Solar Simulator - Vendor Quote Evaluation Checklist

Vendors:	G2V Optics					
Criteria for High-Quality Solar Simulator:						
Adherence to Standards						
Class A/A+ Spectral Match	✓	A+				
Class A/A+ Spatial Uniformity	✓	A/A+				
Class A/A+ Temporal Stability	✓	A+				
High Spectral Coverage (100% is best)	✓	100%				
Low Spectral Deviation (less than 30%)	✓	13-17%				
Direct Maintenance Costs						
Well-understood Lamp Type	✓	LED				
Long Lamp Lifetime	✓	10,000 - 50,000 hours				
Low-Cost Times Frequency to Replace Lamp	✓	High but infrequent				
Low-Cost Times Frequency to Replace Glass Filter	✓	No glass filters used				
Long Electronics Lifetime	✓	Long				
Long Optics Lifetime	✓	Long				
Low recalibration frequency	✓	Infrequent (5-10 years)				
Indirect Operating Costs						
HVAC requirements	Varies	Only in large arrays				
Minimal personnel costs for operation and monitoring	✓	Yes. Short warm-up, long bulb life and simple controls				
Minimal need for additional sample management	✓	Yes. Stands available				

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Vendors:	G2V Optics					
Criteria for High-Quality Solar Simulator:						
Applicability and Flexibility						
Spectral Flexibility	✓	AM0, AM1.5G, and more				
Wide Spectral Range	✓	350 nm - 1500 nm depending on model				
Angular Light Apt For Application (sunlight is collimated)	Varies	Lambertian or Directed (15°-30° FWHM)				
User-Friendly Controls	✓	Software Interface with intuitive controls				
Automation Ability	✓	Via APIs				
Add-ons and Integrated Modules						
Integrated Modules / Add-ons	✓	IV module, EQE module, reference cells (Pico only)				
API	✓	Python				
Integrability	✓	LabView (Sunbrick only)				
Return on Investment						
High Return On Investment (ROI) for Research	✓	High				
Short Payback Period	✓	Short				
Low Total Cost of Ownership (TCO)	✓	Low				