

Jefferson Lab Alignment Group

Data Transmittal

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DETAILS:

The target ladder assembly was surveyed in it's installed location for the Transversity experiment E06-010 on Tuesday November 11^{th} , 2008. The working, optics and reference cell center positions were surveyed with the results below. A + X is beam left from ideal, a + Y is above, and +Z is downstream. A +pitch is counter clockwise looking from the beam right, a +yaw is ccw from above, and a +roll is cw looking from upstream. Values are in millimeters and degrees.

Cells	Z (mm)	X (mm)	Y (mm)	Yaw °	Pitch °	Roll °
Reference	2.4	-2.4	1.1	-0.340	-0.016	-0.402
Optics	1.9	-1.9	1.0	-0.340	-0.034	-0.361
Working	1.8	-1.3	1.4	-0.306	-0.036	-0.490

There is significant yaw in the target ladder. Some of the downstream fiducials were approximately 5.3 mm beam right while individual upstream fiducials were less than 0.5 mm beam right. Other fiducials were closer to design. These differences were due to the significant amount of roll in the ladder.

The results above were arrived at by a least square adjustment of all the surveyed fiducials (6 for each cell position) to determine the center of cell position.