

CRaTER Verification Procedure/Report

Title: (8.5.4) Nadir zenith field of view shielding Document 32-06020.34

Reference: 32-01205 Instrument Requirements Document Section 8.5.4

Requirement: The zenith and nadir fields of view of the telescope shall have no more than 762 microns (0.030) of aluminum shielding.

Procedure: The thickness of the nadir and zenith aluminum plates will be measured with a micrometer at a minimum of five locations.

Results:

Measured shield thickness values as reported by Albert Lin:

Value	Units	SN 01 (FM2)	SN 02 (FM1)
Nadir thickness	Inches	0.0319	0.0319
Nadir thickness	Microns	810.26	810.26
Nadir error	Inches	0.0001	0.0001
Nadir error	Microns	2.54	2.54
Zenith thickness	Inches	0.032	0.032
Zenith thickness	Microns	812.8	812.8
Zenith error	Inches	0.00001	0.00001
Zenith error	Microns	0.254	0.254

812 and 810 microns > 762 microns

Within the design tolerance of the mechanical drawing, but nonetheless is slightly greater than the requirement specified. We have filed a Non-conforming Material Report (NMR).

The science team feels that this difference in thickness does not affect the quality of the measurements made, since it is still sufficiently thin to allow protons to enter the telescope over the desired energy range, as long as the thickness is measured so it can be fed into the models. It does not affect any of the Level 1 performance requirements.

S/N: 01 & 02

Passed/Failed: Failed

Comments: A Non-conforming Material Report has been filed. The measured performance does not affect any of the Level 1 and Level 2 requirements.

Performed by: JCKasper

R&QA: _____

Date: 1 November 2007

Date: _____