



Traceable Background Luminance Calibration

Overview

The CS140 Calibrator is a high-quality device to generate a known luminance level for calibrating a CS140 Background

Luminance Sensor. It is powered from the CS140 supply and is used while in communication with it.

Benefits and Features

▶ Type certified for Aviation use by the German Meteorological Service, Deutscher Wetterdienst (DWD)

Technical Description

The calibration is made by using high-quality LEDs to produce a known light level, white, with a value of 4500 cd/m². The light has a flat spectrum so the calibration is valid over the CIE spectrum sensitivity of the CS140 itself. The LEDs illuminate a diffuser, which itself illuminates the CS140

under calibration. An on/off switch turns off the LEDs and allows the unit to provide a zero check. Each unit is individually calibrated, and the value of luminance it produces is put on a label on the unit. This calibration is traceable, and this value is used in the calibration process.

Specifications

Generated light level	About 4500 cdm ⁻² (individually calibrated)
Accuracy	5%
Operating temperature range	0 to 40°C

Dimensions (excluding cables)	72 mm long x 46 mm dia
Weight	300g approx
Communications	RS 232, 38400 Bd communication with CS140 and laptop

For comprehensive details, visit: www.campbellsci.eu/cs140-calibrator 