



Digital Photometer



For measurement of illuminance

The Hagner Digital Lux/Foot-candle Photometer TP200

The Hagner Digital Photometer, model TP200, is a small, handy and extremely easy-to-use instrument for accurate measurement of illuminance. It has two ranges for measurement of both metric, lux (lx) and imperial, footcandle (fc) units. The scales are chosen by setting the switch above the digital display. The sensitivity ranges are 0.1-200,000 lx and 0.01-20,000 fc. With both automatic zeroing and on/off switch, the only controls needed are a four-position range selection switch and a hold button for retaining the display value.

Operation

To open the lid, press the forward part lightly downward with your thumb and at the same time pull the latch upwards with the first two fingers of the same hand. The photometer comes on when the cover is opened and turns off when it is closed. Move the range switch to the range which will give the greatest accuracy and read the display. The hold function keeps the reading on the display until the hold button is released. Full instructions can be found on the inside of the cover.

Maintenance

The power source is a standard 9 volt battery. To avoid battery leakage only alkaline batteries should be used. When **LOBAT** appears on the display, it is time to replace the battery. The photometer can however be used for approximately 20 hours longer before replacement is necessary.

Change the battery by removing the screw at the front edge of the cover plate, which permits the plate to be lifted up and removed. When replacing it, the lower edge of the plate must fit under the two bosses at the lower edge of the case before it can be closed again.

The white plastic disc over the detector may be cleaned when necessary with a lightly damp cloth.

Calibration

The luxmeter is carefully calibrated when delivered. As the light sensitive silicon diode is extremely stable over long periods of time recalibration every two-three years should, under normal use of the instrument, be sufficient. If however there is any reason to believe that the instrument is out of calibration, it can be returned to your stockist or the manufacturer for earlier control checks.

The Hagner Digital Lux/ Foot-candle Photometer TP200-X

The TP200-X has been designed for measurement of illuminance levels in places where there is a risk that the operator shades a built-in detector or in places which are difficult to access. The TP200-X has the detector connected with a 2 meter long cable. An extension cable can also be connected.

Operation

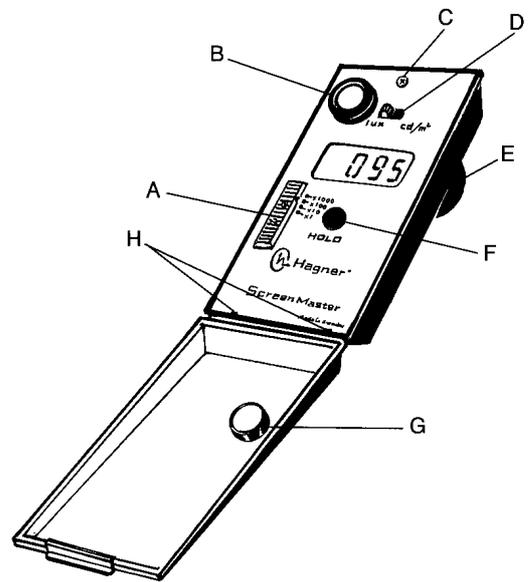
The TP200-X is used exactly as the TP200. The detector can be connected or disconnected without causing any damage to the instrument. Take care not to twist the cable when coiling it. It is better to rotate the detector itself than to attempt to wind the cable round the detector.

Please note

Each detector is individually calibrated to its associated instrument and should not be interchanged with other detectors. Check carefully that the instrument number in the cover corresponds with the number on the detector.

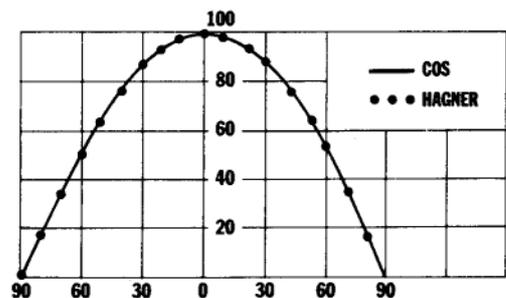
Instrument data for TP200 and TP200-X

Detector	Silicon photodiode, V_{λ} - filtered and cosine corrected
Measuring range	0.1- 200,000 lx and 0.01-20,000 fc
Accuracy	Better than $\pm 3\%$ (± 1 in last digit)
Power supply	9 volt battery type PP3 alkaline (lifetime \approx 350 hrs)
Dimensions	135 x 75 x 35 mm
Weight	0.19 kg (TP200-X 0.48 kg with carrying case)

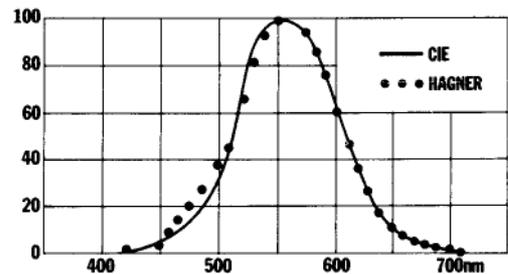


The controls and other parts of the Photometer

- A Detector
- B Range switch
- C Holdbutton
- D Screw for coverplate
- E Locking bosses for the coverplate
- F Magnet that switches the instrument on and off
- G Scale switch



The cosine correction compensates for measuring errors owing to oblique incident light.



The spectral sensitivity of the Hagner Photometer closely relates to the visibility curve of the CIE standard observer.

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