



IEC Lighting Standards

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Context

- Standards used by policies and programs to promote efficient lighting products
- Lites.asia priorities
 - CFLi
 - LED
 - (IEC covers many more lighting products)

IEC Standards for CFLi

- IEC 60968, Self-ballasted lamps for general lighting services - Safety requirements
 - Marking of voltage, wattage, dimmability, etc.
 - Interchangeability, electrical and mechanical strength, thermal, fault conditions
- IEC 60969, Self-ballasted lamps for general lighting services - Performance requirements

IEC Standards for CFLi

- IEC 60969, Self-ballasted lamps for general lighting services - Performance requirements
 - Currently being revised by PRESCO (CD stage)
 - What is timescale for completion?
 - Detailed test methods for:
 - Luminous flux
 - Efficacy
 - Lumen maintenance
 - Starting
 - Run-up time
 - Switching withstand
 - Lamp life

IEC Standards for CFLi

- IEC 62554, mercury measurement for fluorescent lamps
 - Open now for vote
 - “Cold spotting” method
 - Round robin test underway
- Joint 17B – 23B – 34A – 77A forum - dimming of electronic self-ballasted lamps

IEC Standards for CFLi

- IEC 61000-3-2
 - Harmonics – requirements
- CISPR 15
 - EMC requirements

IEC Standards for LED

- IEC 62560, Self-ballasted LED lamps for general lighting services $>50V$ - Safety specifications
 - LED self-ballasted lamps
- IEC 62612, Self-Ballasted LED Lamps for General Lighting Services - Performance Requirements
 - LED self-ballasted lamps
 - Marking, dimensions, flux, colour characteristics, life, lumen maintenance, endurance, etc.
 - Flux measurement a problem
- IEC 62031, LED Modules for General Lighting - Safety Specifications
 - Integral ballast and non-integral ballast

IEC Standards for LED

- Approved new IEC work proposals for LEDs:
 - Non-ballasted LED lamps - Safety requirements (IEC 62663-1)
 - Non-ballasted LED lamps - Performance requirements (IEC 62663-2)
 - Only the beginning – more work to come

LED Types

- Self-ballasted LED lamp



- LED module



- Non-ballasted LED lamp



IEC Standards for Other Products

- Various incandescent and halogen standards
 - Safety, performance (test methods)
 - Straightforward
- Linear fluorescent
 - Lamp and ballast safety, performance (test methods) (straightforward)
 - Dimming (complex)

Your Thoughts?

