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**□** ARM x ENG **□** PAP **x** Input

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Agenda item [[2]](#footnote-2) ENG 13 WG 1

Technical Domain / Task Number 2 ENG, Marine Signal Lights, ENG 12 Task 2.2.3, E-200-5

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Optical Performance of a Projector Sector Light

(Cover Note)

# Summary

IALA-Recommendation E-200-5 Marine Signal Lights, Part 5 - Estimation of the Performance of Optical Apparatus contains the equations needed to get the luminous intensity of a light by calculation. It covers fan and pencil beam apparatus.

Although projector sector lights are in use for many decades, the calculation of the optical performance has never been published by IALA.

The paper 'Technical Information, Optical Performance of a Projector Sector Light' explains and summarizes the relevant equations. It can be used for a revised document E-200-5.

A projector sector light can be easily assembled from commercially available lenses. Industrial members, who haven't yet a projector in their portfolio, are encouraged to consider a projector design.

## Purpose of the document

The document 'Optical Performance of a Projector Sector Light' could be discussed in ENG 13, WG 1. When found suitable for E-200-5, the Committee is asked to

* put the document on IALA Wiki as a reference,
* add a chapter on projector sector lights in a revised document E-200-5.

## Related documents

IALA Recommendation E-200-5 On Marine Signal Lights, Part 5 - Estimation of the Performance of Optical Apparatus, Edition 1, December 2008.

# Background

IALA Recommendation E-200-5 is going to be updated and become a Guideline. The update may include projector sector lights.

The theory of an optical projector is nothing new and was developed when slide projectors came up. However, the application for Marine Aids to Navigation has never been described.

# Action requested of the Committee

Consider the 'Technical Information Optical Performance of a Projector Sector Light' suitable for E-200-5 update.

Put the paper on IALA Wiki as a reference.

Add relevant content of the paper in the E-200-5 update.

**APPENDIX:**

**(1) Technical Information Optical Performance of a Projector Sector Light**

**(2) Calculation Spreadsheet**

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)