## Fluorescent Weather Meter FUV



## Overview

Fluorescent UV lamps are traditionally used in weathering tests for evaluating UV-induced degradation of coated surfaces such as cracks and chalking.

This instrument is designed for performing cyclic tests of dark (condensation) and light tests using fluorescent UV lamps as the light source. The irradiance distribution has been further improved by optimizing the position of the fluorescent UV lamps. Along with a new instrument design, operation has been made simple and easier to use with the implementation of a touch panel controller.

## Features

- The positions of the fluorescent UV lamps are optimized by computer simulation to produce an even distribution of irradiance on specimens, which has resulted in an improvement in evenness within the specimen holder from 91.7% to 97.8%, a 6% increase. This has reduced the variance in irradiation at top and bottom rows of the specimen holder, making it possible for tests with greater uniformity (compared to previous models).
- 2. This model is equipped with the Quick View System<sup>™</sup> that allows for the user to view the condition of all the specimens in a single motion. Compared to previous models where each specimen had to be taken out one by one, this reduces approximately 90% of the time used to check the condition of the specimens (they can also be taken out one by one like previous models).
- Test program setup, operation data recording and irradiance calibration are all contained in the color touch panel controller.



The Quick View System<sup>™</sup> fixes the specimens to the chamber door, allowing for the viewing of the condition of all the specimens in a single motion.

## Specification

Light source	Eight fluorescent UV lamps (model FS-40; UVB313)
Test mode	Light, dark (condensation)
Irradiance	FS-40: 12 – 42 W/m <sup>2</sup> (at 270 – 700 nm) 0.47 – 1.48 W/m <sup>2</sup> (at 310 nm) UVA340 (option): 0.34 – 1.07 W/m <sup>2</sup> (at 340 nm) UVA351 (option): 0.34 – 1.08 W/m <sup>2</sup> (at 340 nm)
Temperature range	Light test: BPT 50 - $80^{\circ}$ C ± $3^{\circ}$ C Dark test: BPT 40 – $70^{\circ}$ C ± $3^{\circ}$ C
Number of specimens	48 pieces (dimension: 150 x 75 x t1 mm)
External dimension	Approx. 138(W) × 50(D) × 149(H) cm
Operating weight	Approx. 220 kg
Electrical requirements	Single-phase 200V approx. 11A 50Hz/60Hz
Options	Radiometer (RAF277C), Rain spray, Caster, Fluorescent UV lamp (UVA340 or UVA351)
International standards	ISO 4892-3 ,ISO 16474-3,ISO 4665,ASTM G 154,ASTM D 4329

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本社・研究所 〒160-0022 東京都新宿区新宿 5-4-14 tel 03-3354-5241 fax 03-3354-5275 日高川越工場 〒350-1213 埼玉県日高市高萩 1973-1 tel 042-985-1661 fax 042-989-6626 名古屋支店 〒465-0051 名古屋市を現区社が丘1-605 tel 052-701-8375 fax 052-701-8513 大阪支店 〒564-0053 大阪府欧田市江の木町3-23 tel 06-6386-2691 fax 06-6386-5156 広島支店 〒733-0033 広島市西区観路本町2-12-11 tel 082-296-1501 fax 082-296-1503 Suga Europe 11Lovelace Road, North Oxford, Oxfordshire, OX2 8LP, UK E-mail: L\_sales@sugatest.cojp

スが試験機株式会社 Suga Test Instruments Co., Ltd. www.suga-global.com



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