

# THE EPPLEY LABORATORY, INC.

## PRECISION SPECTRAL PYRANOMETER

### Model PSP Specifications



There are two generally accepted Classification Systems used for Pyranometers. ISO classifies pyranometers as a "Secondary Standards", "First Class" or "Second Class" while WMO uses "High Quality", "Good Quality" and "Moderate Quality".

The Precision Spectral Pyranometer, Model PSP is classified as a ISO Secondary Standard or WMO High Quality Pyranometer.

- Classification: ISO Secondary Standard Pyranometer / WMO High Class
- Response Time (95%): 10-15 seconds
- Zero Offset to 200  $\text{Wm}^{-2}$  net radiant loss to sky: 4-6  $\text{Wm}^{-2}$
- Zero Offset to 5° C/hr change in ambient temperature: 1-2  $\text{Wm}^{-2}$
- Resolution: < 1  $\text{Wm}^{-2}$
- Non-Stability: <0.5% / yr (typical)
- Non-Linearity:  $\pm 0.5\%$
- Directional Response: < 10  $\text{Wm}^{-2}$
- Spectral Selectivity: 1%
- Temperature Response:  $\pm 1\%$
- Temperature Response: <0.15% per/°C (from -20 to +40°C)
- Linearity: 0-3000  $\text{W/m}^2$ ,  $\pm 1\%$
- deviation: <  $\pm 2\%$
- RH: 0 to 100%
- Oper. Temp.: -40 to 65°C (temp comp may be more than 1% )
- Tilt Response: < 0.5%
- Achievable Uncertainty (Hourly): 1-2 %
- Achievable Uncertainty (Daily): 1-2 %
- Suitable Application: Working Standard or Network Measurements