

IALA GUIDELINE G1041



A sector light is a luminous aid to navigation that displays different colours and/or rhythms over designated arcs over the horizontal plane. The colour of the light provides directional information to the mariner.

A sector or a limit between two sectors may indicate a fairway, a turning point, a junction with other channels, a hazard or something else of importance for the navigator.

When a fairway is covered by a white sector, the convention to a vessel approaching the light from the seaward side must be a green sector to starboard and a red sector to port as per IALA Maritime Buoyage System colour convention for Region A; for Region B the colours are reversed. This allows the vessel to adjust and maintain the desired course, without trespassing the boundaries of an established safe sector.

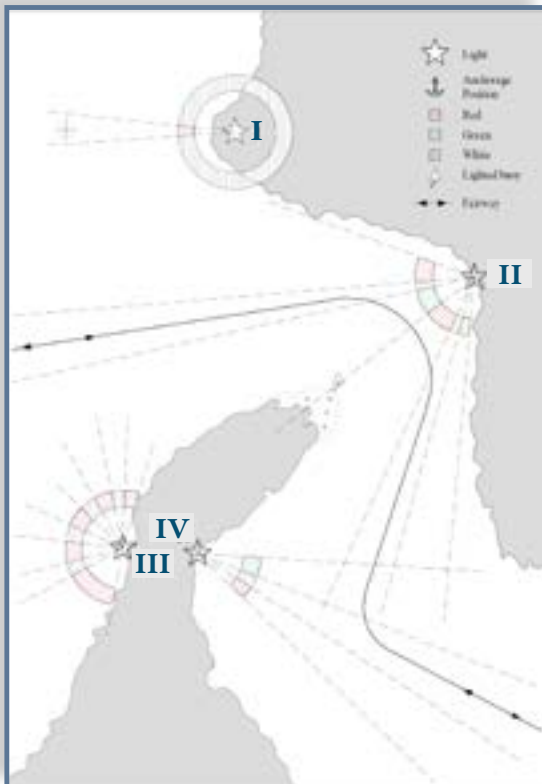
The white sector indicates safe passage; however, this does not always hold true in the entire radial length of the sector. The fairway may alternatively be marked with lighted buoys or leading lights.



A sector light may indicate one or more of the following boundaries of a navigable waterway:

- Change of course position
- Shoals, banks, etc.
- An area or position (e.g. an anchorage)
- The deepest part of a waterway
- Position checks for floating aids
- Boundaries of a navigable waterway

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Some examples of sector lights applications are illustrated as follows:

Light I is a coastal white light with a red sector indicating a danger.

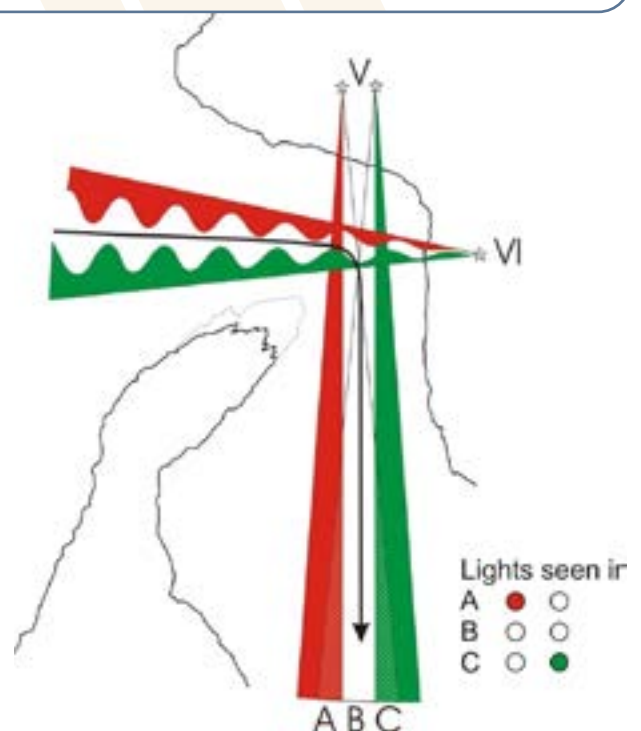
Light II is a sector light obscured over the shore, with two white sectors indicating safe channels in two different directions.

Light III is a sector light with a red light and 4 white sectors indicating four anchorage positions. It is obscured over the shore.

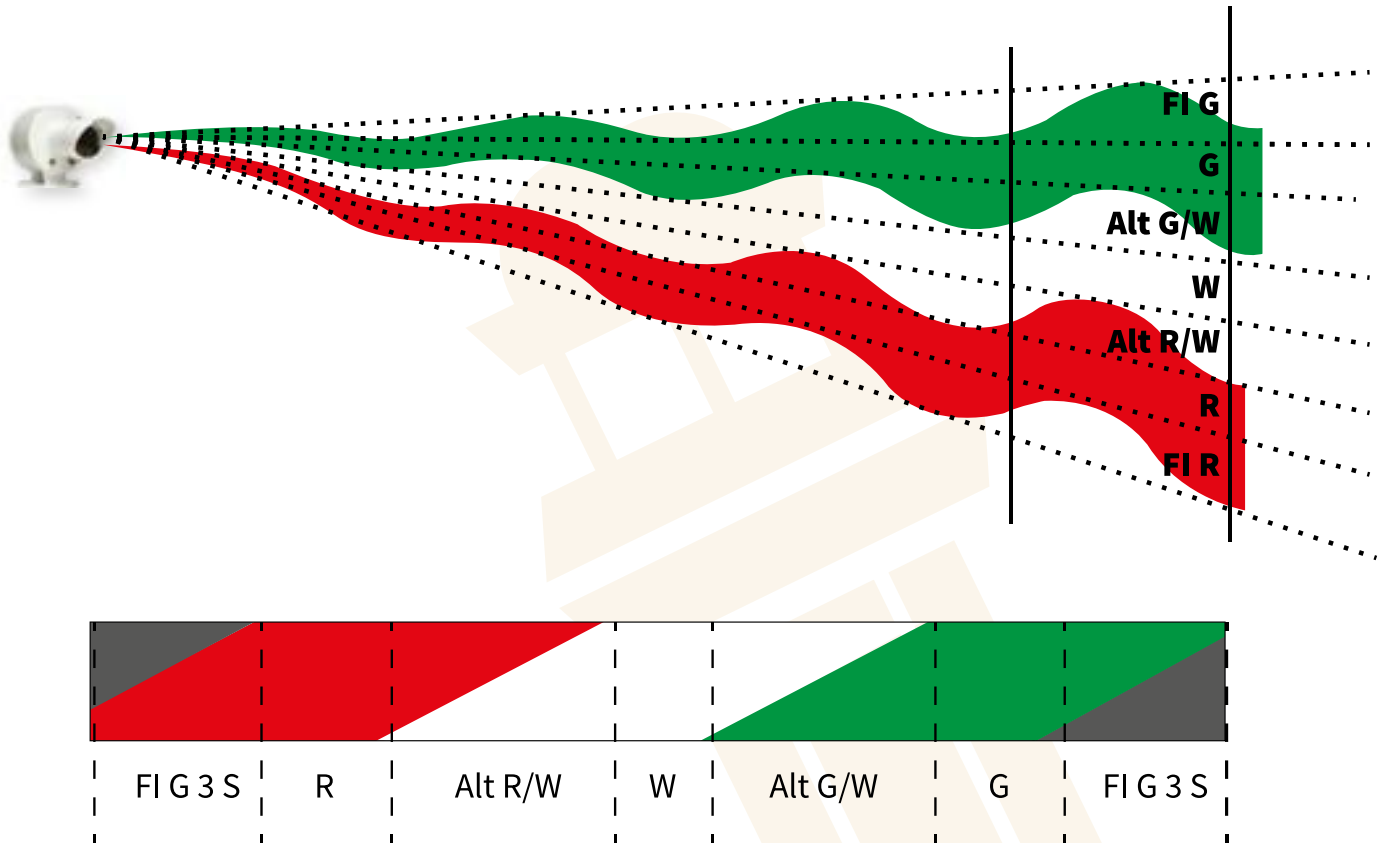
Light IV is a sector light with a white sector indicating a safe channel.

Light V in Figure 2 shows two sector lights arranged to create a parallel sector light system. This arrangement has five sectors. Each sector can have its own flash character or colour.

Light VI indicates oscillating boundaries which could be made up of five or seven sectors and can be used to improve identification of the vessels lateral position. The composition of the seven sectors is shown on the following image:



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As can be observed on the image, the main advantage of this type of sector light, is that the information about the deviation in reference to the center of the channel is progressive and quantitative. Considering that a bigger deviation will alter the flashing proportion between colors. That is, in the green/white sector, a bigger deviation will result in a bigger proportion of green light, and a smaller deviation will increase the duration of white flashes.

An example of this system can be seen on our MEL500L:

