



Jefferson Lab Alignment Group

Data Transmittal

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Checked:

: D1900

DETAILS:

data: step2b\halld\dir190131A

The lower DIRC detectors 1 and 2 were surveyed January, 31st, 2019. The results are displayed below. The table shows the ideal coordinates in the CEBAF system (meters), the beam following system (BFS) in millimeters, beam following angular deltas and the As-found location in the Cebaf system.

The BFS data shows the as-found position as it follows the beam relative to the ideal position. In the BFS, a positive dx value is to the beam left looking downstream along beam from the ideal; a positive dy is higher vertically from ideal; A positive dz is downstream from ideal. The delta angle are shown in degrees and are the differences (found – ideal) from ideal.

Detector	Cebaf Coordinates Ideal			Beam Following [millimeters]			BFS Angular [degrees]		
	ideal X[m]	ideal Y[m]	ideal Z[m]	bfs dx	bfs dy	bfs dz	dYaw	dPitch	dRoll
LDIRC1	80.60000	103.88862	403.98271	7.68	-6.73	-0.10	-0.1003	-0.0791	0.0381
LDIRC2	80.60000	104.40347	403.98271	8.33	-6.88	-0.10	-0.0963	-0.2143	0.0355
Cebaf coordinates FOUND									
Detector	fnd X[m]	fnd Y[m]	find Z[m]						
LDIRC1	80.60768	103.88189	403.98206						
LDIRC2	80.60833	104.39659	403.98260						