

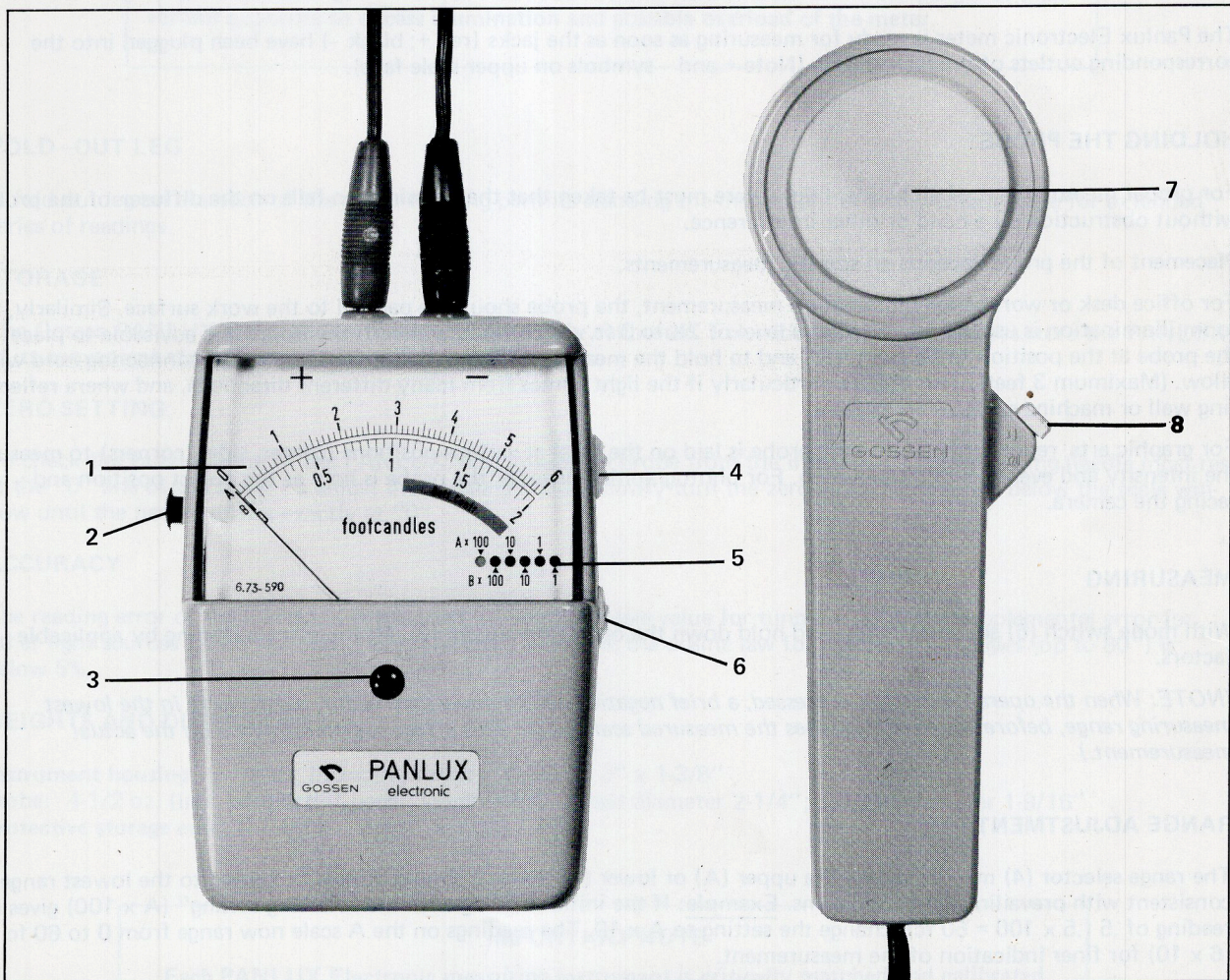
INTRODUCTION

The Gossen Panlux Electronic is a highly sensitive instrument capable of measuring light intensities from 0 to 12,000 footcandles. Its built-in operational amplifier, powered by a standard 9V transistor battery, permits using twelve distinct measuring ranges for maximum reading fineness even at low light levels.

The spectral sensitivity of the measuring cell is corrected by special filtration to correspond almost exactly to that of the human eye. Thus it permits measurement of virtually every type of commonly used light source, i.e. daylight, tungsten, fluorescent and vapor (mercury, sodium, etc.) lamps. The meter is not designed for measuring pulsed xenon light sources.

Furthermore, the unique design of the light probe largely compensates for the "cosine error" which normally affects measurements including oblique light angles with conventional meters.

Its simple operation combined with exceptional versatility makes the Gossen Panlux Electronic an instrument of outstanding usefulness in the general field of illumination engineering, in TV and photographic studios, and for many other applications.



OPERATING CONTROLS

Measuring Probe

- 1. Indicator scales
- 2. Operating button
- 3. Zero adjustment
- 4. Range selector
- 5. Range signals
- 6. Battery control and measuring mode switch

Indicating Instrument

- 7. Cosine-corrected diffuser
- 8. 20x multiplier switch for built-in attenuator

(OVER)

OPERATING INSTRUCTIONS

BEFORE YOU BEGIN

Turn the range selector (4) so that the red range signal (5) is set at A x 100. This initial high-range setting protects the meter against overload under excessive light intensities.

INSERT BATTERY

Slide the cover off the battery compartment. Snap battery connector firmly onto battery and place into compartment. Replace cover.

BATTERY TEST

Turn mode switch (6) to 'B'; press operating button (2). Meter needle must be within green strip on scale face. (For battery replacement, use Eveready 222, Mallory MN 1604, Varta Super 438, or equivalent 9V battery). — After battery test, return switch (6) to 'M' (measuring) position. Check battery condition from time to time.

OPERATING READINESS

The Panlux Electronic meter is ready for measuring as soon as the jacks (red +; black -) have been plugged into the corresponding outlets of the instrument. (Note + and - symbols on upper scale face).

HOLDING THE PROBE

For proper measurement of all incident light, care must be taken that the illumination falls on the diffuser of the probe without obstruction by a hand or other interference.

Placement of the probe depends on specific measurements.

For office desk or workbench illumination measurement, the probe should be parallel to the work surface. Similarly, room illumination is usually measured at a level of 2½ to 3 ft. above, and parallel to the floor. It is advisable to place the probe at the position to be measured, and to hold the measuring instrument as far away as the connecting cord will allow. (Maximum 3 feet). This applies particularly if the light comes from many different directions, and where reflecting wall or machine surfaces are present.

For graphic arts, reproductions etc., the probe is laid on the easel at various positions (center, sides, corners) to measure the intensity and evenness of illumination. For photographic purposes, the probe is held at the object position and facing the camera.

MEASURING

With mode switch (6) set at 'M', press and hold down the operating button (2). Multiply scale reading by applicable factors.

(NOTE: When the operating button is pressed, a brief negative needle move may occur, particularly in the lowest measuring range, before the needle reaches the measured scale value. This effect has no influence on the actual measurement.)

RANGE ADJUSTMENT

The range selector (4) may be set for the upper (A) or lower (B) scale. It should always be turned to the lowest range consistent with prevailing light conditions. Example: If the initial reading with the "starting setting" (A x 100) gives a reading of .5 (.5 x 100 = 50 fc), change the setting to A x 10. The readings on the A scale now range from 0 to 60 fc (6 x 10) for finer indication of the measurement.

INTENSE ILLUMINATION

Turn the attenuator switch (8) of the probe down to x20 position, and multiply readings by the additional factor of 20.

SCALE RANGES

With appropriate settings of the range selector and/or attenuator switch, any of the following measuring ranges may be used:

	<u>Attenuator Switch at x1 position</u>	<u>Attenuator Switch at x20 position</u>
Scale A x 1	0 - 6 fc ----- (x 20)	0 - 120 fc
A x 10	0 - 60 fc ----- (x 200)	0 - 1200 fc
A x 100	0 - 600 fc ----- (x2000)	0 - 12000 fc
Scale B x 1	0 - 2 fc ----- (x 20)	0 - 40 fc
B x 10	0 - 20 fc ----- (x 200)	0 - 400 fc
B x 100	0 - 200 fc ----- (x2000)	0 - 4000 fc

After use, always disconnect both jacks from the instrument and turn the range selector to the highest range (A x 100). This routine procedure will eliminate the danger of inadvertent exposure to excess illumination and possible overload of the meter.

FOLD-OUT LEG

A fold-out leg on the back of the meter housing permits standing the instrument at a convenient angle for extended series of readings.

STORAGE

The Gossen PANLUX is a precision meter and accurately calibrated. For added protection, always store the PANLUX in its convenient storage case, in a dry dust free place.

ZERO SETTING

To check the zero position of the PANLUX, disconnect the probe from the instrument; the indicating needle must rest at the "0" line of the scale. To adjust the needle position, slowly turn the zero adjustment screw below the scale window until the needle settles exactly at "0".

ACCURACY

The reading error of the PANLUX is less than $\pm 5\%$ of the scale value for tungsten light; the supplemental error for other light sources is also less than $\pm 5\%$. The deviation from the cosine law for oblique light angles (up to 80°) is below 5%.

WEIGHTS AND DIMENSIONS

Instrument housing: 8-1/8 oz. including battery; 4-1/4" x 3" x 1-3/8"
Probe: 4-1/2 oz. (incl. connecting cord); length 6-3/8"; head diameter 2-1/4"; diffuser diameter 1-9/16"
Protective storage case: 17-1/2 oz.; 8-1/2" x 7-3/4" x 2"

IMPORTANT NOTE

Each PANLUX Electronic measuring instrument is critically matched and calibrated with its accompanying light probe. Therefore, both components bear identical serial numbers and cannot be used interchangeably with other components.



Specifications subject to change without notice.

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