

QUADRENNIAL REPORT OF DIVISION 5

2003-2007

TERMS OF REFERENCE

To study procedures and prepare guides for the design of lighting for exterior work areas, security lighting, floodlighting, pedestrian and other urban areas without motorized traffic, areas for sports and recreation, and for mine lighting.

DIVISION OFFICERS

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|---------------|-----------|
| Nigel Pollard | Director |
| Tom Lemons | Secretary |
| Mary Crawford | Editor |

MEETINGS

Following the 25th Sessional meeting in San Diego in 2003, the Division has held meetings in Bern, Switzerland in September 2004, Leon, Spain in May 2005 and Athens, Greece in September 2006. All have been held in liaison with Division 4.

SYMPOSIA

Four very successful Symposia were held during the Quadrennial.

- The first was held in November '04 on "**Obtrusive Light and Sky Glow**" in Barcelona. The two and a half day symposium was held in the newly opened "Forum" centre in which 28 papers (+ 6 posters) were given. The vast majority of the 250+ delegates were from Catalunya / Spain, although papers were presented from Chile, France, Germany, Italy, Mexico, Japan and the UK. (plus The Canaries Islands)
Most papers were about improving public lighting with a move towards horizontal cut-off (HCO), which in Spain / Catalunya is being progressed within an energy saving programme moving from mercury lamps to high pressure sodium.
Of particular interest were the papers investigating the main source of sky glow, which seems to be from direct light emitted close to the horizontal rather than reflected light, although there are some conflicting claims.
- A further successful Symposium was held in December '05 in **Venezia** under the authority of the *Istituto Veneto di Scienze lettere ed Arti* to discuss how this most remarkable of cities should be lit. Papers were presented by both the CIE President and the Director of Division 5.
- The Hellenic National Committee organised the third symposium in conjunction with the D4 & D5 meetings in Athens in September'06 under the title of "**Urban Nightscape 2006**" in which 52 papers (+ 11 posters) were given. Members of the CIE were well represented and the Director of Division 5 one of the official welcoming guests.
- Finally, a further Conference was held under the auspices of UNESCO and the Canary Islands Government in April '07 on La Palma to discuss how best to protect the night sky from light pollution. The Director of Division 5 was asked to chair one of the sessions and a final "**Declaration in Defence of the Night Sky and the Right to Starlight**" was produced that amongst other aims, produced a resolution "To work jointly with the CIE in order to promote the intelligent use of lighting in all exterior applications. This to be with the aim of minimising both the use of energy and the spread of obtrusive light into the natural environment, particularly upwards into the sky."

TECHNICAL REPORTS & PUBLICATIONS

Two Reports and Three Standards have been published during the Quadrennial:

- CIE 154:2003 Maintenance of Outdoor Lighting Systems

- CIE 169:2005 Practical Design Guidelines for the Lighting of Sports Events for Colour Television and Filming
- CIE S 015/E:2005 Lighting of Outdoor Workplaces
- CIE S 016/E:2005 Lighting of Outdoor Workplaces - Lighting Requirements for Safety and Security
- CIE S 020/E:2007 Emergency Lighting

LIAISONS

One semi-liaison meeting has been held during the Quadrennium between Messrs. Seidl and Pollard in Wien in September '04 to discuss the way forward on the draft standard on the lighting of outdoor work places.

TECHNICAL COMMITTEE WORK

TC 5-11 *Practical Design Guidelines for Sports Lighting Installations for Television and Film*
Published as CIE 169:2005.

TC 5-13 *CIE/ISO Standard for the lighting of Exterior Work Places*
While these standards have been published by CIE and agreed by CEN, the later organisation has not yet published its version due to the document not being past by ISO.
However CEN has since published it.

TC 5-16 *Exterior Security Lighting of Private Properties*
This committee has been closed and its work transferred to TC 5-18.

TC 5-18 *Practical design guidelines for the lighting of exterior work areas*
Under the new Chairman Kelvin Austin, in which it was agreed to bring in the aspects of security lighting from TC 5-13 and expand the Terms of Reference to include public as well as private security installations. An outline first draft will be discussed at the next meeting in Beijing.

TC 5-19 *Emergency Lighting*
Published as S020/E:2007.

TC 5-20 *Sports Lighting*
A 7th Draft of the report has been distributed prior to the next meeting in Beijing.

TC 5-21 *Guide to Masterplanning the Urban Nightscape*
The current draft (7a) is now much better focused and should be finalised by the next meeting in Beijing in 2007.

TC 5-22 *Beam Patterns for Exterior Floodlighting Luminaires*
This committee met for the first time in Athens'06 and agreed to use as its first model the proposals of the new IESNA model and help evaluate these ideas in the wider world.

TC 5-23 *Guidelines for the use of different Illuminance parameters in Outdoor Applications*
This committee met for the first time in Athens'06 and had trouble confining itself to "semicylindrical" illuminance, its previous title. It has therefore been asked that the Terms of Reference be expanded to include the other "illuminance" parameters of cylindrical, spherical, hemispherical and cubic.

REPORTERSHIPS IN PROGRESS

R5-12 *Lighting and ECO systems - Scott Davies*
The Reporter provided a further review of the growing information on this subject.

R5-13 *Lighting controls & Visual Effects - J Pimenta*
No Report .

R5-15 *Fundamental aspects of vision at night - David Crawford*
No Report

FUTURE PROGRAMME

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| 2008 | ? Helsinki, Finland |
| 2009 | Budapest, Hungary |
| 2010 | ? |
| 2011 | 27 th Session, Cape Town, South Africa. |