Variable

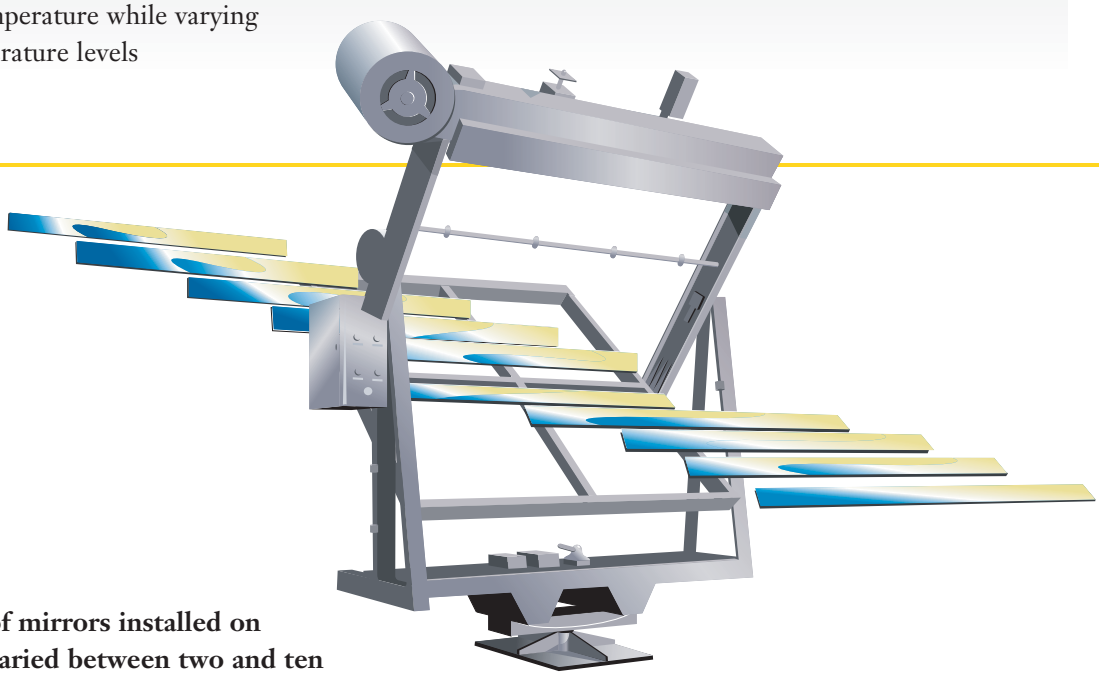
Variable Irradiance

EMMA®, EMMAQUA®, and EMMAQUA with Nighttime Wetting

Advantages

- The variable system allows temperature sensitive materials such as dark colored thermoplastics to utilize EMMA exposures at different levels of acceleration
- Allows investigation of effects from different solar and UV irradiance levels
- Allows investigation of a material's reciprocity characteristics
- Maintains natural intermittent patterns of light and temperature while varying light and temperature levels
- Can be used for very sophisticated and controlled weathering experiment design
- May allow better correlation between accelerated and end-use weathering exposures
- Reduces material exposure temperature below other Atlas Temperature Controlled EMMA products
- This system is most effectively used with Temperature Controlled EMMA products

How it works



- **The number of mirrors installed on an EMMA is varied between two and ten** depending on the exposure requirements of the material
- **The UV radiant exposure is calculated and reported** according to the number of mirrors
- **The reduction in solar concentration results in reductions in heating of materials** and allows temperature sensitive materials to be successfully exposed
- **The number of mirrors may be changed at different times of year** to account for seasonal variances in irradiance. For instance, more mirrors during colder winter exposure and fewer mirrors during hotter summer exposure.
- **A temperature control system (static or dynamic) is typically used in conjunction** with this system for temperature compensation and finer control

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For more information on Temperature Controlled EMMAQUA contact your local Atlas representative.