ABSTRACT SUBMISSION –– SOUMISSION DE RESUME

**Topic No.: / Sujet n° : 8 or / ou**

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ABSTRACT / RESUME:

**Title : New concept for illuminating waterway panel signs**

Waterways panel signs are for indicating information’s, warnings and restrictions to shipping on inland waters. Important ones are illuminated at night.

The current illumination systems are mainly based on fluorescent lamps. However, a number of panel signs still illuminated by propane gas powered lighting in locations that have no access to the electricity grid. The decision to make comprehensive use of LED technology led to the development of a standard lamp. The relevant light designing parameters were determined in laboratory tests. The illumination requirements were than specified according to a European standard for road traffic signs. Two intensity classes depending on energy supply and background light level have been laid down.

The developed standard lamp includes a good combination of LEDs and lenses that enables a bright and even uniform illumination also of large panel signs. Energy supply is based on lead gel storage batteries. Solar power is used on fixed locations. Tests were also carried out with fuel cells.

The presentation intends to introduce the light design engineering and the illumination concept used on land and on signal rafts.

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