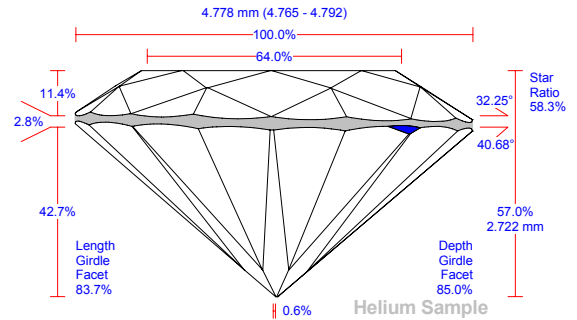


DIAMCALC FULL REPORT

Polished Brilliant

General information

Model Sample Helium Brilliant
 Expert name Sample Expert Name
 Report date 06.09.2006
 Real weight, ct 0.37
 Calculated weight, ct 0.37, 0.3764
 Spread 0.03 ct, -8.44%
 Appraiser title AGS_2005
 Overall cut quality 3
 Overall symmetry quality PR
 Total height 2.722 mm, 56.96 %
 Total height quality N/A
 Crown painting Small
 Crown painting type Painting
 Pavilion painting Absent
 Pavilion painting type
 Girdle-Culet offset (by table axis) 1.50 ± 0.26 %, 0.061 ± 0.011
 Girdle-Table offset (by table axis) 1.28 ± 0.23 %, 0.072 ± 0.012
 Culet-Table offset (by table axis) 1.82 ± 0.27 %, 0.087 ± 0.013
 Girdle to table-culet line offset 1.10 %, 0.052 mm
 EF / Nat Yes (2)



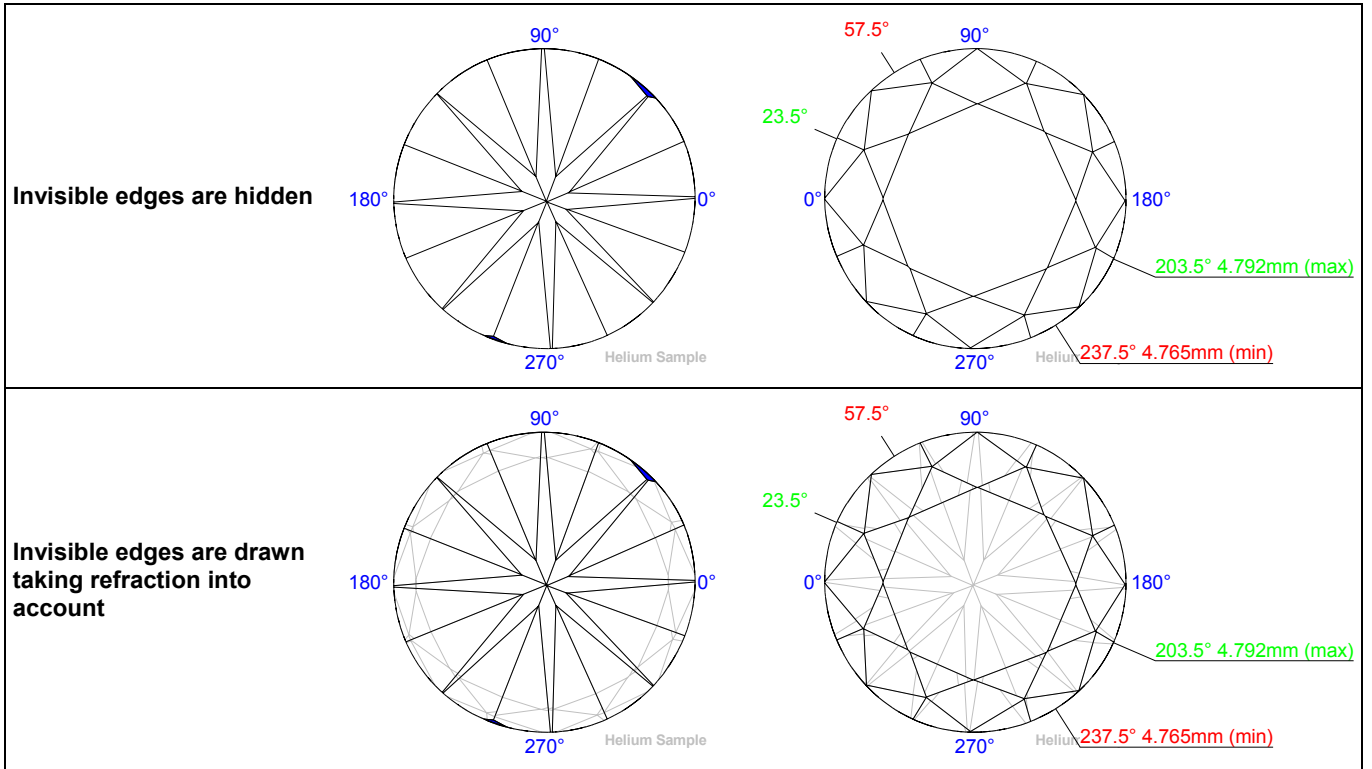
Main parameters

Parameter		Avg	Min	Max	Dev	Cut	Sym
Diameter	mm	4.778	4.765	4.792	0.57 %	N/A	EX
Crown angle	°	32.25	31.11	32.55	1.44	N/A	VG
Crown height	%	11.38	10.61	12.35	1.75	N/A	VG
Crown height	mm	0.544	0.507	0.590	0.083	-	-
Crown height at girdle minima	%	11.97	10.94	13.04	2.10	N/A	-
Crown height at girdle minima	mm	0.572	0.523	0.623	0.100	-	-
Pavilion angle	°	40.68	39.68	41.53	1.86	N/A	VG
Pavilion depth	%	42.72	41.72	43.77	2.05	N/A	GD
Pavilion depth	mm	2.041	1.993	2.091	0.098	-	-
Pavilion depth at girdle minima	%	43.48	42.48	44.75	2.27	N/A	-
Pavilion depth at girdle minima	mm	2.077	2.030	2.138	0.109	-	-
Lower girdle facets angle	°	41.57	40.59	42.49	1.90	-	VG
Lower girdle facets height	%	37.24	35.87	38.45	2.58	-	GD
Lower girdle facets height	mm	1.780	1.714	1.837	0.123	-	-
Depth Girdle Facet	%	85.02	83.42	87.24	3.83	N/A	-
Length Girdle Facet	%	83.72	82.13	85.85	3.72	-	-
Upper girdle facets angle	°	39.95	39.01	41.04	2.03	-	GD
Upper girdle facets height	%	7.89	6.90	8.87	1.97	-	-
Upper girdle facets height	mm	0.377	0.330	0.424	0.094	-	-
Star facets angle	°	18.74	17.50	19.77	2.27	-	GD
Star :							
Upper ratio	%	58.29 :	53.81 :	62.79:	8.98	-	PR
Table	%	41.71	46.19	37.21			
Table	mm	64.03	63.82	64.12	0.29	N/A	EX
Culet	%	3.059	3.050	3.064	0.014	-	-
Culet	mm	0.57	0.39	0.68	0.28	0	EX
Culet	mm	0.027	0.019	0.032	0.014	-	-
Twist	°	1.49	0.17	3.62	3.45	-	VG
Girdle thickness: Bezel	%	2.84	2.41	3.40	0.98	0	EX
Girdle thickness: Bone	%	3.31	3.02	3.71	0.69		EX
Girdle thickness: Valley	%	1.55	1.22	1.98	0.75	0	EX
Girdle thickness: Bezel	mm	0.136	0.115	0.162	0.047		
Girdle thickness: Bone	mm	0.158	0.144	0.177	0.033		
Girdle thickness: Valley	mm	0.074	0.058	0.094	0.036		
Crown painting	°	-1.59		-4.13			
Crown painting	notches	0.4		1.1			
Pavilion painting	°	-0.28		-1.92			
Pavilion painting	notches	0.1		0.5			
Measurement as per OctoNus theory:							
Crown angle	°	32.25	31.83	32.48	0.65	-	-
Pavilion angle	°	40.68	40.58	40.88	0.30	-	-
Culet through bezel	°	25.18				N/A	-
Fish eye effect	°	3.62				N/A	-
Girdle to MIC	mm	0.019				-	-

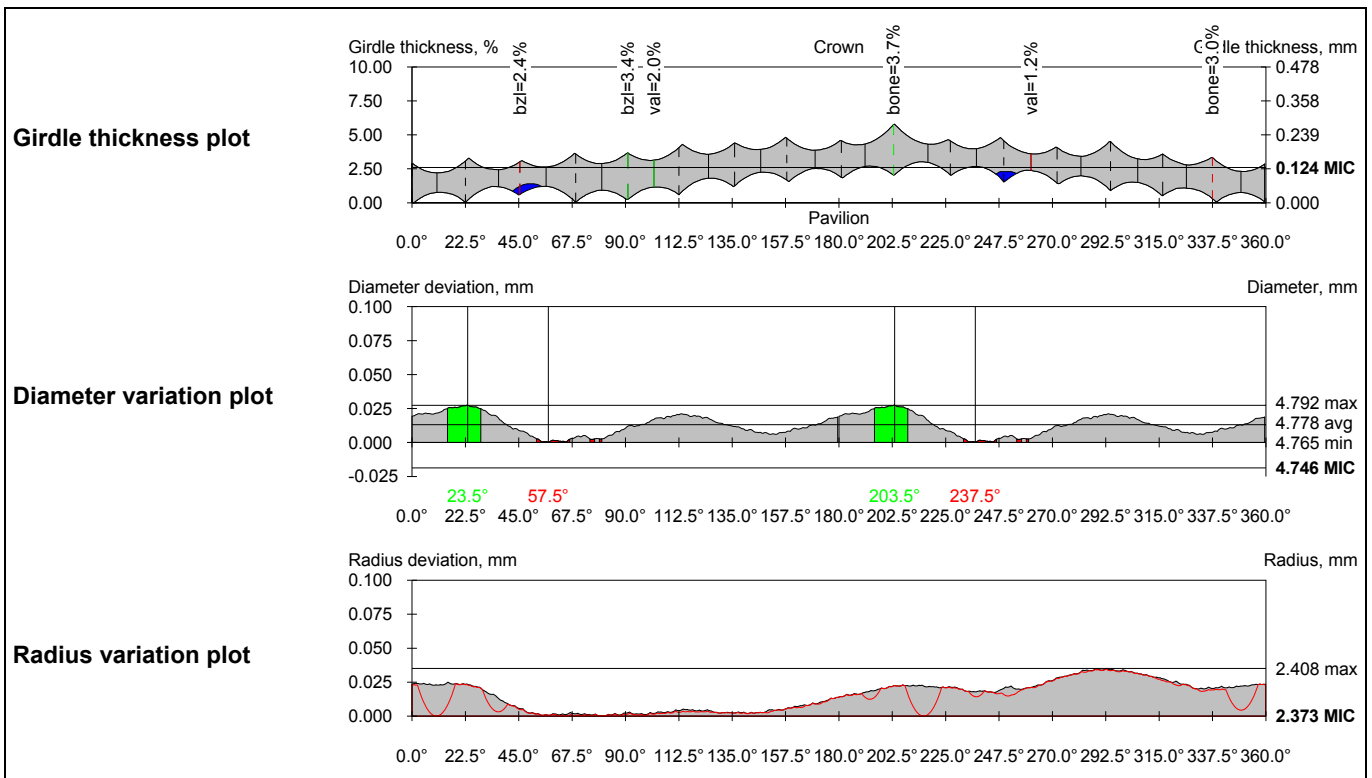
Detailed parameters

Parameter		1	2	3	4	5	6	7	8
Diameter	mm	4.785	4.774	4.777	4.777				
Crown angle	°	32.50	32.51	32.16	31.11	32.45	32.24	32.47	32.55
Crown height	%	12.35	12.15	11.58	10.84	10.67	10.61	11.15	11.66
Crown height	mm	0.590	0.581	0.553	0.518	0.510	0.507	0.533	0.557
Crown height at girdle minima	%	13.04	12.82	12.61	12.35	12.14	11.68	11.33	11.38
		10.98	10.94	11.27	11.66	11.83	12.06	12.46	12.94
Crown height at girdle minima	mm	0.623	0.612	0.603	0.590	0.580	0.558	0.541	0.544
		0.525	0.523	0.538	0.557	0.565	0.576	0.596	0.618
Crown azimuth	°	0.4	46.2	90.0	134.9	178.0	226.6	270.4	318.5
Crown azimuth deviation from ideal	°	0.40	1.17	0.00	-0.09	-1.96	1.63	0.45	3.48
Pavilion angle	°	40.38	40.33	39.68	40.18	40.78	41.43	41.53	41.10
Pavilion depth	%	41.72	42.30	41.99	42.92	43.60	43.77	43.17	42.28
Pavilion depth	mm	1.993	2.021	2.006	2.051	2.083	2.091	2.063	2.020
Pavilion depth at girdle minima	%	42.50	42.93	42.95	42.65	42.89	43.54	43.98	44.24
		44.44	44.75	44.39	44.12	43.72	43.25	42.82	42.48
Pavilion depth at girdle minima	mm	2.031	2.051	2.052	2.038	2.049	2.080	2.101	2.114
		2.123	2.138	2.121	2.108	2.089	2.067	2.046	2.030
Pavilion azimuth	°	0.0	45.6	90.6	137.1	181.7	225.7	270.6	315.0
Pavilion azimuth deviation from ideal	°	0.00	0.55	0.58	2.11	1.66	0.72	0.62	0.04
Lower girdle facets angle	°	41.13	41.12	41.08	40.59	40.64	41.00	41.35	41.58
		41.83	42.28	42.44	42.49	42.29	42.07	41.84	41.40
Lower girdle facets height	%	36.73	36.61	36.38	35.87	36.29	36.69	37.06	37.59
		37.70	38.31	38.32	38.45	37.99	37.42	37.63	36.84
Lower girdle facets height	mm	1.755	1.749	1.738	1.714	1.734	1.753	1.771	1.796
		1.801	1.831	1.831	1.837	1.815	1.788	1.798	1.760
Lower girdle facets azimuth	°	11.5	36.2	55.3	79.9	102.8	125.9	148.5	170.8
		193.0	215.7	237.9	259.8	281.8	304.5	326.5	348.9
Lower girdle facets azimuth deviation from ideal	°	0.21	2.48	-0.93	1.17	1.50	2.16	2.20	2.02
		1.77	1.97	1.67	1.02	0.54	0.73	0.23	0.19
Depth Girdle Facet	%	85.83	84.52	83.95	83.42	84.07	83.49	83.67	84.29
		84.26	84.95	85.63	86.55	86.23	85.98	87.24	86.16
Length Girdle Facet	%	84.65	83.32	82.77	82.23	82.73	82.13	82.36	82.99
		83.07	83.78	84.32	85.26	84.77	84.53	85.85	84.74
Upper girdle facets angle	°	39.61	39.33	39.61	40.40	40.20	39.76	39.34	40.04
		40.92	39.01	41.04	40.15	40.97	39.58	39.40	39.88
Upper girdle facets height	%	8.87	8.70	8.15	7.98	7.84	7.36	7.38	7.49
		7.13	6.90	7.38	7.66	8.03	8.22	8.41	8.79
Upper girdle facets height	mm	0.424	0.416	0.389	0.381	0.375	0.352	0.353	0.358
		0.340	0.330	0.353	0.366	0.384	0.393	0.402	0.420
Upper girdle facets azimuth	°	10.3	36.4	55.3	79.3	100.1	124.8	145.3	169.7
		187.9	219.5	237.0	262.1	281.3	309.3	328.1	349.6
Upper girdle facets azimuth deviation from ideal	°	-1.00	2.64	-0.95	0.51	-1.19	1.08	-0.93	0.98
		-3.40	5.76	0.79	3.40	0.07	5.52	1.89	0.83
Star facets angle	°	19.29	19.45	19.17	18.52	17.50	18.26	17.98	19.77
Star : Upper ratio	%	54.81 : 45.19	58.07 : 41.93	60.72 : 39.28	58.81 : 41.19	62.79 : 37.21	59.87 : 40.13	57.44 : 42.56	53.81 : 46.19
Star facets azimuth	°	21.8	66.3	112.6	155.7	203.1	249.2	293.9	339.5
Star facets azimuth deviation from ideal	°	-0.73	-1.25	0.07	-1.76	0.57	1.71	1.36	2.03
Table	%	64.06	64.11	64.12	63.82				
Table	mm	3.061	3.063	3.064	3.050				
Twist	°	0.40	0.61	0.58	2.20	3.62	0.91	0.17	3.44
Girdle Bezel	%	2.87	2.41	3.40	3.16	2.71	2.50	2.62	3.06
Girdle Bone	%	3.04	3.55	3.45	3.08	3.71	3.04	3.60	3.02
Girdle Valley	%	1.43	1.25	1.41	1.96	1.98	1.75	1.68	1.35
		1.64	1.33	1.31	1.22	1.42	1.73	1.71	1.55
Girdle Bezel	mm	0.137	0.115	0.162	0.151	0.129	0.120	0.125	0.146
Girdle Bone	mm	0.145	0.170	0.165	0.147	0.177	0.145	0.172	0.144
Girdle Valley	mm	0.069	0.060	0.067	0.094	0.094	0.084	0.080	0.064
		0.078	0.064	0.062	0.058	0.068	0.083	0.082	0.074
Crown painting	°	-1.40	-1.47	-2.12	-0.51	-1.20	-1.17	-0.84	-2.94
		-1.44	-4.13	-0.84	-2.95	-0.38	-2.04	-1.58	-0.43
Crown painting, notches	°	0.4	0.4	0.6	0.1	0.3	0.3	0.2	0.8
		0.4	1.1	0.2	0.8	0.1	0.5	0.4	0.1
Pavilion painting	°	0.21	-1.92	-1.49	-0.59	0.92	-0.04	0.09	-0.36
		0.11	-1.25	0.96	-0.40	-0.07	-0.69	0.19	-0.19
Pavilion painting, notches	°	0.1	0.5	0.4	0.2	0.2	0.0	0.0	0.1
		0.0	0.3	0.3	0.1	0.0	0.2	0.1	0.0
Measurement as per OctoNus theory:									
Crown angle	°	32.48	32.38	32.31	31.83				
Pavilion angle	°	40.58	40.88	40.60	40.64				

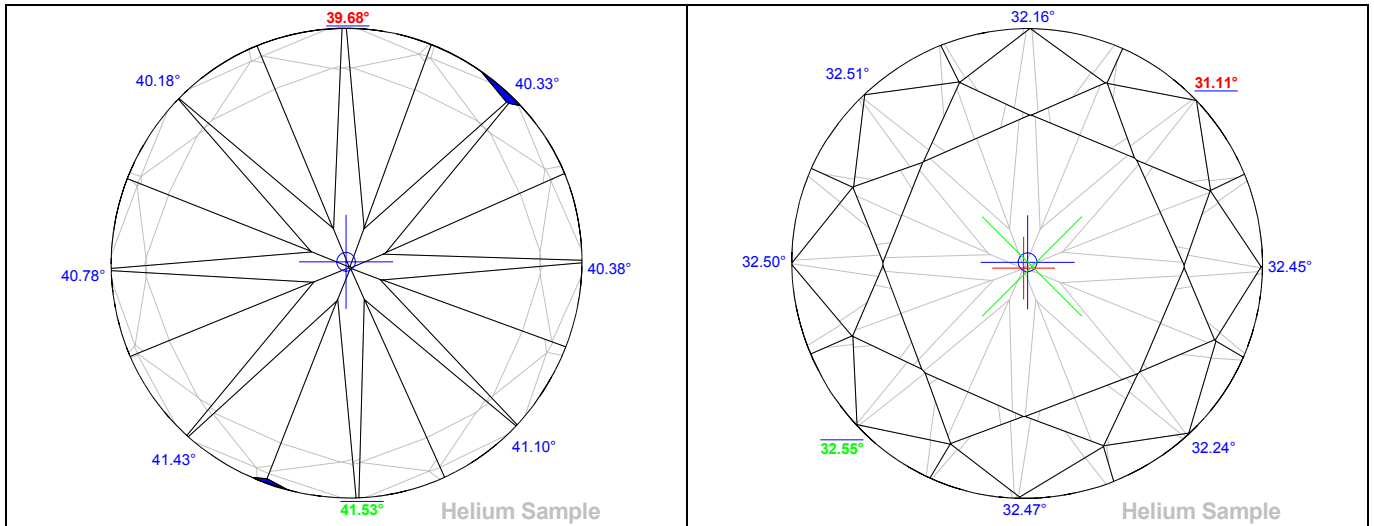
Crown and pavilion views of the diamond with indication of the diameter minimum and maximum



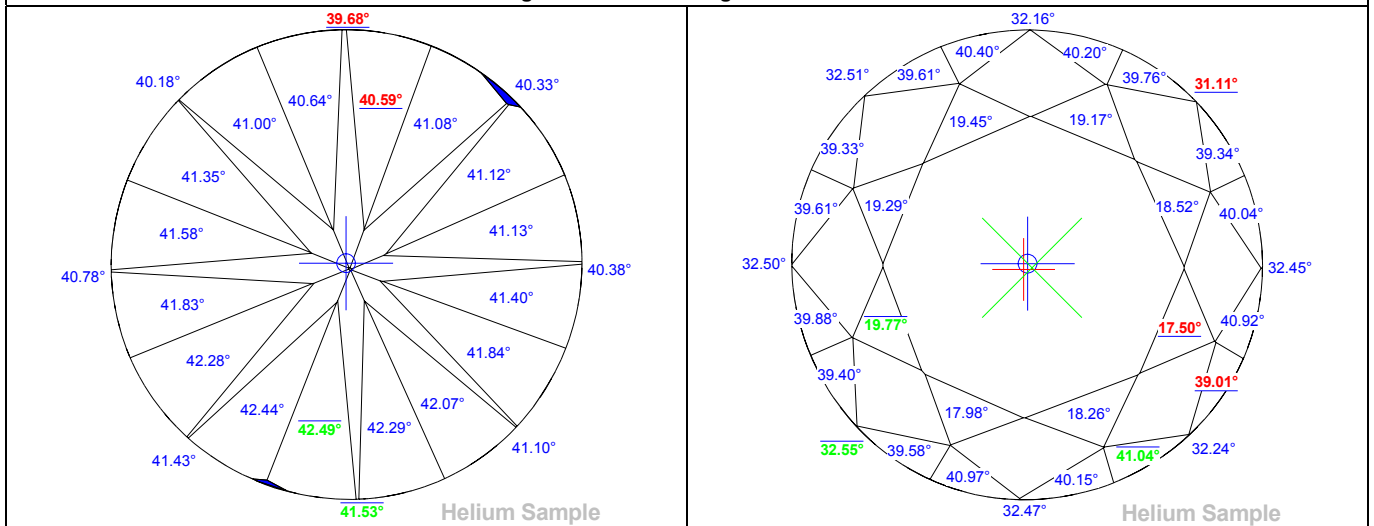
Plots



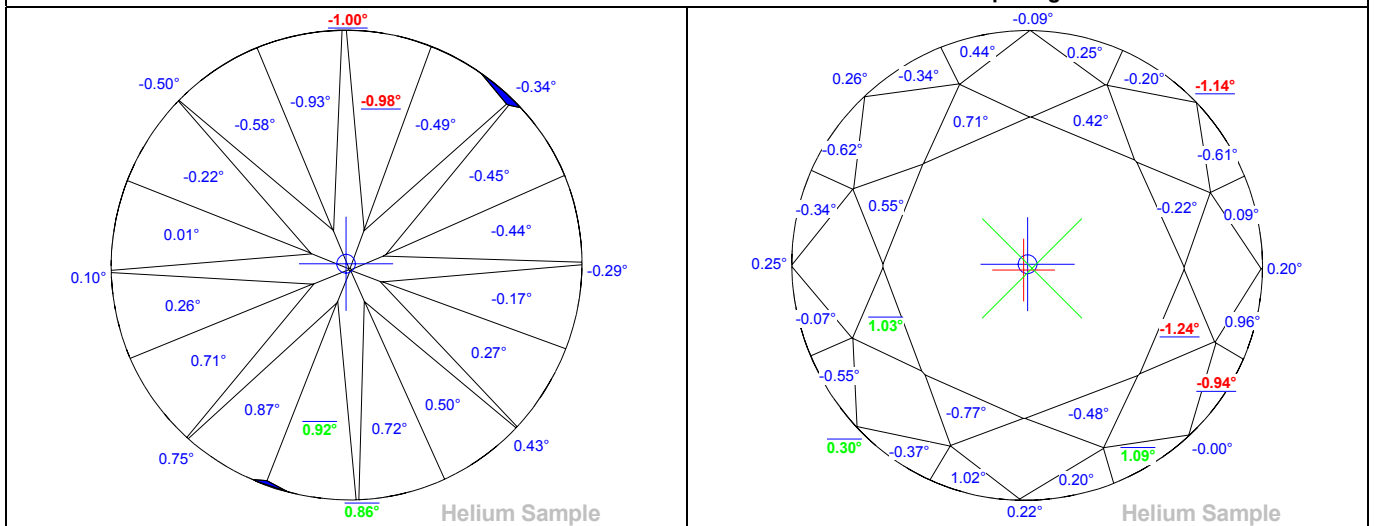
Facets' azimuth and slope angles



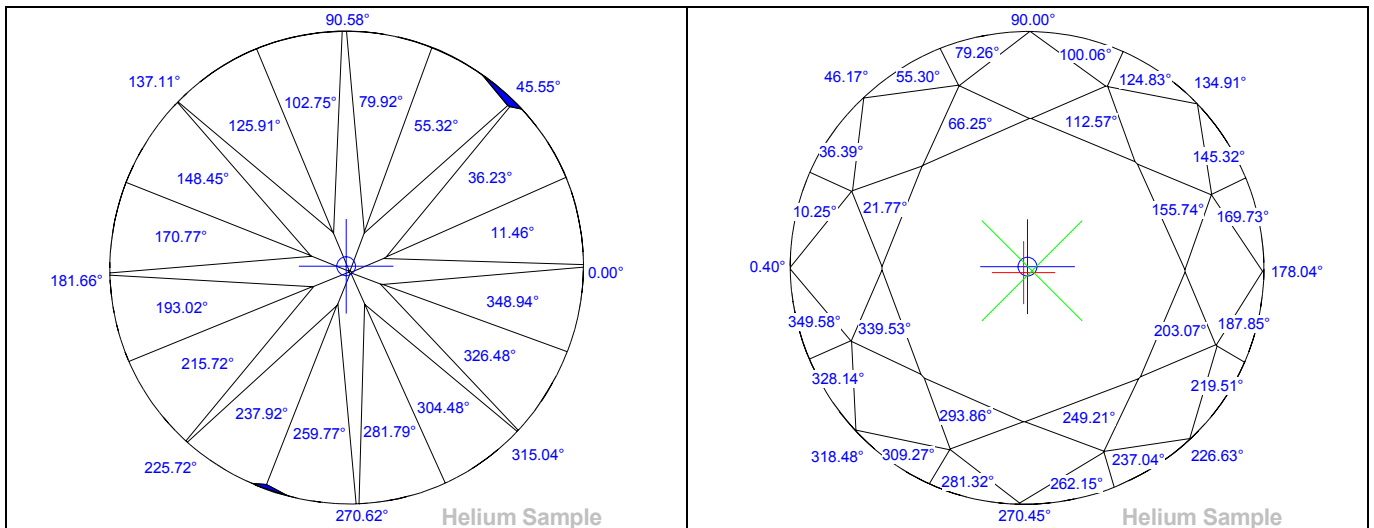
Pavilion and crown views of the diamond with indication of main facets' slope angles
 Invisible edges are drawn taking refraction into account



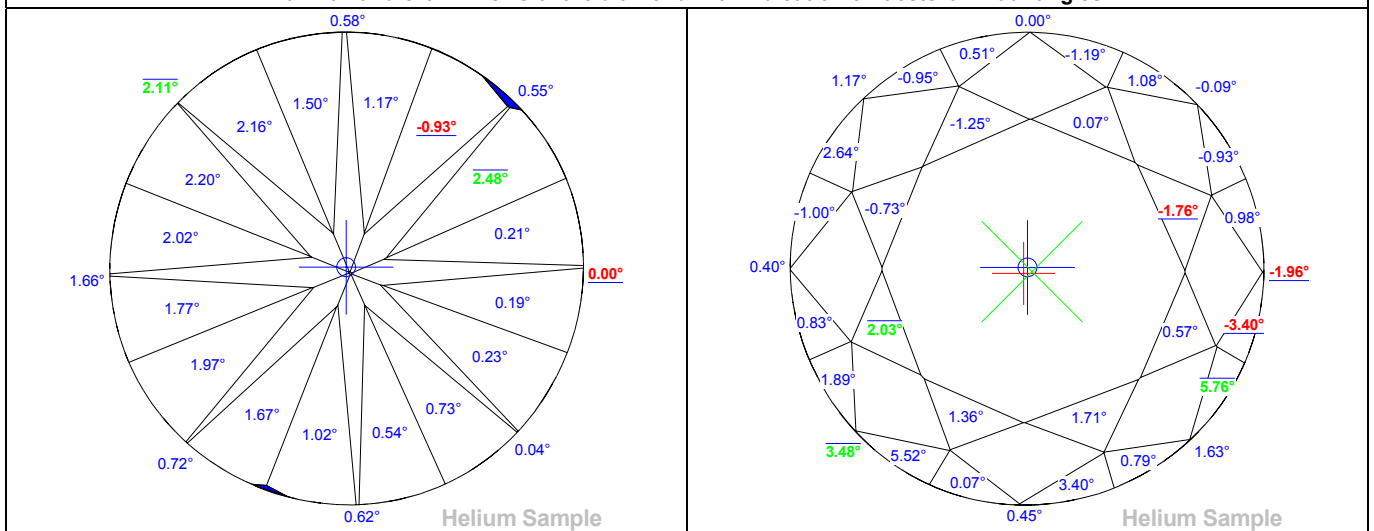
Pavilion and crown views of the diamond with indication of facets' slope angles



Pavilion and crown views of the diamond with indication of deviation of facets' slope angles from the average values

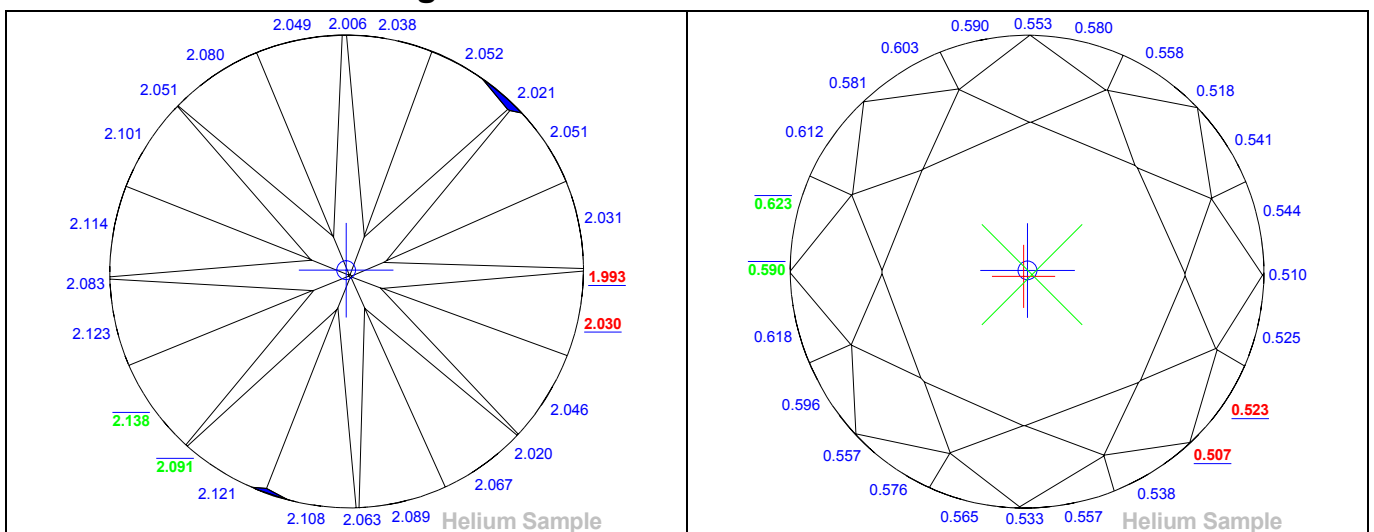


Pavilion and crown views of the diamond with indication of facets' azimuth angles

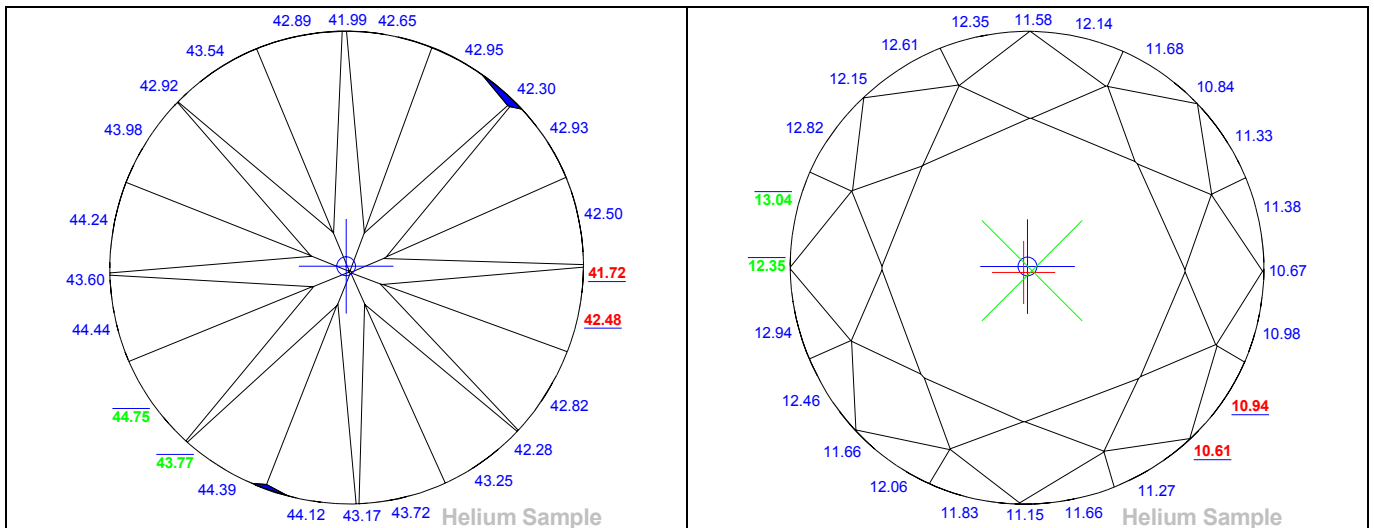


Pavilion and crown views of the diamond with indication of deviation of facets' azimuth angles from their ideal positions for the round brilliant

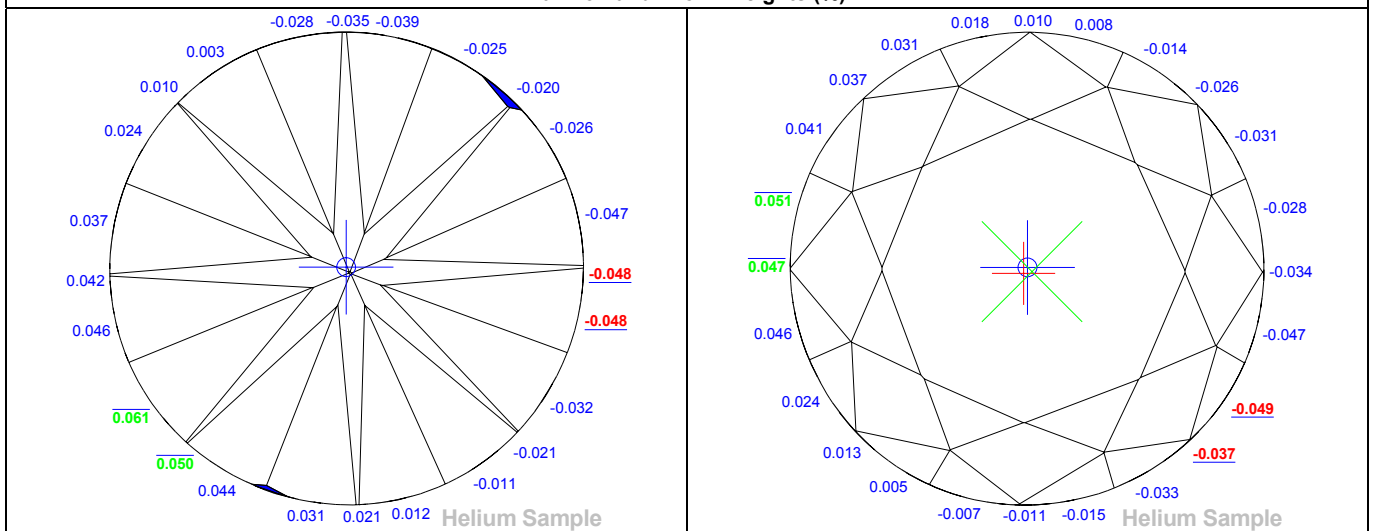
Pavilion and Crown heights



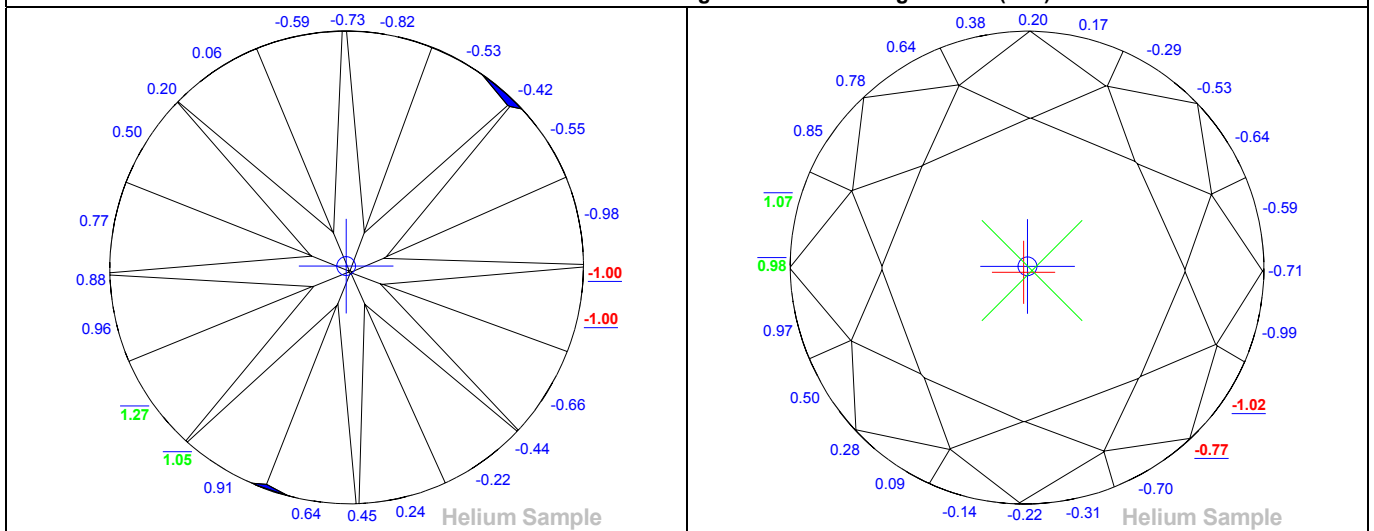
Pavilion and Crown heights (mm)



Pavilion and Crown heights (%)

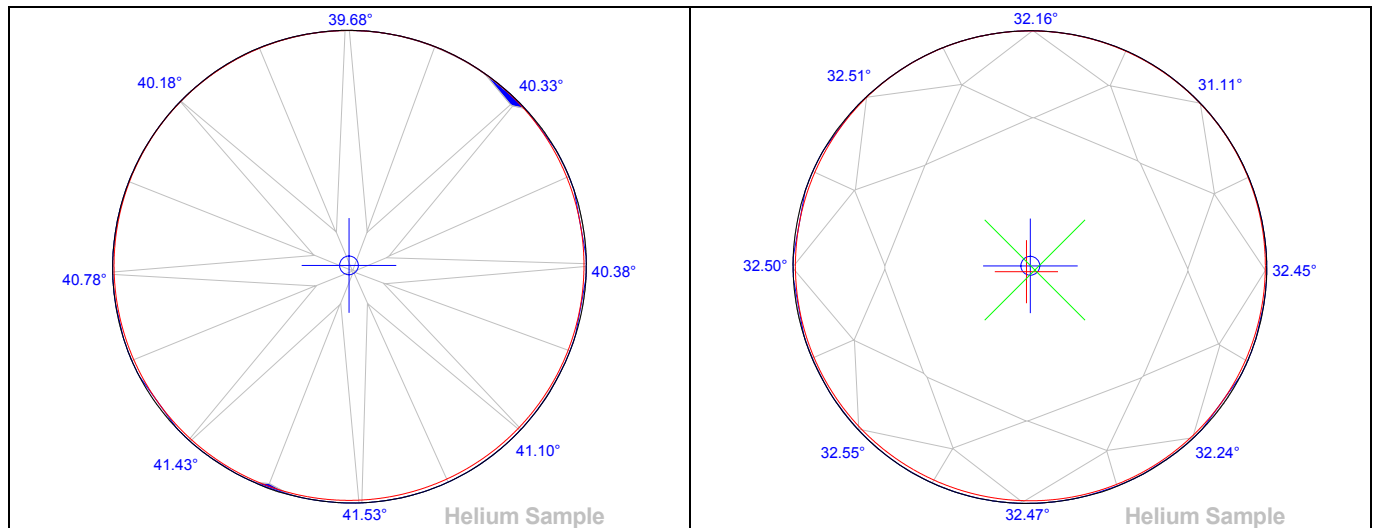


Deviations of Pavilion and Crown heights from the average values (mm)

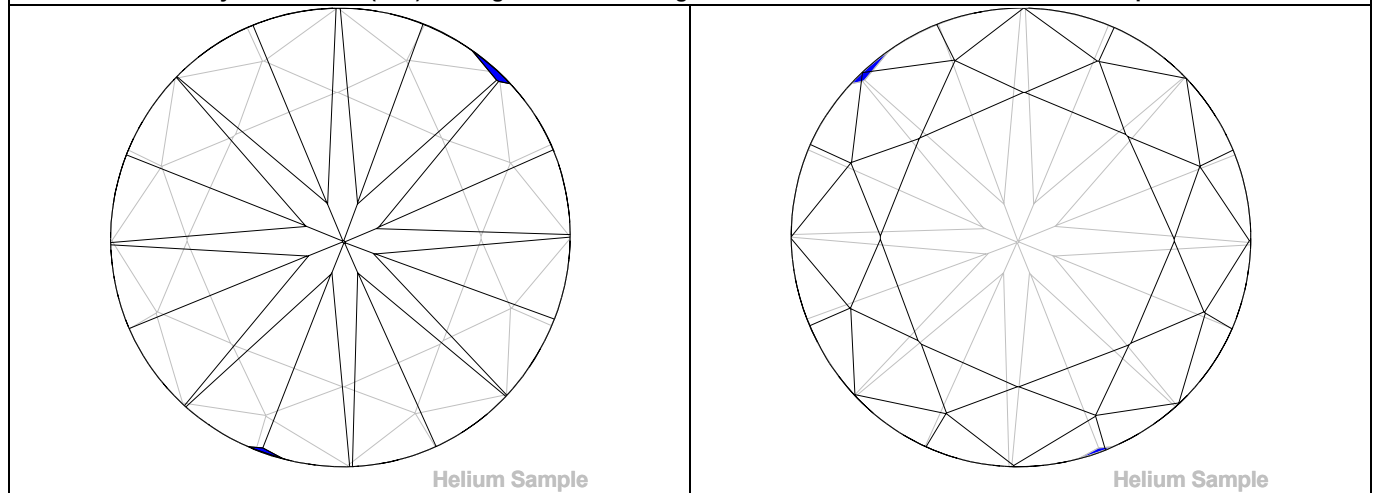


Deviations of Pavilion and Crown heights from the average values (%)




Additional illustrations



Pavilion and crown views of the diamond with indication of the maximum circle that may be inscribed (MIC) in the girdle outline along with the section of the model in the circle's plane



Pavilion and crown views of the diamond with indication of invisible edges without refraction

	Girdle center		Culet center		Table center
-------------------------------------------------------------------------------------	---------------	-------------------------------------------------------------------------------------	--------------	---------------------------------------------------------------------------------------	--------------