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Bridge Lighting

from C. J. Roberts

THE fundamental necessities of efficient bridge and chartroom lighting, which matter appears to have been ignored even on many of the latest vessels, are the provision of:

1. Adequate illumination of all instruments in a uniform manner.
2. Efficient illumination of the chart.
3. A reduction of the high contrast of light values between chartroom and wheelhouse and the elimination of the sources of glare.

These three essentials can be combined to render the overall illumination of the navigating bridge efficient and practical, whether the ship has a separate chartroom and wheelhouse or the more modern chartroom and wheelhouse combined.

All bridge instruments, such as clocks, compasses, telegraphs and the numerous indicators, should be made to a uniform specification—all with 'back' or 'edge' illumination provided by red lamps. Where practicable these instruments should have black dials with white lettering. An extra refinement is to have the lettering painted with a luminous paint. Illuminating the instruments in this manner would also afford a certain amount of illumination to the otherwise dark navigating position. This would in turn tend to alleviate the high contrast of light between the chart area, which of necessity must be lit, and the total darkness outside.

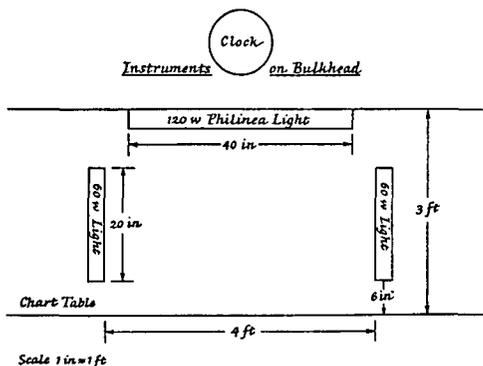


FIG. 1. Arrangement of lights

A great reduction in the contrasting light intensities would be achieved by employing red shaded strip lighting to illuminate the chart. Strip lights provided with means for dimming will afford an adequate and efficient method of lighting the chart for all working conditions and would help to bring all the bridge lighting to a more common level. Shaded strip lights would also avoid most, if not all the glare experienced

with present conventional methods of chart lighting.

One system of lighting involves the use of three 'Philinea' strip lights mounted on the chart-table giving an illuminated area of 12 sq. ft. These lights are arranged as shown in Fig. 1 at a convenient part of the chart-table.

The 'Philinea' strip lights are mounted in fittings (Fig. 2), placed as follows:

Athwartships: 1 Philinea light of 1000 mm. (40 in.) giving 120 W.

Fore and Aft: 2 Philinea lights of 500 mm. (20 in.) giving 60 W. each.

Assuming the average chart-table to be about 3 ft. in depth, these lights are placed at any convenient part of the table to form an illuminated area. The athwartships light of 120 watts (about 40 in.) is mounted at the forward edge of the table and the two fore and aft lights, each of 60 watts (about 20 in.), are mounted 4 ft. apart with the after end situated 6 in. from the after edge of the table.

A lighting power of 60 watts is sufficient for quick reference to the chart in

plotage waters, but for the more precise work of plotting bearings and courses a lighting power of 200 watts is required. The installed 240 watts would be ample to meet with any requirements, and this arrangement, provided with a means of dimming, would be capable of supplying lighting intensities to meet any situation.

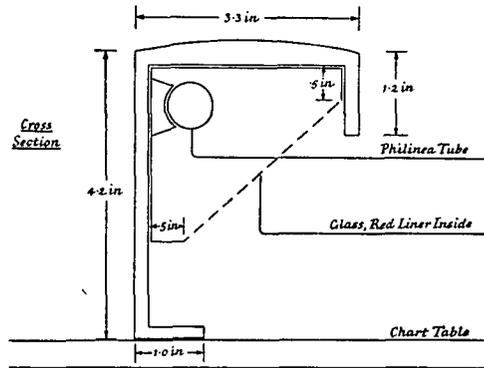


FIG. 2. Chart table light fixture