

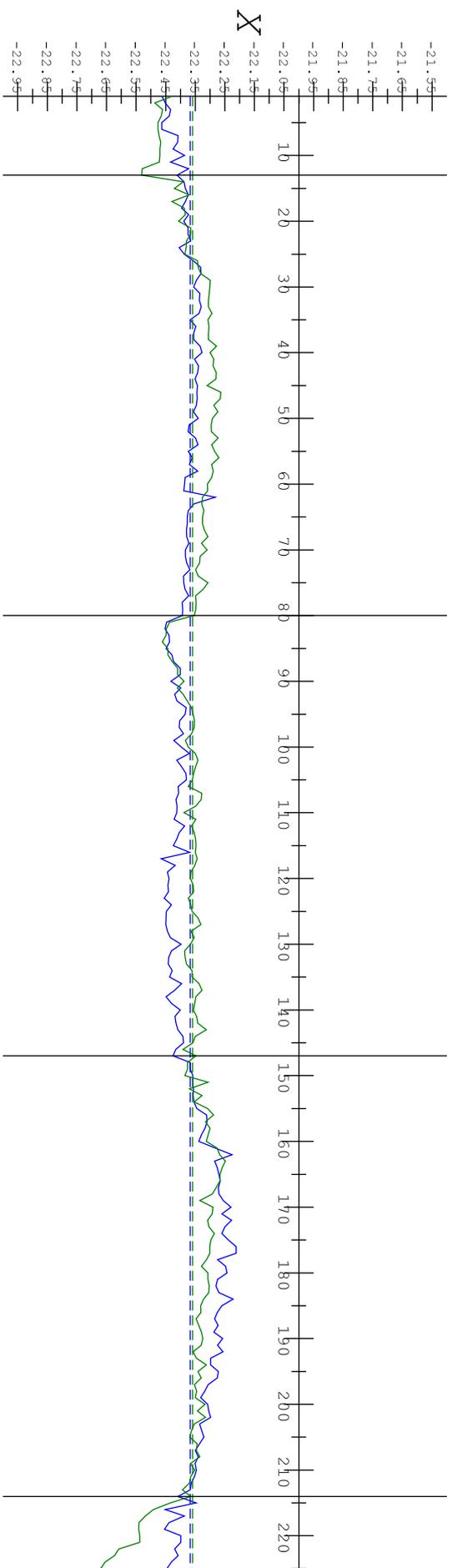
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 20-JUL-2011
 UNDUULATOR #13
 DATASET #0037
 PROGRAM VERSION 2.9

Pole Tip Number ----->



X values in mm

Green Solid = Point on front face of Upper Pole Tip 10mm above Magnetic C/L

Green Dash = Mean value of all Upper Pole Tips 10mm above Magnetic C/L Mean value Upper Pole Tips = -22.359

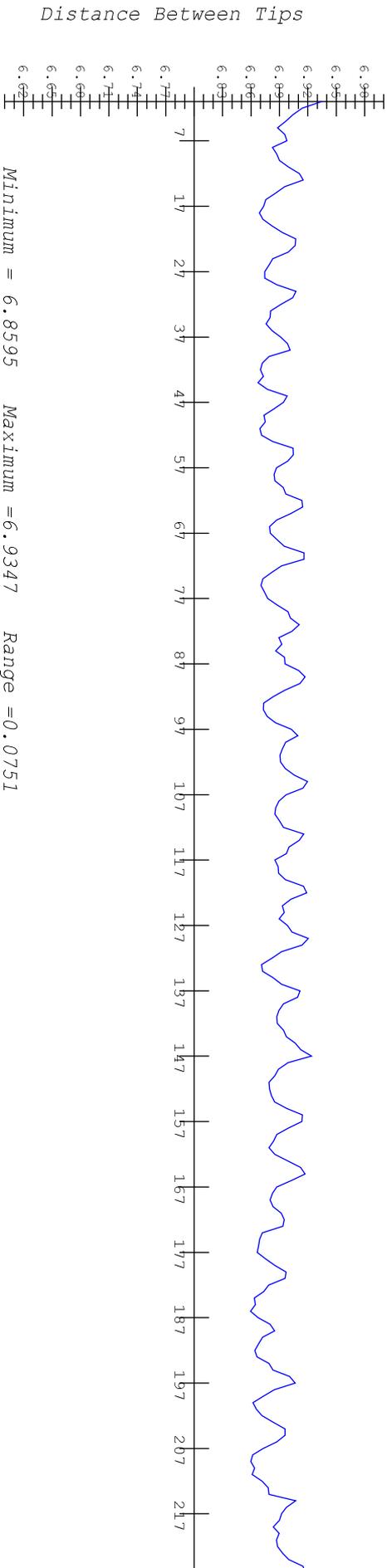
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -22.367

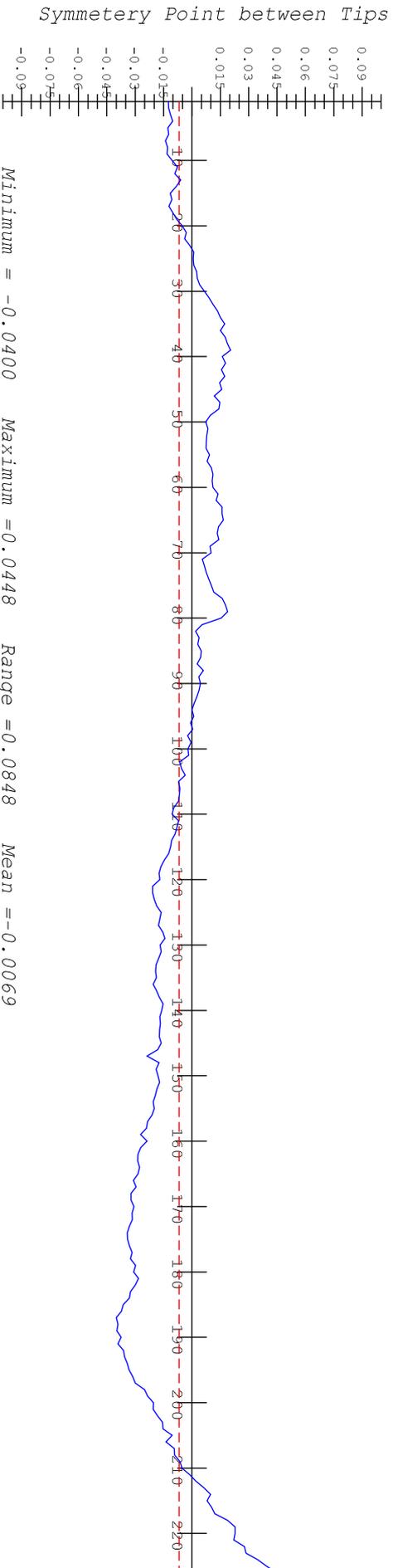


Undulator Pole Tip Location Post Magnetic Alignment

DATE: 20-JUL-2011
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PROGRAM VERSION 2.9



Pole Tip Number ----->



Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L
 Broken Red line is Mean Value of Symmetry Points
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L

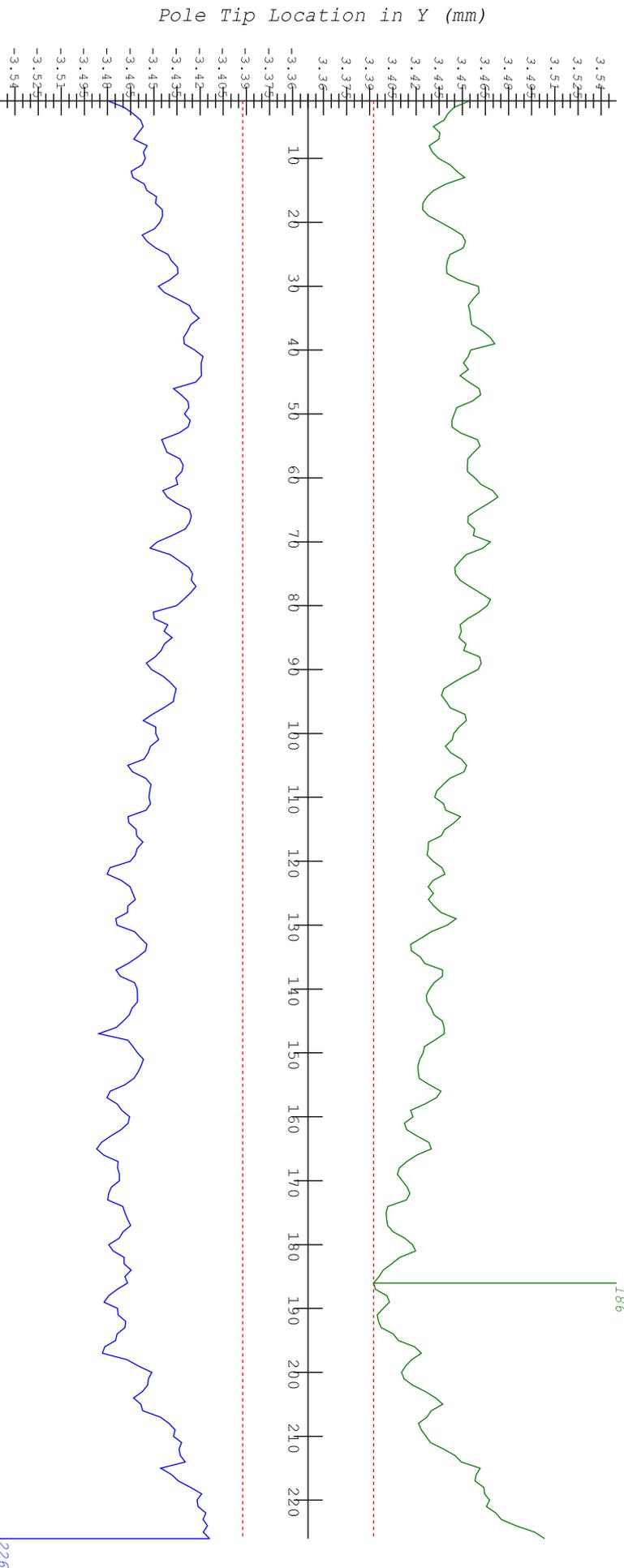


Undulator Pole Tip Location
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Maximum Chamber Gap = 6.7848

Minimum = 3.3924 Maximum = 3.5034 Range = 0.1110



Minimum = -3.4871 Maximum = -3.4139 Range = 0.0732

Pole Tip Number ----->

Green = The position of the Upper Pole Tips at Magnetic C\L
Blue = The position of the Lower Pole Tips at Magnetic C\L
Max. Chamber Gap = The maximum width vacuum chamber that will fit centered on the Magnetic C\L (2*Min. Dev. from C\L)



Undulator Pole Tip Location Post Magnetic Alignment

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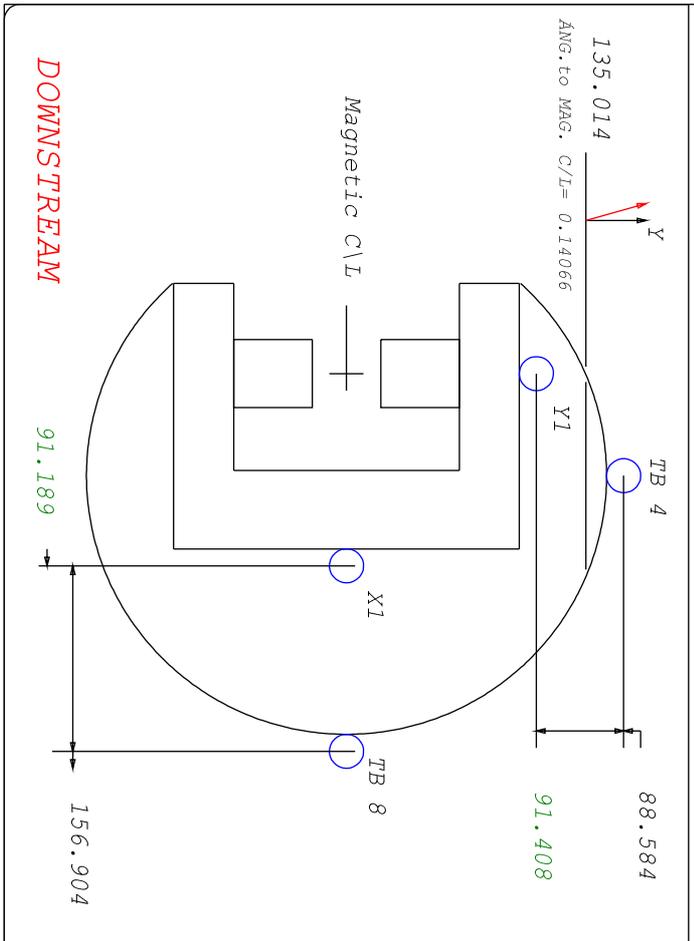
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	-0.3082	179.9903	-1558.286
2	-0.1303	180.0151	-584.4532
3	-0.2197	179.8935	591.3054
4	-0.2635	179.9917	1562.0666
5	248.0255	0.0779	1558.365
6	248.0180	-0.0237	-584.6068
7	248.0480	0.0374	591.3246
8	248.0926	-0.0639	1562.0856

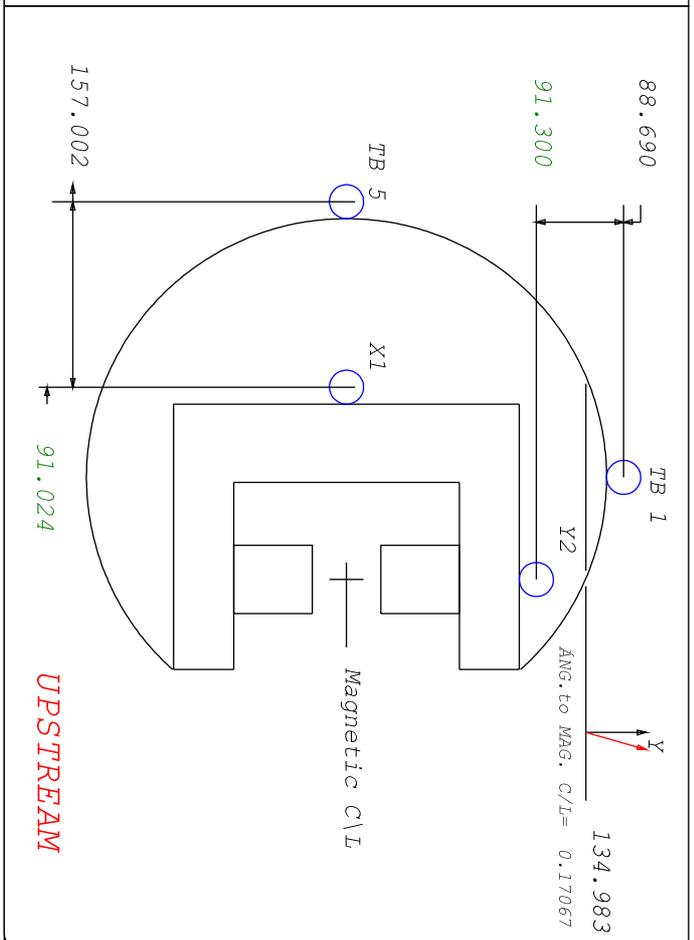
	C/L Offset	Length
Top Magnetic Structure	-0.096	3381.052
Bottom Magnetic Structure	0.096	3381.278
Strongback	0.249	3399.776

Dimensions in mm

Angles in mrad



DOWNSTREAM

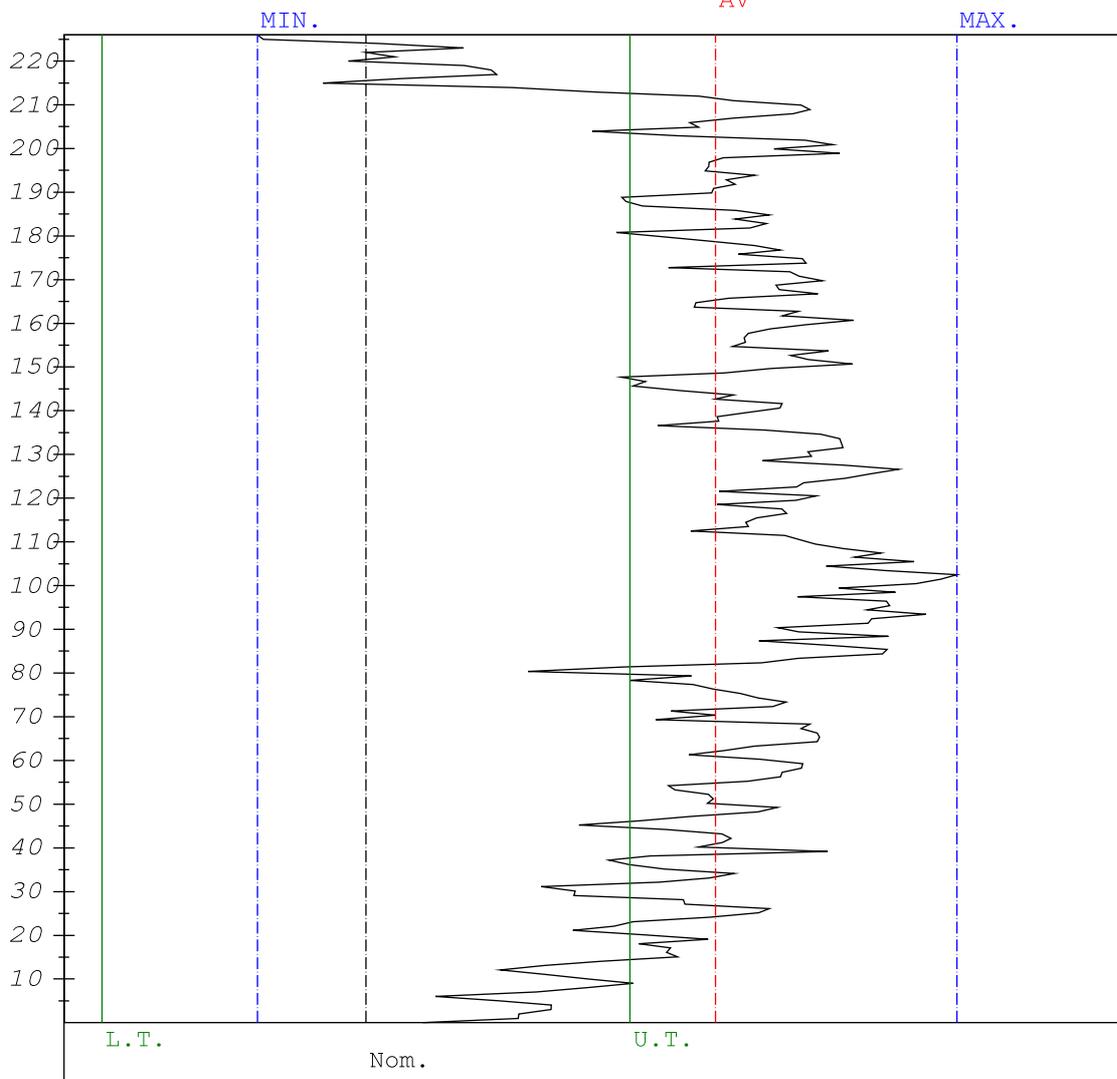
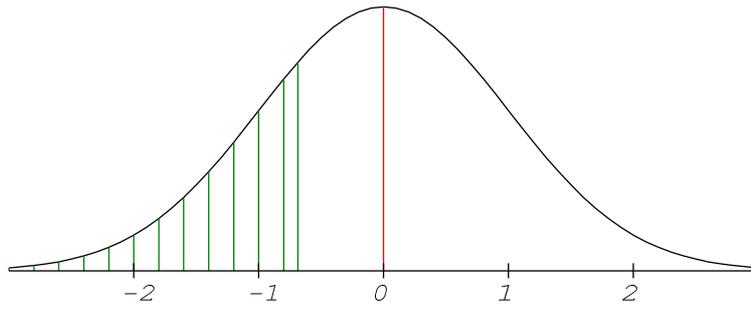


UPSTREAM



Undulator Dimensional Fiducialization
Post Magnetic Alignment

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Nominal : 4.5000	Averag : 5.1622	Cent.-Dev. : 0.6622
Up. Tol. : 0.5	Maximum : 5.6189	U.Tol.Ex. > : 75.3 %
Low.Tol. : -0.5	Minimum : 4.2949	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2366	In Tolerance: 24.7 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment

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