Automatic calibration of irradiance
for Xenon/Metaling™ weather meter

Radiometer

R series

Outline

Convenient and simple radiometer R series can continuously measure irradiance and radiant exposure simply by mounting it on the specimen rack of weather meter. We offer a lineup for each type of accelerated weathering test light source, and various measurement wavelength ranges such as 300-400nm, 300-700nm, 340nm, 420nm, etc. The automatic calibration function allows the measured calibration results to be input to Xenon/Metaling™ weather meter by pushing the button of the touch panel controller.

Feature

Automatic calibration of irradiance for Xenon/Metaling™ weather meter

The radiometer attached to the specimen rack of Xenon/Metaling™ weather meter can continuously measure irradiance and radiant exposure. The measured calibration results can be input to Xenon/Metaling™ weather meter by pushing the button of the touch panel controller, using the automatic calibration function. Automatic calibration function avoids, human errors such as "input mistakes".

ISO/IEC 17025 calibration certificate is available (Model RX34)

The measured values are accurately calibrated with calibration technology, certified by ANAB (ANSI-ASQ National Accreditation Board).

Radiometer on the weather meter (Model SX75)

* Metaling™ is a registered trademark of Suga Test Instruments Co.,Ltd. in Japan.

Calibration of Xenon/Metaling™ weather meter irradiance with specimen rotation

With the automatic calibration function, it is possible to calibrate the irradiance of Xenon/Metaling™ weather meter while rotating the specimen rack. Previously, it could only be attached at a position where the radiometer display could be read through the observation window. By calibrating while rotating the specimen rack, making the measurement closer to the actual environment.

Automatic unit converting function for radiant exposure

The radiant exposure unit is automatically converted.

（Example : $999.99kJ/m^2 \rightarrow 1.000MJ/m^2$）

Flexible data storage settings

The measurement interval can be set from 1 to 60 minutes, the number of measurement points can be set from 1 to 78 points, and the memory data can be saved up to 10 times .

Easy-to-read graphic screen

The display unit shows the irradiance value, radiant exposure, filter, battery level, set time, number of set points, average value of measurement, and numbers of stored data in graphic form.
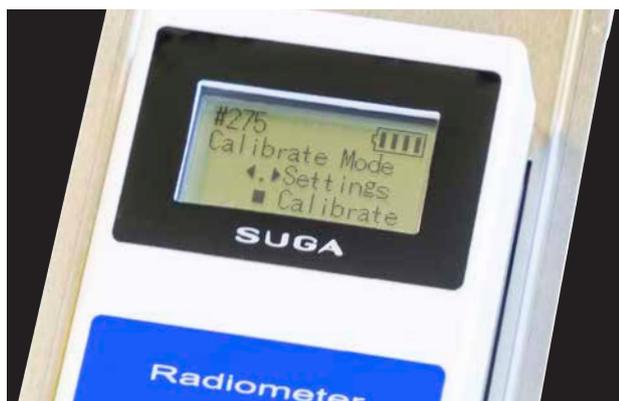
The display unit (LCD)

Power charge and data communication via USB

It is also possible to charge power and send the stored data to PC via USB connection.

Lineup for each light source

The R series is available for xenon lamps, sunshine carbon arc lamps, ultraviolet carbon lamps, ultraviolet fluorescent lamps, and metal halide lamps.

Specification

Light receptor		Combination of photodiode and filter
Measurement range	Irradiance	0.0 to 200.0W/m² (300 to 400nm)
	Radiant exposure	The scale is automatically switched from 0.000kJ/m² to 9999.9MJ/m².
Indication	Digits	5 digits (4 digits + 1st decimal place)
	Contents	Irradiance W/m²
		Radiant exposure kJ/m², MJ/m²
	Average	1 to 78 points every 1 to 60 minutes (Time and measurement points can be set)
Operating temperature range		0 to 60°C
Power supply (rechargeable battery)		Lithium-ion battery (100 hours after full charge)
External dimensions		64×112×33mm
Weight		200g

Attached USB cable	Connector (USB-AC adapter side): USB Type-A male Connector (R side): USB Micro-B male Cable length: 1.5m
USB-AC adapter specifications (not included)	USB2.0 standard compliant (power supply 5V 0.5A)

* Excluding model "RXLx" and "RXALx" (Irradiance: lx)

Radiometer Model list

Light source	Wavelength	Model
Water-cooled Xenon lamp (7.5kW,2.5kW,12kW)	300-400	RX34*
	300-700	RX37*
	290-800	RX298*
	340	RX340*
	420	RX420*
	380-780	RXLx*
Sunshine carbon lamp	300-400	RS34
	300-700	RS37
UV fade carbon lamp	300-700	RU37
UV fluoresent lamp	270-700	RF277
	340	RF340
Air-cooled Xenon lamp (2.5kW,750W)	300-400	RXA34
	300-700	RXA37
	380-780	RXALx
Metal halide lamp	300-400	RM34
	295-450	RM345

* CE marking models are available.
* ISO/IEC 17025 calibration certificated model