Jefferson Lab Alignment Group

Data Transmittal

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DETAILS:

data: step2b\bsy\3c_12\190828a

The Hall C components in the 3C beam line surveyed on 28th of August 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 shown distances are from the Moller in mm.

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.

	Cebaf Coordinates Ideal				Beam Following [millimeters]			BFS Angular [degrees]		
component	ideal X[m]	ideal Y[m]	ideal Z[m]	Dist[mm]	bfs dx	bfs dy	bfs dz	dYaw	dPitch	dRoll
MQR3C20	-109.12701	99.97800	-368.11283	-1490.5	0.021	0.003	-0.274	-0.0114	0.0017	-0.0229
MQR3C21	-109.95399	99.97800	-369.18991	-663.5	-0.053	0.147	-0.129	-0.0075	-0.0012	-0.0106
MOLLER	-110.61750	99.97800	-370.05409	0.0	0.270	2.035	1.733	0.0370	0.0129	0.0736
MQF3M01	-111.13417	99.97800	-370.72703	516.7	0.133	-0.023	10.352	0.0096	0.0289	0.0470
CO3M01	-111.68755	99.97800	-371.44778	1070.0	-0.204	-0.495	10.774	-0.0292	-0.0410	-0.0817
MQE3M02	-112.25981	99.97800	-372.19309	1642.3	0.053	0.372	1.705	-0.0228	0.0063	-0.0017
MQE3M03	-113.07164	99.97800	-373.25046	2454.1	0.326	-0.075	1.612	-0.0224	0.0112	-0.0132

BPM Based on found location

	fnd X[m]	fnd Y[m]	fnd Z[m]	dist	bfs dx	bfs dy
IPM3C20	-108.88851	99.97881	-367.80175	-1729.0	0.260	0.810
IPM3C21	-109.72635	99.97824	-368.89454	-891.2	-0.675	0.240