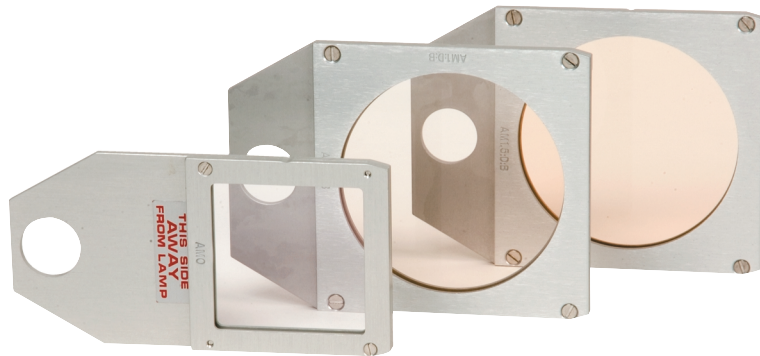


Oriel Air Mass Filters



- Simulate various solar conditions
- Easy installation and interchange
- Use in Oriel 300, 1000 and 1600 W Solar Simulators

Our standard Solar Simulators produce an unfiltered xenon lamp spectrum. To approximate solar conditions for a variety of solar simulation applications we offer a complete line of Air Mass (AM) Filters. These filters modify the spectral output of the arc lamp to match specific natural solar conditions. The solar spectrum you wish to simulate determines which air mass filter you need. Use Table 1 as a guide.

Table 1 Air Mass Filters

Air Mass Filter Type	Function	Model No(s).
AM 0	Corrects the output of a xenon lamp to better match the solar spectrum found outside the earth's atmosphere.	81011
AM 1 Direct	Simulates the solar spectrum at ground level when the sun is directly overhead	81011* + 81085
AM 1.5 Direct	Simulates the direct solar spectrum when the sun is at a zenith angle of 48.2° (ASTM E891).	81011* + 81086
AM 2 Direct	Approximates the solar spectrum when the sun is at a zenith angle of 60.1°	81011* + 81087
AM 1.5 Global	Matches the total (direct and diffuse) spectrum when the sun is at a zenith angle of 48.2° (ASTM E892)	81088

*The 81011 AM 0 Filter is required to simulate all air masses. You only need to order it once.

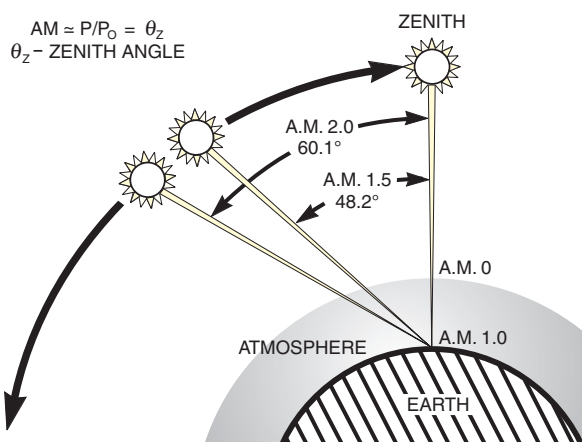


Fig. 1 Diagram of solar air masses.

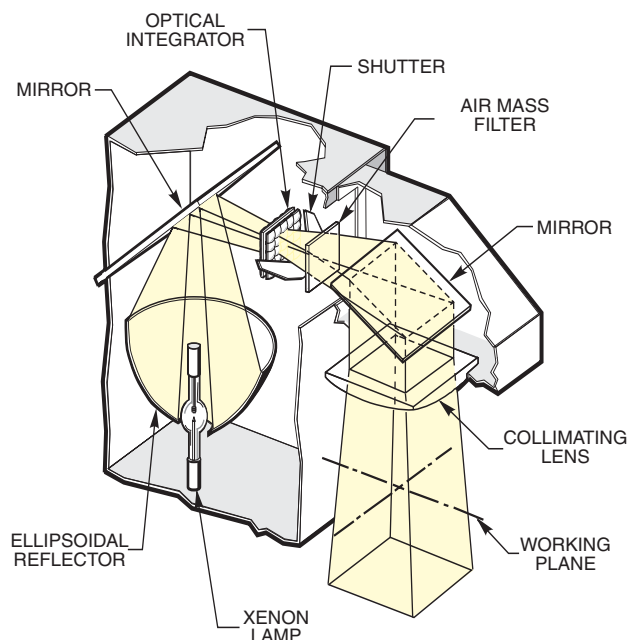


Fig. 2 Light path of an Oriel Solar Simulator, showing location of air mass filter.

Mounting

The Air Mass Direct Filters fit into the Solar Simulator's integral filter holder (shown in Fig. 2). A convenient "pull handle" allows quick and easy insertion and removal of the filter - without breaking down the source.

Ordering Information

Model	Description	Price
81089	Direct Air Mass Filter Set, includes AM 0, 1, 1.5 and 2 Direct	
81011	Air Mass 0, Outer Space, Filter	
81085	Air Mass 1 Direct, also requires 81011 AM 0 Filter	
81086	Air Mass 1.5 Direct, also requires 81011 AM 0 Filter	
81087	Air Mass 2 Direct, also requires 81011 AM 0 Filter	