

Pharmaceutical Photostability Testing

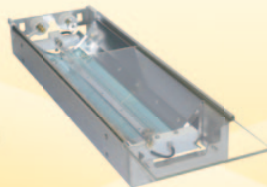
Advantages of Xenon Exposure Testing to Meet ICH Q1B Guidelines

The ICH Q1B Guideline allows for two options for photostability testing. Option 1 uses a xenon light source and option 2 uses a fluorescent light source. The xenon option has proven to be the most preferred option by industry users as it offers:

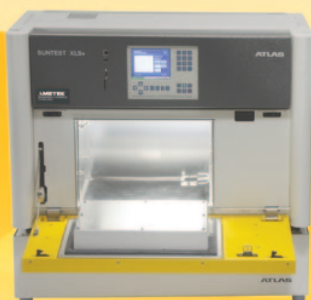
- **Faster test times** - Minimum confirmatory requirement exposures <24 hours compared to almost one week with fluorescent due to irradiance levels
- **No missing wavelengths** - No band gap with xenon that is common with the use of separate UV and Visible fluorescent lamps
- **More efficient** - Both Visible and UV confirmatory testing occur simultaneously - no need for separate tests compared to most fluorescent based instruments
- **Versatile** - Easily conforms to D65 and ID65 spectra with a simple change of filter
- **Testing flexibility** - Variable irradiance allows for reciprocity studies
- **Better uniformity** - Xenon lamp(s) and reflector provide better exposure irradiance uniformity; whereas variability in fluorescent devices can be as high as 75% in corners and edges
- **Better design** - Light source position in chamber roof provides minimal shadowing and better sample positioning of tablets and powders than vertical mounted fluorescent lamps in door or chamber side



ICH sample holders



Lamp cassette



Suntest XLS+ with SunCool unit

- **Stable lamp source** - No lamp burn-in time for irradiance controlled xenon lamp; whereas automatic irradiance control is not typically available in fluorescent devices
- **Less variability** - Xenon lamps are designed specifically for scientific instruments - less lamp to lamp variability and better match to daylight or window glass filtered daylight than fluorescent lamps
- **Smaller footprint** - Small xenon instruments take up less premium benchtop space than most fluorescent chambers

Atlas offers a complete ICH application kit for use in the SUNTEST CPS+/XLS+ benchtop models.