



# LIGHT

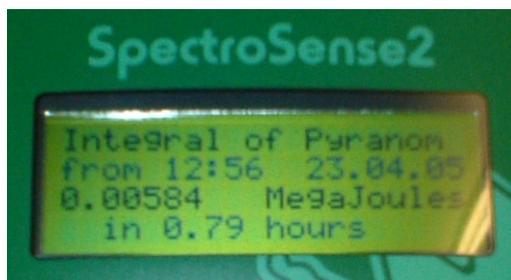
## SpectroSense2 and SpectroSense2+ MJ/hr readout function

The SpectroSense2 range of multichannel display meters for light sensors has an option to integrate solar radiation readings over time, which is expressed in units of MJ/hr (MegaJoules per hour).

The solar radiation readings must be taken using a pyranometer sensor calibrated in units of watts/m<sup>2</sup>. As 1 Watt = 1 Joule per second then the integration of solar radiation over time is usually expressed in units of Joules per 'time interval', most commonly MJ/day or MJ/hr.

SpectroSense2's solar radiation feature displays the following when in this mode:

- Sensor identification (the meter can have 4 or 8 sensors attached and measured, but only one can be used in this mode at any time)
- Start time of integration
- Reading of MegaJoules
- Reading of elapsed time since start (in divisions of 0.01 hour or 36 seconds)



Hence the user can easily determine the start and length of the integration period. To obtain a final reading in MJ/hr, simply divide the accumulated MJ reading by the total number of hours lapsed. (This can of course be also calculated in seconds or days as necessary, depending on the length of the measurement period.)

In the SpectroSense2 meter (4-channel, non-logging version) it is intended that the MJ/hr function is only used for short periods, e.g. 1 day or less, as this is a display meter only. During the integration function described above, the display LCD remains powered on, which results in heavy use of batteries.

The SpectroSense2+ meter (8-channel logging version) has low power logging functions which continues while the LCD display is switched off. This meter version is more suited to longer terms of integration, but it must be noted that this is a logging display meter suitable for short to medium term datalogging.

For full long term datalogging capabilities, please choose the Skye DataHog2 or DataHog3 dataloggers. The PC software which accompanies these loggers has graphing functions to calculate solar radiation measurements into MJ/day

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