

lites.asia Webinar 3 TC34 Beijing Round-up

David Boughey, DCCEE Owen Manley, LCA



IEC TC 34 Project Team Meetings Beijing

- PRESCO (Lamps) 24 Sept
- COMEX (Controls) 25 Sept
- LUMEX (Luminaires) 26 Sept

Note: This is a limited overview of topics discussed at these meetings that we think most relevant to the energy efficiency focus of lites.asia. Many other interesting and important topics relating to safety, definitions and performance were also discussed at these meetings.



- IEC 60969 Self-ballasted lamps for general lighting services Performance requirements.
- Under Review Committee Draft has now been published.
- National Standards Committees may submit comments on the draft – closing date for comments is 14 December 2012.
- Comments will be discussed at panel meetings January 2013 and if resolved, a Committee Draft for Vote (CDV) will be issued. This is therefore potentially the last opportunity to make comments on the revised standard.



- A recent proposal for amendment is a revision of the lifetime provisions in IEC 60969.
- Previously the requirement was 50% (median) at 90% of rated life. It is now proposed that this be changed to 50% at 70% of rated life.
- Statistical analysis has indicated that with the required sample of ten lamps it is possible that genuinely compliant products will fail the previous requirement due to product variation.
- However there is concern from a regulator's view that this proposal moves further from the consumer's understanding of lifetime.



- Could potentially cause confusion, reduce consumer confidence in the information being supplied, and potentially reduce confidence in product reliability, (and therefore value in terms of energy and money savings).
- The revised approach raises questions regarding the suitability of this provision for use in regulations.
- Should the standard really be changed to compensate for the level of process variability that was set by the manufacturer?
- Or should it be the manufacturer that should lessen variability in their production process and improve reliability in their testing protocol?



- Alternatives to address this issue could include:
 - Increasing the sample size but this would require a sample size in the hundreds if not more (costly for regulators conducting compliance) or,
 - Maintaining the current requirement (50% at 90%) on the expectation that when used in a regulatory context manufacturers would need to reduce their claims (or overdesign) to ensure compliance.



- Revised CFL standard does not include mercury as a performance parameter.
- Does not include minimum performance levels (was not supported by Panel members).
- Has only a brief reference to truth in claim when making claims for operation in extreme conditions (e.g. high temperature, high humidity).
- Any comments will need to be submitted to your National Standards Committee before 14 December 2012.



- IEC 62612 Self-ballasted LED-lamps for general lighting services > 50 V - Performance requirements
- This draft is at the Committee Draft for Vote stage. Only editorial revisions were considered at the meeting.
- A number of other points raised were deferred until the next revision of the standard (due to the rapid development of LEDs this may not be too far away).
- Extensive discussion about replacement of Power Factor as a performance parameter with displacement factor. While the CFL performance standard has moved to displacement factor, the LED standard as drafted still uses power factor.



- A method for full evaluation of lifetime of LED lamps is currently not available and the standard acknowledges an incomplete solution to this issue (test time of 6,000 h or 25% of the rated life).
- A paper was presented on the development of a Technical Specification on component reliability which proposed a reduced time for LED lifetime testing if component reliability testing has been carried out on the product (PRESCO(GJV)023A).



- NLTC (China) put forward a proposal to address consumer confusion about selecting the appropriate non-directional LED.
- With incandescent lamps, consumers selected the appropriate lamp through number of watts.
- This is difficult to achieve with LED lamps due to unfamiliarity with the ratio between watts and light output and also due to the fact that different LED products can emit the same level of light with different wattages.



The proposal is for inclusion in the standard of the grouping of LED lamps into a limited range of luminous flux values:

150lm, 250lm, 500lm, 800lm, 1000lm, 1500lm

- Thus creating a range of choices comparable to how consumer choose incandescent lamps in a limited range of watts values (40, 60, 75W).
- Due to the technical nature of this proposal its consideration will be postponed until the next revision of the standard.
- Could the same approach also be applied to CFLs?





- IEC 62717 LED modules for general lighting -Performance requirements – comment period closed – comments to be considered at January panel meeting along with a draft CDV.
- 12.11.5 Declaration of lifetime values for LED luminaires and modules. Paper by Myer-Phol discusses the different factors considered in lifetime data (catastrophic failures and lumen depreciation) and suggests that a revised approach could be take with two different concepts of lifetime.
- To be discussed at the January panel meeting. *lites.asia members may wish to consider the paper and respond in advance of the panel meetings.*



PRESCO - Proposed CFL Technical Specification

- 13
- 16.14 Self-ballasted compact fluorescent lamps for general lighting services Performance limits.
- Australia put forward a proposal for a Technical Specification on this topic which would include a set of performance tiers.
- Proposed as an alternative to inclusion of minimum performance levels in IEC 60969, which has not been successful.
- Supported by a Chinese representative but otherwise drew some negative comments at the Beijing meeting.



PRESCO - Proposed CFL Technical Specification

- 14
- A draft for comment will soon be circulated in advance of consideration at the January Panel meetings.
- We understand that a number of lites.asia stakeholders would like to see an IEC document like this published, so that it can be adopted for national regulations. If so, we encourage you to examine the document and submit any comments (via your National Committee) along with positive support to the committee well in advance of the January Panel meeting.
- Without support this may not proceed. See also resolution in support from October lites.asia meeting: www.lites.asia/files/otherfiles/0000/0178/Meeting_Report _Delhi_October_2012.pdf

- IEC 62776 Double-capped LED lamps for general lighting services - Safety specifications
- Addresses safety issues arising as a result of linear LED lamps being used as replacements in linear fluorescent luminaires.



PRESCO & Zhaga

- Zhaga Consortium established by lighting industry to create specifications that enable interchangeability of LED light sources made by different manufacturers.
- Representatives appointed to ensure communication between TC34 and Zhaga.
- Progress on some TC34 activities appear dependent upon progress within Zhaga.
- However Zhaga contact person at the Beijing TC34 meeting stressed that the Zhaga scope is only for interchangeability and not for safety or for performance. <u>www.zhagastandard.org</u>





D.C. application of control gear in homes

- Discussion in the PT Control gear: Proposal to update the safety standards to encompass the suitable voltage range for DC mains voltage systems, equal to the AC mains voltage.
- IEC 62493 Assessment of lighting equipment related to human exposure to electromagnetic fields – Product family standard (EMF)
- Preparation of edition 2
- The next meeting is scheduled for the 11th December 2012 in Traunreut, Germany. For this meeting the first complete draft of edition 2 is expected.



LUMEX

- IEC 60598-2-20 Luminaire performance Part 2-20: Particular requirements – Lighting Chains.
 - closing date for comments was 12-10-2012
- IEC/PAS 62722-2-1 LED Luminaire performance standard
- Panel will meet at the January meetings to draft a Committee Draft for Vote (CDV).
- Remote phosphor coating of LED modules.
 Discussion on test against electric shock.



TC34 – Next Meetings

- Panel Meetings January 2013, Milan 14-25 January 2013
 - LED Meetings: Mon Fri 14-18 January 2013
 - Monday 21 January 2013: IEC 60968 CFLi safety
 - Tuesday 22 January 2013: IEC 60969 CFLi performance
 - Wednesday 23 January 2013 AM: CFLi performance tiers
 - Wednesday 23 January 2013 PM: IEC 60901 CFL non-i dimming
- TC 34 Project Team Meetings from 8 April 2013, Korea



Thanks

Thanks also to Mr Roberto Cristobal (Philippines), Mr Rachman Mustar (Indonesia) and Mrs Pham Thu Trang (Vietnam) for attending the TC34 meetings and input.

