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CFL Quality Updates on CFL Markets & Programs

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Phasing-in Quality: *Establishing a Quality Identification System for CFLs in Asia*
Asian Development Bank Headquarters, Manila, Philippines



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Updates on CFL Programs

- Under PELMATP (2005-2009), completed:
 - ♦ 25 Philippine National Standards, including MEPS
 - ♦ Guidelines for Energy Conserving Design of Buildings
 - ♦ Roadway Lighting Guidelines
 - ♦ Implementation of EELs in government buildings (AO No. 183 – Directing use of energy efficient lighting in government facilities)
 - ♦ Ecolabeling of lighting products
 - ♦ Improved laboratory
 - ♦ Palit-Ilaw Program as part of IEC
 - ♦ Illumination Engineering Design subject
 - ♦ Policy Input on Lamp Waste Management



Updates on CFL Programs

- Under PELMATP (2005-2009), in progress:
 - ♦ Lamp warranty
 - ♦ Microfinancing (through consumer coops)
 - ♦ EEL product leasing
 - ♦ Lighting product monitoring program
 - ♦ EEL systems design for commercial and industrial



Minimum Efficacy of a Bare Lamp (PNS 2050-2:2006)*

Input Power of Lamp (W)	Initial Luminous Efficacy (lm/W)	
	Correlated Color Temperature (CCT)	
	≤ 4000K (WW)	< 4000K (Daylight)
≥ 2 to < 5	45	41
≥ 5 to < 9	50	46
≥ 9 to < 15	55	52
≥ 15 to < 25	60	57
≥ 25	65	62

* Ongoing IRR development



Existing


Brand Name :
Model/Type :
Wattage Rating :

Lamp Specifications *

Light Output 900 lumens
Power Consumption 15 watts
Efficacy 60 lumens per watts
Average Life 8,000** hours

For lamps of similar light output, higher efficacy means more energy savings

*When tested at standard test conditions
**Rated average life at 50% failure




Proposed

Brand Name:
Model/Type:
Lamp Specifications ¹

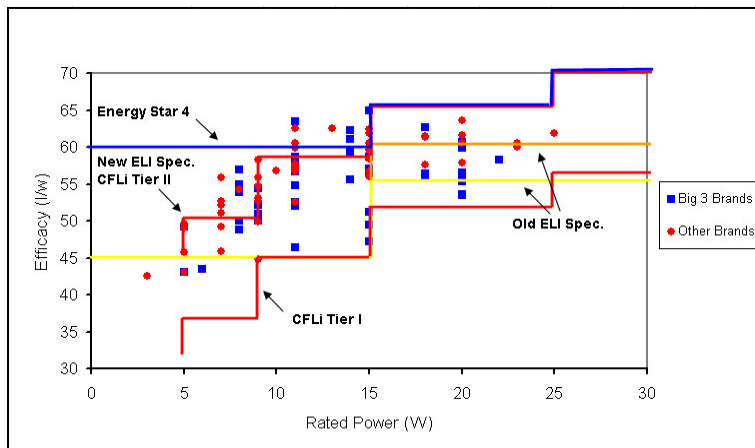
Light Output 900 lumens
Power Consumption 15 watts
Efficacy ³ 60 lumens per watt
Average Life ² 8000 hours

For lamps of similar light output, higher efficacy means more energy savings

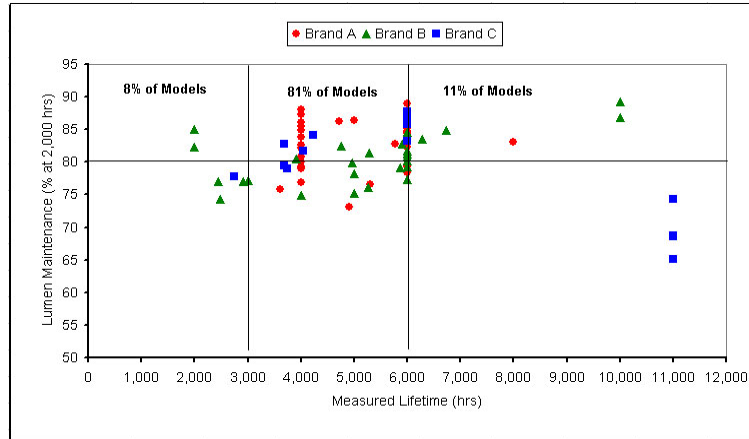
¹ when tested at standard test conditions
² rated average life at 50% failure
³ The Minimum Efficacy Set By The Government For This Type Of Lamp Is 50 LUMENS PER WATT
CTRL NO. XXXX-XXXXXX



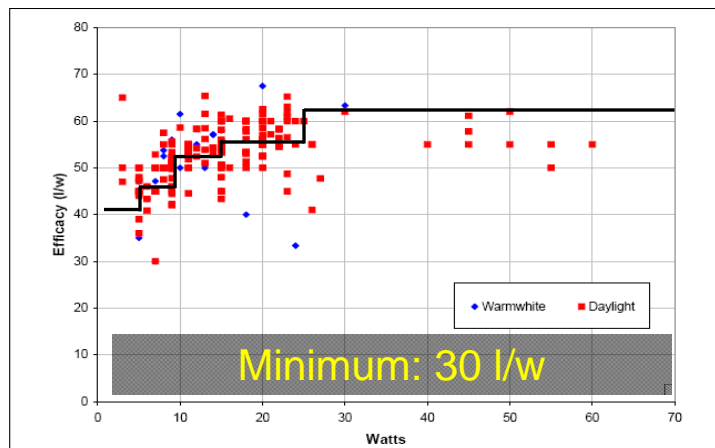

Efficacy: CFL Test Results (2006) vs International Stds



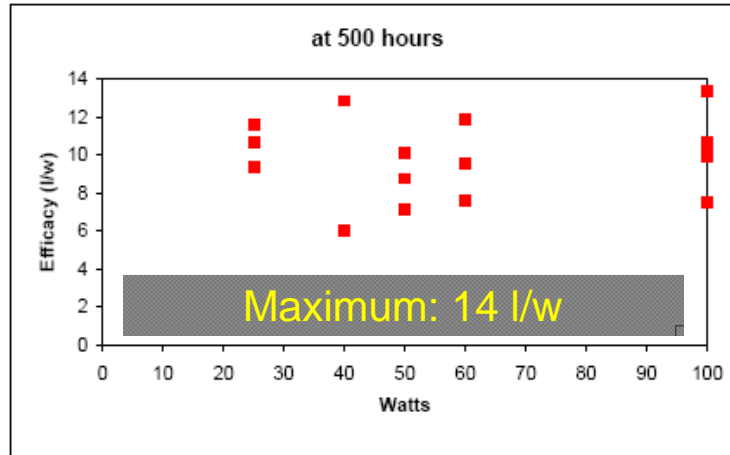
Lumen Maintenance: CFL Test Results (2006)



Efficacy: CFL Test Results (2008)



Efficacy: Incandescent Bulbs Test Results (2008)



Updates on CFL Programs

- Phasing out of incandescent lamps by end of 2009
 - ♦ Setting of minimum energy efficiency standard (MEPS) to eliminate the least efficient lamps in terms of efficacy in lumens per watt
 - ♦ US\$2B savings in avoided generation of at least 2,000 MW at peak time enough to meet the 700MW capacity additions need each year for the next three (3) years
 - ♦ PhP20B (US\$500M) savings for consumers each year or about PhP7 per night per household
 - ♦ 2.5M tons of avoided CO2 emissions per year



DOE-ADB Project

- Energy Efficiency in Lighting Program
 - ♦ Retrofit of Government Buildings
 - ♦ Nationwide Distribution of CFLs
 - ♦ Public Lighting Retrofit
 - ♦ Lamp Waste Management
- Other Efficiency Initiatives
 - ♦ Product Testing
 - ♦ Energy Efficiency Pilot Financing Facility
 - ♦ Distribution Efficiency Improvements in Electric Cooperatives
 - ♦ Green Building Program
- Communication and Social Mobilization
 - ♦ Communication for Efficient Lighting
 - ♦ Promoting Efficiency in Everyday Life



Thank you...

Dir. Raquel S. Huliganga

