PHOTOSTABILITY CHAMBER

CARON

Opening Doors for Scientists

PHOTOSTABILITY CHAMBERS

The 6540 Series Photostability Chambers were specifically designed to perform near UV and visual light testing with fluorescent lamps per **ICH Q1B Guidelines, Option 2**. This second generation bench-top unit controls light and temperature conditions through an easy-to-use color touch-screen interface. Lights automatically shut off after a specified exposure level or time duration. Uniform light distribution and high intensity levels allow quick response for **forced degradation** testing and **confirmatory studies**. Precise humidity control (Models 6545-1, 6545-2 and 6545-3) is achieved through ultrasonic injection and mechanical refrigeration methods.
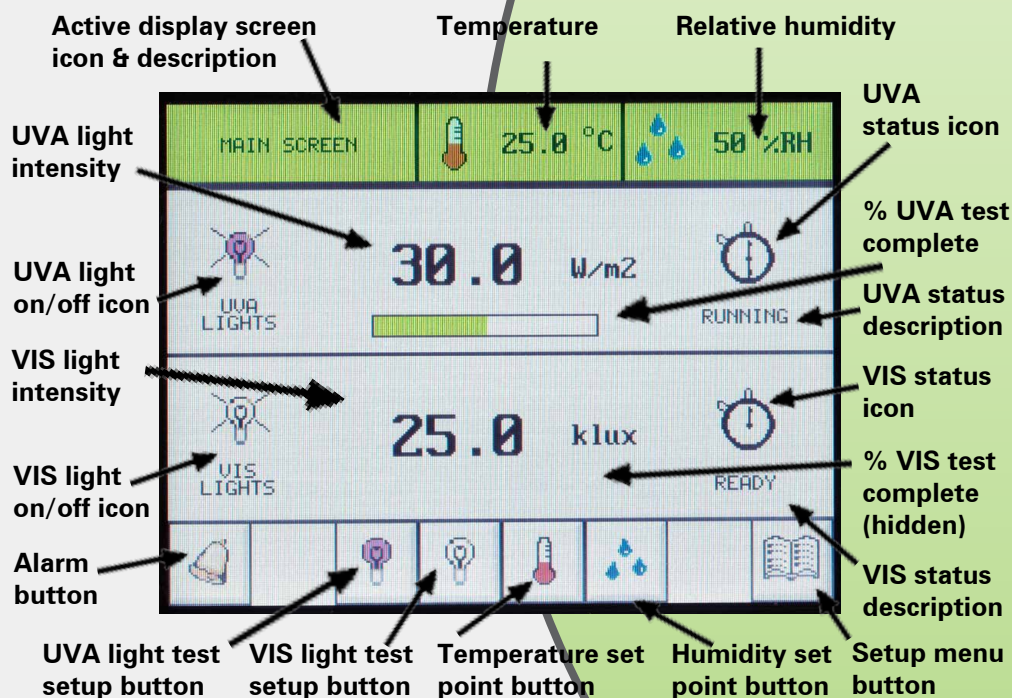
STANDARD FEATURES

- Independent control of near UV and cool white VIS lamps are provided to eliminate overexposure for confirmatory tests and provide flexibility for forced degradation studies.

- In "Automatic" mode, lights turn off at the end of a programmed exposure or timed test.

- "Manual" mode allows a flexible test time duration and makes validating the chamber easy.

- Dimmable lamps (230V models) allow testing at specific light intensity levels.

- Programmable alarms notify the user when aging lamps should be replaced.

- Specular aluminum reflective surfaces provide uniform UVA & VIS light reflection and maintain proper SPD (spectral power distribution).

- Stainless steel interior construction provides a smooth, non-porous surface for easy maintenance.

- Two light detectors (one VIS and one UVA) with an integral radiometer are standard and provide precise and accurate light intensity measurements. Light detectors are both cosine corrected and calibrated to NIST traceable standards.

- Precise temperature control is provided through use of a PID controller.

- Humidity controlled units (Models 6545-1, 6545-2 & 6545-3) isolate the effects of hydration during photostability testing.

STANDARD FEATURES CONTINUED

- Shelves slide-out for quick and easy loading and unloading of samples.

- Strategic lamp spacing provides enhanced light uniformity. Overhead lighting results in a large illumination area for maximized direct lighting.

- Door safety switch turns lights off when the door is opened. The lockable door prevents accidental disturbance of in-process tests.

- Two access ports (one per shelf) are standard.

MAIN SCREEN DISPLAY

- Performance is managed through an eye level, icon-based, color, touch-screen interface for user convenience.

- The easy-to-use controls are written in multiple languages (English, Spanish, German and French).

- Temperature, humidity, and light meters can be quickly programmed. Test results are easy to interpret.

Active display screen icon & description
Temperature
Relative humidity
UVA status icon
UVA light intensity
UVA light on/off icon
% UVA test complete
UVA status description
VIS light intensity
VIS status icon
VIS light on/off icon
% VIS test complete (hidden)
Alarm button
VIS status description
UVA light test setup button
VIS light test setup button
Temperature set point button
Humidity set point button
Setup menu button

MAIN SCREEN — 25.0 °C — 50 %RH — 30.0 W/m2 — UVA LIGHTS — RUNNING — 25.0 klux — VIS LIGHTS — READY

SERVICEABILITY

- Pull-out, removable light banks allow for quick bulb replacement without the use of tools.
- Modular refrigeration system and front access, slide-out electrical chassis are easy to service.
- Units contain off-the-shelf components that are readily available.
- Caron offers factory developed and factory direct services, including validation, calibration, preventative maintenance, extended warranty and installation.
- Caron's full on-site validation services satisfy FDA guidelines for qualification verification of equipment.
- Validation engineers use 21 CFR 11 compliant data logging equipment for the mapping of chambers.

MODEL	6540-1	6545-1	6540-2	6545-2	6540-3	6545-3
Lamp Type, UVA	Fluorescent, near UV (black lamp)					
Lamp Type, VIS	Fluorescent, cool white (ISO 10977 compliant)					
Light Detectors	UVA and Visual, calibrated					
UVA Light Intensity, Typical	20 W/m2		2-30 W/m2			
VIS Light Intensity, Typical	20 klux		2-35 klux			
Lamps Dimming	n/a		3-100%			
Typical Time Required to Reach ICH Recommendation of 200 W-hr/m2	10 hrs.		7 hrs.			
Typical Time Required to Reach ICH Recommendation of 1.2 million lux-hr	60 hrs.		35 hrs.			
Light Uniformity	UVA: ±10% VIS: ±15%		UVA: ±10% VIS: ±10%			
Temperature Range	10°C to 35°C (lights on)					
Temperature Control	± 0.2°C					
Temperature Uniformity	± 2.5°C (lights on)					
Humidity Range	n/a	40-70% RH	n/a	40-70% RH	n/a	40-70% RH
Humidity Control	n/a	± 3%	n/a	± 3%	n/a	± 3%
# of Shelves, Size	Two (2) Sliding, 26.0" W x 23.1" D x 8" H (660mm W x 587mm D x 203mm H) each					
Usable Shelf Area, Each	19.0" x 23.0" (483mm x 584mm)					
Usable Shelf Area, Total	6.1 ft2 (0.56m2) - 76% of total shelf					
Maximum Weight per Shelf	22 lbs. (10 kg)					
Interior Surfaces	Reflective Specular Aluminum					
Interior Construction	Stainless Steel					
Internal Volume	10.5 cu. ft. (296L), includes lamp space					
Exterior Dimensions	37.6" W x 30.2" D x 45.0" H (955mm W x 767 mm D x 1133 mm H) w/leveling feet					
Interior Dimensions	26.9" W x 24.0" D x 28.0" H (683mm W x 610mm D x 711mm H)					
# of Access Ports	Two (2), 1.75" W x 2.0" H (44mm W x 51mm H) each					
Shipping Weight	550 lbs. (660 lbs. with export crate)					
Electrical	115V, 60 Hz, 15A		208/230V, 60 Hz, 15A		230V, 50 Hz, 10A	

Specifications are subject to change without notice. Specifications were established with full lights on at 20°C with 50% RH ambient conditions.

RH levels limited by a 5°C minimum dewpoint. 50 Hz units are CE Marked and contain readily available European components.

CRSY102	Universal Condensate Recirculating System. In-line DI cartridge, carbon block filter, anti-bacterial stick, 7 gallon water tank, low water alarm, and recirculation pump.
EXTD005	Extended temperature down to +5°C (with lights on).
LGHT503	Black light bank replacement kit for Models 6540-1 & 6545-1. Includes (6) 20 Watt lamps.
LGHT504	White light bank replacement kit for Models 6540-1 & 6545-1. Includes (10) 35 Watt lamps.
LGHT505	Black light bank replacement kit for Models 6540-2, 6545-2, 6540-3 & 6545-3. Includes (6) 18 Watt lamps.

LGHT506	White light bank replacement kit for Models 6540-2, 6545-2, 6540-3 & 6545-3. Includes (14) 18 Watt lamps.
RCDR203	3 input, 12" microprocessor based circular chart recorder. For Models 6540-1, 6540-2 & 6540-3.
RCDR204	4 input, 12" microprocessor based circular chart recorder. For Models 6545-1, 6545-2 & 6545-3.

For additional accessories, or custom requirements, please contact the Customer Service Department at Caron.

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