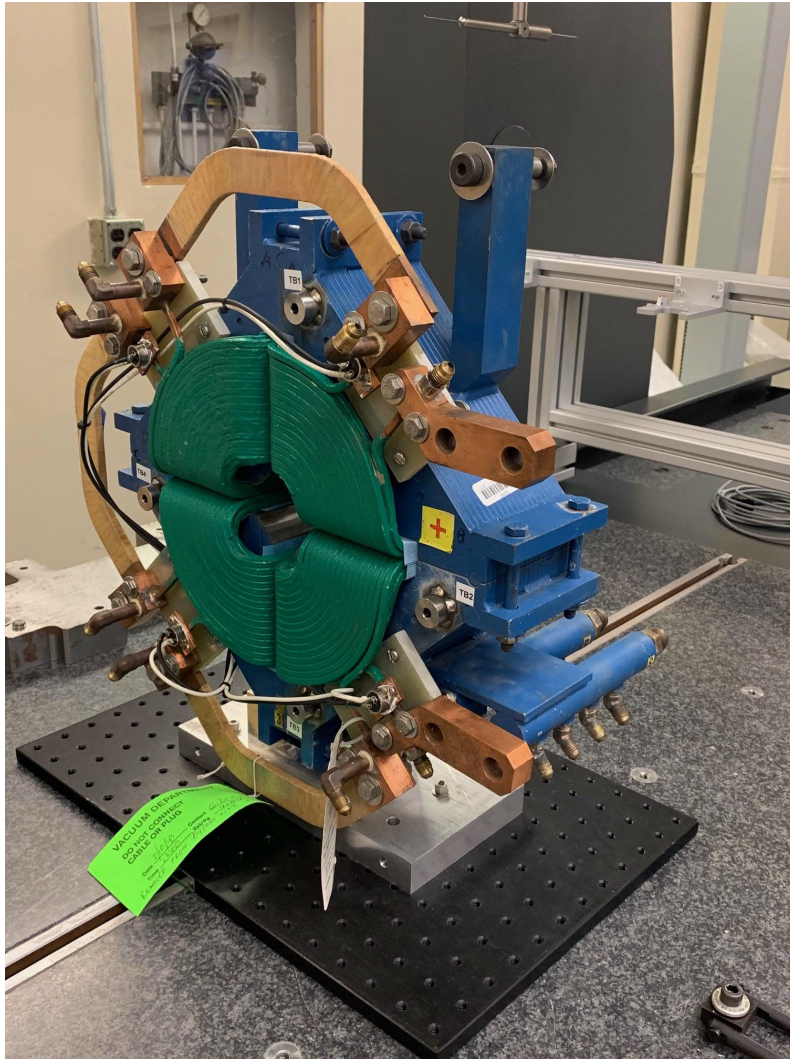


LCLS II 2Q4W Fiducialization Report



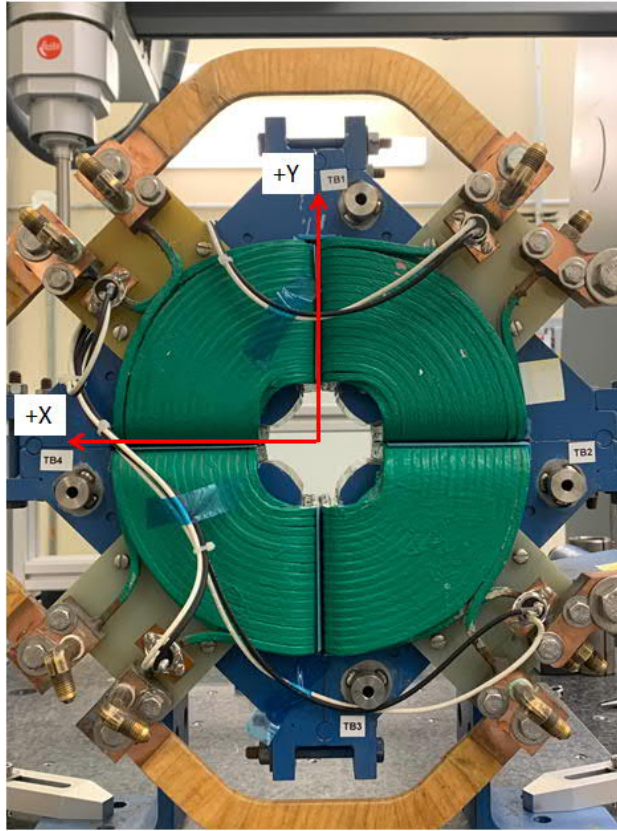
Inspector : K. Caban
Engineer : J. Amann
Drawing No. : SA-344-112-08
Barcode # : 4237
Mfg. S/N : #38

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



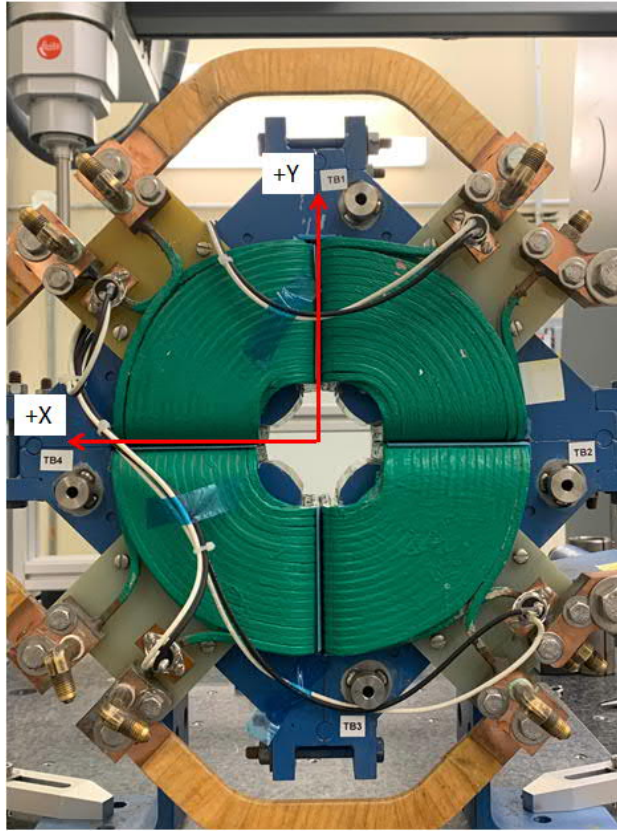
Tooling Ball	X Coord.	Y Coord.	Z Coord.
TB 1	-0.9754	5.5021	-3.4398
TB 2	-5.4819	-0.9934	-3.4433
TB 3	-0.9826	-5.5062	-3.4414
TB 4	5.5100	-1.0334	-3.4456

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

Barcode # : 4237

Mfg. S/N : #38

Tooling Ball Locations



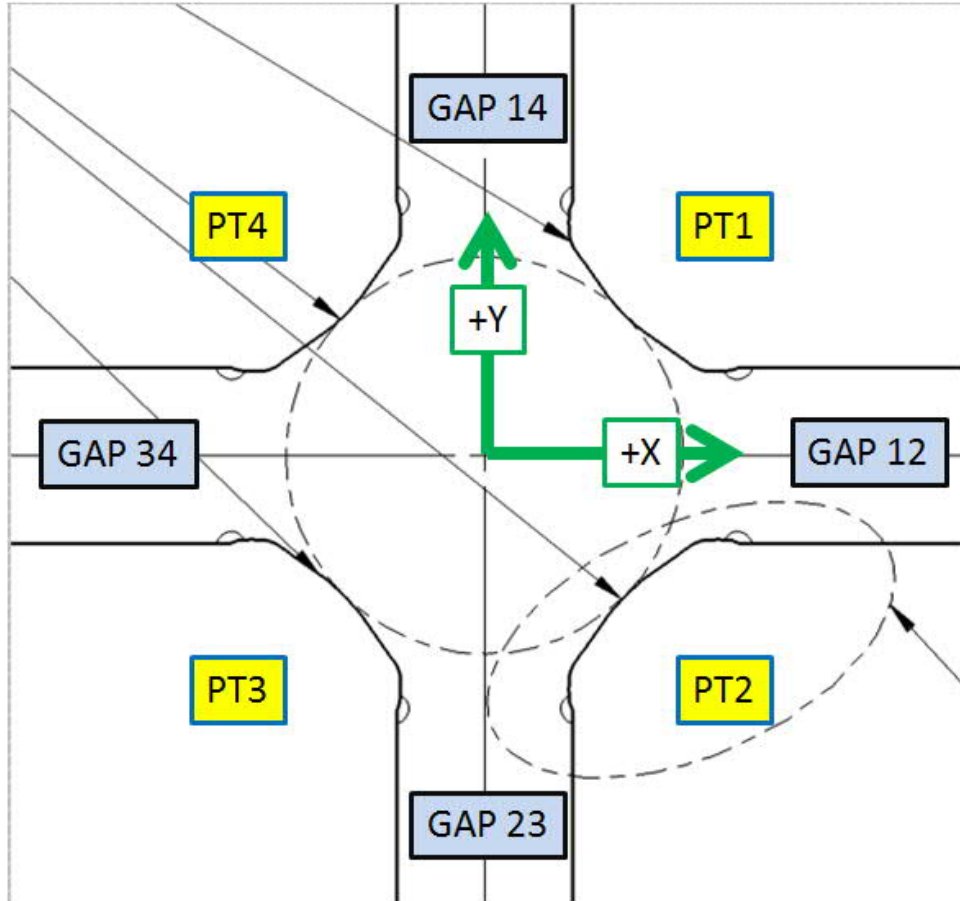
Tooling Ball	X Coord.	Y Coord.	Z Coord.
TB 1	-0.9787	5.5037	-2.7513
TB 2	-5.4786	-0.9915	-2.7554
TB 3	-0.9818	-5.5020	-2.7532
TB 4	5.5077	-1.0302	-2.7573

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

Barcode # : 4237

Mfg. S/N : #38

Pole Tip Gap Measurements



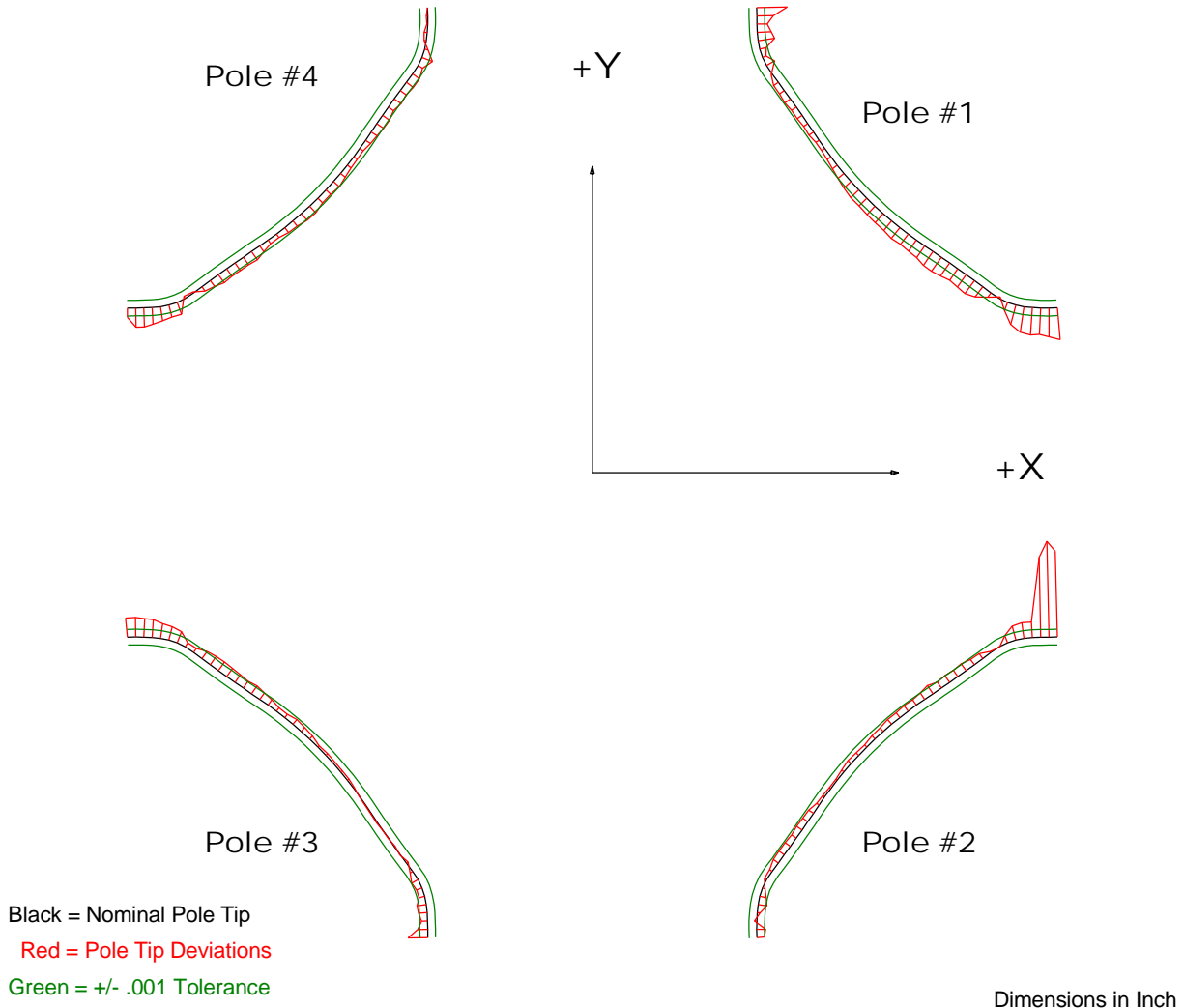
	Nominal Distance	Downstream Pole End	Upstream Pole End
PT Distance 1-3	2.026	2.0244	2.0242
PT Distance 2-4	2.026	2.0245	2.024
Gap 1-2	0.8602	0.8439	0.8472
Gap 2-3	0.8602	0.8595	0.8576
Gap 3-4	0.8602	0.8503	0.8563
Gap 1-4	0.8602	0.8606	0.8574

Dimensions in Inch

Barcode # : 4237

Mfg. S/N : #38

Composite Best-fit of Pole Tips, Downstream



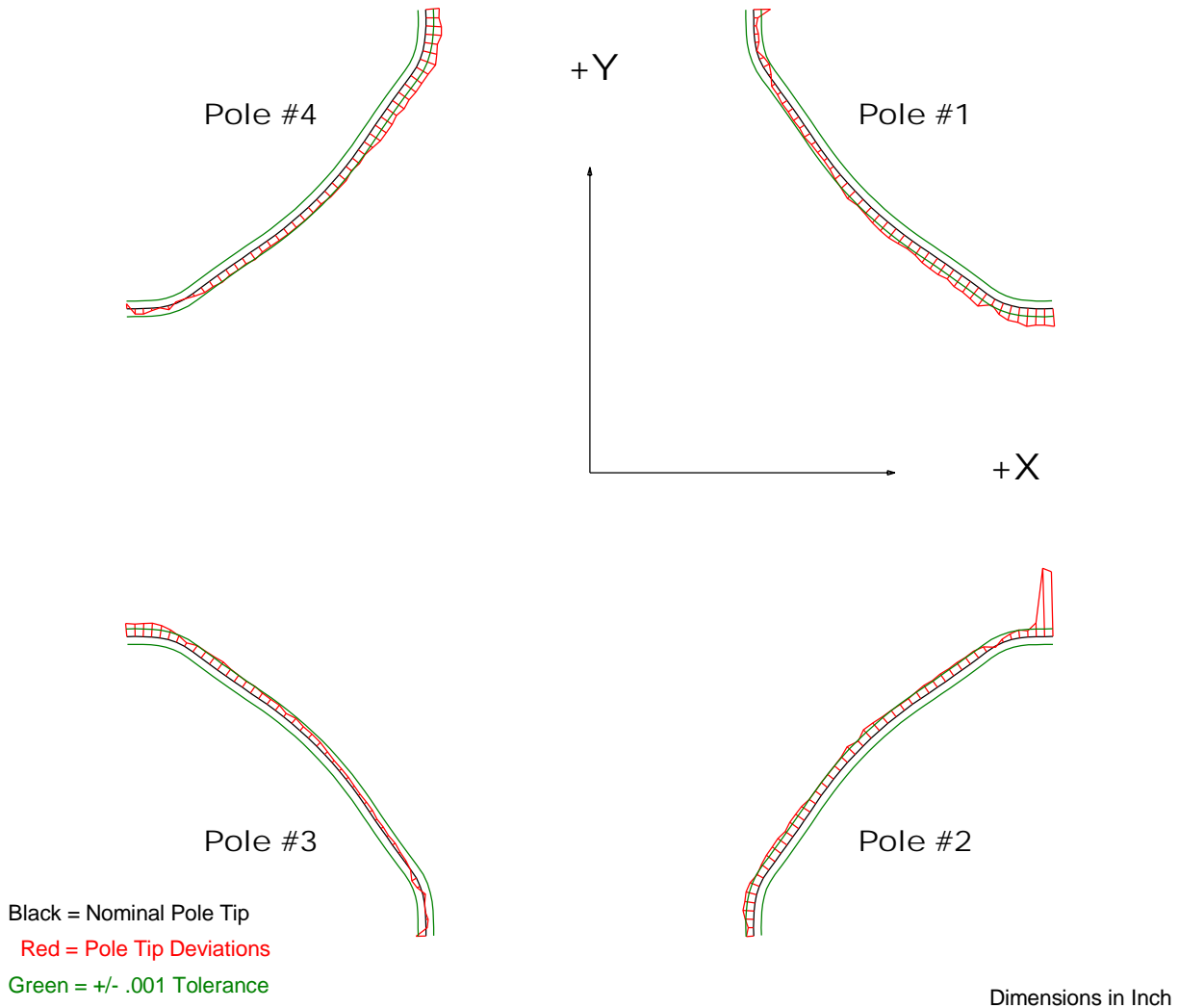
Pole Tip Deviations

Pole Tip	#1	#2	#3	#4
Min. Dev.	-0.0039	-0.0012	-0.0026	-0.0004
Max. Dev.	0.0041	0.0123	0.0025	0.0025

Barcode # : 4237

Mfg. S/N : #38

Composite Best-fit of Pole Tips, Upstream



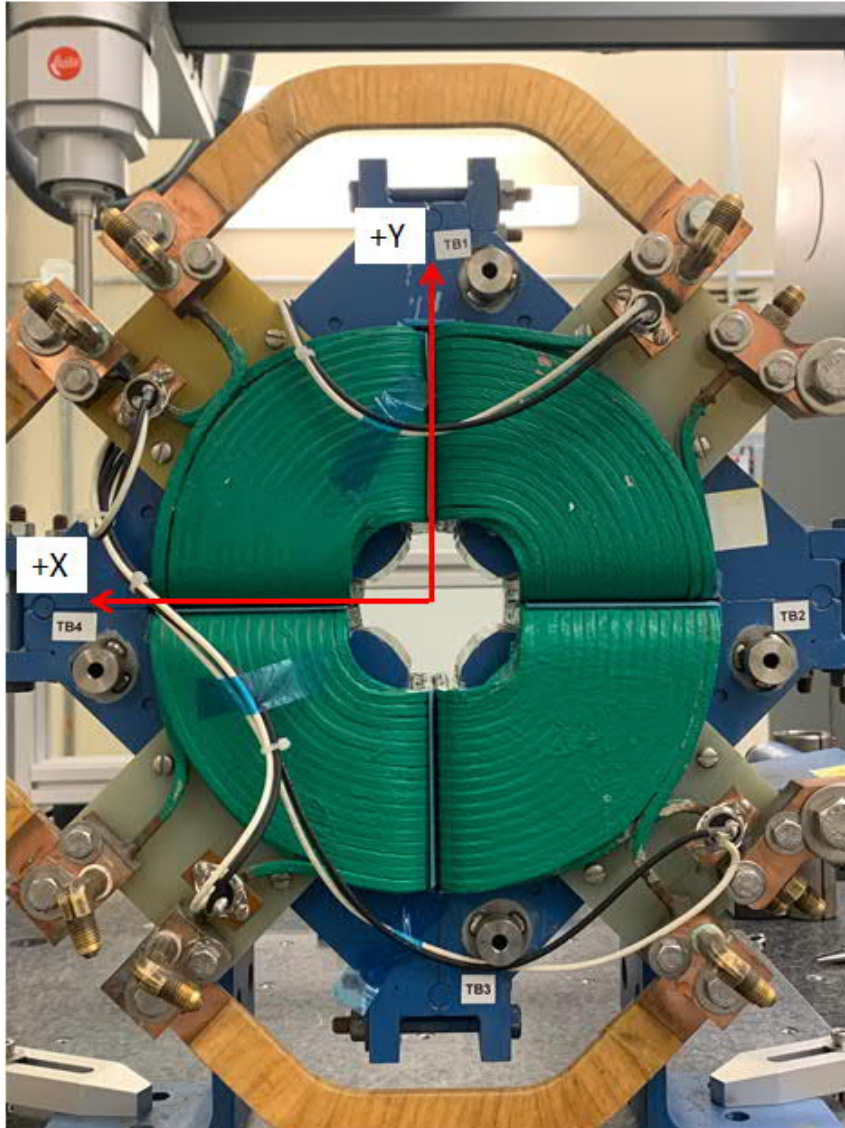
Pole Tip Deviations

Pole Tip	#1	#2	#3	#4
Min. Dev.	-0.0022	-0.0002	-0.0013	-0.0006
Max. Dev.	0.0023	0.0088	0.0018	0.0021

Barcode # : 4237

Mfg. S/N : #38

Angle of the Composite Pole Tip Best-Fit



in Decimal Degrees ° :