The Lufft cloud simulator enables the user to quality check the ceilometer CHM 8k in lab and in the field.

- **Product highlights**
  The Lufft CH Simulator is an on-site calibration equipment to check the measurement accuracy of the cloud height of the ceilometer CHM 8k.

- **Article number**
  8349.SIM, 8349.SIMc, 8349.SIMco

The simulator is deployed on the top of the ceilometer covering the optical outlet and inlet. A photo diode receives the laser impulse emitted by the ceilometer and, after a certain delay, an integrated LED sends an optical signal back to the ceilometer.

The time span between receiving and sending the signal correlates with the base cloud that the ceilometer shall detect. The duration of the simulator LED pulse corresponds to a cloud thickness.

The characteristics of this simulated cloud is stated in the simulator manual and must be compared with the data output of the ceilometer. The result shows the user if the ceilometer still works in an appropriate way.

The simulator is controlled with an Android tablet using Bluetooth communication or by using serial communication (RS485). The app allows switching between different clouds and in the expert mode the simulation of background light emitted from additional LEDs. Although the simulator works out of the box, the mounting adapter allows a fine tuning in the angle. The UMB communication protocol is embedded in the simulator.

General

KIPP & ZONEN   ⩔Lufft   SUTRON   OTT   ADCON   HYDROLAB   METEOSTAR

Adjustable cloud depth range	100 m ... 14900 m / 328 ft ... 48883 ft
Power supply	10 VDC...28 VDC on the sensor
Power input	Ca. 3 VA
Type of protection	IP 68 (IEC/ EN 60529:2000)
Dimensions	110 x 200 x 100 mm
Weight	1.7 kg
Admissible storage temperature	-40... +60 °C

Operating conditions	
Ambient temperature	-20 °C ... +40 °C
Operating rel. humidity	0...95 % RH (non - condensing)
Interface	Bluetooth (Required for communication via CH-Simulator-App) RS485 half-duplex, galvanically isolated
Housing	Aluminium, plastic
Containing	CH - Simulator, CHM adaptor frame, 10 m power cable incl. cig plug connector
Software	CH – Simulator App, Config Tool.net