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C A L I B R A T I O N C E R T I F I C A T E

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CALIBRATION DATE : 07 sep 1999

CALIBRATED BY : F.de Wit

PYRANOMETER TYPE : CM11

SERIAL NUMBER : 996981

SENSITIVITY (+/- 0.5%) 5.03 x 10⁻⁶ V per W/m² (with no load)
at 20°C and 500 W/m²

RADIATION SCALE World Radiometric Reference (WRR)

CALIBRATION PROCEDURE : By comparison with an outdoors
calibrated reference pyranometer :
CM11 913580
Pyranometers were mounted horizontally,
side by side.
Source : 1000 W tungsten-halogen lamp
Color temperature : 3300° K
Angle of incidence : normal incidence

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DELFT/HOLLAND

special measurements :

cosine error for eight
azimuth directions
temperature dependence
of sensitivity special angles?: _____
 range _____ °C to _____ °Cazimuth error at 70° zenithangle
(if pyranometer is levelled with spirit level)1,1 % (peak - peak)

mean cosine error at zenithangle 40°

-0,5 %

mean cosine error at zenithangle 60°

-0,7 %

mean cosine error at zenithangle 70°

-0,6 %

mean cosine error at zenithangle 80°

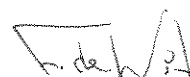
1 %

(if pyranometer is radiometrically levelled, expressed as percentage deviation from the ideal proportionality to the cosine).

Impedance of CM11 :

1279 Ω**IN-PROCESS INSPECTION**

approved by:

of serial no. : 996901date : 7-9-99

checked :

DATUM 24-06-'99

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rev.Nr.3