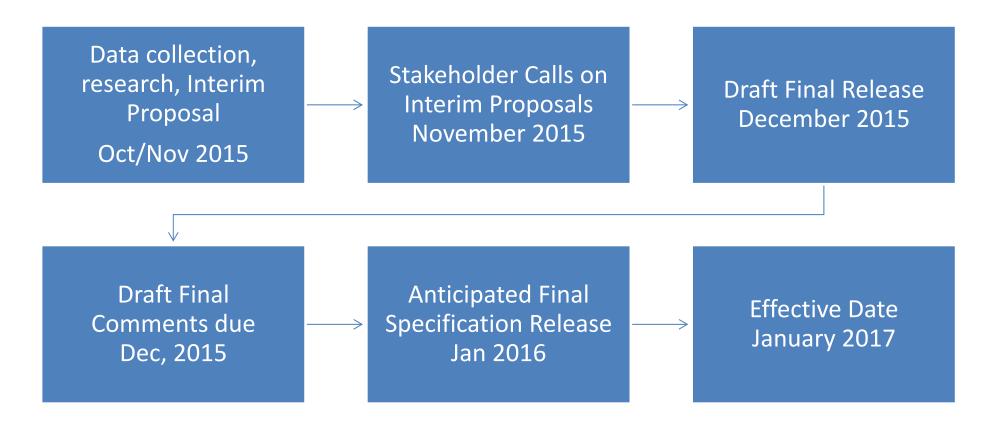
Lamp Type	Certified Products	Average ENERGY STAR ALL/LED/ 90+CRI Efficacy today	Pass Rate current products proposed levels (%)	Pass rate assuming modest (10%) efficacy improvements by 2017 (%)
Omni	1620	75/82/70	59	73
Dir	4576	69/70/69	54	74
Dec	698	69/73/66	63	92

**Question:** is there additional information EPA should consider on this issue?





# **Next Steps: Specification Development Process Overview**







### **Discussion Time**

- Questions?
- Send comments and questions after the meeting to:

lighting@energystar.gov



