

**Attendants**

**Members:** Schreuder (The Netherlands), De Vlieger (The Netherlands), Narisada (Japan), Pentti Hautala (Finland), Paul Lutkevich (USA), Stark (USA), Blaser (Switzerland), Martin (France), Valero-Serós (Spain, secretary), Soardo (Italy), Rocca (Italy), Gillet (Belgium, chairman), Gandon-Léger (France)

**Guests:** Stockmar, Walkling, van den Brinke, Floris, Takeuchi, Ito, Leetzow, Andersen, Kotek, Bjelland (reporter)

**The meeting**

- Chairman welcomes everybody.
- Huijber apologizes for not attending the meeting (Schreuder announces) ; Gillet received excuses from Bijzak, Rands, Rossi.
- Chairman welcomes Mr Andersen from FHWA.

Paul Lutkevich introduces Mr Andersen and the project to run some real-size tests on the Smart Road in Virginia. The Smart Road concept is introduced to the meeting attendants.

Mr Andersen stresses Virginia people expertise on tests on road lighting subjects. Mr Schreuder raises THE point: is international cooperation foreseen? Who's going to pay for it? Will Europeans have any chance to influence the input in the tests?

M. Gillet suggests to hold a separate meeting for those interested in this research project (see Schreuder's minutes sent separately by M.Gillet)

Lutkevich stresses that having this testing project should not delay the document publication. Schreuder, Valero-Serós and Gillet agree. No one else opposes.

- Minutes of Istanbul

Point 2: Schreuder insists that no misunderstanding should occur: leave it as it is now.

***Minutes agreed***

- Agreed target of the meeting: "technically" finalise the document. The report must be finished at the CIE Session in San Diego USA, June 2003

The TC agreed to the following timetable:

- . TC meeting plus editorial meeting - November 2002
- . report ready - end December 2002
- . TC Vote - January 2003
- . Division Vote - March 2003
- . formal presentation to Division - June 2003.

- M. Gillet recalls last meetings history in order to show that we should be ready to end up with the document.

Schreuder supports the idea and reminds us the schedule needed to meet the target: division vote in San Diego (which means having the TC vote for January at the latest). Division vote must be in written form and it takes some 4 months → document should be out for TC voting at Christmas.

Valero Serós says that the only way of meeting the date is to stop making the same comments that have been done for the last years, even when the TC has refused them once and again.

- There is a Division rule for the document to go through the TC voting. Schreuder reminds the rule: minimum 70 % of members have to vote, 80 % of positive votes have to be collected. To be confirmed by Penti Hauttala.

### Comments on Draft 8

#### On Italian proposal

- Soardo says that the current draft is mainly a marketing operation as he thinks the current method in chapter 6 stays too apart from CIE88 which is not good for CIE image. The method he suggests, takes us to the same results by keeping a closer path to the CIE88 Lseq method (in annexe).
- Schreuder says this is more an editorial comment as the technical background supporting both methods is the same. **Schreuder and Soardo will come up with a common proposal for the next technical meeting (to be held before Christmas!).**
- Soardo also asks to have a more understandable figure 1 as nobody out of the TC would understand it. **Agreed, proposal from Soardo to be brought to the editorial meeting.**
- Schreuder asks for better explaining where measurements have to be carried out: into a car, out of the car,... where?
- Blaser asks for an explanation for letting L<sub>20</sub> method in annex and bringing up the L<sub>seq</sub> into the main document. **Agreed, editorial committee to deal with it.**
- Huijben' letter seems too strong and, after Duco, technically not enough backed up.
- Schreuder suggests Soardo and Huijben to settle their differences and make a common proposal before the next technical meeting. **Soardo will send the joint chapter 6 within two weeks. The TC agrees to technically accept the joint document.**
- Padmo's formula: *The discussion we had for Draft 7 will not be reopened.* Padmo's formula is not easy to use and that is why CETU formula was taken in.
- L<sub>ws</sub>: *That was discussed two years ago so we will not come back to this again.*

- Section 6.3: refer to annex 3: **Agreed** (see Italian comments on Draft 8)
- Section 6.7: Schreuder says we have discussed this for the last 15 meetings... it would not be wise to change the formula and the sentence is open enough to let the designer make the choice he wants. *Soardo will suggest a clearer statement in the **editorial meeting** but **the formula will not be touched**. Soardo to take care of it.*
- Section 6.7 : the 3.2 ratio is **agreed**; *to be raised in the editorial meeting. Paolo to make a suggestion.*
- Section 6.8: to clearly state that very long tunnels interior zone values should apply after 30 seconds driving through the first part of the interior zone illuminated at the standard daytime interior zone levels. *Proposal to be made by Paolo and brought up in the **editorial committee**.*
- Section 6.14: We accept leaving things as they are even knowing that there is a hole in the standard. Duco and A. Valero Serós proposal to keep the 15 % rule also for the transition zone is not taken up. We could accept higher (than 15%) TI figures for the transition zone but there is no technical background to support this decision and furthermore there still remain difficulties for the transition zone TI calculation. So **the current draft TI is accepted**. TC4-24 has a nice challenge to take up with this.
- Section 6.14: adapting the diagram to the text (20 °). **Agreed**.

#### On Dutch comments

- The main point is Huijben's fuss with Paolo. To be settled as said above.
- Also:
  1. Interior levels
  2. MF table values
- Interior levels: **Everybody agrees to keep current draft's table** (except the French!) (and not to accept the Italian proposal); Schreuder explains that it takes at least 20 minutes to get completed adapted in a tunnel. So we cannot compare the tunnel interior zone with driving in an open road during night time. On top of that, a tunnel is a hostile environment. This view is supported by Narisada. He also says that the longer the tunnel, the lower the air transmission coefficient and thus, visibility; so the suggested levels seem alright for him.  
We should state clearly that tables 6.1 and 6.2 are for DAYTIME. **Agreed. Editorial committee**
- MF table values: Paul says that he does not know where the exact ranges of values come from but his experience in American tunnel ranges measured values around 0.5 (which is the lowest accepted value in Japan, after Narisada). De Vlieger says that 0.7 is the minimum accepted value in Europe and that almost all tunnels comply with this rule when we carry out checking-out measures on a regular basis.

- Schreuder would prefer to have a single figure in the document (though he agrees that a range describes better real life) as it would suit better design purposes. We would avoid having different MF used for different solutions of a same tunnel (which would mean a not fair comparison).

Schreuder and Andersen proposal is **accepted: we will explain the factors that influence the final MF figure but w/o giving range of values for them.** We will suggest three values for a TMF: one to be used when poor maintenance and/or material quality are considered, another one to be used when normal maintenance and/or high quality material are considered and a last one for intensive maintenance and quality material conditions.

- Stark says that we should keep the ranges of values for each relevant item as a warning to lighting designers: they must take all the mentioned items into account.
- Lutkevich suggests the two TMF extreme values: 0.35 and 0.75 but **we will finally take up** Schreuder suggested ones: **0.35, 0.5 and 0.7** but *stating clearly that other values (higher, like in France) or lower can be used* depending on the foreseen maintenance schedule and quality of the fittings. The French example will be given. **Editorial committee**

#### On Switzerland's comments

- Blaser asks for a simplified contrast formula getting rid of  $T_{atm}$  (normally 1) and  $L_{ws}$  (generally 10 % and not 20 % as stated in his comments). Schreuder does not agree but the idea does not seem so bad to Lutkevich and Soardo provided that the paragraph starts by the long version of the formula. Schreuder accepts this if the text is made clearer. **DEEP IMPROVEMENT IN TERMS OF TEXT UNDERSTANDIBILITY IS NEEDED. Editorial committee**
- Peter says that the third formula of section 6.2 (C perceived simplified) is wrong... which Lutkevich contests. **Soardo will take care of discussing it with Peter** (as we all think the equation is right!)
- Figure 6.4 to be reviewed to make the equation work with the abscises' time scale. **Editorial committee**

#### **Two further meetings will be scheduled**

- 1 Technical meeting to sort out final bits
- 2 Editorial meeting

They will be scheduled in two days in a row (max. three days).

Suggested date: 18th –20th November 2003 to be confirmed this week (by e-mail)

Place: London

Meeting adjourned