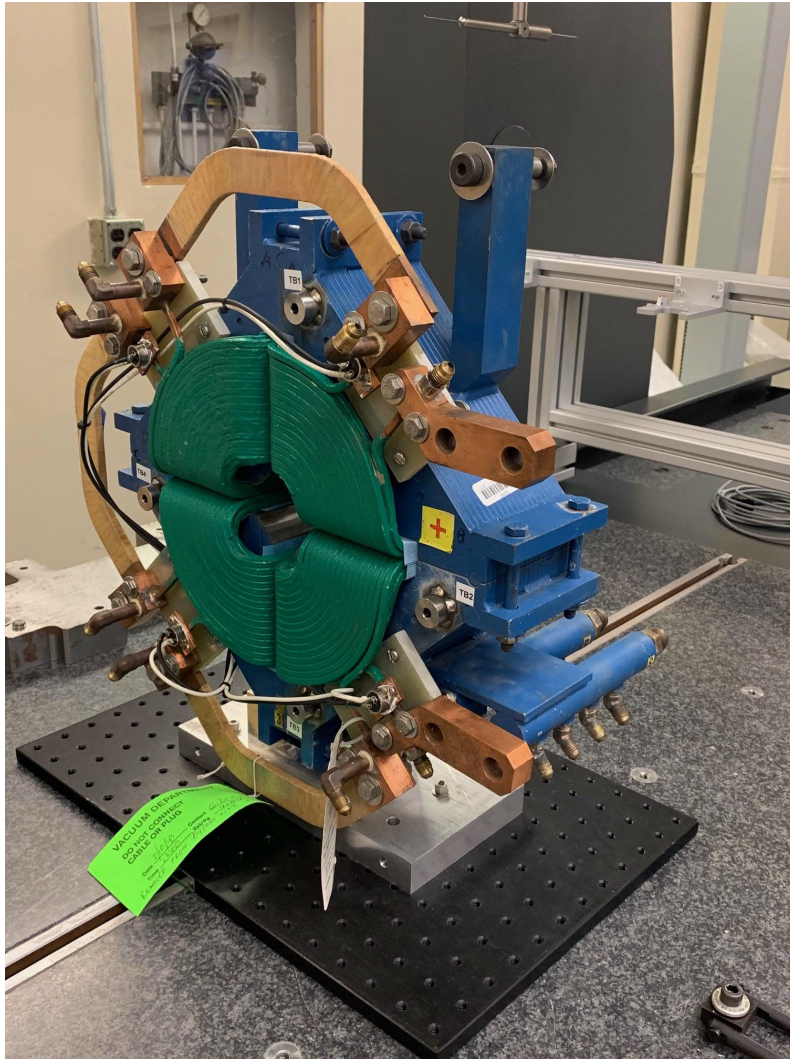


LCLS II 2Q4W Fiducialization Report



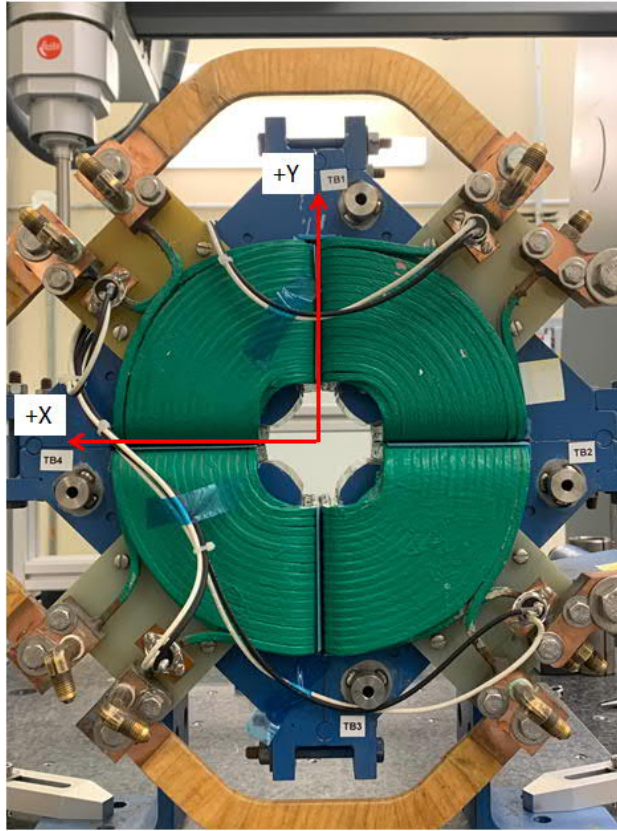
Inspector : K. Caban
Engineer : J. Amann
Drawing No. : SA-344-112-08
Barcode # : 4239
Mfg. S/N : #33

Coordinate System Setup

Spatial Alignment

The Spatial Alignment of the magnet is created through a composite best-fit of the pole tips. Each pole tip scanned 0.150 inch inboard from the upstream magnet face and the downstream magnet face. A composite best-fit of the upstream poles and the downstream poles is made with the nominal pole tip shape and location. An axis is created through the two best-fit centerpoints. This axis is the spatial alignment of the magnet and defines the Z axis.

Tooling Ball Locations



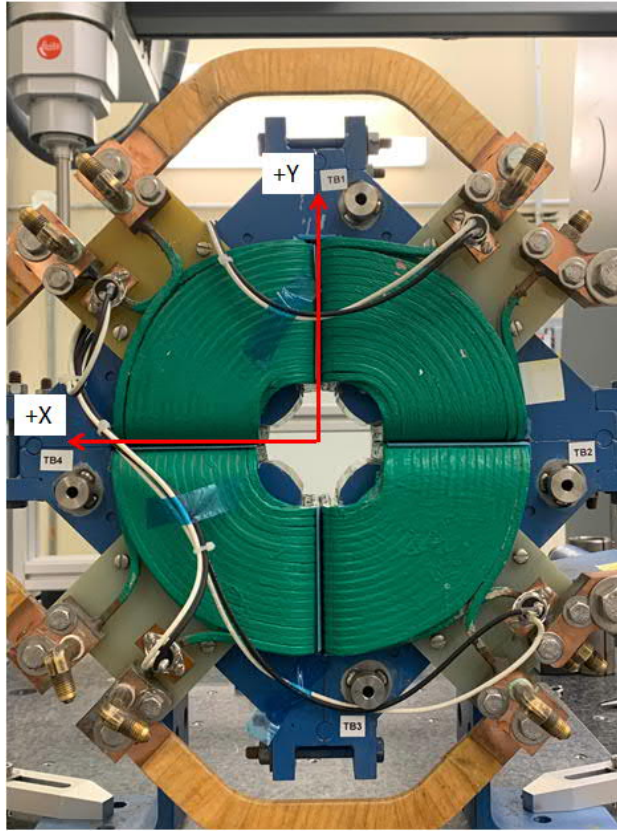
Tooling Ball	X Coord.	Y Coord.	Z Coord.
TB 1	-0.9970	5.5094	-3.4374
TB 2	-5.5288	-1.0026	-3.4409
TB 3	-1.0002	-5.5025	-3.4409
TB 4	5.5099	-0.9817	-3.4436

Tooling Ball Locations are 1 inch above Tooling Ball Adapter Plane
Dimensions in Inch

Barcode # : 4239

Mfg. S/N : #33

Tooling Ball Locations



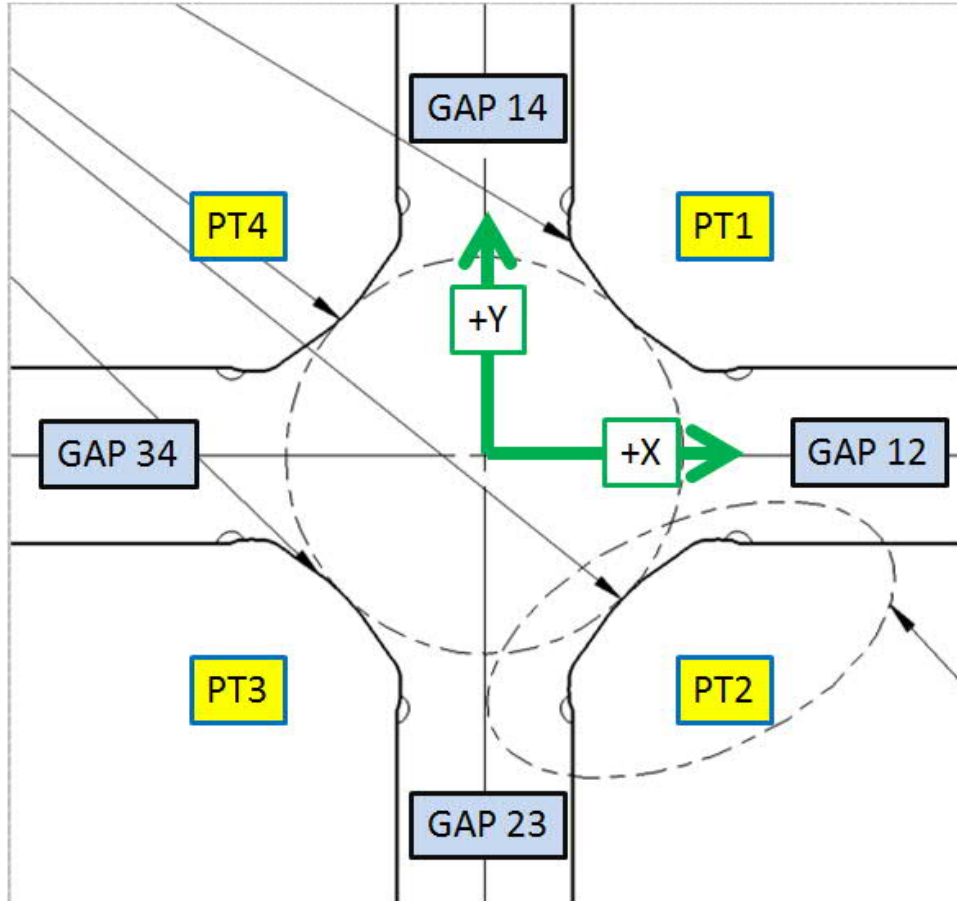
Tooling Ball	X Coord.	Y Coord.	Z Coord.
TB 1	-1.0008	5.5096	-2.7493
TB 2	-5.5247	-1.0016	-2.7529
TB 3	-0.9999	-5.5008	-2.7527
TB 4	5.5059	-0.9783	-2.7549

Tooling Ball Locations are 5/16 inch above Tooling Ball Adapter Plane
Dimensions in Inch

Barcode # : 4239

Mfg. S/N : #33

Pole Tip Gap Measurements



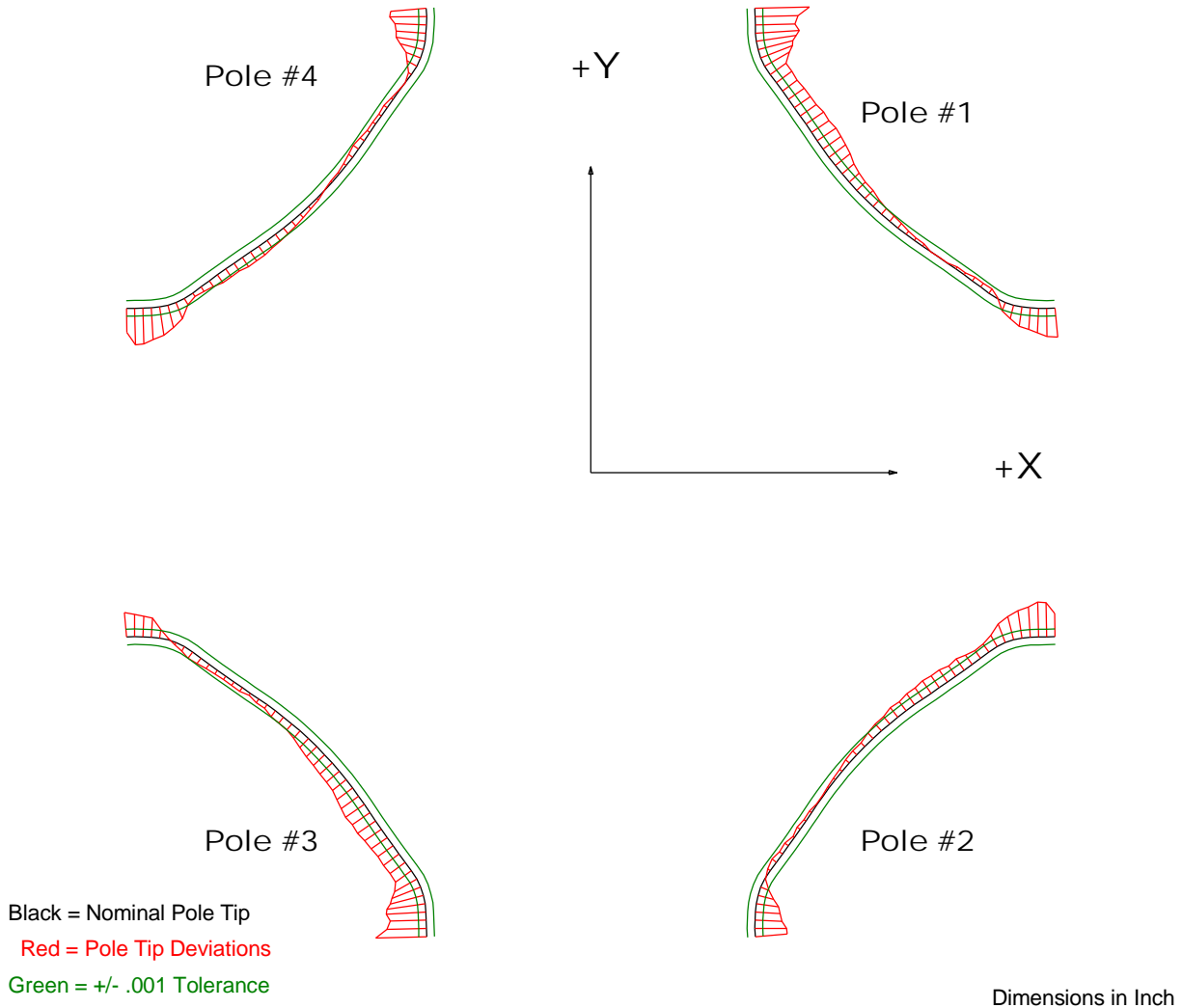
	Nominal Distance	Downstream Pole End	Upstream Pole End
PT Distance 1-3	2.026	2.0293	2.0276
PT Distance 2-4	2.026	2.025	2.0294
Gap 1-2	0.8602	0.8516	0.8535
Gap 2-3	0.8602	0.8672	0.8676
Gap 3-4	0.8602	0.851	0.8533
Gap 1-4	0.8602	0.8685	0.8662

Dimensions in Inch

Barcode # : 4239

Mfg. S/N : #33

Composite Best-fit of Pole Tips, Downstream



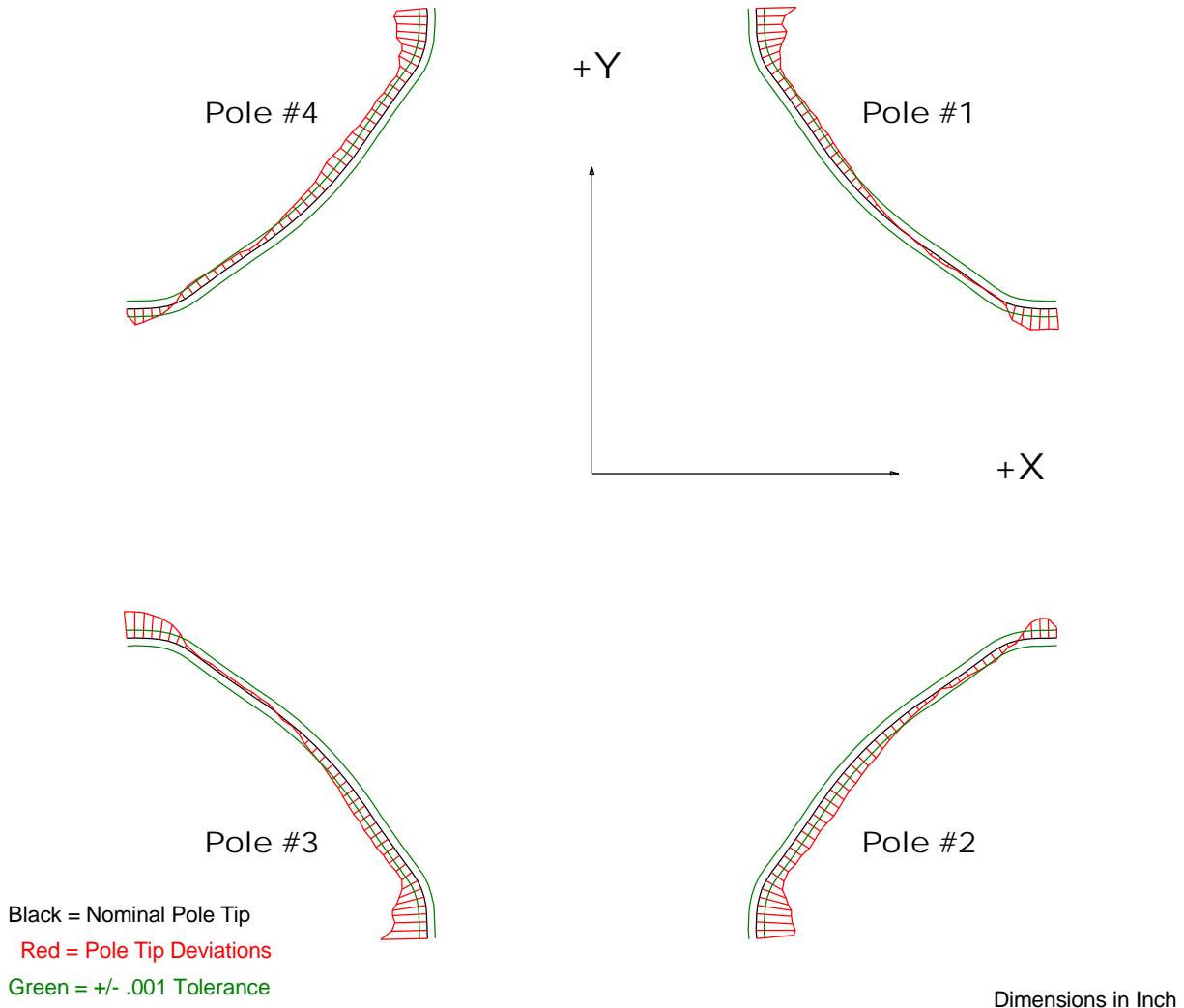
Pole Tip Deviations

Pole Tip	#1	#2	#3	#4
Min. Dev.	-0.007	-0.0041	-0.0066	-0.0047
Max. Dev.	0.0038	0.0045	0.0032	0.0047

Barcode # : 4239

Mfg. S/N : #33

Composite Best-fit of Pole Tips, Upstream



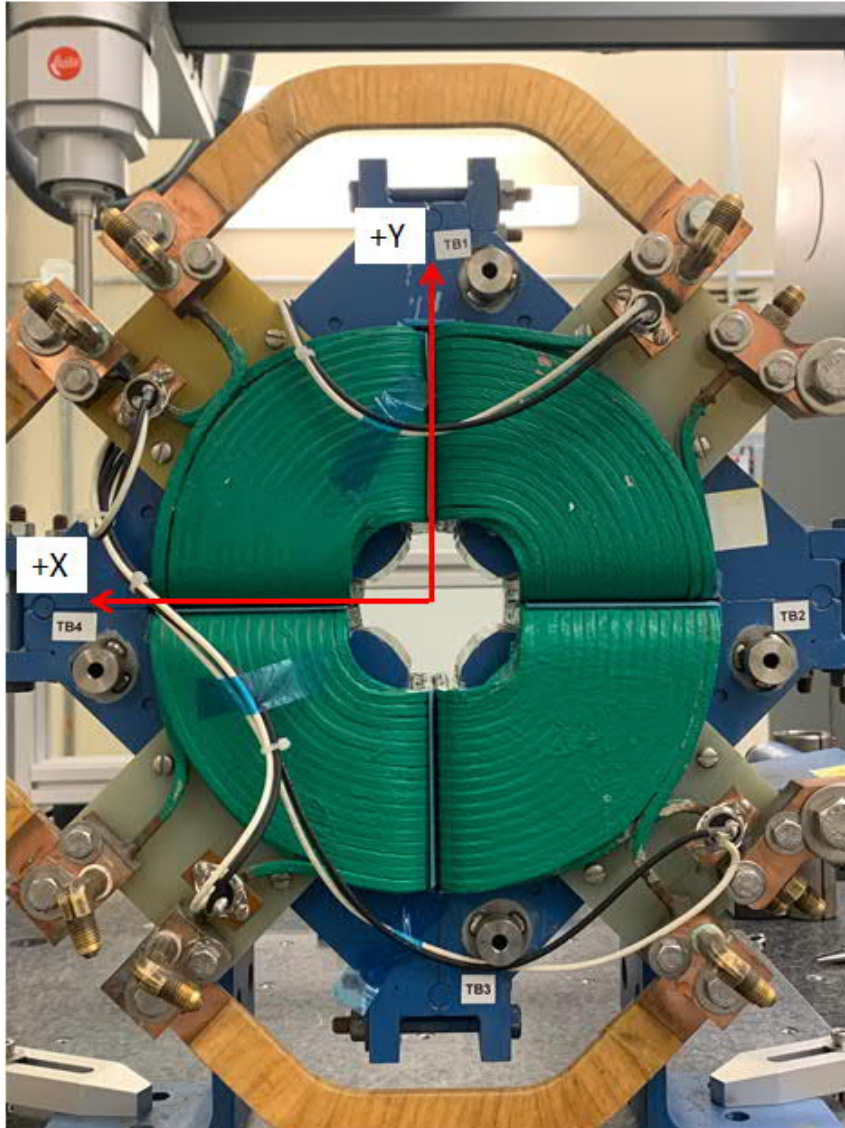
Pole Tip Deviations

Pole Tip	#1	#2	#3	#4
Min. Dev.	-0.0052	-0.005	-0.006	-0.0043
Max. Dev.	0.0027	0.0026	0.0035	0.002

Barcode # : 4239

Mfg. S/N : #33

Angle of the Composite Pole Tip Best-Fit



in Decimal Degrees ° :