

ENVIRONMENTAL/ CLIMATE MONITORING





FULL-SPECTRUM PAR SENSOR

The Apogee SQ-521 is a full-spectrum quantum sensor that measures the Photosynthetic Photon Flux Density (PPFD) in µmol m-2 s-1 from a field of view of 180 degrees. It can be used in outdoor environments, greenhouses, and growth chambers..

The SQ-521 PAR Sensor is so accurate, it's considered the best sensor on the market for difficult-to-measure indoor environments. It has an incredible spectral range of 389 to 692 nm ± 5 nm, which means superior performance under variable sky conditions and increased accuracy under LED and other artificial light sources. Sensors are cosine-corrected to maintain their accuracy even when radiation comes from low zenith angles. Each sensor is carefully pre-calibrated for all light sources in controlled conditions and traceable to NIST reference standards.

KEY FEATURES

- Best spectral range on the market
- Rugged, self-cleaning housing
- NIST-traceable
- Plug-and-play with ZL6 for easy setup

SPECIFICATIONS

- Measurement range: 0 to 4000 µmol m⁻² s⁻¹
- Response time: 0.6s
- Field of view: 180°
- Spectral range 389 to 692 nm ± 5 nm (wavelengths where response is greater than 50%)
- Spectral selectivity Less than 10% from 412 to 682 ± 5 nm
- Directional (Cosine) response: ± 2% at 45° zenith angle, ± 5% at 75° zenith angle
- Detector: Blue-enhanced silicon photodiode
- Housing: Anodized aluminum body with acrylic diffuser
- IP rating: IP68
- Operating environment: -40 to 70 °C; 0 to 100% relative humidity; can be submerged in water up to depths of 30 m