



# IALA RECOMMENDATION (NORMATIVE)

## R0201 (E200-1) MARINE SIGNAL LIGHTS - COLOURS

### **Edition 3.1**

**December 2018**

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# DOCUMENT REVISION

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Revisions to this document are to be noted in the table prior to the issue of a revised document.

Date	Details	Approval
December 2008	1 <sup>st</sup> Edition	Council 44
December 2017	Entire document: Removal of temporary regions and explanations. Removal of explanatory annex content to a Guideline. Document style updated.	Council 65
December 2018	Chromaticity chart Figure 1: Correction to blue region.	Council 68
September 2020	Edition 3.1 Editorial corrections.	

# THE COUNCIL

## RECALLING:

- 1 The function of IALA with respect to Safety of Navigation, the efficiency of maritime transport and the protection of the environment.
- 2 Article 8 of the IALA Constitution regarding the authority, duties and functions of the Council.

## RECOGNIZING

- 1 The need to provide guidance within which the colours and colour boundaries of lights on aids to navigation should be determined.
- 2 That such guidance should enable a common approach to be made world-wide, thus greatly assisting mariners, who, while passing through waters of different authorities, should not be confused by light colours that are ambiguous.

**NOTING** that this document only applies to Marine Aid to Navigation lights installed after the date of this publication.

**ADOPTS** the tables and charts in the annex of this recommendation.

**INVITES** Members and marine aids to navigation authorities worldwide to implement the provisions of the Recommendation.

**RECOMMENDS** that National members and other appropriate authorities providing aids to navigation services:

- note that the colour model used throughout all specifications is the chromaticity chart according to the CIE 1931 standard colorimetric observer (2° observer);
- adopt the system for coloured light signals set out in the annex to this Recommendation.

**REQUESTS** the IALA AtoN Engineering and Sustainability Committee or such other committee as the Council may direct to keep the Recommendation under review and to propose amendments, as necessary.



## ANNEX A COLOUR REGIONS

Table 1 Chromaticity Corner Coordinates

Colour	1		2		3		4		5	
	x	y	x	y	x	y	x	y	x	y
Red	0.710	0.290	0.690	0.290	0.660	0.320	0.680	0.320		
Yellow	0.5865	0.413	0.581	0.411	0.555	0.435	0.560	0.440		
Green A	0.009	0.720	0.284	0.520	0.207	0.397	0.013	0.494		
Green B	0.2296	0.7543	0.284	0.520	0.207	0.397	0.013	0.494		
White	0.440	0.382	0.285	0.264	0.285	0.332	0.453	0.440	0.453	0.382
Blue	0.104	0.100	0.150	0.100	0.175	0.070	0.149	0.025		

Note:

- Colours are specified with CIE 1931 standard colorimetric observer (2°-observer).
- The boundaries between the colours at spectrum locus is the spectrum locus.
- Green A is the preferred region for all green lights.
- Green B is an accepted region, where Green A cannot be achieved with the required luminous intensity for the intended application.

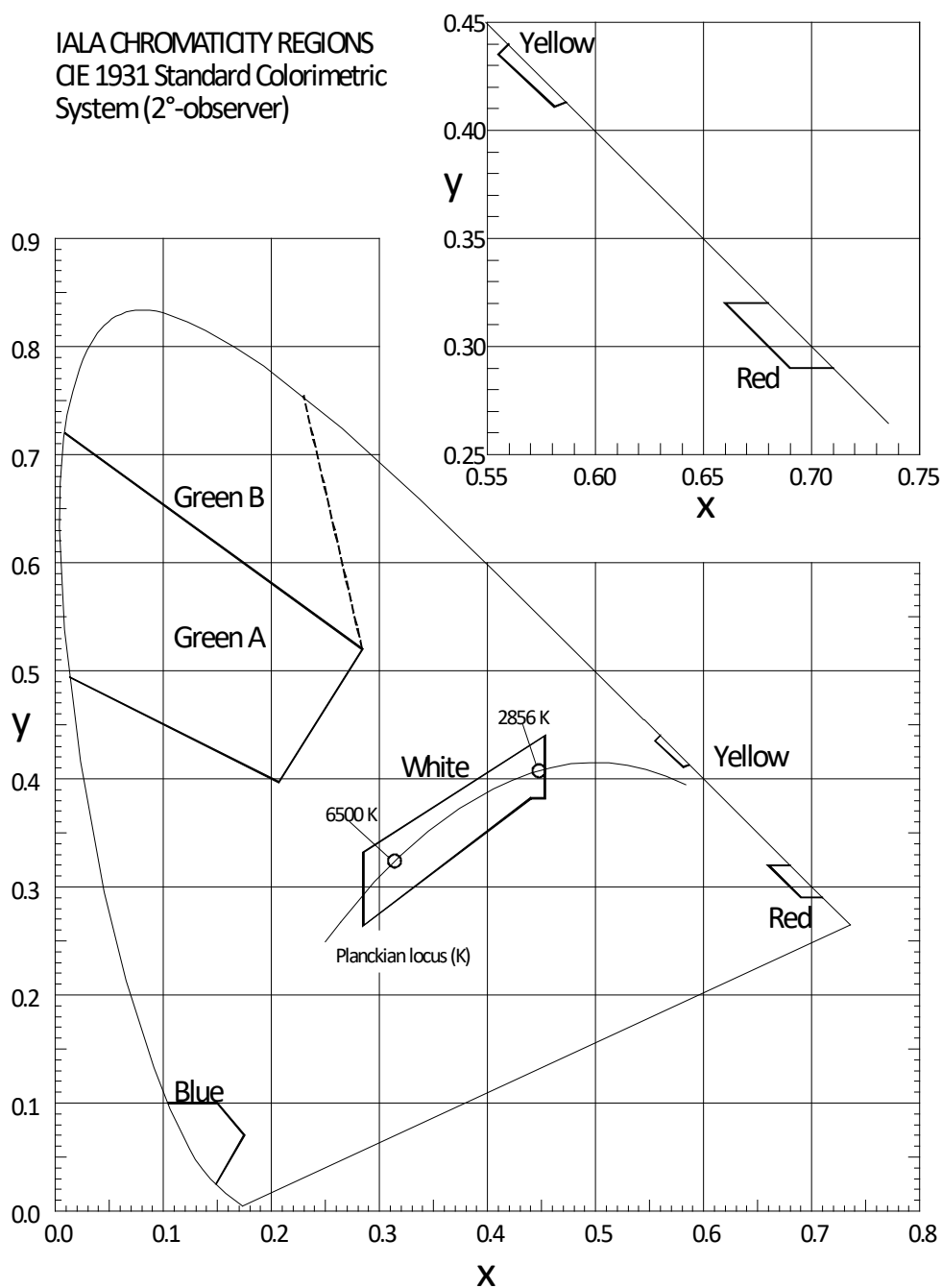


Figure 1 Chromaticity chart

**Note:**

- The boundaries between the colours at spectrum locus is the spectrum locus.
- Green B includes Green A completely.

**Reference:**

ISO 11664-1:2007(E)/CIE S 014/E:2006 CIE Colorimetry – Part 1: Standard Colorimetric Observers