

Residential Lighting LED Session

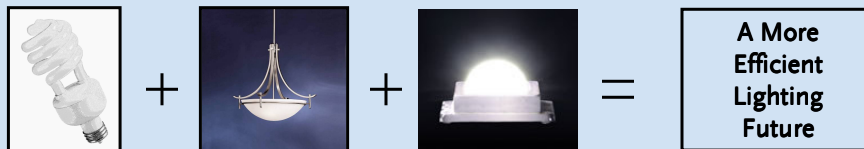
September 20, 2006
Industry Partners Meeting



Working Together, Advancing Efficiency

Meeting Objectives

- Begin developing a long-term vision for efficient lighting
 - Understand objectives of programs/manufacturers
 - Understand technical side of CFLs, fixtures, LEDs
 - Discuss market challenges/opportunities
 - Form common assumptions



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Re-Cap from Yesterday

- CFLs and Fixtures
 - Objectives
 - Challenges
 - Opportunities
 - Possible approaches
 - Research needs



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Recap, Continued

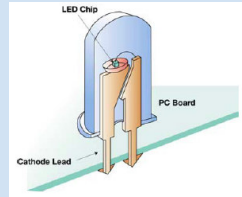
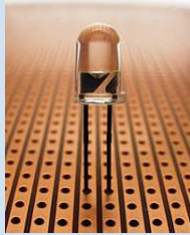
- CFLs
 - We've come a long way.
 - We need to take stock and define what success looks like to tailor future activities.
- Fixtures
 - Traditional program design has successfully supported one type of product.
 - We need to modify this to support new types and grow the success.



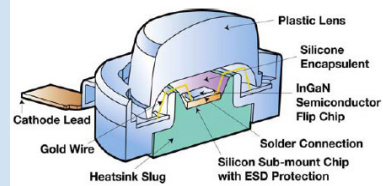
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LED Types

Indicator



Illuminator

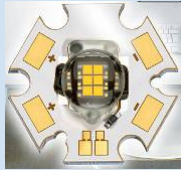


Courtesy: Lumileds

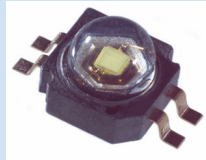


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Various LED Packages



Osram OSTAR Lighting



Luxeon K2



Lighting Sciences Group



Lighting Services Inc.



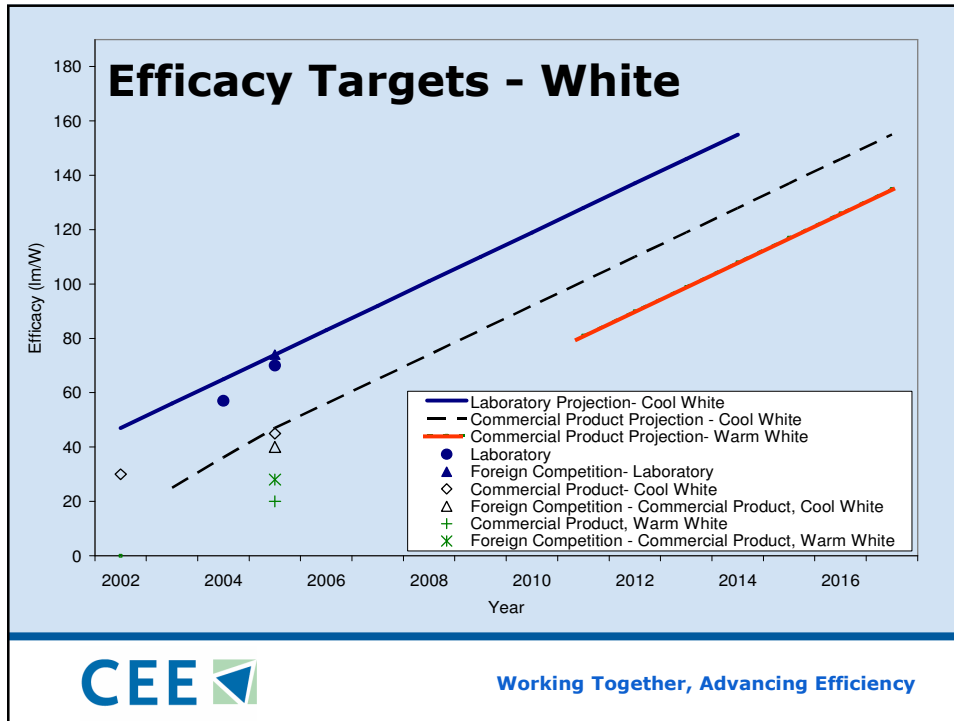
Cree XLamp



Lamina Ceramics




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Standards Update

- In development:
 - Luminous flux
 - Chromaticity and color rendering
 - Electrical characteristics
 - Life rating
 - Definitions and nomenclature
- Coordinated effort kicked off in March
- Next workshop at end of Oct
- ANSI-IES meet in Nov to review drafts
- Final procedures expected in May 2007





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Discussion

- Necessary conditions for promotion
 - Efficacy increases?
 - Test procedures?
 - ENERGY STAR spec?
 - Others?
- Opportunities and challenges
- Research needs



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