

table height, global

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IFO	OPTIC							
		ZEMAX			GLOBAL			
		X	Y	Z	X	Y	Z	distance
H2	ITMX-RADIUS	80.0	200.0	9920.7	9920.7	200.0	-80.0	
	ITM THICKNESS							200.0
	CP GAP							20.0
	CP THICKNESS							100.0
	CP BACK	80.0	200.0	9600.7	9600.7	200.0	-80.0	
	FM	80.4	199.7	9003.1	9003.1	199.7	-80.4	597.6
	ITMX ELLIP BAFFLE	89.5	8220.0	9125.0	9125.0	8220.0	-89.5	8021.2
	BS HR	90.7	9096.1	9139.1	9139.1	9096.1	-90.7	876.2
	BS THICKNESS							65.9
	BS ARS	90.5	9159.6	9121.6	9121.6	9159.6	-90.5	
	SR3 HR baffle							
	SR3	113.4	29261.5	9407.9	9407.9	29261.5	-113.4	20104.0
	SR2 HR scraper baffle	131.8	13949	8718.2	8718.2	13949.0	-131.8	15328.0
	SR2	131.1	13270.0	8683.0	8683.0	13270.0	-131.1	679.9
	SR2 AR scraper baffle	136.2	12570	8680.97	8681.0	12570.0	-136.2	
	SRM HR baffle							
	SRM	149.1	29222.6	8923.96	8924.0	29222.6	-149.1	15954.4
	BEAM WAIST AFTER SRM							24840.0
	Hartmann X							
	BEAM WAIST AFTER SR2AR							1801.0
	HWSX M1	138.5	12373.3	8642.5	8642.5	12373.3	-138.5	
	BEAM WAIST AFTER HWSXM1							978.1
	Hartmann Baffle	138.8	12373	9404	9404.0	12373.0	-138.8	761.5
	HWSX M2	138.5	12373.3	9636.2	9636.2	12373.3	-138.5	
	HWSX M3	138.5	12823.3	9636.2	9636.2	12823.3	-138.5	
	HWSX M4	138.5	12823.3	8454.5	8454.5	12823.3	-138.5	
	HPXF1	138.5	12972	10154.5	10154.5	12972.0	-138.5	
	BEAM WAIST AFTER HPXF1							2713.0
	HWSX M5	138.5	13051.2	9354.5	9354.5	13051.2	-138.5	
	Hartmann Y							
	BEAM WAIST AFTER SR3							18240.0
	HWSY M1	132.0	13507.1	8773.6	8773.6	13507.1	-132.0	
	HWSY M2	135.0	13507.1	9323.6	9323.6	13507.1	-135.0	
	HPY_F1	135.0	13576.8	8892.0	8892.0	13576.8	-135.0	
	WAIST AFTER HPYF1							632.0
	HWSY M3	135.0	13651.9	9852.0	9852.0	13651.9	-135.0	
	HWSY M4	135.0	13588.6	9601.6	9601.6	13588.6	-135.0	

H1								
	ITMX-RADIUS	80.0	-200.0	4998.0	4998.0	-200.0	-80.0	
	ITM THICKNESS							200.0
	CP GAP							20.0
	CP THICKNESS							100.0
	CP BACK	80.0	-200.0	4778.0	4778.0	-200.0	-80.0	
	ITMX ELLIP BAFFLE	82.4	-202.5	750.0	750.0	-202.5	-82.4	4028.0
	BS AR	82.9	-202.6	-139.4	-139.4	-202.6	-82.9	889.4
	BS THICKNESS							65.8
	BS ARS	82.9	-247.9	-184.8	-184.8	-247.9	-82.9	
	SR3 HR baffle							
	SR3	94.5	-19615.9	-175.5	-175.5	-19615.9	-94.5	19368.0
	SR2 HR scraper baffle	104.1	-4736.5	-579.8	-579.8	-4736.5	-104.1	14884.9
	SR2	104.1	-4160.4	-594.3	-594.3	-4160.4	-104.1	576.3
	SR2 AR scraper baffle	110.2	-3330.9	-617.4	-617.4	-3330.9	-110.2	
	SRM HR baffle							
	SRM	113.5	-19875.6	305.2	305.2	-19875.6	-113.5	15740.9
	BEAM WAIST AFTER SRM							20390.0
	Hartmann Y							
	BEAM WAIST AFTER SR2AR							2276.0
	HWSY M1	112.3	-3119.1	-622.82	-622.8	-3119.1	-112.3	
	Hartmann Baffle	99.12	-3192	222.00	222.0	-3192.0	-99.1	848.1
	HWSY M2	94.22	-3119.2	581.41	581.4	-3119.2	-94.2	
	WAIST AFTER HWSYM2							180.0
	HWSY M3	94.72	-3612.1	581.42	581.4	-3612.1	-94.7	
	HWSY M4	96.11	-3612	-813.79	-813.8	-3612.0	-96.1	
	HPY_F1	97.82	-3760.7	886.20	886.2	-3760.7	-97.8	
	WAIST AFTER HPYF1							2831.0
	Hartmann X							
	BEAM WAIST AFTER SR3							18240.0
	HWSX M1	104	-4325.1	-667.68	-667.7	-4325.1	-104.0	
	HWSX M2	102.2	-4274.5	322.92	322.9	-4274.5	-102.2	
	HPX_F1	101.7	-4449.8	-310.03	-310.0	-4449.8	-101.7	
	WAIST AFTER HPXF1							863.6
	HWSX M4	101.4	-4451	649.85	649.8	-4451.0	-101.4	
	HWSX M5	101.3	-4370	399.79	399.8	-4370.0	-101.3	
L1								
	ITMX-RADIUS							
	SR3 HR baffle							
	SR3	94.5	-19615.9	-175.5	-175.5	-19615.9	-94.5	
	SR2 HR scraper baffle	85.3	-4736.5	-579.8	-579.8	-4736.5	-85.3	
	SR2	84.9	-4160.4	-594.3	-594.3	-4160.4	-84.9	
	SR2 AR scraper baffle	90.9	-3330.9	-617.4	-617.4	-3330.9	-90.9	
	SRM HR baffle							
	SRM	94.2	-19875.6	305.2	305.2	-19875.6	-94.2	
	BEAM WAIST AFTER SRM							20390.0
	Hartmann Y							

	BEAM WAIST AFTER SR2AR							2276.0
	HWSY M1	112.3	-3119.1	-622.82	-622.8	-3119.1	-112.3	
	Hartmann Baffle	99.12	-3192	222.00	222.0	-3192.0	-99.1	848.1
	HWSY M2	94.22	-3119.2	581.41	581.4	-3119.2	-94.2	
	WAIST AFTER HWSYM2							180.0
	HWSY M3	94.72	-3612.1	581.42	581.4	-3612.1	-94.7	
	HWSY M4	96.11	-3612	-813.79	-813.8	-3612.0	-96.1	
	HPY_F1	97.82	-3760.7	886.20	886.2	-3760.7	-97.8	
	WAIST AFTER HPYF1							2831.0
	Hartmann X							
	BEAM WAIST AFTER SR3							18240.0
	HWSX M1	104	-4325.1	-667.68	-667.7	-4325.1	-104.0	
	HWSX M2	102.2	-4274.5	322.92	322.9	-4274.5	-102.2	
	HPX_F1	101.7	-4449.8	-310.03	-310.0	-4449.8	-101.7	
	WAIST AFTER HPXF1							863.6
	HWSX M4	101.4	-4451	649.85	649.8	-4451.0	-101.4	
	HWSX M5	101.3	-4370	399.79	399.8	-4370.0	-101.3	

1/e^2 radius	1E-3 radius	Hartmann beam radius requirement	Baffle hole radius	Height above table
53.1				
12733.9				
54.30	101	85	132.5	
54.30				
7.99	16.00	36.0	42	193.2
6.65				
4.22	6.40	30.0	30	
			14	
2.67				
1.29				
0.094				
3.51				
0.094				
0.783		36.0	36	
0.11				
1.67				
5.91				
12.04				
0.076				
8.47				
0.11				
1.555				
1.21				
0.956				
0.928				
0.936				
0.952				

53.16				
54.30	101	85	132.5	
54.14				
9.59	18.30	36.0	42	220.9
8.25				
5.06	9.30	30	30	
2.05	3.90		14	
2.05				
0.84				
0.096				
4.64				
1.64		36.0	36.0	
0.65				
0.10				
0.85				
5.52				
11.31				
0.085				
0.11				
8.96				
6.24				
4.51				
0.065				
0.13				
1.09				
53.16				
54.30	101	85	132.5	
54.14				
9.59		36.0	42	
8.25				
5.06		30.0	30	
2.05	5.00		14	
2.05				
0.84				

0.096			
4.64			
1.64		36.0	36.0
0.65			
0.10			
0.85			
5.52			
11.31			
0.085			
0.11			
8.96			
6.24			
4.51			
0.065			
0.13			
1.09			