

**8th CSPCWG Meeting
Turku, Finland, 29 November – 2 December 2011**

**Paper for Consideration by CSPCWG
Definition of Direction Lights**

Submitted by:	UK
Executive Summary:	How wide is a 'narrow' sector?
Related Documents:	S-4 B-451, S-12
Related Projects:	Views of General Lighthouse Authorities (GLA); IALA

Introduction / Background.

Direction lights are defined in IHO publications as having a 'very narrow' sector. UK has interpreted this as 3° or less. However, it is evident that some countries designate lights with much wider leading sectors as 'Dir'. Should the definition be clarified?

Analysis / Discussion.

Direction lights are defined in IHO publications:

S-4: Direction (or directional) lights of several types are in use but all have in common a very narrow sector intended to mark a direction to be followed.

Also:

Some direction lights are so precise that a complete colour change at a sector boundary occurs over an angle of less than 1 minute (0.02°).

S-12: Direction Light – light illuminating a very narrow sector, used to mark a direction to be followed. This sector may be flanked by sectors of greatly reduced intensity or by sectors of different colour or character.

S-32: A light illuminating a sector of very narrow angle and intended to mark a direction to be followed.

'Very narrow' is, of course, subjective. In broad terms, some might consider any sectored light designed to lead as a direction light. Another consideration is the precise cut-off, but that is stated to only apply to 'some' direction lights.

The IALA dictionary is similarly vague:

Direction Light (also called Single-station leading light or (US) Single station range light) A signal light designed to show a signal of a given character within a narrow arc of the horizon, and used to indicate a particular direction. It may also indicate an arc of the horizon to each side by other characters. Note – in French, the term *feu de guidage* refers to a direction light in which a very narrow arc of the horizon is used to indicate a particular direction, and an arc of the horizon to each side must be indicated.

UK's Admiralty List of Lights and Fog Signals states:

Directional light.— Several types are in use but all have a common, very narrow sector intended to mark a direction to be followed, forming a single leading light. This sector may be flanked by unlit sectors or sectors of greatly reduced intensity, and/or by sectors of different colours or character, some with oscillating sectors. A very narrow sector is normally considered to be about 3° or less, however, some countries do accept a central light sector up to 10°. Modern directional lights can have up to 7 narrow sectors with the central leading sector being a decimal of a degree.

Conclusions - none

Recommendations – include in Work Plan for further investigation

Justification and Impacts:

- Further investigation may be necessary to seek views from other agencies both nationally and from IALA.
- A review of the guidance in S-4 and other IHO publications.

Action required of CSPCWG.

CSPCWG is invited to note this paper and advise on any future action, if appropriate.