



LIGHT INTENSITY FOR PLANTS

Plants have an optimal intensity of light. The process of photosynthesis is maximised and plant growth is greatest at this optimal intensity.

If the level of light is less, growth is reduced. In a typical plant, light level of 4000 lux is just enough for the rate of photosynthesis to equal the rate of respiration. This is called the light compensation point. At this intensity, there is no net growth, but the plant can survive.

Therefore, checking the light intensity is important for proper plant growth.

The control of light intensity allows grower to achieve the desired growth in plants.

Using this light meter, user can control the growth of houseplants by giving just enough intensity, so leaves will not be over grown.

One the other hand, outdoor plants require intensity higher than the minimum requirements for the plants to flower and bear fruits. Optimal growth is obtained with regular checks and charting of light intensity in different seasons, so growers can make adjustment with correct lighting or shading.

*** LIGHTING GUIDE INCLUDED**

SPECIFICATION

Model	HortiCare LITEcheck
Operating Range	0 to 50,000 Lux
Resolution	100 Lux
Accuracy	±8 % (full scale)
Battery	4 x 1.5V Button Cell (Alkaline A76 or equiv.)
Battery Life	Approximately 150 hours (continuous use)
Weight	Approximately 50gm
Size	180 (L) x 32 (W) x 15 (H) mm



Simple to use - Direct Reading - Single button operation

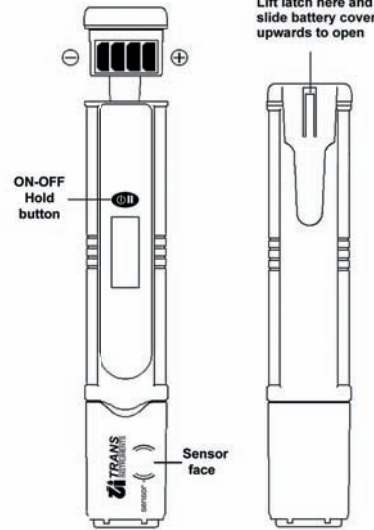


READ THIS INSTRUCTION SHEET BEFORE USE

UNDERSTAND YOUR PRODUCT

Installing Battery Cap:

The unit is shipped with the Battery Cap open, close the Battery Cap by pressing Cap on table top till the latch "click" for a secure lock.



How to open Battery Cap:

1 Use a mini screwdriver to lift latch till it pops up. DO NOT PULL latch out completely.

2 Use the thumb to push Cap forward as shown. Turn over to the front and pull Cap out completely.

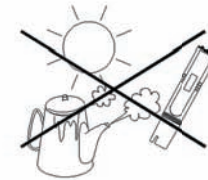
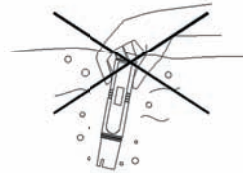


PRECAUTIONS IN HANDLING

Do not store the unit under high temperature or direct sunlight. This will shorten the life span of the unit.

Do not clean unit with thinner or solvents. This will damage the unit. Use only a damp cloth to clean unit if needed.





Do not submerge the unit underwater, it cannot come under high pressure underwater and is beyond repair if water gets into the unit.



SPECIFICATION

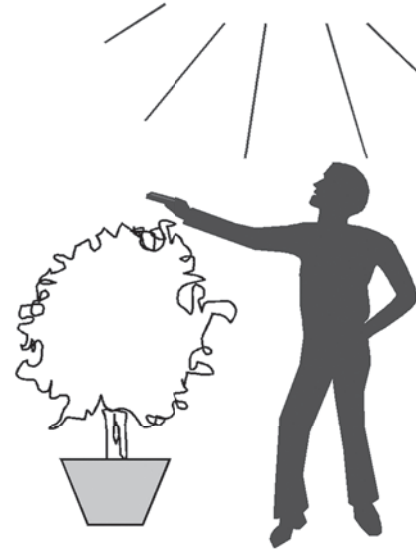
Model	:	Horti LITEcheck
Range	:	0 to 50,000 Lux
Resolution	:	100 Lux
Accuracy	:	±8% full scale
Battery	:	4 x 1.5V Button cell (Alkaline A76 or equivalent)
Battery life	:	Approx. 150 hours (continuous use)
Auto Shut-off	:	Approx. 15 minues
Operating temperature	:	0° to 50°C
Case Material	:	High impact ABS plastic
Size (LxWxH)	:	180 x 32 x 15mm
Weight	:	Approx. 50 gm

MAKING MEASUREMENT

1. For plants measurement, depress the 'ON-OFF / Hold'  button once to switch on.
2. Place the unit just above the plant or foliage with the sensor face directed to the light source perpendicularly, move body away to avoid shadow overcast, wait 3 seconds and press the  Hold button once to freeze or pause the display. Now you can bring the unit in and take a reading.
3. To make another reading, press the  Hold button to release the display and repeat step 2.
4. To avoid inaccurate reading due to shadow overcast, always position the sensor face perpendicularly directed at the light source and away from shadow.
5. To switch off, press and hold the  ON-OFF button for 3 seconds.


Note:

This meter measures directional light. The reading displayed indicates lighting accurately at the exact spot where the sensor face is. This reading will differ from other photographic meter with a dome shaped sensor where lightings measured includes surrounding reflected light.



MAINTENANCE

LOW BATTERY ALERT

When the battery symbol  appear on the display, this indicates a low battery and only 2 hours of continuous use remain. Though the unit may continue to function, the accuracy of the unit will be affected beyond the 2 hours.

Change the batteries according to instructions under the section: **UNDERSTAND YOUR PRODUCT.**



In the presence of certain radio transmitters, this product may produce erroneous readings. If this occurs then measurements should be repeated at another location.

GUIDE TO PLANT LIGHTING CONTROL

Lighting is necessary for plant growth. Sufficient lighting is needed for photosynthesis to take place so plants can flower or even bear fruit.

For indoor plants, it is important to use the correct light bulb for artificial lighting with a wide color spectrum. Warm white fluorescent tubes are fairly effective. Cool white or daylight tubes must be coupled with a few incandescent bulbs of about 3 bulbs to every 10 fluorescent tubes to be effective. Commercially available Metal Halide bulbs alone are most desirable.

As all artificial lighting degrade in intensity over time and it is not noticeable to the eye, it is imperative to check it with the LITEcheck tester periodically. Grwcer can then adjust light fittings to increase intensity or replace the bulbs if they fail to generate the required intensity.

How much light is enough?

The amount of light required varies with each plant as listed in the table. In each category, the lower reading is the minimum light required for each plant to sustain life but would not promote growth. Higher reading is always desirable for optimal plant growth and necessary for flowering. Duration of light exposure are also important and most plants requires 12 to 14 hours of day light or 16 to 18 hours of artificial light.

Low Light		Medium Light		High Light Requirement		Very High Light Requirement	
Minimum 300 ~500		Minimum 800 ~1,600		Minimum 2,200 Lux		Minimum 10,800 Lux	
Optimum 800 ~2,200		Optimum 2,200 ~5,400		Optimum 5,400 ~ 10,800 Lux			
Birdsnest Ferns (Asplenium)	Aluminum Plant (Pilea)	Fibrous Rooted Begonia (Begonia)	Aloe (Aloe)	Donkey's Tail (Sedum)			
Parlor Palms (Chamaedorea)	Artillery Plant (Pilea)	Living Vase Bromeliads (Aechmea)	Amaryllis (Hippeastrum)	Geranium (Pelargonium)			
	Baby Tears (Helxine)	Heather (Erica)	Pineapple Bromeliads (Ananas)	Impatiens			
	Rox Begonia (Begonia)	Ivy (Hedera)	Calamondin (Citrus)	Lemon (Citrus)			
	Caladium (Caladium)		Century (Agave)	Orange (Citrus)			
	False Aralia (Dizygotheca)		Coffee (Coffea)	Pittosporum or Variegated (Pittosporum)			
	Lady Palms (Raphis)		Coleus (Coleus)	Mock Orange			
	Parlor or German Ivy (Senecio)		Copperleaf (Acalyphi)	Strawberry Geranium (Saxifraga)			
	Prayer Plant (Maranta)		Croton (Codiaeum)	Succulents			
Low to Medium Light Requirement		Medium to High Light Requirement		High to Very High Light Requirement			
Minimum 300 ~500 Lux		Minimum 800 ~1,600 Lux		Minimum 2,200 Lux		Minimum 10,800 Lux	
Optimum 2,200 ~5,400 Lux		Optimum 5,400 ~ 10,800 Lux		Optimum Above 10,800 Lux			
Asparagus fern (Asparagus)	Nerve Plant (Fittonia)	African Violet (Saintpaulia)	Norfolk Island Pine (Araucaria)	Avocado (Persea)			
Bamboo Palms (Chamaedorea)	Peperomia (Peperomia)	Airplane or Spider Plant (Chlorophytum)	Pony Tail Palm (Beaucarnea)	Cacti (Many genera)			
Boston Ferns (Nephrolepis)	Philodendron (Philodendron)	Aralia (Fatsia)	Rubber Plant Figs (Ficus)				
Cast Iron Plant (Aspidistra)	Golden Pothos (Nerve Plant)	Starlite Bromeliads (Cryptanthus)	Swedish Ivy (Plectranthus)				
Chinese Evergreen (Aglaonema)	Hawaiian Ti (Cordyline)	Creeping Figs (Ficus)	Umbrella Tree or Schefflera				
Dieffenbachia or (Dieffenbachia)	Kangaroo Vine or Ivy (Cissus)	Episcia (Episcia)	Velvet Plant (Gynura)				
Dracaena (Dracaena)	Kenia Palms (Howea)	Fiddle Leaf Figs (Ficus)	Wandering Jew (Tradescantia)				
Fluffy Ruffles Ferns (Nephrolepis)	Mother-in-law Tongue (Sanssevieria)	Indian Laurel Figs (Ficus)	Wax Plant (Hoya)				
Grape Ivy (Cissus)	Piggyback Plant (Tolmiea)	Jade Plant (Crassula)	Weeping Figs (Ficus)				
Nephtytis (Syngonium)	Pothos, Devils Ivy (Scindapsus)	Moses in the Cradle (Rhoec)	Zebra Plant (Zebrina)				