

| Algorithm quality flags | Observation conditions | Description |
|-------------------------|---|--|
| 0 | UVAI (Mie) > 1.3 and LER388 > 0.25 | Best quality retrievals |
| 1 | 1.3 < UVAI (Mie) < 4.3 and 0.20 < LER388 < 0.25 | Less confidence in the detection of total overcast pixels (use of high-res sensors is recommended) |
| 2 | 0.8 < UVAI (Mie) < 1.3 and LER > 0.25 | Less confidence in the detection of aerosols above cloud |
| 3 | Solar zenith angle > 55°, scattering angle < 100°, and UVAI (Mie) < 2 Solar zenith angle > 60°, scattering angle < 130°, and UVAI (Mie) < 2 Viewing zenith angle > 55°, scattering angle < 100°, and UVAI (Mie) < 2 | Geometry-related artifacts (not recommended for use) |
| 4 | Snow/ice contamination | No retrieval |
| 5 | Solar zenith angle above threshold (70°) | No retrieval |
| 7 | Terrain pressure below threshold (800 hPa) | No retrieval |
| 8 | Cross-track anomaly | No retrieval |