



# Jefferson Lab Alignment Group

## Data Transmittal

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**Checked:** (jcd)

**# :** A1339

**DETAILS:**

data: step2b\halla\dvcs\101104a

The DVCS (2010) calorimeter was surveyed at 4 positions on November 4<sup>th</sup>, 2010. The data below shows the resulting deltas at the reference angles, beam right from the straight ahead beam and at distances 1.1 or 5.5 meters from the Hall A target center. The reference point for the calorimeter is the upstream face of the PbF2 crystals and at a point as shown on drawing A00000-01-14-0900 sheet 2.

The column labeled 'angle' are the angles 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.

Angle '14.78° rep' was a repeated measurement of angle 14.78° and 1.1 meter location.

Angle	Location	dx (mm)	dy (mm)	dz (mm)	dYaw °	dPitch °	dRoll °
14.78°	1.1 M	-0.663	-0.643	0.056	-0.00261	-0.00401	-0.01261
16.79°	1.1 M	0.227	-0.771	-0.933	0.01231	-0.01232	-0.02263
19.39°	1.1 M	1.597	-0.768	-1.167	0.07075	-0.01518	-0.04183
22.60°	1.1 M	-0.239	-0.635	-2.052	-0.05054	-0.01719	-0.05672
22.60°	5.5 M	-5.946	0.877	-1.816	-0.07119	-0.06589	-0.01375
24.30°	1.1 M	0.504	-1.023	-3.247	-0.01405	-0.01318	-0.06045
24.30°	5.5 M	-2.208	0.716	-2.591	-0.03699	-0.06761	-0.02922
14.78° rep	1.1 M	-0.376	-0.703	-0.266	0.00782	-0.01031	-0.01089