





































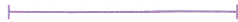
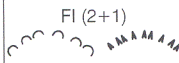
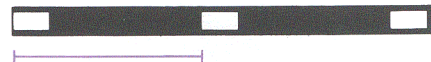






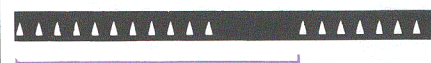




P Lights







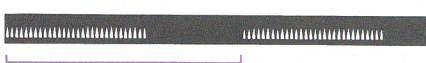
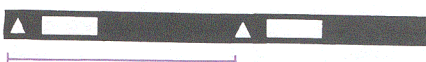

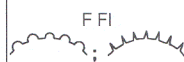
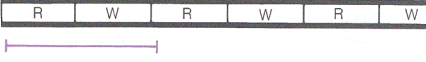




Light Structures, Major Floating Lights

1			Major light, minor light light, lighthouse		
2	■ PLATFORM (lighted)		Lighted offshore platform		
3	○ Marker (lighted)		Lighted beacon tower		
4			Lighted beacon		
5	○ Art		Articulated light Buoyant beacon, resilient beacon		
6			Light vessel; Lightship Normally manned light-vessel		
7			Unmanned light-vessel; light float		
8			LANBY, superbuoy as navigational aid		

P Lights



Light Characters					
Light Characters on Light Buoys → Q					
	Abbreviation		Class of light	Illustration	Period shown 
	International	National			
10.1	F	F	Fixed		
10.2	Occulting (total duration of light longer than total duration of darkness)				
	Oc	Oc	Single-occulting	 	
	Oc(2) Example	Oc (2)	Group-occulting	 	
	Oc(2+3) Example	Oc(2+3)	Composite group-occulting	 	
10.3	Isophase (duration of light and darkness equal)				
	Iso	Iso	Isophase	 	
10.4	Flashing (total duration of light shorter than total duration of darkness)				
	FI	FI	Single-flashing	 	
	FI(3) Example	FI (3)	Group-flashing	 	
	FI(2+1) Example	FI (2+1)	Composite group-flashing	 	
10.5	LFI	L FI	Long-flashing (flash 2 s or longer)	 	
10.6	Quick (repetition rate of 50 to 79 – usually either 50 or 60 – flashes per minute)				
	Q	Q	Continuous quick		
	Q(3) Example	Q(3)	Group quick	 	
	IQ	IQ	Interrupted quick	 	

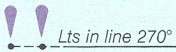
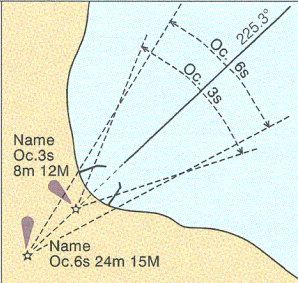
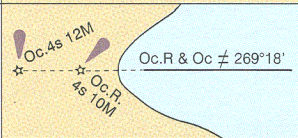


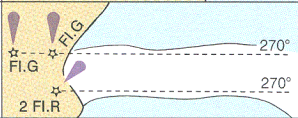
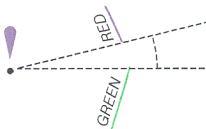
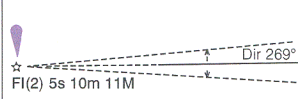
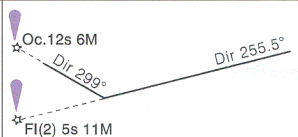
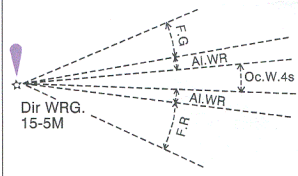
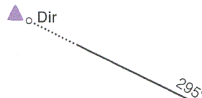
P Lights

	Abbreviation		Class of light	Illustration	Period shown 	
	International	National				
10.7	Very quick (repetition rate of 80 to 159 – usually either 100 or 120 – flashes per min)					
	VQ	VQ	Continuous very quick			
	VQ(3) Example	VQ (3)	Group very quick			
	IVQ	IVQ	Interrupted very quick			
10.8	Ultra quick (repetition rate of 160 or more – usually 240 to 300 – flashes per min)					
	UQ	UQ	Continuous ultra quick			
	IUQ	IUQ	Interrupted ultra quick			
10.9	Mo (A) Example	Mo (A)	Morse Code			
10.10	FFI	F FI	Fixed and flashing			
10.11	AIWR	AIWR	Alternating			
Colors of Lights						
11.1	W	W	White (only on sector- and alternating lights)		<p>Colors of lights shown on standard charts</p>  <p>on multicolored charts</p>  <p>on multicolored charts at sector lights</p> 	
11.2	R	R	Red			
11.3	G	G	Green			
11.4	Bu	Bu	Blue			
11.5	Vi	Vi	Violet			
11.6	Y	Y	Yellow			
11.7	Y	Or	Y	Or	Orange	
11.8	Y	Am	Y	Am	Amber	

P Lights

<i>Period</i>				
12	90s	<i>Period in seconds</i>		90s
<i>Elevation</i>				
<i>Plane of Reference for Heights → H</i>			<i>Tidal Levels → H</i>	
13	12m 36ft	<i>Elevation of light given in meters or feet</i>		12m
<i>Range</i>				
<i>Note: Charted ranges are nominal ranges given in Nautical miles</i>				
14	15M	15M	<i>Light with single range</i>	15M
	10M	15/10M	<i>Light with two different ranges NOS: only lesser of two ranges is charted</i>	15/10M
	7M	15-7M	<i>Light with three or more ranges NOS: only least of three ranges is charted</i>	15-7M
<i>Disposition</i>				
15		(hor)	<i>horizontally disposed</i>	(hor)
		(vert)	<i>vertically disposed</i>	(vert)




<i>Example of a full Light Description</i>				
16	 Name FI (3) WRG 15s 21ft 11M FI (3) WRG 15s 21m 15-11M-NIMA	 Name FI(3)WRG.15s 21m 15-11M		
	FI(3) <i>Class of light: group flashing repeating a group of three flashes</i>	FI(3) <i>Class of light: group flashing repeating a group of three flashes</i>		
	WRG <i>Colors: white, red, green, exhibiting the different colors in defined sectors</i>	WRG <i>Colors: white, red, green, exhibiting the different colors in defined sectors</i>		
	15S <i>Period: the time taken to exhibit one full sequence of 3 flashes and eclipses: 15 seconds</i>	15s <i>Period: the time taken to exhibit one full sequence of 3 flashes and eclipses: 15 seconds</i>		
	21ft } 21m } <i>Elevation of focal plane above datum: 21 feet or 21 meters</i>	21m <i>Elevation of focal plane above datum: 21 meters</i>		
11M } 15-11M } <i>Nominal range NIMA: white 15M, green 11M, red between 15 and 11M.</i>	15-11M <i>Nominal range: white 15M, green 11M, red between 15 and 11M</i>			




Lights Marking Fairways			
Leading Lights and Lights in Line			
20.1		Leading lights with leading line (firm line is fairway) and arcs of visibility Bearing given in degrees and tenths of a degree	
20.2		Leading lights \neq : any two objects in line Bearing given in degrees and minutes	
20.3		Leading lights on small-scale charts	
21		Lights in line, marking the sides of a channel	
22		Rear or upper light	Rear Lt or Upper Lt
23		Front or lower light	Front Lt or Lower Lt
Direction Lights			
30.1		Direction light with narrow sector and course to be followed, flanked by darkness or unintensified light	
30.2		Direction light with course to be followed, uncharted sector is flanked by darkness or unintensified light	
30.3		Direction light with narrow fairway sector flanked by sectors of different character	
31		Moiré effect light (day and night) Arrows show when course alteration needed	
Note: Quoted bearings are always from seaward.			

P Lights

Sector Lights			
40		Sector light on standard charts	
41.1		Sector lights on standard charts, the white sector limits marking the sides of the fairway	
41.2		Sector lights on multicoloured charts, the white sector limits marking the sides of the fairway	
42		Main light visible all-round with red subsidiary light seen over danger	
43		All-round light with obscured sector	
44		Light with arc of visibility deliberately restricted	
45		Light with faint sector	
46		Light with intensified sector	

P Lights

Lights with limited Times of Exhibition					
50	Occas	! F R (occas)	Lights exhibited only when specially needed (for fishing vessels, ferries) and some private lights	☆ F.R. (occas)	
51		! F Bu 9m 6M • (F by day)	Daytime light (charted only where the character shown by day differs from that shown at night)	! Fl.10s 40m 27M ☆ (F.37m 11M Day)	
52			Fog light (exhibited only in fog, or character changes in fog)	! Name ☆ Q.WRG.5m 10-3M Fl.5S (in fog)	
53			Unwatched (unmanned) light with no standby or emergency arrangements	! Fl.5s (U)	
54			Temporary	(temp)	
55			Extinguished	(exting)	
Special Lights					
Flare Stack (at Sea) → L		Flare Stack (on Land) → E		Signal Stations → T	
60	! AERO	! AERO AI WG 7½s • 108m 13M	Aero light	☆ Aero AI.Fl.WG.7.5s 11M	★ AERO
61.1		! AERO F R 77m 11M	Air obstruction light of high intensity	! Aero F.R.313m 11M ☆ RADIO MAST (353)	
61.2		⊙ TR (R Lts)	Air obstruction lights of low intensity	(89) ⬇ (R Lts)	
62		Fog Det Lt	Fog detector light	Fog Det Lt	
63			Floodlight, floodlighting of a structure	 (Illuminated)	
64			Strip light		
65	! Priv	! F R (priv)	Private light other than one exhibited occasionally	! F.R.(priv)	★ Priv maintd

Supplementary National Symbols					
a			Riprap surrounding light		
b			Short - Long Flashing		S-L Fl 
c			Group - Short Flashing		
d			Fixed and Group Flashing		F Gp Fl