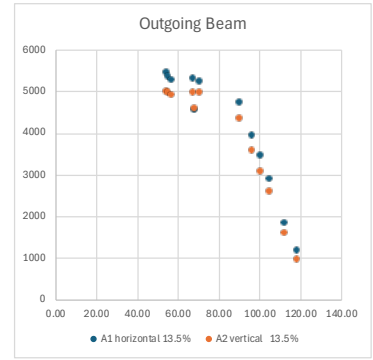


OUTGOING BEAM

Beam Widths (um)

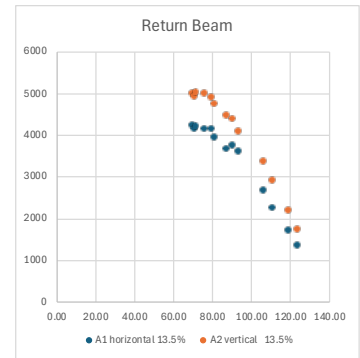
Data taken	Order measured (photos taken)	Distance from HWS/ALS beamsplitter ALS-M11 (mm) for 11/19, Distance from ALS lens ALS-L7 (inches) for 11/26	Distance from VP (inches)	A1 horizontal 13.5%	A2 vertical 13.5%	A1 horizontal D4sigma	A2 vertical D4sigma
11/19/24	3	280mm upstream of hws BS	-280	54.48	5455	4980	5290 4890
11/19/24	1	260mm upstream of hws BS	-260	55.26	5350	4960	5200 4890
11/19/24	2	220mm upstream of hws BS	-220	56.84	5270	4910	5110 4870
11/19/24	6	55mm downstream of hws BS	55	67.67	5290	4955	5170 4910
11/19/24	4	70mm downstream of hws BS	70	68.26	4540	4580	4560 4630
11/19/24	5	130mm downstream of hws BS	130	70.62	5240	4970	5130 4950
11/26/24	3	6" upstream of L7	6	90	4738	4344	4644 4359
11/26/24	2	12.5" upstream of L7	12.5	96.5	3938	3571	3885 3601
11/26/24	1	16.5" upstream of L7	16.5	100.5	3452	3079	3411 3119
11/26/24	4	21" upstream of L7	21	105	2891	2580	2860 2605
11/26/24	5	28.5" upstream of L7	28.5	112.5	1845	1609	1818 1621
11/26/24	6	34.5" upstream of L7	34.5	118.5	1188	959	1170 953



RETURN BEAM (with ITMY misaligned)

Beam Widths

	Order measured (photos taken)	Distance from HWS/ALS beamsplitter ALS-M11 (mm) for 11/19, Distance from HWS mirror ALS-M3 (inches) for 11/26	Distance from VP (inches)	A1 horizontal 13.5%	A2 vertical 13.5%	A1 horizontal D4sigma	A2 vertical D4sigma
11/19/24	1	25mm downstream of hws mirror	115	70.03	4225	4975	4440 5140
11/19/24	3	55mm downstream of hws mirror	145	71.21	4135	4930	4355 5105
11/19/24	2	65mm downstream of hws mirror	155	71.60	4185	5000	4360 5130
11/19/24	4	0mm downstream of hws lens	280	76.52	4125	4980	4305 5120
11/19/24	5	80mm downstream of hws lens	360	79.67	4140	4895	4370 5085
11/19/24	6	120mm downstream of hws lens	400	81.25	3940	4750	4160 4955
11/19/24	7	270mm downstream of hws lens	550	87.15	3650	4455	3920 4705
11/19/24	8	360mm downstream of hws lens	640	90.70	3745	4369	3955 4575
11/19/24	9	435mm downstream of hws lens	715	93.65	3590	4070	3805 4345
11/26/24	1	3" downstream of M3	3	106.25	2673	3345	2939 3707
11/26/24	2	8" downstream of M3	8	111.25	2235	2902	2502 3198
11/26/24	3	16" downstream of M3	16	119.25	1704	2180	1892 2402
11/26/24	4	21" downstream of M3	21	124.25	1343	1741	1503 1878



Distances in ALS path	Inches between
Edge of table to VP (alog#760)	24.5
M16 to Edge of table	3
M13 to M16 (questimate)	2
M12 to M13	24
M12 (LPM) to M11	12
M11 to M10	12.5
M10 to L7	6
L7 to L6	38
L6 to M9	14
M9 to M8	7
M8 to M7	3.5
M7 to L5	3.5

Distance between VP and ALS-L7: 84

Distance between VP and ALS-M11: 65.5

Distances in HWS path	Inches between
Edge of table to VP (alog#760)	24.5
M16 to Edge of table	3
M13 to M16 (questimate)	2
M12 to M13	24
M12 (LPM) to M11	12
ALS-M11 to M1A	3.25
M1A to L1	7.25
L1 to L2	23.5
L2 to M2	1.25
M2 to M3	2.5
M3 to M4	26.5
M4 to M5	2.5
M5 to L3	9.75
L3 to source	35

Distance between VP and HWS-M3: 103.25

Distance between VP and ALS-M11: 65.5