

CFR



CFR Calibration Facility is designed for the calibration of field pyranometers and albedometers by comparison to a reference instrument of similar type.

CFR offers a solution for quality control of the stability of the pyranometers that are used in a network. The procedure used complies with Annex A.3 of international standard ISO 9847 “Calibration of Field Pyranometers by Comparison to a Reference Pyranometer”. Annex A.3 refers to “Calibration Devices Using Artificial Sources”.

The Facility is manually operated. The time needed for each calibration is approximately 10 minutes. Preparation for a measurement session including warm-up and stabilisation of the calibration lamp will take about 30 minutes. The calibration transfer accuracy for higher quality pyranometers, such as the CMP 11, is estimated to be $\pm 1\%$.

The turntable supplied with the CFR is suitable for calibration of CM 6, 11, 21, 22, 31 and CMP 3, 6, 11, 21, 22 pyranometers. Adaptors and alternative turntables are available to suit other pyranometers and albedometers.

CFR is supplied without reference pyranometers. These should be purchased separately and be of similar characteristics to the field radiometers under test.

Article	Part number
CFR Calibration Facility • 230 VAC for radiometers	0341900
CFR Calibration Facility • 115 VAC for radiometers	0341901

Specifications

Calibration procedure	ISO 9847, comparison to reference pyranometer
Light source	Metal-Halide, low infrared output
Power requirements	110 or 230 V, 500 W
Measurement system	High accuracy, calibrated, 6½ digit voltmeter

Accessories for CFR

Part number

Adaptor for CM 5 for test CM 5 + spacer for reference CMP 6	0341701
Adaptor for CM 3, SP Lite	0341702
<i>Note: When used for SP Lite two adaptors are required, for test and reference</i>	
Turntables	
Turntable for Albedometers for CM 7B, 14, 14B / CMA 6, 11	0341703
Turntable for Eppley for PSP and 8-48 pyranometers	0341700
Reference pyranometers	
CMP 22 for calibrating CM 22, 31 / CMP 22	0362930-012
CMP 21 for calibrating CM 21 / CMP 21 / Eppley PSP, 8-48	0362920-012
CMP 11 for calibrating CM 11, 11B, 14, 14B / CMA 11	0362910-002
CMP 6 for calibrating CM 5, 6B, 7B / CMA 6	0362900-002
CMP 3 for calibrating CM 3 / CMP 3	0338920-002
SP Lite2 for calibrating SP Lite2	0339920-001
<i>Note: The reference should be of similar type to the pyranometer under test</i>	
Spare bulbs	
Spare Light Source Bulb Metal Halide 150 W 1 spare long-life bulb for calibration lamp, for 115 and 230 VAC	2603864
Training Course	
Training Course in Delft or on-site	On request