

Light intensity adaptor

SA 1



For measurement of light intensity and angular light distribution from lamps, luminaries etc.
Suitable for use under normal ambient lighting conditions.

SA1 light intensity adaptor



The Hagner SA1 light intensity adaptor is intended for use with the Hagner S2 or S3 Universal Photometers or with the Hagner E2X or E4-X Digital Luxmeters.

The adaptor consists of an array of collinear fixed circular apertures, which effectively prevent stray lighting from the surroundings reaching the detector. Measurement of light intensity and angular light distribution can then be carried out under normal ambient lighting conditions, avoiding the cost and complication of special darkened lamp and lighting laboratories. The luminance of bright surfaces can also be measured, with automatic screening of troublesome reflections. In spite of its simplicity, the light intensity adaptor opens up many new applications for the range of Hagner instruments, e.g.:

- A. Measurements of the intensity of light sources such as lamps, light-emitting diodes, projectors, headlights, pyrotechnic light sources, fluorescent luminaries etc.
- B. Measurement of polar light distribution curves for luminaries and headlights.
- C. Measurement of luminance of projection screens, light tables and other light emitting surfaces.

Technical Description

The Hagner SA1 light intensity adaptor (see figure 1) consists of a black polyacetale plastic body (1) to which a standard or special Hagner detector (2) can be fitted. A number of black anodised fixed rings (3) are secured in the plastic body, and prevent radiation from light sources outside the measurement angle of the detector from reaching the detector. The measurement angle is determined by the size of the outer aperture.

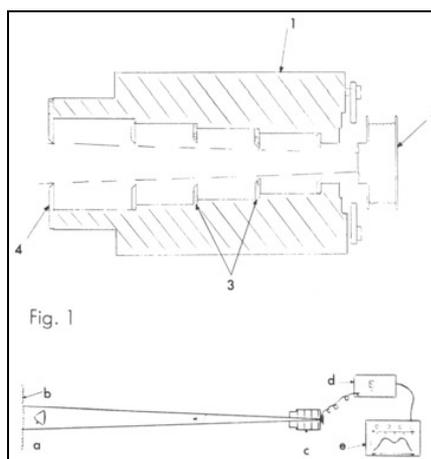


Fig. 2

Example of measurement of polar light distribution from a vehicle headlight (Figure 2)
Position the headlight (a) within the measurement angle of the detector. The background (b) visible within the field of view must be black. (This can be arranged, for example, by hanging up a piece of black fabric behind the test object.) Connect the adaptor (c) to the Hagner E2X Luxmeter (d), and connect the meter in turn to a recorder (e) for plotting the response.