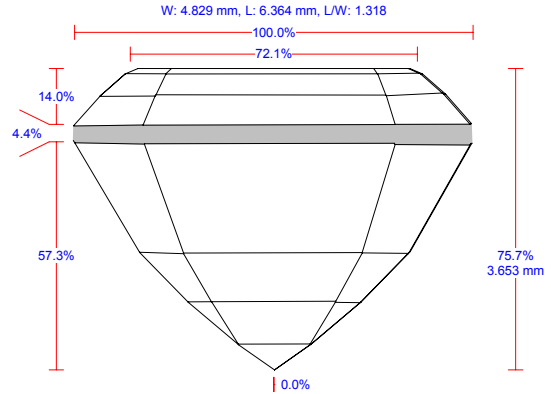


HELIUM FULL REPORT

Polished Step Cut

General information

Model: Simple
 Expert name: Makoed A.G.
 Report date: 20.06.2006
 Real weight, ct:
 Calculated weight, ct: 1.05, 1.0523
 Spread: -0.21 ct, -25.71 %
 Width, mm: 4.829
 Length, mm: 6.364
 L/W ratio: 1.318
 L/W ratio quality: N/A
 Total height: 3.653 mm, 75.66 %
 Total height quality: N/A
 Appraiser title: AGS
 Overall cut quality: N/A
 Overall symmetry quality: PR
 EF / Nat: No



Main parameters

Parameter		Avg	Min	Max	Dev	Cut	Sym
Crown height	%	14.02	13.86	14.21	0.35	N/A	EX
Crown height	mm	0.677	0.669	0.686	0.017	-	-
Pavilion height	%	57.26	56.85	57.68	0.82	N/A	EX
Pavilion height	mm	2.765	2.746	2.785	0.040	-	-
Table	%	72.06	68.23	75.88	7.65	N/A	PR
Table	mm	4.062	3.295	4.829	1.534	-	-
Culet	%	0.00	0.00	0.00	0.00	N/A	EX
Culet	mm	0.000	0.000	0.000	0.000	-	-
Girdle thickness	%	4.38	3.83	4.87	1.04	-	EX
Girdle thickness	mm	0.211	0.185	0.235	0.050	-	-
Crown Main 1 angle	°	48.37	48.05	48.64	0.59	-	-
Crown Main 1 height	%	7.67	7.59	7.75	0.16	-	-
Crown Main 1 height	mm	0.371	0.367	0.374	0.007	-	-
Crown Main 2 angle	°	41.27	40.91	41.57	0.66	-	-
Crown Main 2 height	%	5.27	5.10	5.53	0.44	-	-
Crown Main 2 height	mm	0.255	0.246	0.267	0.021	-	-
Crown Main 3 angle	°	22.36	21.58	23.03	1.45	-	-
Crown Main 3 height	%	1.32	1.25	1.35	0.10	-	-
Crown Main 3 height	mm	0.064	0.060	0.065	0.005	-	-
Crown Main 4 angle	°	N/A	N/A	N/A	N/A	-	-
Crown Main 4 height	%	N/A	N/A	N/A	N/A	-	-
Crown Main 4 height	mm	N/A	N/A	N/A	N/A	-	-
Crown Main 5 angle	°	N/A	N/A	N/A	N/A	-	-
Crown Main 5 height	%	N/A	N/A	N/A	N/A	-	-
Crown Main 5 height	mm	N/A	N/A	N/A	N/A	-	-
Crown Corner 1 angle	°	48.56	47.53	49.09	1.55	-	-
Crown Corner 1 height	%	7.75	7.51	7.91	0.40	-	-
Crown Corner 1 height	mm	0.374	0.363	0.382	0.019	-	-
Crown Corner 2 angle	°	41.31	40.78	41.94	1.16	-	-
Crown Corner 2 height	%	5.49	5.25	5.71	0.46	-	-
Crown Corner 2 height	mm	0.265	0.254	0.276	0.022	-	-
Crown Corner 3 angle	°	22.15	21.45	22.75	1.30	-	-
Crown Corner 3 height	%	1.30	1.28	1.32	0.04	-	-
Crown Corner 3 height	mm	0.063	0.062	0.064	0.002	-	-
Crown Corner 4 angle	°	N/A	N/A	N/A	N/A	-	-
Crown Corner 4 height	%	N/A	N/A	N/A	N/A	-	-
Crown Corner 4 height	mm	N/A	N/A	N/A	N/A	-	-
Crown Corner 5 angle	°	N/A	N/A	N/A	N/A	-	-
Crown Corner 5 height	%	N/A	N/A	N/A	N/A	-	-
Crown Corner 5 height	mm	N/A	N/A	N/A	N/A	-	-

Parameter		Avg	Min	Max	Dev	Cut	Sym
Pavilion Main 1 angle	°	59.48	57.96	60.42	2.47	-	-
Pavilion Main 1 height	%	27.74	27.36	28.16	0.80	-	-
Pavilion Main 1 height	mm	1.340	1.321	1.360	0.039	-	-
Pavilion Main 2 angle	°	45.83	45.71	45.93	0.22	-	-
Pavilion Main 2 height	%	12.73	12.36	13.07	0.71	-	-
Pavilion Main 2 height	mm	0.615	0.597	0.631	0.034	-	-
Pavilion Main 3 angle	°	40.28	40.18	40.34	0.17	-	-
Pavilion Main 3 height	%	10.61	10.53	10.77	0.24	-	-
Pavilion Main 3 height	mm	0.512	0.509	0.520	0.012	-	-
Pavilion Main 4 angle	°	35.24	35.14	35.31	0.17	-	-
Pavilion Main 4 height	%	6.60	6.55	6.73	0.17	-	-
Pavilion Main 4 height	mm	0.319	0.316	0.325	0.008	-	-
Pavilion Main 5 angle	°	N/A	N/A	N/A	N/A	-	-
Pavilion Main 5 height	%	N/A	N/A	N/A	N/A	-	-
Pavilion Main 5 height	mm	N/A	N/A	N/A	N/A	-	-
Pavilion Corner 1 angle	°	56.32	55.28	57.85	2.57	-	-
Pavilion Corner 1 height	%	27.94	27.32	28.63	1.31	-	-
Pavilion Corner 1 height	mm	1.349	1.319	1.382	0.063	-	-
Pavilion Corner 2 angle	°	42.55	42.17	42.72	0.55	-	-
Pavilion Corner 2 height	%	12.49	12.12	12.94	0.82	-	-
Pavilion Corner 2 height	mm	0.603	0.585	0.625	0.040	-	-
Pavilion Corner 3 angle	°	38.23	37.97	38.52	0.55	-	-
Pavilion Corner 3 height	%	10.69	10.53	10.82	0.29	-	-
Pavilion Corner 3 height	mm	0.516	0.509	0.523	0.014	-	-
Pavilion Corner 4 angle	°	N/A	N/A	N/A	N/A	-	-
Pavilion Corner 4 height	%	N/A	N/A	N/A	N/A	-	-
Pavilion Corner 4 height	mm	N/A	N/A	N/A	N/A	-	-
Pavilion Corner 5 angle	°	N/A	N/A	N/A	N/A	-	-
Pavilion Corner 5 height	%	N/A	N/A	N/A	N/A	-	-
Pavilion Corner 5 height	mm	N/A	N/A	N/A	N/A	-	-

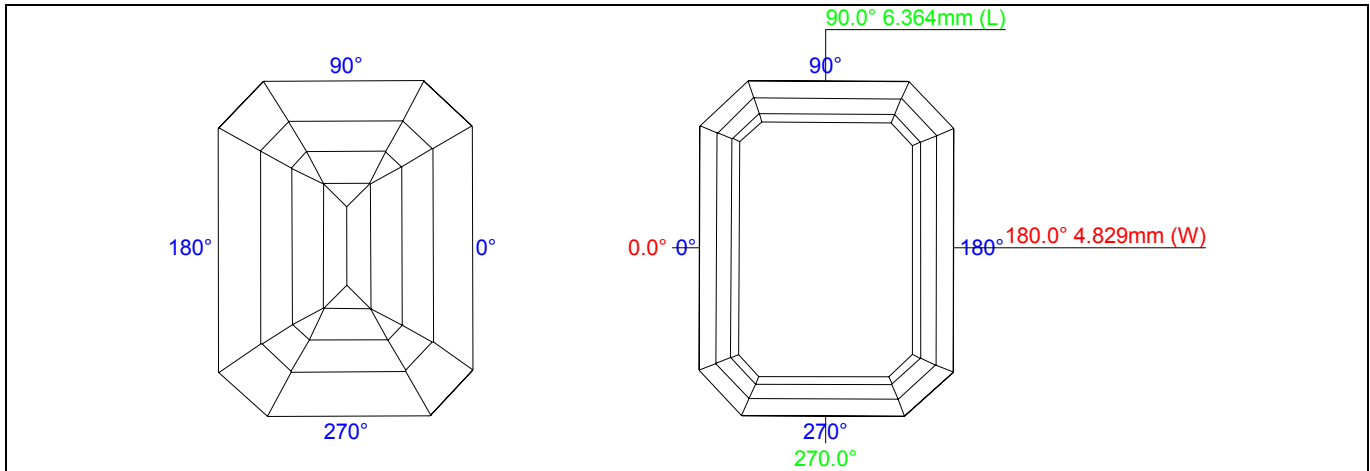
Parameter		Distance	Width wise	Length wise
Culet-Table Offset (by table axis)	%	5.16 ± 0.28	4.22	2.97
Girdle-Culet Offset (by table axis)	%	5.52 ± 0.27	4.06	3.74
Girdle-Table Offset (by table axis)	%	0.79 ± 0.23	0.16	0.77
Culet-Table Offset (by table axis)	mm	0.249 ± 0.014	0.204	0.143
Girdle-Culet Offset (by table axis)	mm	0.267 ± 0.013	0.196	0.181
Girdle-Table Offset (by table axis)	mm	0.038 ± 0.011	0.008	0.037
Girdle to table-culet line offset	%	1.65	-	-
Girdle to table-culet line offset	mm	0.080	-	-

Detailed parameters

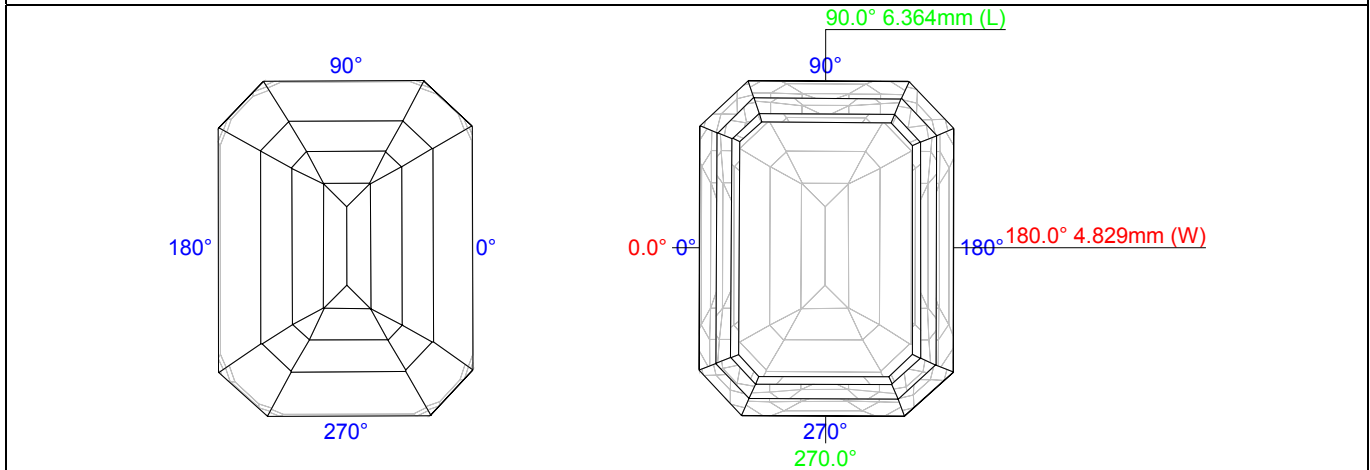
Parameter		1	2	3	4
Crown height	%	13.90	14.12	14.21	13.86
Crown height	mm	0.671	0.682	0.686	0.669
Pavilion height	%	56.88	56.85	57.62	57.68
Pavilion height	mm	2.747	2.746	2.783	2.785
Table	%	68.23	75.88		
Table	mm	3.295	4.829		
Girdle thickness	%	4.87	4.69	3.83	4.12
Girdle thickness	mm	0.235	0.226	0.185	0.199
Crown Main 1 angle	°	48.64	48.05	48.18	48.63
Crown Main 1 height	%	7.70	7.66	7.59	7.75
Crown Main 1 height	mm	0.372	0.370	0.367	0.374
Crown Main 1 azimuth	°	0.3	90.4	180.0	270.1
Crown Main 2 angle	°	41.21	40.91	41.38	41.57
Crown Main 2 height	%	5.11	5.35	5.53	5.10
Crown Main 2 height	mm	0.247	0.258	0.267	0.246
Crown Main 2 azimuth	°	0.3	90.4	180.0	270.1
Crown Main 3 angle	°	23.03	21.58	22.47	22.37
Crown Main 3 height	%	1.34	1.33	1.35	1.25
Crown Main 3 height	mm	0.065	0.064	0.065	0.060
Crown Main 3 azimuth	°	0.3	90.4	180.0	270.1
Crown Main 4 angle	°	N/A	N/A	N/A	N/A
Crown Main 4 height	%	N/A	N/A	N/A	N/A
Crown Main 4 height	mm	N/A	N/A	N/A	N/A
Crown Main 4 azimuth	°	N/A	N/A	N/A	N/A
Crown Main 5 angle	°	N/A	N/A	N/A	N/A
Crown Main 5 height	%	N/A	N/A	N/A	N/A
Crown Main 5 height	mm	N/A	N/A	N/A	N/A
Crown Main 5 azimuth	°	N/A	N/A	N/A	N/A

Parameter		1	2	3	4
Crown Corner 1 angle	°	49.09	47.53	49.03	48.58
Crown Corner 1 height	%	7.90	7.51	7.91	7.69
Crown Corner 1 height	mm	0.381	0.363	0.382	0.371
Crown Corner 1 azimuth	°	47.0	136.8	227.3	317.1
Crown Corner 2 angle	°	41.94	41.43	40.78	41.10
Crown Corner 2 height	%	5.67	5.71	5.32	5.25
Crown Corner 2 height	mm	0.274	0.276	0.257	0.254
Crown Corner 2 azimuth	°	47.5	136.8	227.2	317.3
Crown Corner 3 angle	°	22.75	21.77	21.45	22.65
Crown Corner 3 height	%	1.32	1.30	1.29	1.28
Crown Corner 3 height	mm	0.064	0.063	0.062	0.062
Crown Corner 3 azimuth	°	48.3	136.7	226.3	317.6
Crown Corner 4 angle	°	N/A	N/A	N/A	N/A
Crown Corner 4 height	%	N/A	N/A	N/A	N/A
Crown Corner 4 height	mm	N/A	N/A	N/A	N/A
Crown Corner 4 azimuth	°	N/A	N/A	N/A	N/A
Crown Corner 5 angle	°	N/A	N/A	N/A	N/A
Crown Corner 5 height	%	N/A	N/A	N/A	N/A
Crown Corner 5 height	mm	N/A	N/A	N/A	N/A
Crown Corner 5 azimuth	°	N/A	N/A	N/A	N/A
Pavilion Main 1 angle	°	60.42	60.12	59.41	57.96
Pavilion Main 1 height	%	27.36	27.54	28.16	27.92
Pavilion Main 1 height	mm	1.321	1.330	1.360	1.348
Pavilion Main 1 azimuth	°	0.1	90.2	180.1	270.2
Pavilion Main 2 angle	°	45.78	45.89	45.71	45.93
Pavilion Main 2 height	%	12.74	12.36	12.75	13.07
Pavilion Main 2 height	mm	0.615	0.597	0.616	0.631
Pavilion Main 2 azimuth	°	0.1	90.1	180.1	270.1
Pavilion Main 3 angle	°	40.29	40.33	40.18	40.34
Pavilion Main 3 height	%	10.55	10.77	10.53	10.58
Pavilion Main 3 height	mm	0.510	0.520	0.509	0.511
Pavilion Main 3 azimuth	°	0.0	90.1	180.1	270.1
Pavilion Main 4 angle	°	35.25	35.31	35.14	35.29
Pavilion Main 4 height	%	6.73	6.55	6.56	6.58
Pavilion Main 4 height	mm	0.325	0.316	0.317	0.318
Pavilion Main 4 azimuth	°	0.0	90.0	180.1	270.2
Pavilion Main 5 angle	°	N/A	N/A	N/A	N/A
Pavilion Main 5 height	%	N/A	N/A	N/A	N/A
Pavilion Main 5 height	mm	N/A	N/A	N/A	N/A
Pavilion Main 5 azimuth	°	N/A	N/A	N/A	N/A
Pavilion Corner 1 angle	°	57.85	56.74	55.28	55.40
Pavilion Corner 1 height	%	27.32	27.86	28.63	27.95
Pavilion Corner 1 height	mm	1.319	1.345	1.382	1.349
Pavilion Corner 1 azimuth	°	47.1	136.7	228.3	316.6
Pavilion Corner 2 angle	°	42.63	42.69	42.17	42.72
Pavilion Corner 2 height	%	12.48	12.44	12.94	12.12
Pavilion Corner 2 height	mm	0.603	0.601	0.625	0.585
Pavilion Corner 2 azimuth	°	47.2	137.3	229.3	316.5
Pavilion Corner 3 angle	°	38.05	38.39	38.52	37.97
Pavilion Corner 3 height	%	10.73	10.82	10.66	10.53
Pavilion Corner 3 height	mm	0.518	0.523	0.515	0.509
Pavilion Corner 3 azimuth	°	47.3	137.2	229.5	316.5
Pavilion Corner 4 angle	°	N/A	N/A	N/A	N/A
Pavilion Corner 4 height	%	N/A	N/A	N/A	N/A
Pavilion Corner 4 height	mm	N/A	N/A	N/A	N/A
Pavilion Corner 4 azimuth	°	N/A	N/A	N/A	N/A
Pavilion Corner 5 angle	°	N/A	N/A	N/A	N/A
Pavilion Corner 5 height	%	N/A	N/A	N/A	N/A
Pavilion Corner 5 height	mm	N/A	N/A	N/A	N/A
Pavilion Corner 5 azimuth	°	N/A	N/A	N/A	N/A

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

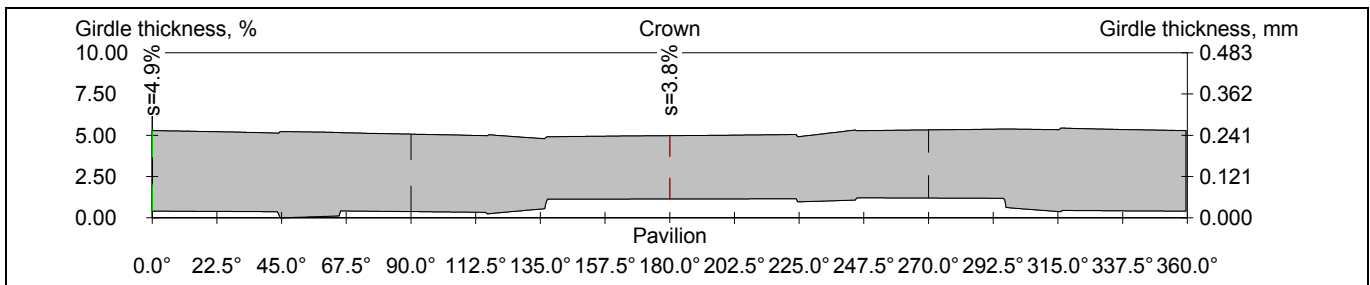


Invisible edges are hidden

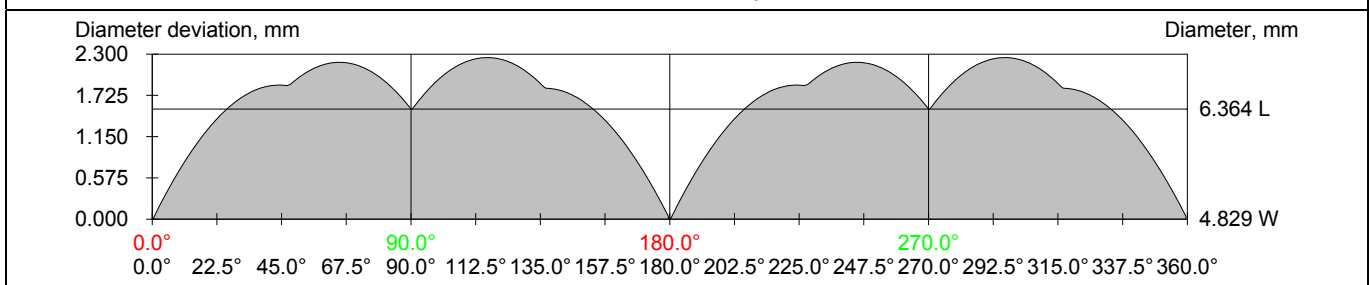


Invisible edges are drawn taking refraction into account

Plots

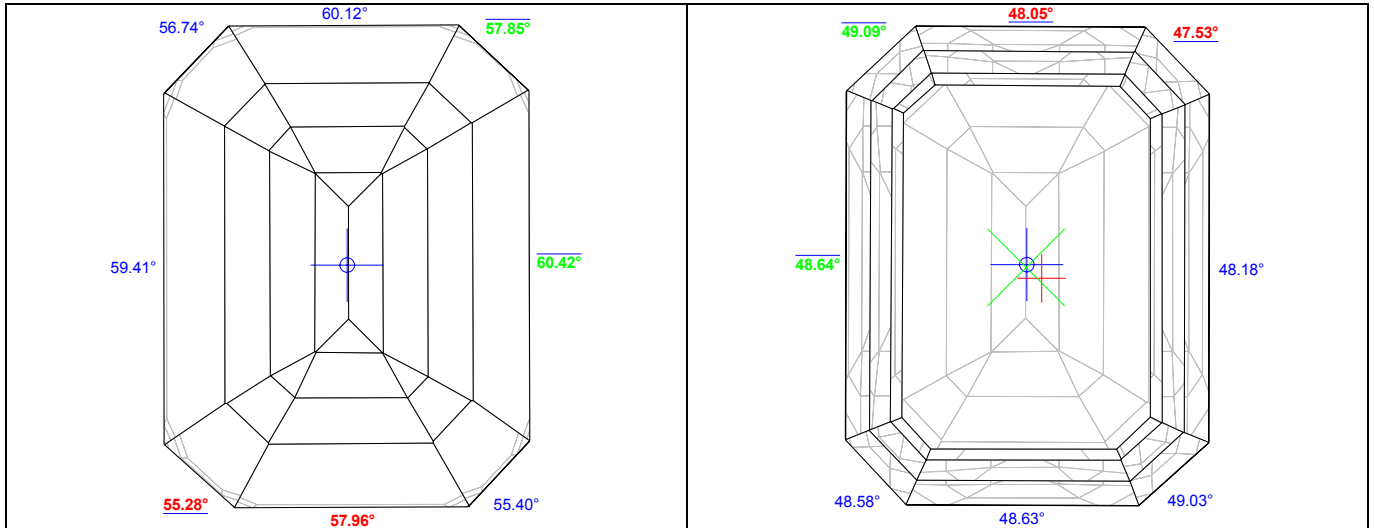


Girdle thickness plot

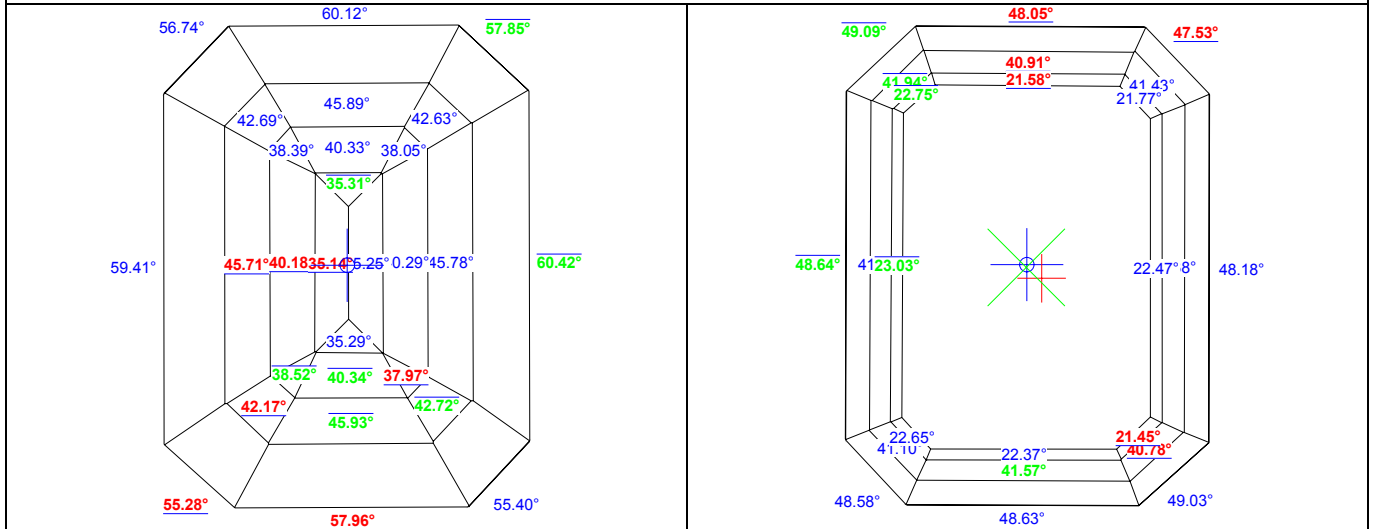


Diameter variation plot

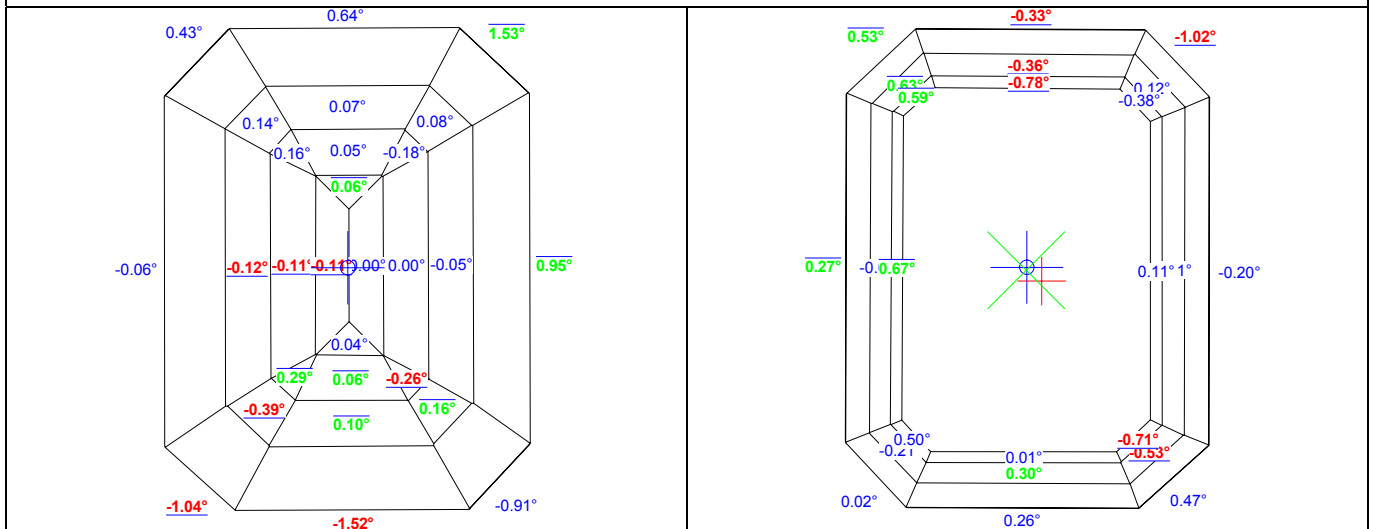
Facets' azimuth and slope angles



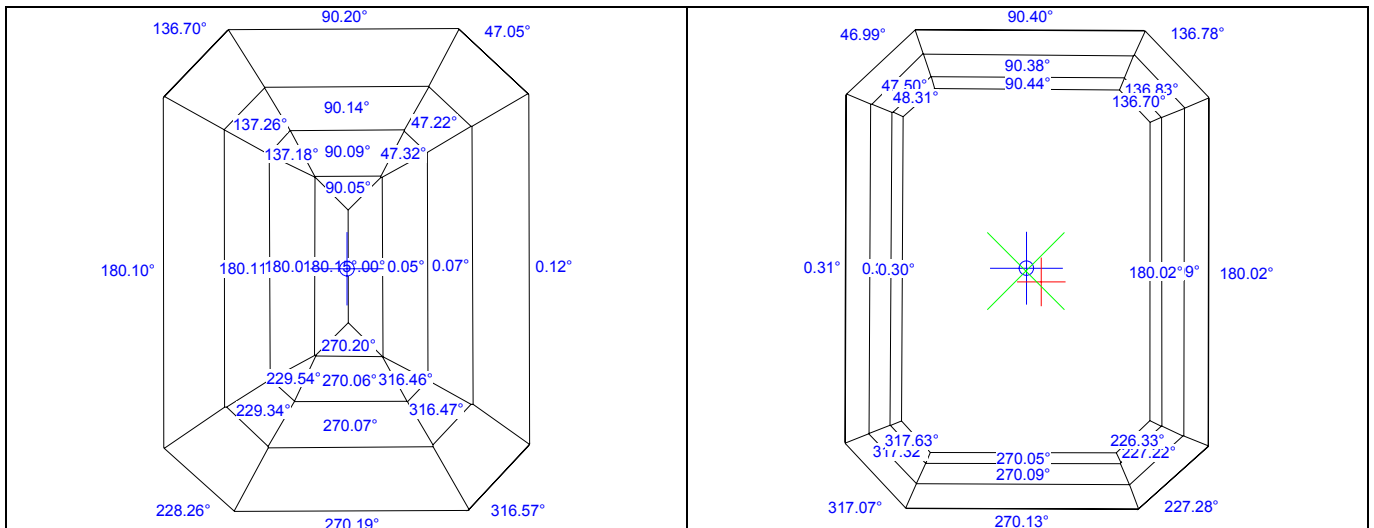
Pavilion and crown views of the diamond with indication of main facets' slope angles
Invisible edges are drawn taking refraction into account



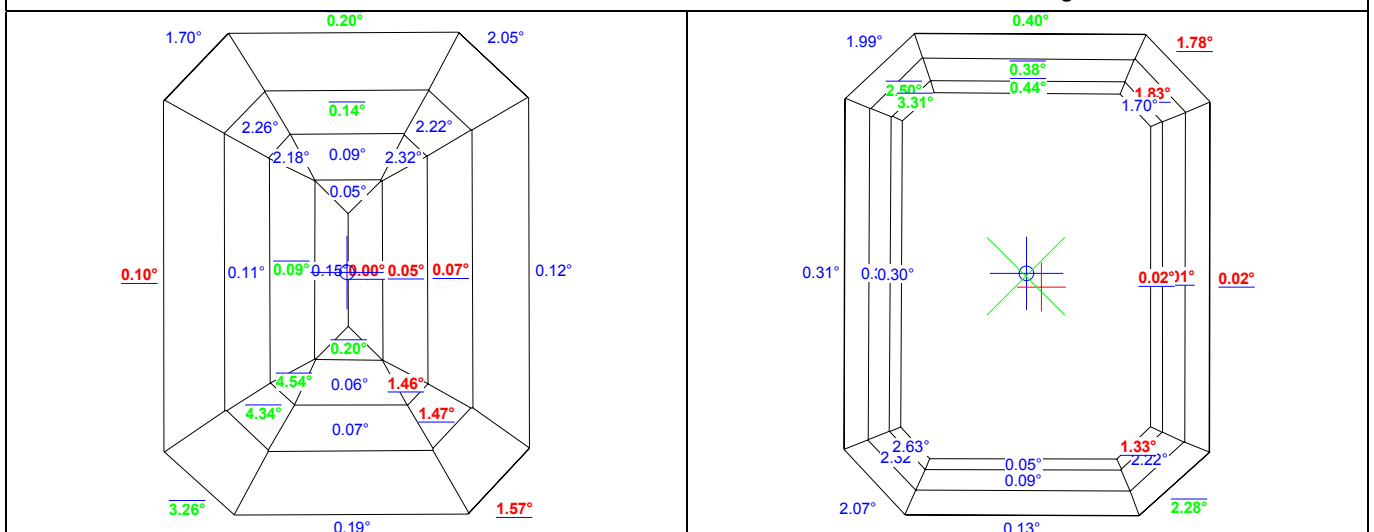
Pavilion and crown views of the diamond with indication of facets' slope angles



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

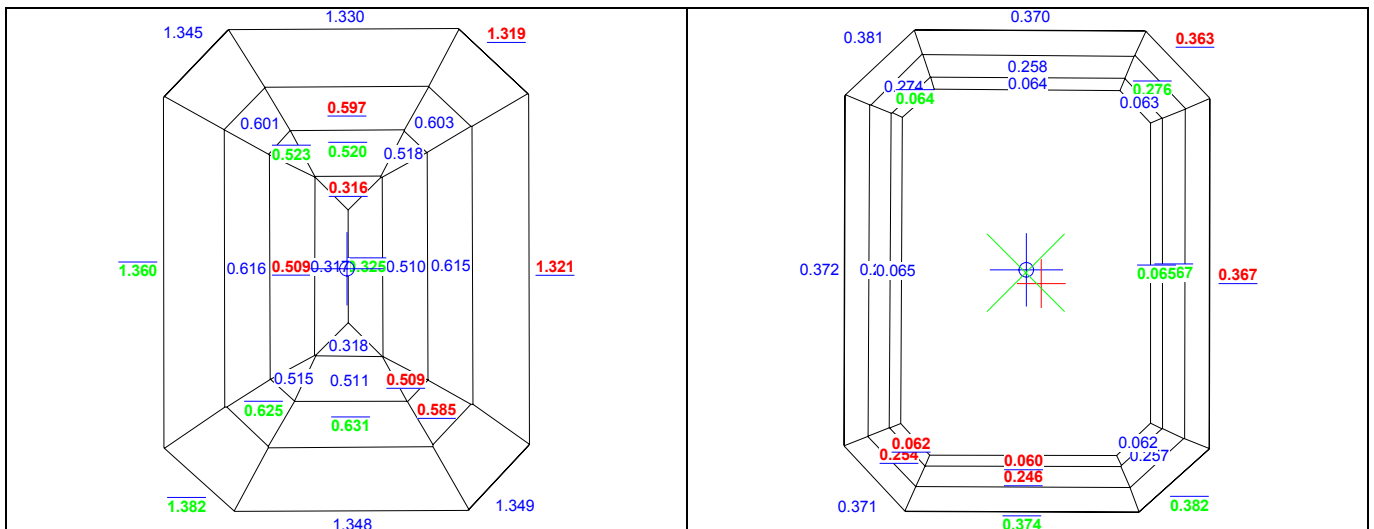


Pavilion and crown views of the diamond with indication of facets' azimuth angles

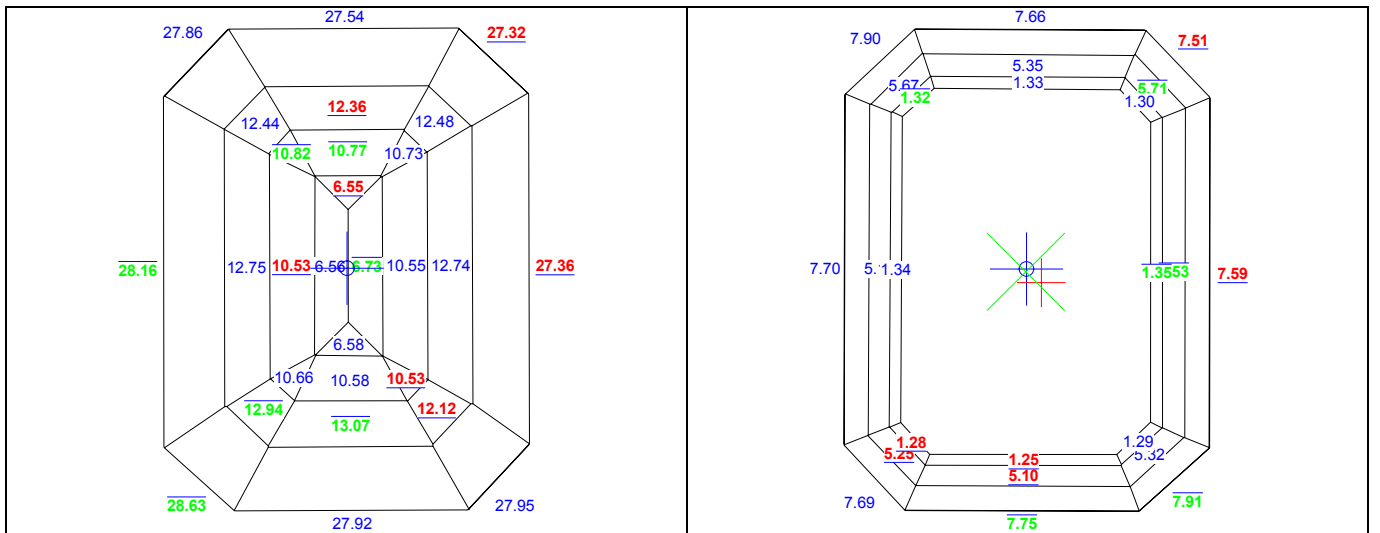


Pavilion and crown views of the diamond with indication of deviation of facets' azimuth angles from their ideal positions for the emerald.

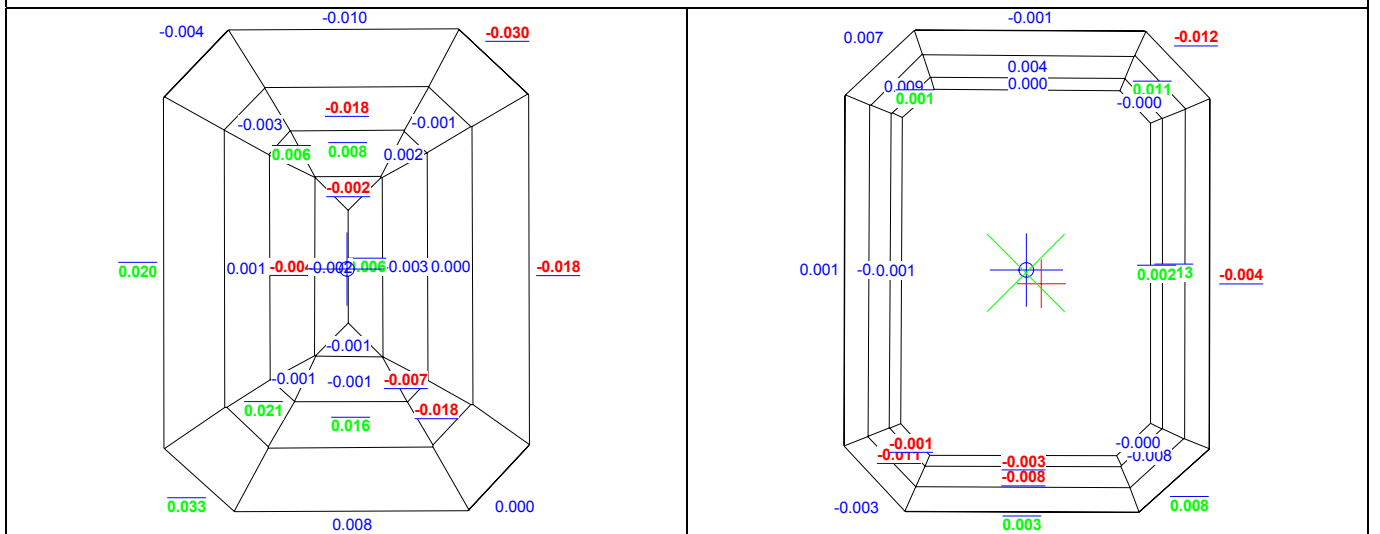
Facets' heights



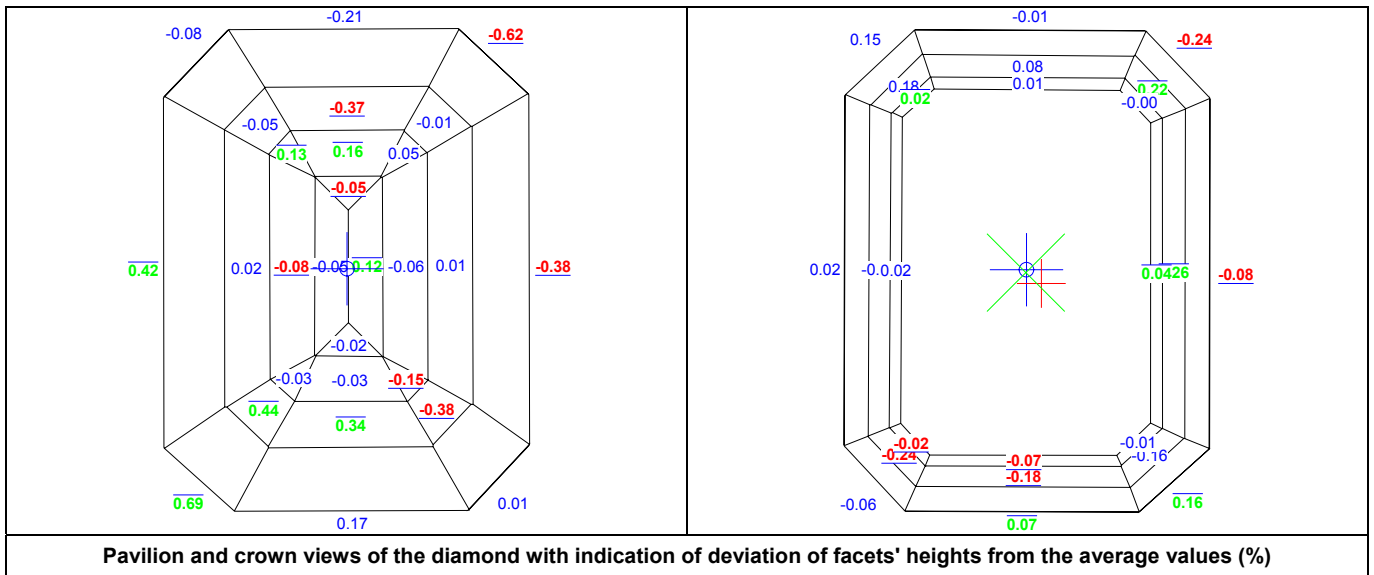
Pavilion and crown views of the diamond with indication of facets' heights (mm)



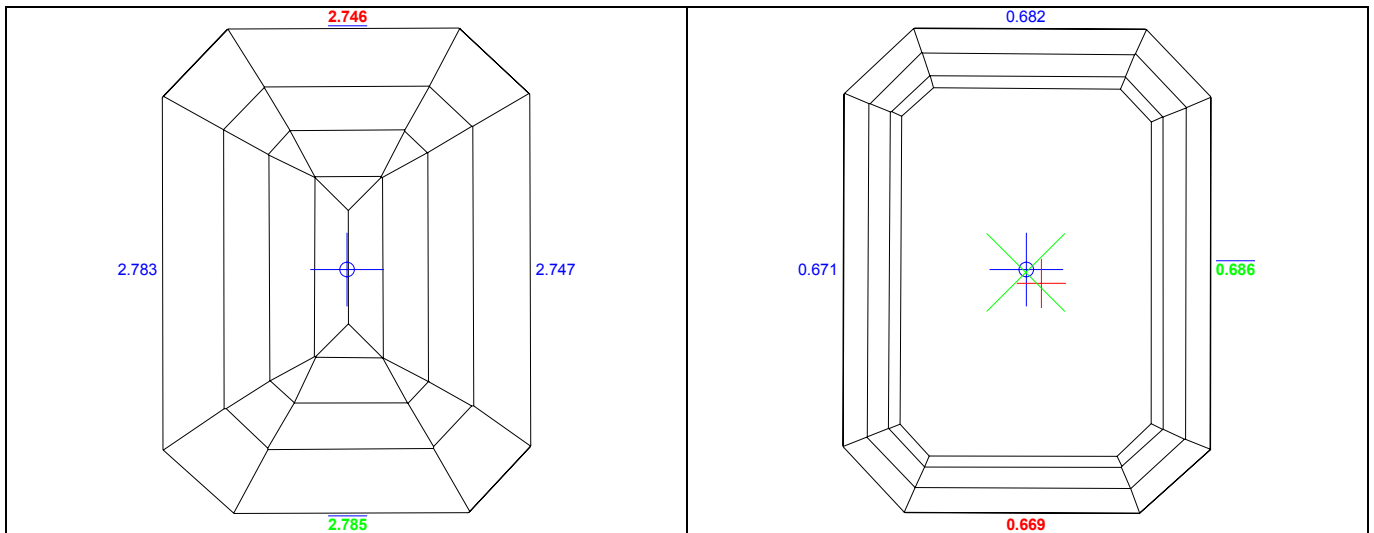
Pavilion and crown views of the diamond with indication of facets' heights (%)



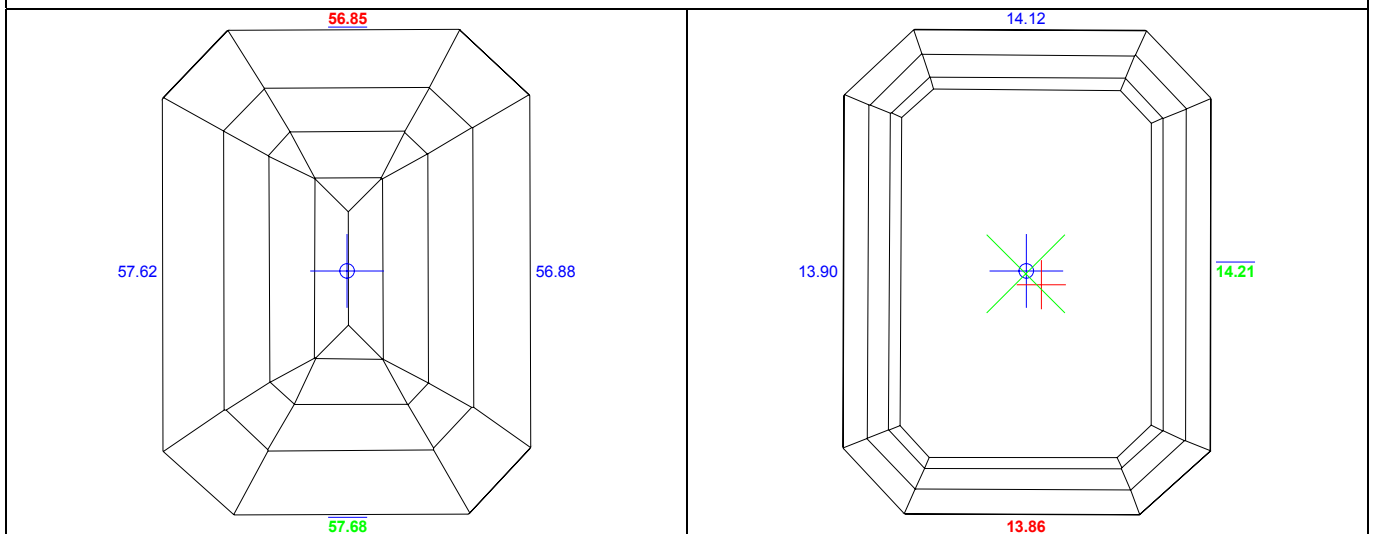
Pavilion and crown views of the diamond with indication of deviation of facets' heights from the average values (mm)



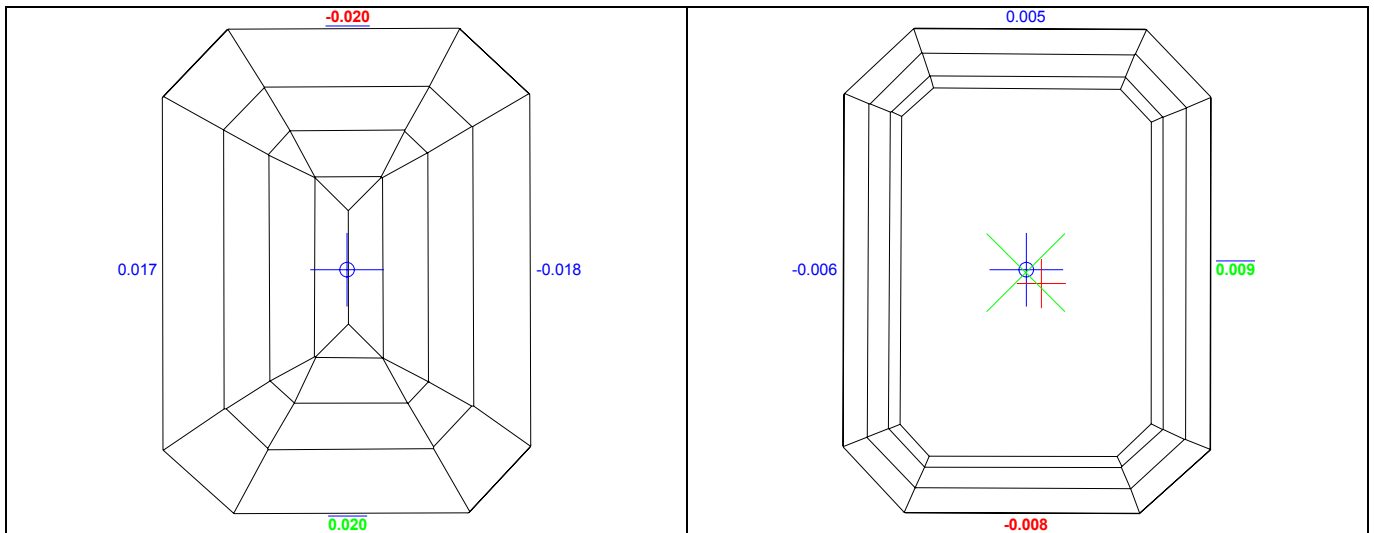
Pavilion and Crown heights



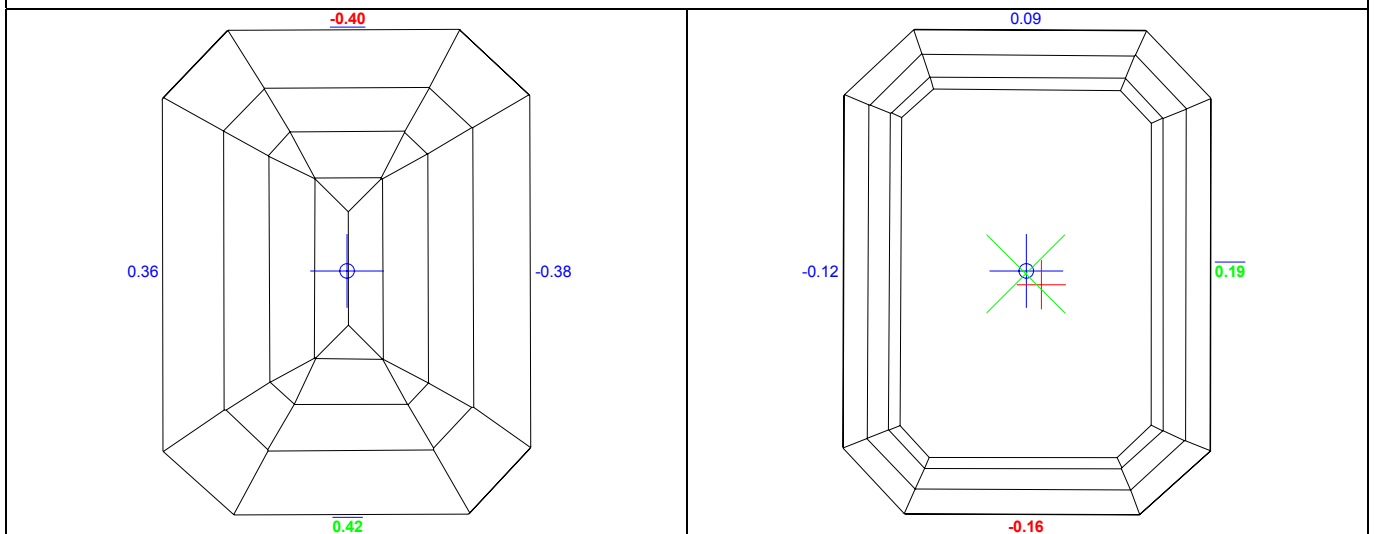
Pavilion and Crown heights (mm)



Pavilion and Crown heights (%)

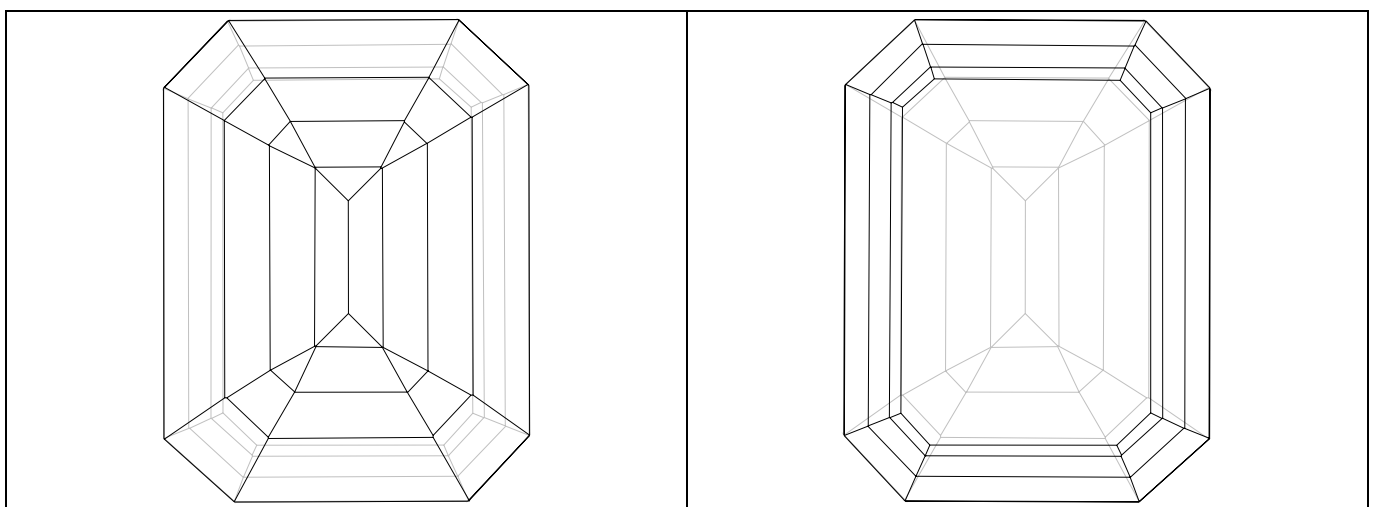


Deviations of Pavilion and Crown heights from the average values (mm)






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

Additional Illustrations



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

	Girdle center		Culet center		Table center
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