

ABSTRACT SUBMISSION –– SOUMISSION DE RESUME

**Topic No.: / Sujet n° : 7**

**proposed topic / sujet proposé:**

**Luminous Intensity and Range Calculation – some basic tools to find the appropriate intensity of a marine signal light**

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ABSTRACT / RESUME:

**Luminous Intensity and Range Calculation – some basic tools to find the appropriate intensity of a marine signal light**

**Although the use of Allard’s Law was established since 1933 to calculate the range of a marine signal light, only little guideance was given on how to find the required luminous intensity of a light for a specific purpose.**

**A design process will be presented to fill this gap. The process is mapped to a computer spreadsheet to simplify calculation.**

**It takes into account :**

* **minimum and maximum viewing distance,**
* **observer (bridge) height,**
* **meteorological visibility,**
* **service condition factor,**
* **avoid of glare,**
* **background illuminance and rival lights,**
* **harmonization of front and rear light of a leading line..**

**In addition an alternative approach with a unified calculation will be shown.**