

## Calibration Certificate

Customer: **CCSTEC**  
 Customer ID: **C79**  
 Report number: **1501583**  
 Manufacturer: **Lighthouse**  
 Model: **Remote 2014**  
 Serial no.: **110421002**

City: Oeynhausen

This certifies the above named instrument conforms to the original specifications in effect at time of calibration. Calibration of the above stated instrument has been accomplished by size calibration as defined by ISO 21501-4. The accuracy of the standards and equipment used in the calibration are traceable to National Institute of Standards and Technology or have been derived from acceptable values of natural physical constants. All work performed is in accordance with Lighthouse Worldwide Solutions Benelux, Master Calibration Document: I7C.001 and is recorded and maintained as such.

	Calibration date: <b>February 2, 2015</b>	Calibration conditions	
Next calibration on this instrument is due: <b>February, 2016</b>		Temperature: <b>22.4 °C</b>	
		Humidity: <b>30.8 %</b>	

### Threshold Voltage Settings

Particle size: 0.2 µm	Lot # 43115	Due: 01-04-2017	Channel 1 Threshold Voltage: <b>66 mV</b>
Particle size: 0.3 µm	Lot # 43715	Due: 01-09-2017	Channel 2 Threshold Voltage: <b>484 mV</b>
Particle size: 0.5 µm	Lot # 43116	Due: 01-04-2017	Channel 3 Threshold Voltage: <b>2139 mV</b>
Particle size: 1 µm	Lot # 42596	Due: 01-10-2016	Channel 4 Threshold Voltage: <b>4913 mV</b>

### Measurements

Flow rate:		2.9 ltr/min	Limit 2,69 – 2,97ltr/min
False count rate:	Observed counts in 5 min	0 Counts	No specification in ISO21501-4
Counting efficiency:	Size: 0.2 µm	48%	Limit 30% - 70%
Counting efficiency:	Size: 0.3 µm	109%	Limit 90% - 110%
Size resolution:	First channel	5.60%	Limit 15%

### Standards and reference equipment used for this calibration

Model	S/n	Due to	Certificate no.
Solair 1100+	060805006	27-06-2015	NL-28188
Flowmeter Bios Drycal	104546	03-10-2015	27891
Fluke-175	12170245	06-05-2015	1278865
MCA8000A	2456	21-02-2015	MCA-025-A0
Control Company 14-649-11	130436923	31-07-2015	1045-5258888

Name: Eric Witzel  
 Calibration engineer

Signature:   
 Calibration engineer

