Kipp & Zonen B.V.
Röntgenweg 1 2624 BD Delft
P.O. Box 507 2600 AM Delft
The Netherlands
T +31-(0)15-2698000
F +31-(0)15-2620351
E info.holland@kippzonen.com
Website www.kippzonen.com

Recd 21 Aug 01
TH

CALIBRATION CERTIFICATE

QUANTUM SENSOR

Calibration date	:	26-juli-2001
Calibrated by	:	G. Lindner
Quantum sensor, type	:	**PAR** *LITE*
Serial no	:	010162
Sensitivity (± 2%) in solar radiation at airmass 1.5	:	5.52 μV/μmol/s.m^2
Impedance	:	240 Ohm
Calibration procedure	:	Exact interchange of test PAR LITE and reference PAR LITE in a horizontal parallel beam from a Xenonlamp. Photosynthetic photon flux density approx. 400 μmol/s.m^2. Instrument temperature approx. 25° C.
Hierarchy of traceability	:	The reference PAR LITE is calibrated against a standard of known illuminance, the photometric standard lamp of Osram type Wi 41/G with color temperature of 2856 K, which on his turn is calibrated yearly at the dutch standard laboratory NMI. From the known illuminance and the 2856 K spectrum the photosynthetic photon flux density is calculated: 6.122 µmol/s.m^2.
Correction applied to		The sensitivity figure of the reference PAR LITE is made correct for hemispherical solar irradiance at airmass 1.5 (spectrum according international standard ISO 9845-1). The correction of the sensitivity figure was +1.2 %.

File name: PARLITEcalibratie cert..doc
Date : 980701

4414-030 42