

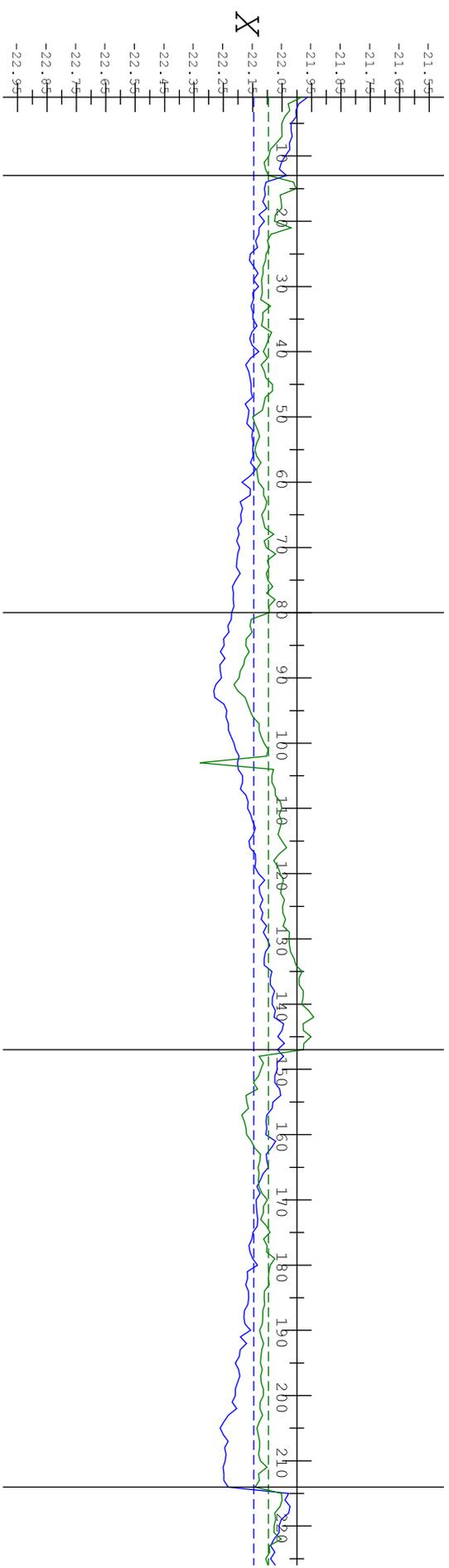
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips  
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles  
 Post Magnetic Alignment

DATE: 25-MAY-2010  
 UNDUULATOR # 18  
 DATASET # 0003  
 PROGRAM VERSION 4.0

# Pole Tip Number ----->



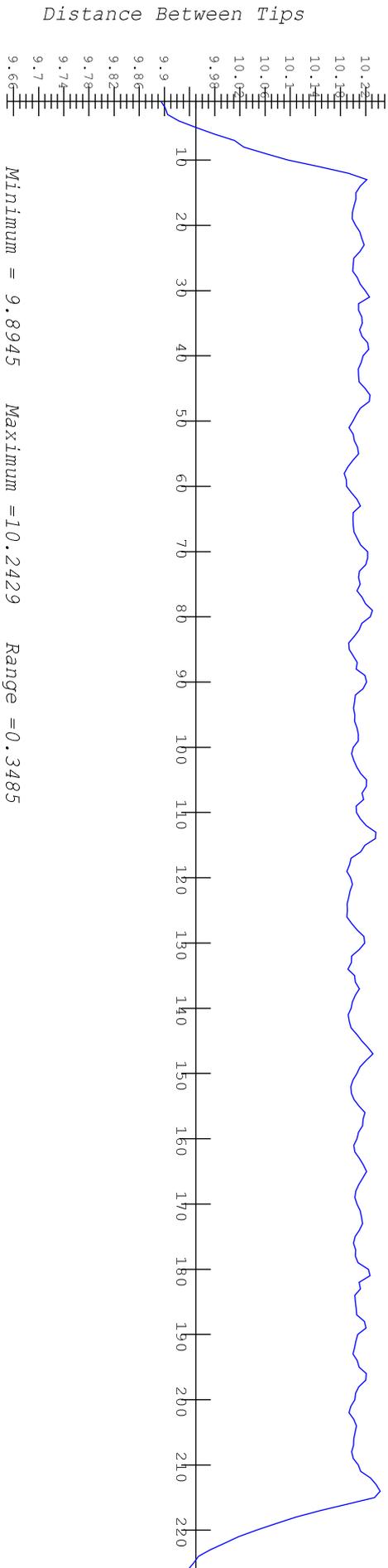
X values in mm

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 = -22.097  
 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 = -22.147



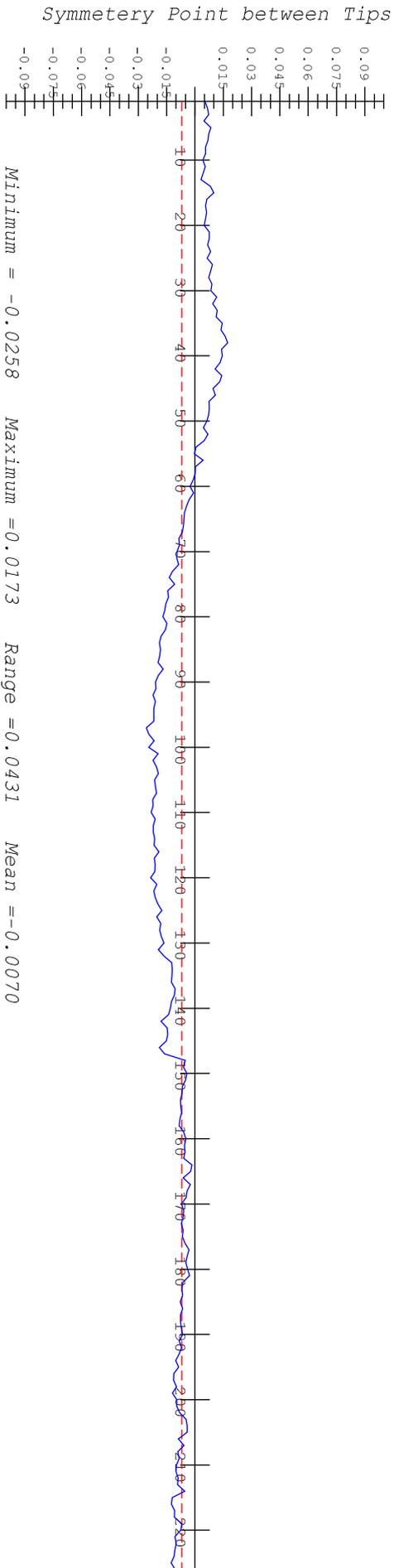
## Undulator Pole Tip Location Post Magnetic Alignment

DATE: 25-MAY-2010  
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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

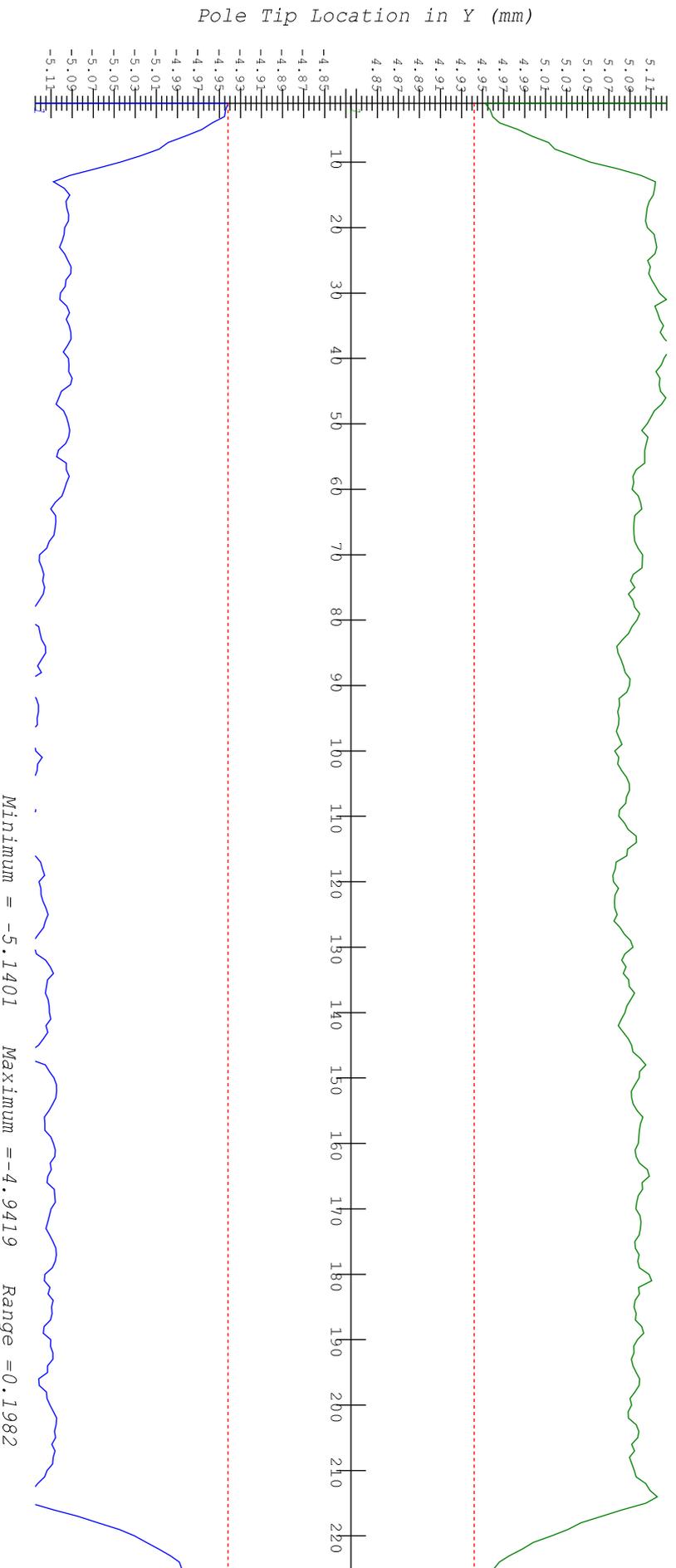


Undulator Pole Tip Location  
 Post Magnetic Alignment

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Maximum Chamber Gap = 9.8839

Minimum = 4.9525    Maximum = 5.1287    Range = 0.1762



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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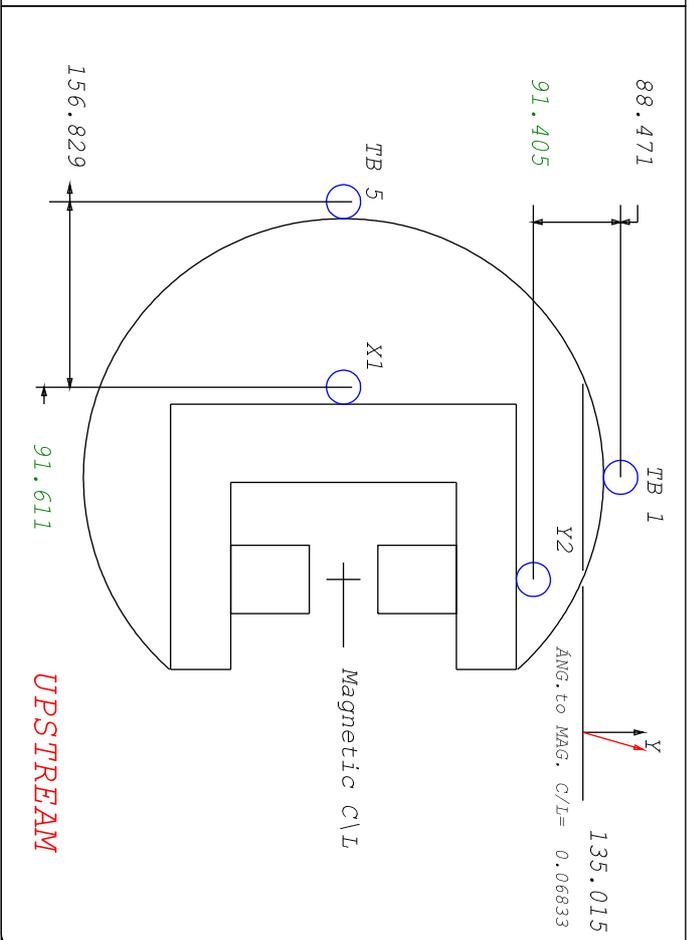
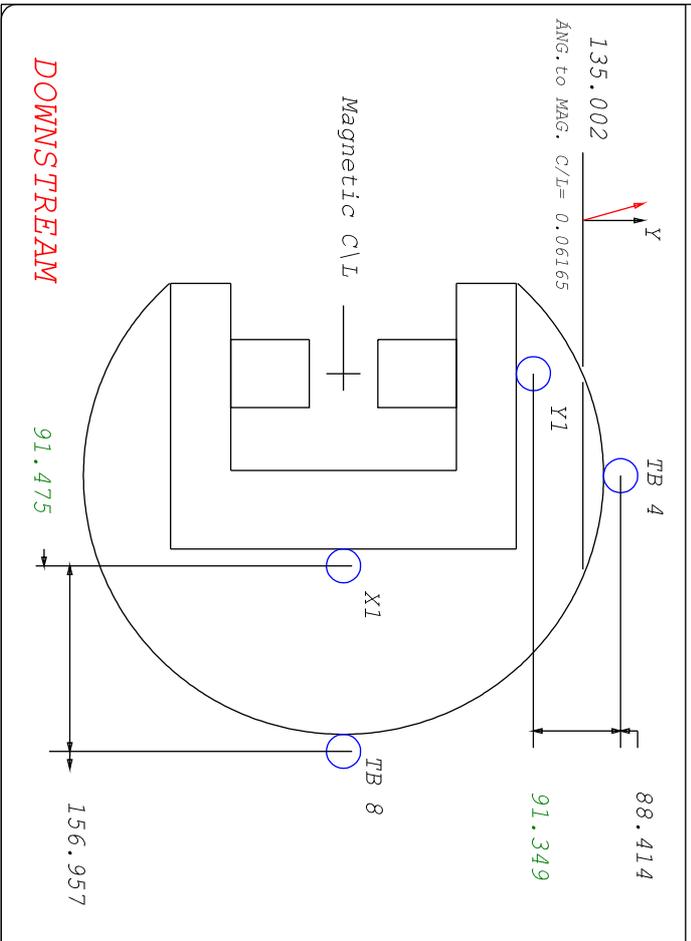
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.0984	179.8755	-1558.073
2	0.1043	179.7087	-584.5783
3	0.1230	179.7013	591.4280
4	0.1030	179.7631	1562.2705
5	248.4395	0.0764	-1558.200
6	248.4728	0.0959	-584.5019
7	248.4304	0.0975	591.4570
8	248.4319	0.1127	1562.2647

	C/L Offset	Length
Top Magnetic Structure	-0.020	3380.573
Bottom Magnetic Structure	0.020	3380.722
Strongback	0.423	3400.014

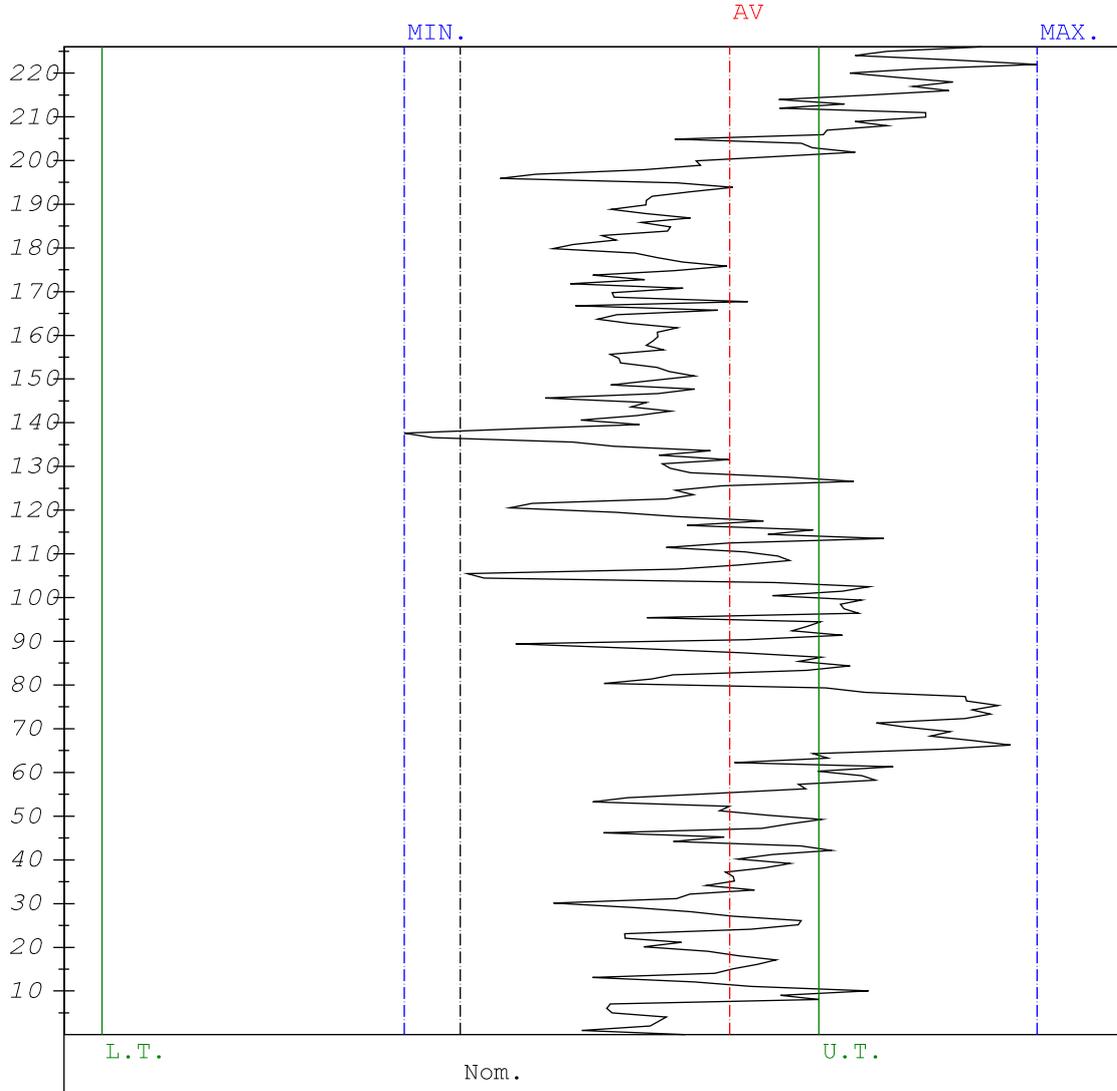
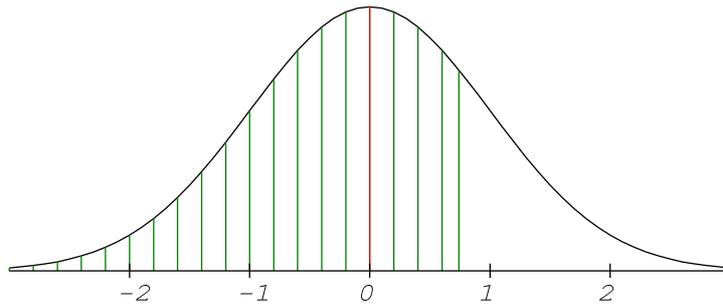
Dimensions in mm

Angles in mrad



# Undulator Dimensional Fiducialization Post Magnetic Alignment

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Nominal : 4.5000	Averag : 4.8758	Cent.-Dev. : 0.3758
Up. Tol. : 0.5	Maximum : 5.3043	U.Tol.Ex. > : 22.9 %
Low.Tol. : -0.5	Minimum : 4.4219	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1676	In Tolerance: 77.1 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation  
Pole Tip Gap Angle  
Post Magnetic Alignment

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