



CERTIFICATE FOR CALIBRATION OF CUP ANEMOMETER

Certificate number: 14.02.07127

Date of issue: December 8, 2014

Type: Thies 4.3351.10.140

Serial number: 11140018

Manufacturer: ADOLF THIES GmbH & Co.KG, Hauptstrasse 76, 37083 Göttingen, Germany

Client: Sky Power Int'l LLC, 260 Sawdust Road, 29657-8521 Liberty SC, USA

Anemometer received: November 21, 2014

Anemometer calibrated: December 6, 2014

Calibrated by: apo

Procedure: MEASNET, referring to IEC 61400-12-1

Certificate prepared by: cea

Approved by: Calibration engineer, jsk

Calibration equation obtained: $v \text{ [m/s]} = 3.81046 \cdot I \text{ [mA]} + 0.24287$

Standard uncertainty, slope: 0.00073

Standard uncertainty, offset: 0.03122

Covariance: -0.0000197 (m/s)²/mA

Coefficient of correlation: $\rho = 0.999997$

Absolute Maximum deviation: 0.015 m/s at 7.064 m/s

Barometric pressure: 1017.6 hPa

Relative humidity: 23.7%

Succession	Velocity pressure, q. [Pa]	Temperature in wind tunnel [°C]	Temperature in control room [°C]	Wind velocity, v. [m/s]	Current, I. [mA]	Deviation, d. [m/s]	Uncertainty u _c (k=2) [m/s]
2	10.11	30.5	21.4	4.170	1.0299	0.003	0.021
4	15.25	30.5	21.4	5.121	1.2826	-0.009	0.025
6	21.24	30.4	21.4	6.043	1.5260	-0.015	0.029
8	29.03	30.3	21.3	7.064	1.7861	0.015	0.033
10	37.63	30.3	21.3	8.041	2.0467	-0.001	0.037
12	47.39	30.2	21.3	9.023	2.3019	0.009	0.042
13-last	57.71	30.2	21.3	9.956	2.5507	-0.006	0.046
11	70.33	30.2	21.3	10.993	2.8176	0.013	0.051
9	82.73	30.3	21.3	11.923	3.0663	-0.003	0.055
7	97.02	30.4	21.4	12.913	3.3245	0.002	0.060
5	112.37	30.4	21.4	13.899	3.5856	-0.007	0.064
3	128.41	30.5	21.4	14.859	3.8343	0.006	0.069
1-first	145.46	30.5	21.4	15.817	4.0895	-0.009	0.073

