INSTRUCTION MANUAL

activeeye

quantum PAR meter

Measures photosynthetically active radiation (PAR) from 400 to 700 nm

The Quantum Par Meter is designed to measure PAR (Photosynthetically Active Radiation) flux in wavelengths ranging from 400 to 700 nm. There is a proportional relationship between the number of photons absorbed in 400 to 700 nm band and the rate of photosynthesis in plants, which is important for horticultural studies and monitoring plant physiology. This compact, fully portable handheld light meter measures up to 10,000 in units of micro-mol per meter squared per second (umol/m2/s) which is also called Photosynthetic Photon Flux Density (PPFD).

PARTS LIST:

1. LGBQM Quantum PAR Meter
2. Storage/Carrying case
3. USB data/charging cable
4. Instructions

QUANTUM PAR METER: GETTING STARTED

1. Remove your LGBQM from the case. It may be necessary to charge the battery prior to use. Plug the included USB cable into your computer or a USB charging station to charge. The meter should reach full charge in about an hour.
2. Press the **POWER** button to turn on. Note that the meter will turn itself off 2 minutes after the last function, in order to conserve power.
3. To record a PAR reading manually, press **HOLD** while the meter is on and the sensor is located in the desired position. You will see the number in the upper right corner of the screen change to the next open slot. The slots are numbered from 0-99. You can take up to 100 sequential readings before the memory starts over at 0.
4. To review readings, simply press the up or down arrows. The measurements will be displayed along with the memory position. To return to real-time measurements, press **HOLD**.
5. To choose **LOG** mode, simply press the **MODE** button. You will see **LOG** appear under the PAR readout.

In **LOG** mode, the meter will take the average of sixty successive 30-second measurements taken every 30 minutes and store the average. A total of ninety-nine 30-minute averaged measurements can be stored. Every 48 measurements at half hour intervals (making a 24-hour period), the meter will store a daily total. Ninety-nine daily averages and totals can be stored and are available for download only. These measurements are not viewable on the meter's screen. All measurements taken in **LOG** mode will continue to be stored, deleting the oldest measurement.

The meter only stores the data when used in the **LOG** mode. Any data store before that will be overwritten.

DRIVER INSTALLATION GUIDES

In order to download or view saved data from the meter to your computer, you must install a driver. You can download the QuantumParMeter at www.hydrofarm.com and uncompress the QuantumParMeter folder.

1. Before the installation process, connect the Quantum PAR Meter to your computer by a USB cable, and wait until your computer detects a new device.
2. Open QuantumParMeter folder.
3. Double click Quantum Light Meter Installation.exe. If prompted, click "yes" to allow the program to make changes to the computer.
4. Once the Active Eye Quantum Light Meter opens, follow the instructions to install the drivers and required software.

INTERFACE GUIDES

If you have a desktop shortcut, click the shortcut Quantumlightmeter directly or click 'Start' ->All Programs-> Quantumlightmeter.

1. If the Quantum Par Meter was not connected to your computer, the following dialog should appear:

The square button becomes RED and you will get the following message: "Meter not detected – Please attach Quantum Light Meter USB to computer."

2. If the Quantum PAR Meter was connected to your computer, the square button becomes GREEN and you get the following message: "Connection Successful."
3. Please wait until the square button becomes YELLOW and you get the following message: "Data transmission complete."
4. Until now, you can save or display the data saved on the computer.

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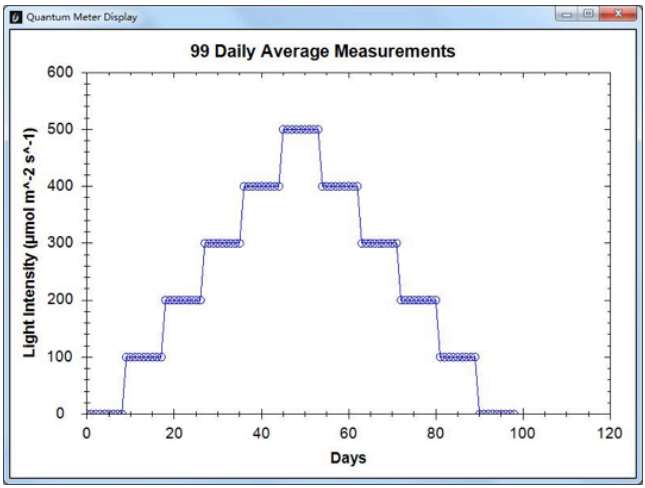
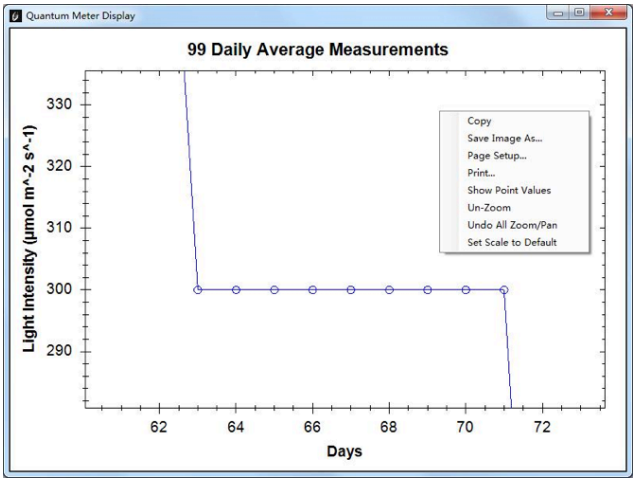
5. If you click Display, for example, 99 Daily Average Measurements, the following dialogs should appear:



6. Left click and hold your mouse to make the screen bigger or smaller.
7. Right click your mouse to display the tool lists, and the following dialog box should appear:



WARNING: During the Data transmission process, the Quantum PAR Meter must be powered on. When the device and your computer are connected, please do not unplug the device. Close the software first and then the device can be unplugged.