



Delta-T Devices Ltd

## SPN1 Sunshine Pyranometer

# Calibration Certificate

This is to certify that the Sunshine Pyranometer type SPN1 identified below has been calibrated in accordance with Delta-T Devices Ltd standard production procedures, and conforms to the specifications as detailed.

Serial Number	A1274
Date	22-Sep-14
Authorised Signature	<i>Karim Bule</i>

We recommend that this instrument is recalibrated every 2 years.

### Traceability

The SPN1 is calibrated under a uniform light source which simulates the solar spectrum against a transfer standard SPN1. The transfer standard is calibrated outdoors against a Kipp CM21 secondary standard pyranometer (calibration traceable to the World Radiometric Reference), with solar tracker and shading disk for diffuse measurement.

### Accuracy, Total (Global) and Diffuse radiation

When correctly calibrated, the expected accuracy is given in the table below. The figures give 95% confidence limits, i.e. 95% of individual readings will be within the stated limits under normal climatic conditions.

Overall accuracy:	$\pm 5\%$ daily integrals $\pm 5\% \pm 10 \text{ W.m}^{-2}$ hourly averages $\pm 8\% \pm 10 \text{ W.m}^{-2}$ individual readings
Range	0 to $>2000 \text{ W.m}^{-2}$
Analogue output sensitivity	$1\text{mV} = 1 \text{ W.m}^{-2}$



**Delta-T Devices Ltd**

130 Low Road, Burwell, Cambridge, CB25 0EJ, UK

Tel: +44 1638 742922 Fax: +44 1638 743155

email: [sales@delta-t.co.uk](mailto:sales@delta-t.co.uk) web: [www.delta-t.co.uk](http://www.delta-t.co.uk)