

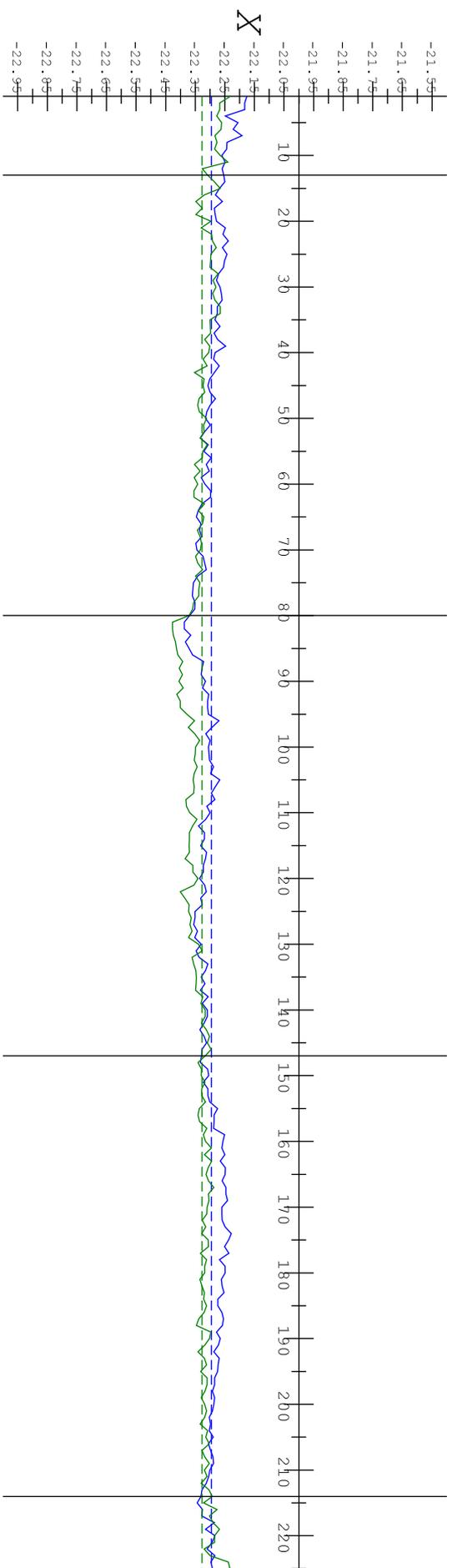
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 12-OCT-2009
 UNDUULATOR # 15
 DATASET # 0003
 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 = -22.327

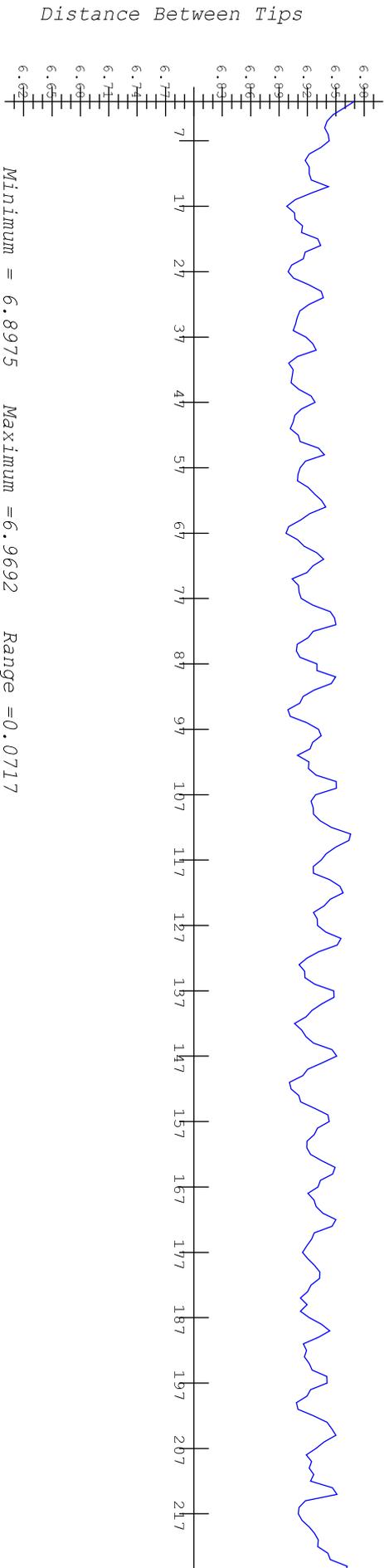
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -22.295



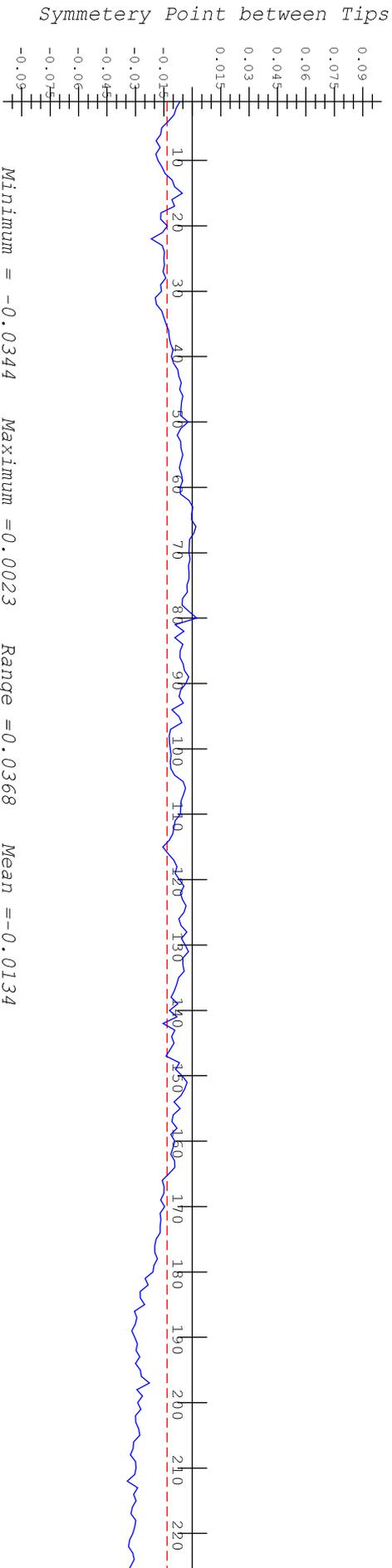
Undulator Pole Tip Location Post Magnetic Alignment

DATE: 12-OCT-2009
 UNDULATOR # 15
 DATASET # 0003
 PROGRAM VERSION 2.9



in mm

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

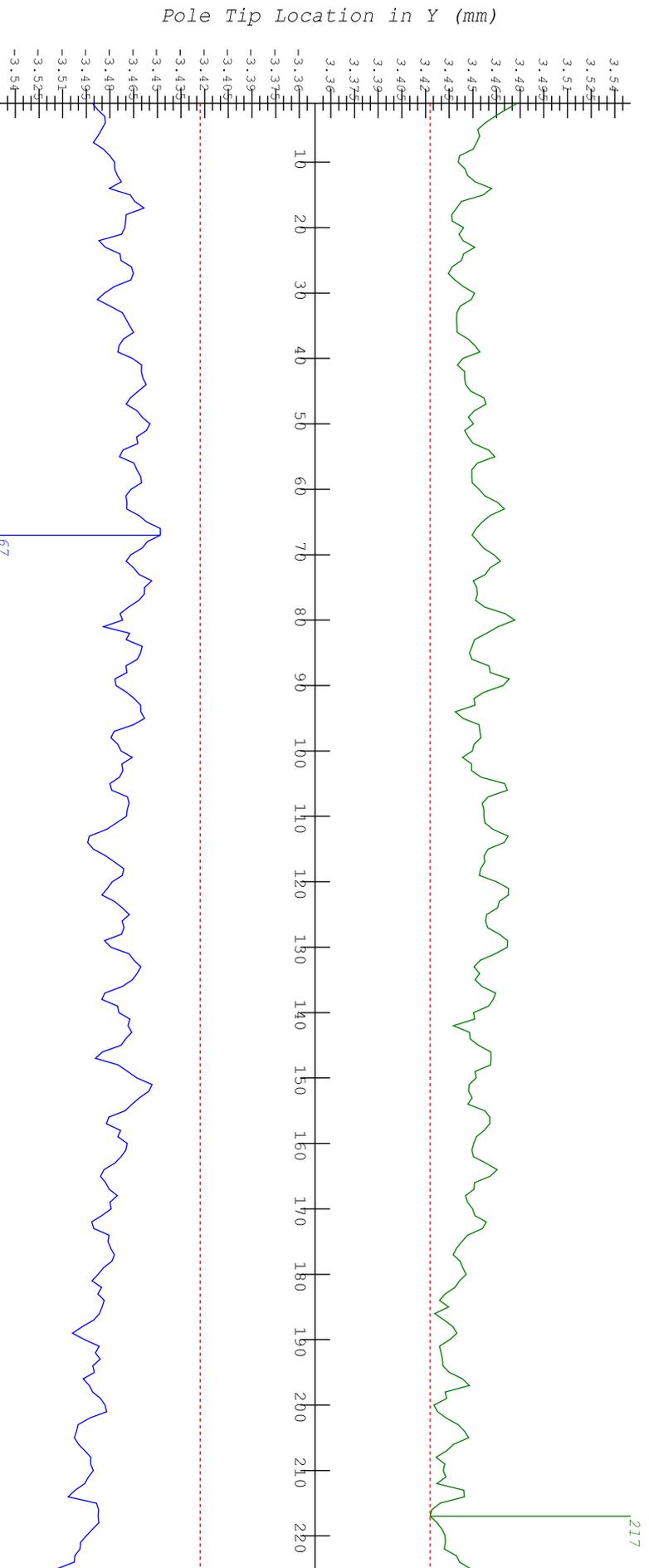


Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 12-OCT-2009
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Maximum Chamber Gap = 6.8458

Minimum = 3.4229 Maximum = 3.4781 Range = 0.0552



Minimum = -3.5147 Maximum = -3.4480 Range = 0.0667

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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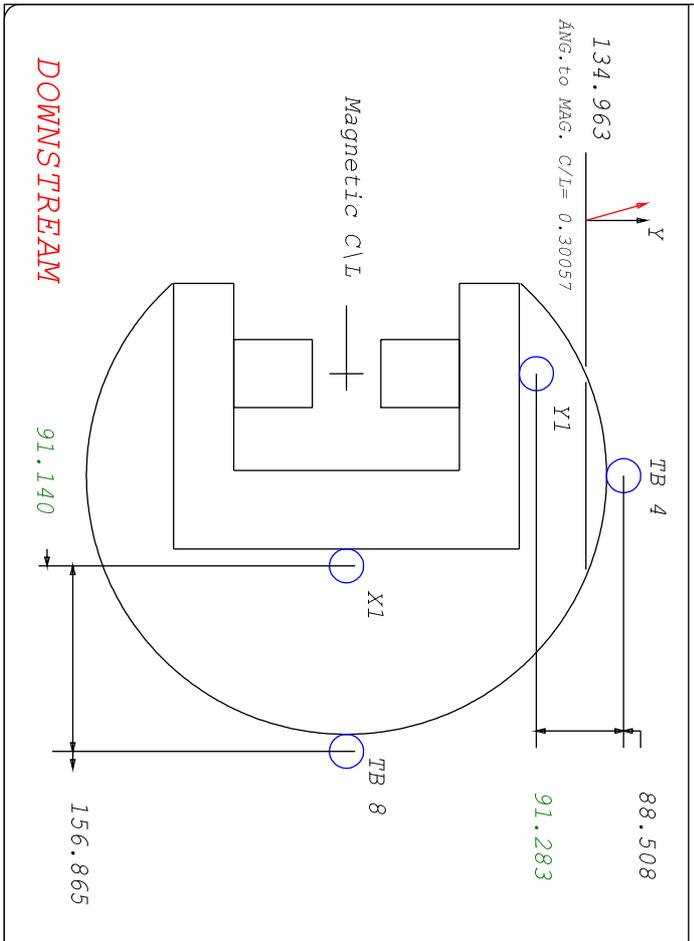
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	-0.3697	179.9675	-1558.240
2	-0.4903	179.9428	-584.5838
3	-0.5153	179.8431	591.4168
4	-0.2075	179.7913	1562.2037
5	248.0782	0.1029	-1558.106
6	247.9664	0.0375	-584.5504
7	248.0678	0.0154	591.4646
8	248.0051	-0.1242	1562.2939

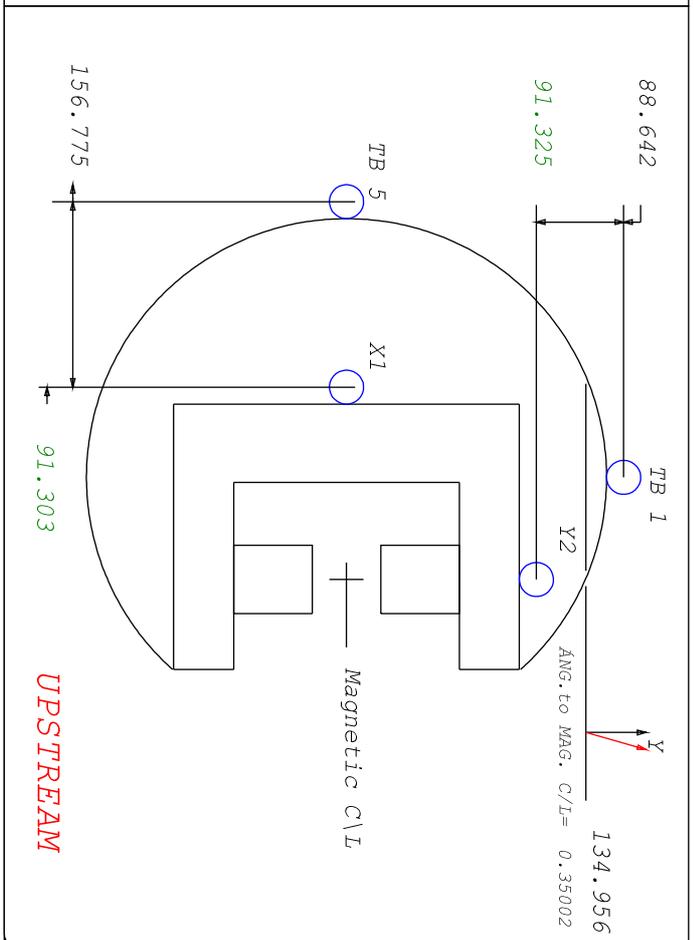
	C/L Offset	Length
Top Magnetic Structure	-0.022	3380.959
Bottom Magnetic Structure	0.022	3381.058
Strongback	0.474	3400.023

Dimensions in mm

Angles in mrad



DOWNSTREAM

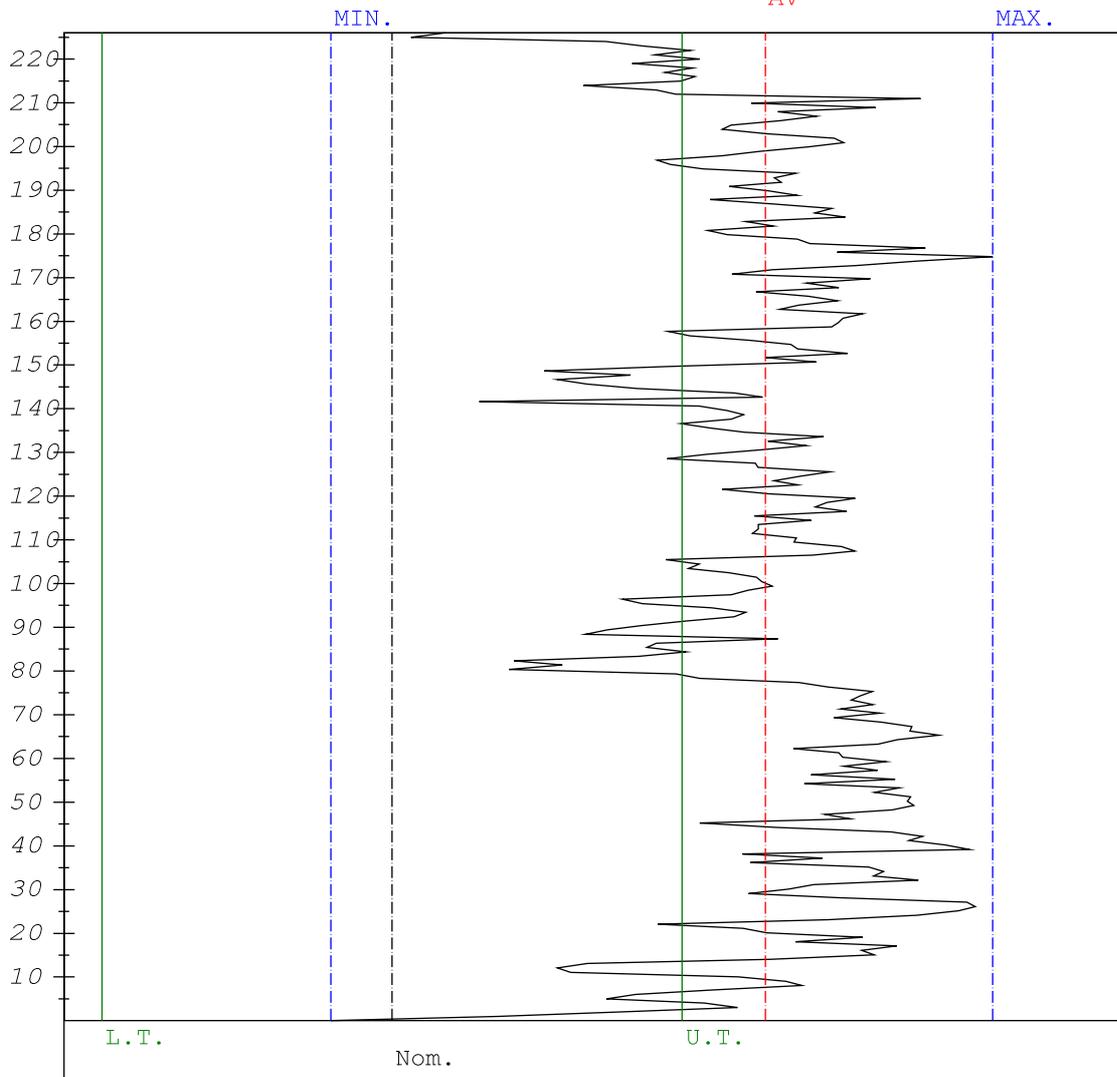
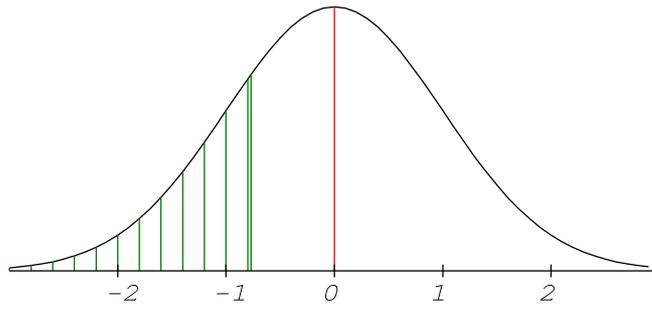


UPSTREAM



Undulator Dimensional Fiducialization
Post Magnetic Alignment

DATE: 12-OCT-2009
UNDULATOR # 15
DATASET # 0003
PROGRAM VERSION 2.9



Nominal : 4.5000	Averag : 5.1439	Cent.-Dev. : 0.6439
Up. Tol. : 0.5	Maximum : 5.5358	U.Tol.Ex. > : 77.9 %
Low.Tol. : -0.5	Minimum : 4.3950	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1868	In Tolerance: 22.1 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment

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PROGRAM VERSION 2.9