

This technical analysis details the failure of the Helion Frontier Initiative's Atacama deployment in 2024. The **ThermoFlux Array** lost **17% efficiency within the first month**.

Dust intrusion into the nanostructural junctions created microfractures, disrupting thermal energy capture. The predictive shading algorithms, adapted from **PhotonEdge's AeroMind**, produced inaccurate forecasts due to extreme glare variability.

The report recommends relocating testing away from high-dust environments, specifically to **Patagonia, Iceland, or the Norwegian coast**.

ClearWave's **TSF-3**, although not officially deployed, was briefly evaluated. Results showed **better abrasion resistance than ThermoFlux**, but **incompatibility with Helion's 2019 micro-lattice processing**.