

# TECHNICAL BULLETIN

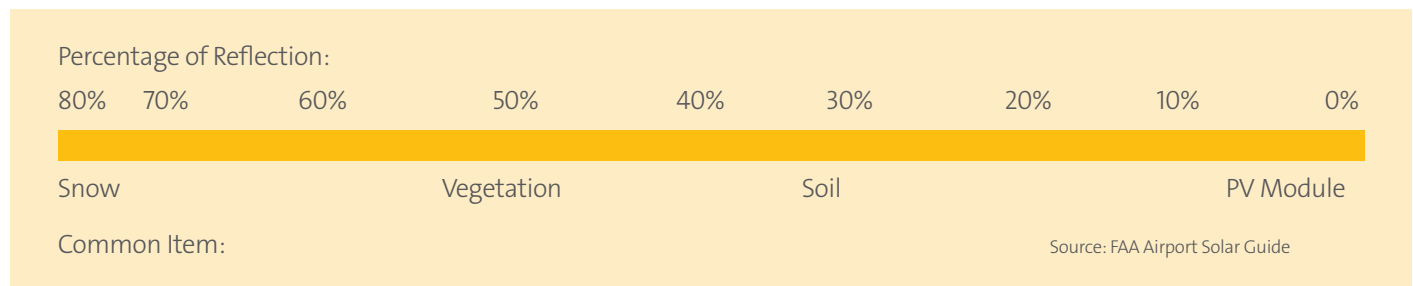
## REFLECTIVITY OF SOLARWORLD SUNMODULES PHOTOVOLTAIC MODULES

March 19, 2018 | Issue: 1006 Rev. 1



Photovoltaic (PV) modules normally do not produce significant reflection or ‘glare’, as they are manufactured with glass that is specifically designed as “non-reflective.” Solar glass is intended to minimize reflected light and instead allow light to pass through to the cells and be converted to useful electrical power in the module.

The spectrum of light which is visible to the human eye and can be seen as reflection is in the range of 350 nm – 700 nm wavelengths. Below is a scale of the amount of reflection produced by common items, including PV modules.



For certain installations, reflection or ‘glare’ may be of high importance. One example, are installations near airports where reflection may need to be considered in the design of the PV system.

SolarWorld Sunmodules reflect, on average, 4% of the applied light as determined by ISO 9050. This reflected value was determined for the following conditions:

- >> 400 nm and 500 nm
- >> AM 1.5
- >> Apparatus:  $\lambda$  1050

The amount of light reflected off of an installed PV module depends on the amount of sunlight hitting the surface as well as the surface reflectivity. The amount of sunlight interacting with the PV module will vary based on geographic location, time of year, cloud cover, and module orientation. The reflectivity value provided in this bulletin can be used in conjunction with these site specific factors in the FAA approval process as outlined in the “Airport Solar Guide” and in 14 CFR Part 77

“Safe, Efficient Use and Preservation of the Navigable Airspace.” These documents can be found at [www.faa.gov](http://www.faa.gov).

| Revision | Date       | Description    |
|----------|------------|----------------|
| 1        | 2018.03.19 | Updated format |