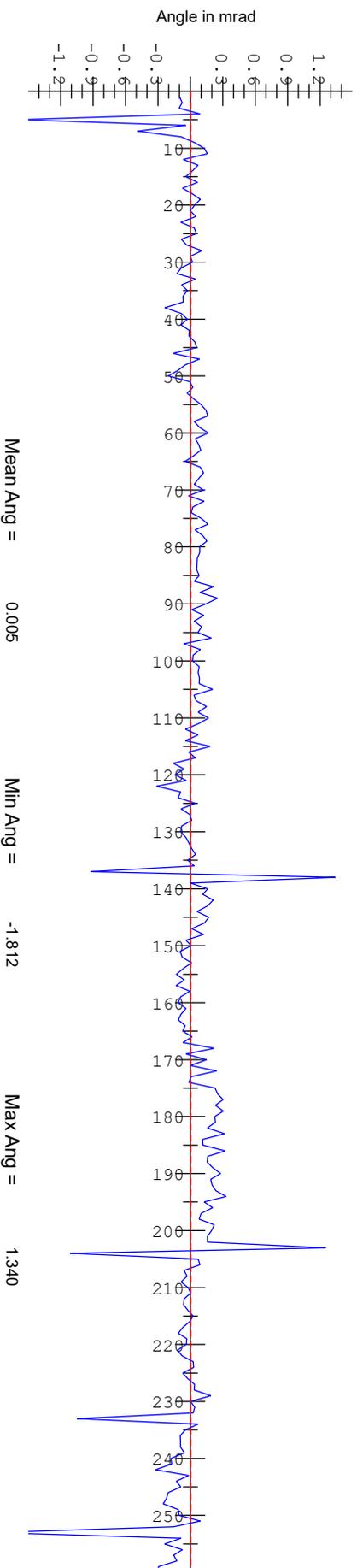


### Included Angle Between Pole Tips

Pole Tip Num. ----->

### Angle of Symmetry Line between Pole Tips to Tuning Gap ZX Plane



Dimensions in MM, Angles in Milliradians

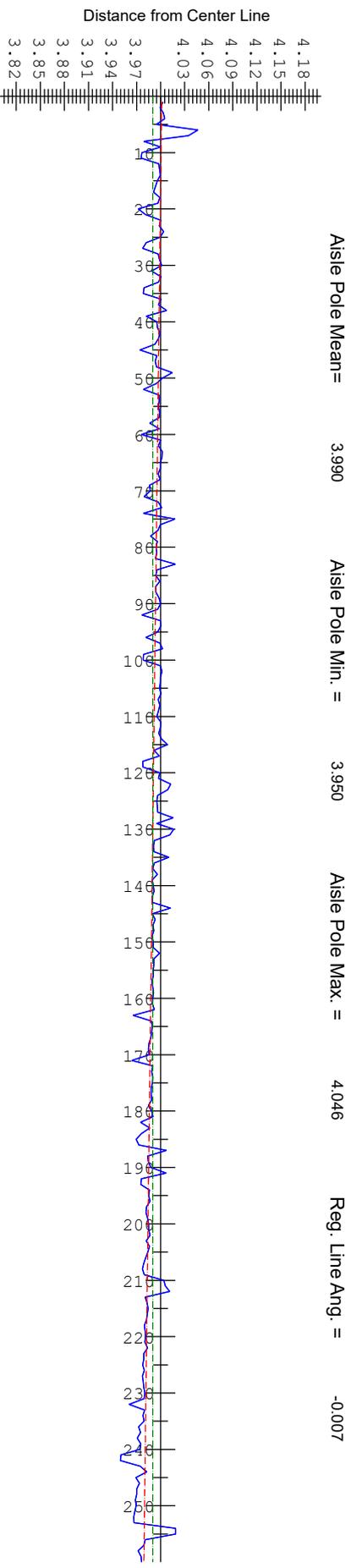


**SLAC**  
NATIONAL ACCELERATOR LABORATORY  
METROLOGY

## HGVPU - Pole Tip Angles

Nominal Gap :	8.000	US Full :	8.0000	DS Full :	7.8997
Nom. Taper :	-0.100	US Wall Half :	4.0025	DS Wall Half :	3.9561
		US Aisle Half :	4.0040	DS Aisle Half :	3.9557

S/N	: HXU_017
Date	: 31-OCT-2022
Data Set	: 0002
Run	: FINAL
Cam Pos.	: B



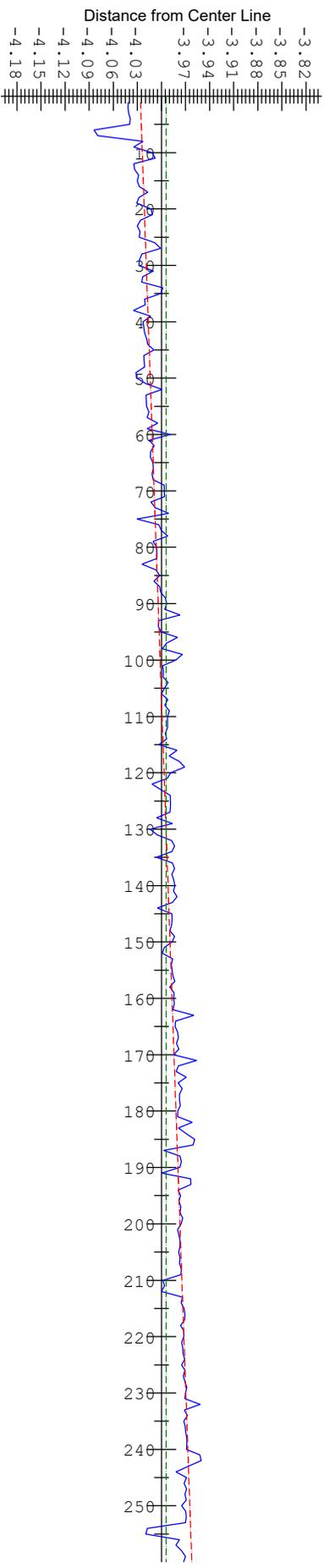
Pole Tip Num. ----->

### Aisle Pole Tips at Nom. Beam Height

Blue = Pole Tip points  
Green = Mean line  
Red = Regression line thru points

Minimum Clearance Gap = 7.900

### Wall Pole Tips at Nom. Beam Height



### Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



## HGVPU - Pole Tip Location from Girder Centerline

Nominal Gap :	8.000	US Full :	8.0000	DS Full :	7.8997
Nom. Taper :	-0.100	US Wall Half :	4.0025	DS Wall Half :	3.9561
		US Aisle Half :	4.0040	DS Aisle Half :	3.9557

S/N	: HXU_017
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**Values Calculated from Regression Line End Points**

Dimension	X Value	Y Value	Z Value	Calc. Value
<b>US Aisle Pole Tip(1)</b>	<b>4.001</b>	<b>0.000</b>	<b>8.750</b>	
<b>US Wall Pole Tip(1)</b>	<b>-4.026</b>	<b>0.000</b>	<b>8.750</b>	
<b>US Sym. Pt.</b>	<b>-0.012</b>			
<b>US Gap</b>				<b>8.027</b>
<b>DS Aisle Pole Tip(260)</b>	<b>3.979</b>	<b>0.000</b>	<b>3375.750</b>	
<b>DS Wall Pole Tip(260)</b>	<b>-3.962</b>	<b>0.000</b>	<b>3375.750</b>	
<b>DS Sym. Pt.</b>	<b>0.008</b>			
<b>DS Gap</b>				<b>7.941</b>
<b>Taper</b>				<b>-0.086</b>

Dimensions in MM



**HGVPU - Gap Calc. from Regression Line End Points**

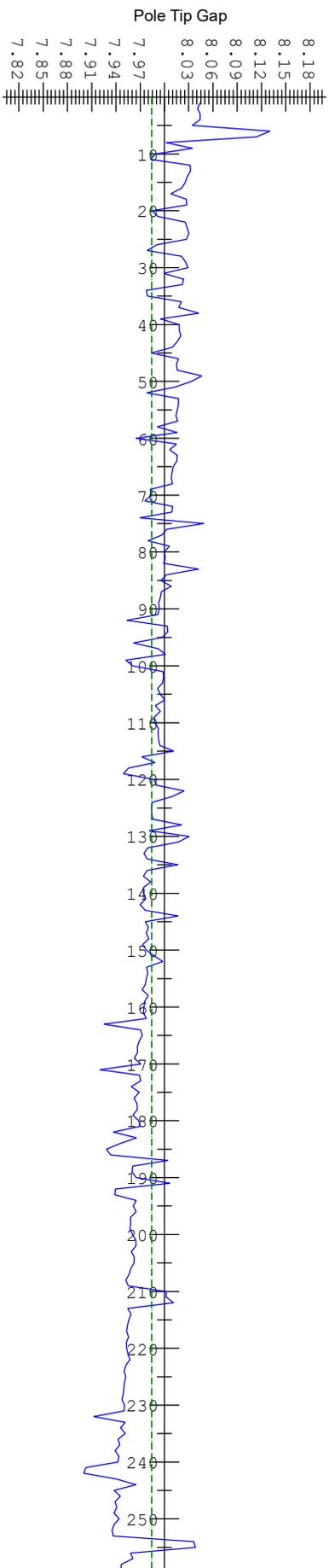
<b>Nominal Gap :</b>	<b>8.000</b>	<b>US Full :</b>	<b>8.0000</b>	<b>DS Full :</b>	<b>7.8997</b>
<b>Nom. Taper :</b>	<b>-0.100</b>	<b>US Wall Half :</b>	<b>4.0025</b>	<b>DS Wall Half :</b>	<b>3.9561</b>
		<b>US Aisle Half :</b>	<b>4.0040</b>	<b>DS Aisle Half :</b>	<b>3.9557</b>

<b>S/N</b>	<b>: HXU_017</b>
<b>Date</b>	<b>: 31-OCT-2022</b>
<b>Data Set</b>	<b>: 0002</b>
<b>Run</b>	<b>: FINAL</b>
<b>Cam Pos.</b>	<b>: B</b>

Gap Mean = 7.984

Gap Min. = 7.900

Gap Max. = 8.131

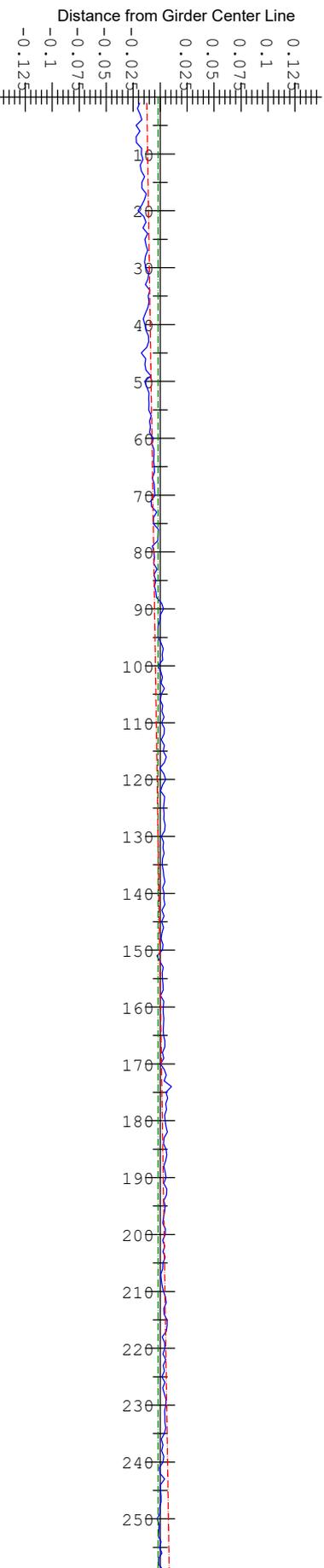


### Pole Tip Gap at Nom. Beam Height

Blue = Pole Tip points  
 Green = Mean line  
 Red = Regression line thru points

Pole Tip Num. ----->

### Pole Tip Symmetry Point at Nom. Beam Height



Sym. Mean =

-0.002

Sym. Min. =

-0.022

Sym. Max. =

0.011

Reg. Line Ang. =

0.006

### Girder centerline in reference to Pointed Magnets

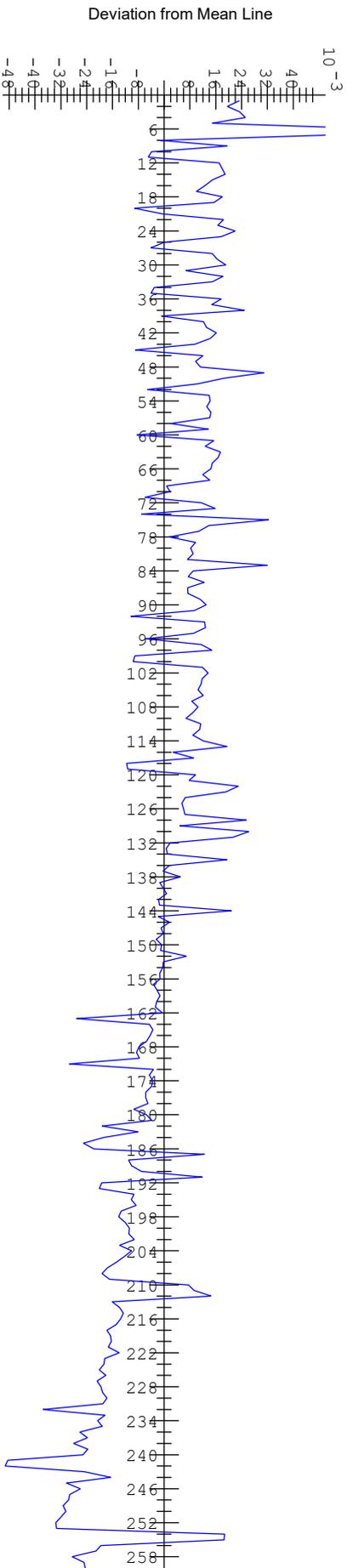
Dimensions in MM, Angles in Milliradians



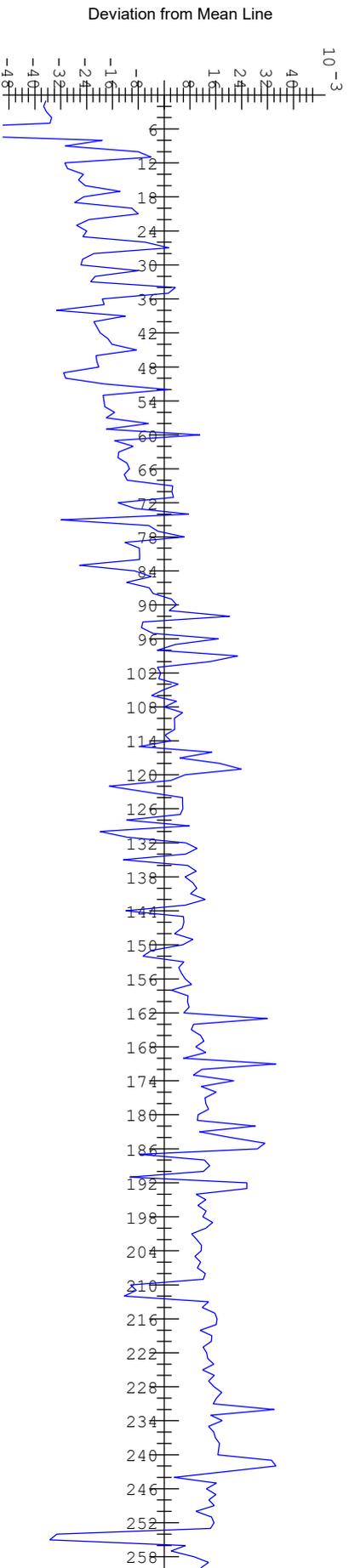
### HGVPU - Pole Tip Gap and Symmetry Point Location

Nominal Gap :	8.000	US Full :	8.0000	DS Full :	7.8997
Nom. Taper :	-0.100	US Wall Half :	4.0025	DS Wall Half :	3.9561
		US Aisle Half :	4.0040	DS Aisle Half :	3.9557

S/N	: HXU_017
Date	: 31-OCT-2022
Data Set	: 0002
Run	: FINAL
Cam Pos.	: B



### Aisle Pole Tips



### Wall Pole Tips

## Pole Tip Deviations from Jaw Mean Lines when aligned to actual Gap Sym. Plane

Dimensions in MM



## HGVPU - Pole Tip Deviation from Mean Line

Nominal Gap :	8.000	US Full :	8.0000	DS Full :	7.8997
Nom. Taper :	-0.100	US Wall Half :	4.0025	DS Wall Half :	3.9561
		US Aisle Half :	4.0040	DS Aisle Half :	3.9557

S/N	: HXU_017
Date	: 31-OCT-2022
Data Set	: 0002
Run	: FINAL
Cam Pos.	: B