

Portable Lux Meter

- Three measurement ranges
- Water-resistant housing
- 200 hour battery life with battery level indicator

The HI97500, is a portable lux meter designed to perform light measurements simply and accurately. The instrument is supplied with a light sensor connected by a fixed 1.5 m coaxial cable to allow measurements to be taken from a distance without any user interference.

By simply pressing the RANGE key, users can switch among three ranges to choose the best resolution according to the environment being tested. The HI97500 lux meter has a rugged and water-resistant body for frequent outdoor use.

The HI97500 features a low battery indicator and automatic shut-off that turns the meter of after 7 minutes of non-use.

Plant Light Requirements

Light provides the energy source needed for plants to manufacture food (photosynthesis). The amount of light is commonly measured in foot-candles (ft-c) or lux. Plants differ greatly in their light intensity requirements. Indoor plants are often classified by the amount of light necessary for growth:

- Low (minimum 1.1 Klx, .8 to 2.1 preferred for good growth)
- Medium (minimum 1.1 to 1.6 Klx, 2.1 to 5.4 preferred)
- High (minimum 1.6 to 10.8 Klx, 5.4 to 10.8 preferred)
- Very high (minimum 10.8 Klx, 10.8+ preferred)

About 1.1 Klx for 12 hours per day are necessary simply to maintain plant quality for one year and at least 2.1 Klx for 12 hours per day are necessary for foliage plants to manifest any benefit from fertilization.

While lack of sufficient light results in poor plant growth, too much light can also be harmful. Shade plants cannot tolerate excessively high light levels. When a plant receives too much direct light, the leaves bleach or scald, sometimes dying. This often happens after moving a plant outdoors in direct light. Any changes in light intensity should be gradual.

The Quality of Light

Quality of light is very important in agriculture. Too little light (or luminous intensity) affects the quantity and quality of crop performance.

Luminous intensity is measured and reported in foot-candles (ft-c) or in lux (lx). One lux is equal to one lumen per square meter and one foot-candle is equal to one lumen per square foot. To convert measurements use the following formula:

$$\text{foot-candle} = \text{lux} \times 0.0929$$

$$\text{lux} = \text{foot-candle} \times 10.764$$



Specifications HI97500

Range	0.001 to 1.999 Klux 0.01 to 19.99 Klux 0.1 to 199.9 Klux
Resolution	0.001 Klux 0.01 Klux 0.1 Klux
Accuracy	±6% of reading ±2 digits
Sensor	human-eye-response silicon photodiode with 1.5 m coaxial cable (fixed)
Battery Type / Life	9V / approximately 200 hours of continuous use; auto-off after 7 minutes of non-use
Environment	0 to 50°C (32 to 122°F); RH 100%
Dimensions	164 x 76 x 45 mm (6.5 x 3.0 x 1.8")
Weight	180 g (6.3 oz.)
Ordering Information	HI97500 is supplied with battery, protective case and instructions.
Accessories	HI710015 blue shockproof rubber boot