



Jefferson Lab Alignment Group

Data Transmittal

TO: C.Munoz Camacho, E. Folts

DATE: 03 Nov 2014

FROM: SEH

Checked: TPS III

: A1580

DETAILS: :

data: step2b\halla\dvcs\141103a

The DVCS (2014) calorimeter was surveyed at 17 positions on October 31, 2014. The data below shows the resulting deltas at the reference angles which are beam right from the straight ahead beam. The reference point for the calorimeter is the upstream face of the PbF2 crystals at a location as shown on drawing A00000-01-14-0900 sheet 2.

The column labeled 'angle' is the angle the rails were set at, beam right of the main Hall A straight ahead beam (decimal degrees). Column 'location' is the ideal distance horizontally from the Hall A target to the reference point. Columns dx, dy and dz are the differences from the ideal trajectory along the beam at each angle (millimeters). A +x indicates the location is to the beam left, a +y indicates the location is high, and a +z indicates the component is downstream of ideal. A + dYaw angle is counter clockwise looking from above, a + dPitch is ccw looking from the beam right, and a + dRoll angle is cw looking from upstream.

POSITION	ANGLE	LOCATION	dx	dy	dz	dYAW°	dPITCH°	dROLL°
1	10.2°	2.5 M	0.825	-0.651	-0.074	0.0257	-0.0516	0.0556
2	10.2°	3.0 M	0.853	-0.63	-0.076	-0.0281	-0.0080	0.0745
3	11.7°	1.5 M	-0.684	-1.281	-0.233	0.0816	-0.0645	0.0553
4	11.7°	3.0 M	0.178	-0.886	0.1	-0.0144	-0.0052	0.0716
5	11.7°	5.5 M	-2.35	-0.568	2.08	-0.0015	-0.1347	0.1186
6	14.0°	1.5 M	0.259	-1.348	-0.535	0.0674	-0.0630	0.0235
7	14.0°	3.0 M	1.234	-1.09	-0.475	0.0052	-0.0057	0.0206
8	14.0°	5.5 M	-0.698	-0.607	1.809	0.0071	-0.1232	0.0484
9	16.0°	1.5 M	3.494	-1.535	-1.309	0.0176	-0.0562	0.0023
10	16.0°	3.0 M	3.148	-1.024	-0.992	-0.0570	0.0046	-0.0043
11	16.0°	5.5 M	-0.885	-0.217	0.826	-0.0433	-0.1117	0.0003
12	19.0°	1.5 M	5.545	-1.501	-1.366	0.0281	-0.0478	-0.0541
13	19.0°	3.0 M	5.529	-0.816	-1.197	-0.0482	0.0115	-0.0665
14	19.0°	5.5 M	1.65	0.338	0.732	-0.0540	-0.1043	-0.0791
15	22.0°	1.5 M	2.432	-1.546	-1.272	0.0877	-0.0424	-0.0814
16	22.0°	3.0 M	3.17	-0.917	-2.485	-0.0065	0.0175	-0.1175
17	22.0°	5.5 M	2.73	0.384	0.981	-0.0048	-0.0997	-0.1352
REPEATED								
POSITION	ANGLE	LOCATION	dx	dy	dz	dYAW°	dPITCH°	dROLL°
1	10.2°	2.5 M	2.319	-0.631	-0.364	0.0145	-0.0504	0.0659
3	11.7°	1.5 M	0.35	-1.241	-0.451	0.0459	-0.0627	0.0547
7	14.0°	3.0 M	3.225	-1.1	-0.054	-0.0197	-0.0054	0.0221
14	19.0°	5.5 M	1.553	0.298	0.716	-0.0588	-0.1063	-0.0839