

## 6. Shapes

(a) Shapes shall be black and of the following sizes:

- (i) a ball shall have a diameter of not less than 0.6 metre.
- (ii) a cone shall have a base diameter of not less than 0.6 metre and a height equal to its diameter;
- (iii) a cylinder shall have a diameter of at least 0.6 metre and a height of twice its diameter;
- (iv) a diamond shape shall consist of two cones identified in (ii) above having a common base.

(b) The vertical distance between shapes shall be at least 1.5 metres.

(c) In a vessel of less than 20 metres in length shapes of less dimensions but commensurate with the size of the vessel may be used and the distance apart may be correspondingly reduced.

## 7. Colour specification of lights

The chromaticity of all navigation lights shall conform to the following standards, which lie within the boundaries of the area of the diagram specified for each colour by the International Commission on Illumination (ICI).

The boundaries of the area for each colour are given by indicating the corner co-ordinates, which are as follows:

(i) *White*

x	0.525	0.525	0.452	0.310	0.310	0.443
y	0.382	0.440	0.440	0.348	0.283	0.382

(ii) *Green*

x	0.028	0.009	0.300	0.203
y	0.385	0.723	0.511	0.356

(iii) *Red*

x	0.680	0.660	0.735	0.721
y	0.320	0.320	0.265	0.259

(iv) *Yellow*

x	0.612	0.618	0.575	0.575
y	0.382	0.382	0.425	0.406

## 8. Intensity of lights

(a) The minimum luminous intensity of lights shall be calculated by using the formula:

$$I = 3.43 \times 10^6 \times T \times D^2 \times K^{-D}$$

where  $I$  is luminous intensity in candelas under service conditions,

$T$  is threshold factor  $2 \times 10^{-7}$  lux,

$D$  is range of visibility (luminous range) of the light in nautical miles,

$K$  is atmospheric transmissivity