

LEAFLET 6-05

PROCEDURES FOR COLOUR PERCEPTION TESTING

1. Ishihara Book Test

a. Examination Method:

- (1) The test is conducted using only good diffused daylight directly onto the test plates or the alternative illuminant (fluorescent daylight lamp to BS950 Part 1 1967), all other light being excluded.
- (2) The test plates are presented to the examinee at a distance of 50-100cm (20-40 inches) for not more than 5 seconds. The examinee may wear spectacles if appropriate. The winding line plates for illiterates normally need not be presented.
- (3) Each number is read aloud by the examinee. They are not allowed to trace or handle the plates.
- (4) The number of plates miscalled is recorded in the box on the examination form.
- (5) The plates can fade with age. The 1995 or later edition should be used.

b. **Assessment.** If no error is made the examinee is graded CP2, but it should be noted that certain numbers might be miscalled by colour normals particularly when under stress. If not more than 3 plates are miscalled, the miscalled plates are shown again. If no errors are made on the second presentation, a grading of CP2 may be given. Those failing the test will require further assessment with lanterns or trade testing to determine if their colour vision is CP3, 4 or 5.

2. Lantern Test

a. The Holmes-Wright Lantern Test is constructed to simulate in controlled conditions, the critical visual task of seaman. The test is usually performed by Service Ophthalmologists or other approved persons. The lantern is regarded as a form of trade test displaying pairs of vertically arranged lights in a combination of red, green and white. These are viewed at a distance of 6m (20 feet) either by direct vision or mirror reversal, in light surroundings or in total darkness as laid down in current instructions. The candidate may wear spectacles if he/she wishes and may be 'dark adapted' if necessary. The colour pairs may be changed by rotating the colour setting flange at the rear of the lantern, the colour pairs present being indicated by the code number visible in windows on each side and at the rear of the lantern. The code numbers represent:

Code	1	2	3	4	5	6	7	8	9
Colour	R2	G2	W	G2	R1	R1	W	G1	G1
	W	R1	W	R2	R2	G1	G2	R2	G2

The intensity of the lights presented may be varied by the filter change lever at the rear of the lantern, the setting being:

DEM for demonstration only.
 HIGH BRIGHTNESS
 LOW BRIGHTNESS

BRd 1750A

b. In order to reduce errors the examination method and instruction to the examinee are to be followed exactly in each case:

- (1) The examinee is to be seated with the lantern apertures at eye level.
- (2) Connect the lantern to 230/240 volt supply and switch on with the rotary switch at the rear of the lantern. No warming-up period is necessary.
- (3) Turn the filter lever to DEM and the colour setting flange to Code 1.
- (4) Say to examinee "This is a test to find out whether you can readily recognise the colours of red, green or white. Name both colours calling the one on top first. The top colour you see now is red".
- (5) Turn the colour flange to Code 2. Say to examinee "The top colour you see now is green".
- (6) Turn the colour flange to Code 3. Say to examinee "The top colour you see now is white".
- (7) Turn the filter change lever to HIGH or LOW BRIGHTNESS as appropriate. Turn the colour flange to Code 4, 6, 8 or 2 (ie any red, green combination). Say to examinee: "Start now, naming first the top then the bottom colour. Do not use any words other than red or green or white. You will be given 5 seconds to name the colours". If the examinee uses any colour name other than red, green or white he/she is to be reminded that only these words are to be used. No other comments are to be made by the examiner.
- (8) Show each colour pair to the examinee in consecutive order. Each response must be given within 5 seconds.

c. The lantern is not to be opened except for routine annual servicing, at which time the lamp is to be changed.

3. Trade Test

- a. RN trade testing is normally carried out at new entry using a coloured wire board. These are obtainable from CNR (SO3 NMD).
- b. The test is to be conducted in a well lit area and the candidate may wear glasses if necessary.
- c. Three minutes are given to complete the test.
- d. If the candidate matches all the wires correctly, they are graded CP4. If any of the wires are incorrect they are graded CP5.