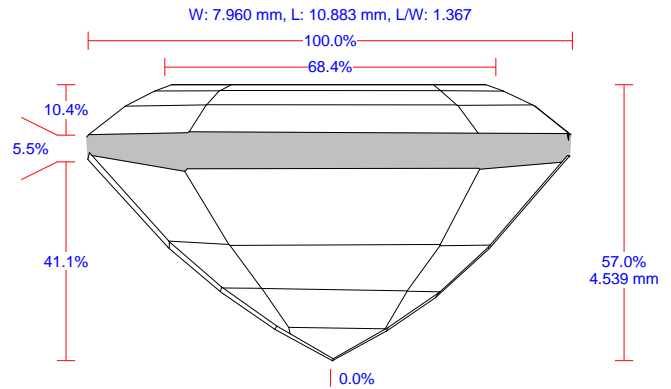


Full report for step cuts

Emerald

General information

Model: Simple
 Expert name: Makoed A.G.
 Report date: 30.06.2008
 Real weight, ct:
 Calculated weight, ct: 3.68, 3.6791
 Spread: 0.27 ct, 6.91 %
 EF / Nat: Yes (1)
 Appraiser title: GIA_PCTG_StarCul
 Overall cut quality: N/A
 Symmetry appraiser title: Internal
 Overall symmetry quality: PR



Main parameters

Width	Length	Ratio (L/W)	Diameter Minimum	Diameter Maximum	Total height	MIC
7.960 mm	10.883 mm	1.367	7.960 mm	11.880 mm	4.539 mm	7.935 mm

Parameter		Avg	Min	Max	Dev	Cut	Sym
Diameter	mm		7.960	11.880	2.923	N/A	
Crown height	%	10.40	9.86	10.99	1.13	N/A	VG
Crown height	mm	0.828	0.785	0.875	0.090		
Pavilion height	%	41.10	39.72	42.37	2.66	N/A	FR
Pavilion height	mm	3.271	3.161	3.373	0.212		
Total height	%	57.02				N/A	
Total height	mm						
Table	%	68.37	64.89	71.84	6.95	N/A	PR
Table	mm	6.492	5.165	7.819	2.653		
Culet	%	N/A	0.01	0.49	0.48	N/A	EX
Culet	mm	N/A	0.001	0.039	0.038		
Culet length	%	0.24					
Culet length	mm	2.650					
Girdle thickness	%	5.52	4.16	7.45	3.29	N/A	PR
Girdle thickness	mm	0.440	0.331	0.593	0.262		
Corner angle width	%	19.17	18.34	20.19	1.85	N/A	
Corner angle width	mm	1.526	1.460	1.607	0.148		
Corner angle length	%	16.00	15.33	16.45	1.11		
Corner angle length	mm	1.274	1.220	1.309	0.089		
Crown Main 1 angle	°	37.42	35.74	38.70	2.95	N/A	
Crown Main 1 height	%	6.20	5.88	6.47	0.58		
Crown Main 1 height	mm	0.493	0.468	0.515	0.046		
Crown Main 2 angle	°	25.39	23.33	27.41	4.08	N/A	
Crown Main 2 height	%	3.22	2.99	3.49	0.50		
Crown Main 2 height	mm	0.256	0.238	0.278	0.040		
Crown Main 3 angle	°	18.54	16.80	20.35	3.55	N/A	
Crown Main 3 height	%	1.33	1.22	1.40	0.18		
Crown Main 3 height	mm	0.106	0.097	0.111	0.014		
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	°	33.98	33.10	35.19	2.09		
Crown Corner 1 height	%	6.30	5.91	6.75	0.84		
Crown Corner 1 height	mm	0.501	0.471	0.538	0.067		
Crown Corner 2 angle	°	23.08	21.99	23.97	1.99		
Crown Corner 2 height	%	3.32	3.06	3.66	0.60		
Crown Corner 2 height	mm	0.265	0.244	0.292	0.048		
Crown Corner 3 angle	°	16.06	14.82	16.87	2.05		
Crown Corner 3 height	%	1.32	1.26	1.44	0.18		
Crown Corner 3 height	mm	0.105	0.100	0.115	0.014		
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	°	48.21	47.86	49.18	1.32	N/A	
Pavilion Main 1 height	%	18.02	15.94	19.86	3.92		
Pavilion Main 1 height	mm	1.434	1.269	1.581	0.312		
Pavilion Main 2 angle	°	40.61	38.71	42.49	3.79	N/A	
Pavilion Main 2 height	%	10.07	9.61	10.42	0.81		
Pavilion Main 2 height	mm	0.802	0.765	0.829	0.065		
Pavilion Main 3 angle	°	33.68	32.17	34.96	2.79	N/A	
Pavilion Main 3 height	%	8.15	7.43	8.74	1.31		
Pavilion Main 3 height	mm	0.648	0.591	0.695	0.104		
Pavilion Main 4 angle	°	27.22	24.56	29.42	4.86		
Pavilion Main 4 height	%	6.78	6.50	7.16	0.66		
Pavilion Main 4 height	mm	0.540	0.518	0.570	0.052		
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	°	44.63	43.24	45.27	2.03		
Pavilion Corner 1 height	%	18.26	17.27	19.00	1.73		
Pavilion Corner 1 height	mm	1.454	1.375	1.512	0.138		
Pavilion Corner 2 angle	°	35.62	35.15	35.86	0.70		
Pavilion Corner 2 height	%	10.04	9.63	10.67	1.04		
Pavilion Corner 2 height	mm	0.799	0.767	0.849	0.082		
Pavilion Corner 3 angle	°	33.43	32.20	34.22	2.02		
Pavilion Corner 3 height	%	7.91	7.04	9.44	2.39		
Pavilion Corner 3 height	mm	0.629	0.561	0.751	0.191		
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		

Detailed parameters

Parameter		1	2	3	4
Diameter (side-based)	mm	N/A	N/A	N/A	
Diameter (side-based)	%	N/A	N/A	N/A	
Crown height	mm	0.811	0.785	0.842	0.875
Crown height	%	10.19	9.86	10.57	10.99
Pavilion height	mm	3.373	3.161	3.366	3.184
Pavilion height	%	42.37	39.72	42.29	40.00
Table	mm	5.165	7.819	N/A	
Table	%	64.89	71.84	N/A	
Width-wise table	%	N/A	N/A	N/A	
Girdle thickness	mm	0.355	0.593	0.331	0.480
Girdle thickness	%	4.46	7.45	4.16	6.03
Corner angle width	mm	1.460	1.607	1.500	1.537
Corner angle width	%	18.34	20.19	18.85	19.31
Corner angle length	mm	1.290	1.275	1.309	1.220
Corner angle length	%	16.20	16.02	16.45	15.33
Crown Main 1 angle	°	38.70	37.32	37.92	35.74
Crown Main 1 height	mm	0.478	0.468	0.511	0.515
Crown Main 1 height	%	6.01	5.88	6.42	6.47
Crown Main 1 azimuth	°	0.1	89.5	180.2	269.3
Crown Main 2 angle	°	25.46	23.33	27.41	25.35
Crown Main 2 height	mm	0.255	0.238	0.255	0.278
Crown Main 2 height	%	3.20	2.99	3.20	3.49
Crown Main 2 azimuth	°	360.0	89.5	180.2	269.3
Crown Main 3 angle	°	19.52	16.80	20.35	17.49
Crown Main 3 height	mm	0.110	0.097	0.111	0.104
Crown Main 3 height	%	1.38	1.22	1.40	1.31
Crown Main 3 azimuth	°	359.9	89.4	180.2	269.4
Crown Main 4 angle	°	N/A	N/A	N/A	N/A
Crown Main 4 height	mm	N/A	N/A	N/A	N/A
Crown Main 4 height	%	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	mm	N/A	N/A	N/A	N/A
Crown Main 5 height	%	N/A	N/A	N/A	N/A
Crown Main 5 azimuth	°	N/A	N/A	N/A	N/A

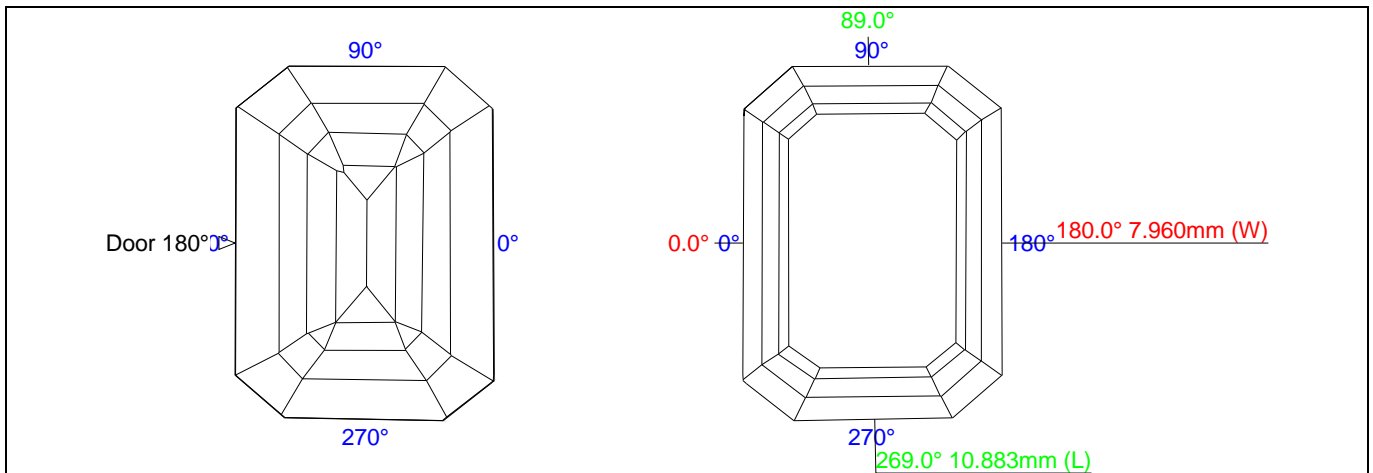
Parameter		1	2	3	4
Crown Corner 1 angle	°	34.27	35.19	33.34	33.10
Crown Corner 1 height	mm	0.471	0.488	0.509	0.538
Crown Corner 1 height	%	5.91	6.13	6.39	6.75
Crown Corner 1 azimuth	°	48.3	129.6	230.0	305.7
Crown Corner 2 angle	°	21.99	22.96	23.97	23.40
Crown Corner 2 height	mm	0.244	0.251	0.292	0.272
Crown Corner 2 height	%	3.06	3.15	3.66	3.42
Crown Corner 2 azimuth	°	48.6	130.2	230.8	304.9
Crown Corner 3 angle	°	16.87	14.82	16.21	16.34
Crown Corner 3 height	mm	0.104	0.101	0.100	0.115
Crown Corner 3 height	%	1.31	1.27	1.26	1.44
Crown Corner 3 azimuth	°	48.4	130.3	230.9	305.1
Crown Corner 4 angle	°	N/A	N/A	N/A	N/A
Crown Corner 4 height	mm	N/A	N/A	N/A	N/A
Crown Corner 4 height	%	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	mm	N/A	N/A	N/A	N/A
Crown Corner 5 height	%	N/A	N/A	N/A	N/A
Crown Corner 5 azimuth	°	N/A	N/A	N/A	N/A
Pavilion Main 1 angle	°	49.18	47.87	47.86	47.94
Pavilion Main 1 height	mm	1.533	1.269	1.581	1.354
Pavilion Main 1 height	%	19.26	15.94	19.86	17.01
Pavilion Main 1 azimuth	°	0.3	89.8	179.1	269.1
Pavilion Main 2 angle	°	42.49	38.71	40.50	40.74
Pavilion Main 2 height	mm	0.829	0.765	0.823	0.789
Pavilion Main 2 height	%	10.42	9.61	10.34	9.92
Pavilion Main 2 azimuth	°	0.3	89.7	178.8	269.1
Pavilion Main 3 angle	°	34.37	32.17	34.96	33.23
Pavilion Main 3 height	mm	0.642	0.665	0.695	0.591
Pavilion Main 3 height	%	8.07	8.35	8.74	7.43
Pavilion Main 3 azimuth	°	0.7	90.0	178.6	268.9
Pavilion Main 4 angle	°	29.25	25.64	29.42	24.56
Pavilion Main 4 height	%	6.89	6.50	7.16	6.58
Pavilion Main 4 height	mm	0.549	0.518	0.570	0.523
Pavilion Main 4 azimuth	°	0.9	90.5	178.4	268.2
Pavilion Main 5 angle	°	N/A	N/A	N/A	N/A
Pavilion Main 5 height	mm	N/A	N/A	N/A	N/A
Pavilion Main 5 height	%	N/A	N/A	N/A	N/A
Pavilion Main 5 azimuth	°	N/A	N/A	N/A	N/A
Pavilion Corner 1 angle	°	44.77	43.24	45.27	45.23
Pavilion Corner 1 height	mm	1.375	1.462	1.465	1.512
Pavilion Corner 1 height	%	17.27	18.37	18.41	19.00
Pavilion Corner 1 azimuth	°	44.8	136.5	221.9	316.8
Pavilion Corner 2 angle	°	35.73	35.73	35.15	35.86
Pavilion Corner 2 height	mm	0.767	0.776	0.803	0.849
Pavilion Corner 2 height	%	9.63	9.75	10.09	10.67
Pavilion Corner 2 azimuth	°	44.6	137.2	221.3	317.4
Pavilion Corner 3 angle	°	33.07	32.20	34.21	34.22
Pavilion Corner 3 height	mm	0.626	0.751	0.580	0.561
Pavilion Corner 3 height	%	7.86	9.44	7.28	7.04
Pavilion Corner 3 azimuth	°	44.7	137.3	221.2	317.5
Pavilion Corner 4 angle	°	N/A	N/A	N/A	N/A
Pavilion Corner 4 height	mm	N/A	N/A	N/A	N/A
Pavilion Corner 4 height	%	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	mm	N/A	N/A	N/A	N/A
Pavilion Corner 5 height	%	N/A	N/A	N/A	N/A
Pavilion Corner 5 azimuth	°	N/A	N/A	N/A	N/A
Girdle facet angle	°	86.36	89.89	87.08	89.39
Girdle facet azimuth	°	0.2	89.9	179.8	268.9
Girdle corner angle	°	89.82	89.66	88.52	87.77
Girdle corner azimuth	°	48.6	128.4	229.2	308.1

Girdle side width & length		1	2
Girdle side width	%	60.2	61.2
Girdle side width	mm	4.793	4.874
Girdle side length	%	103.2	103.0
Girdle side length	mm	8.216	8.195
Girdle side width-based length	%	103.2	102.9
Girdle side width-based length	mm	8.215	8.193

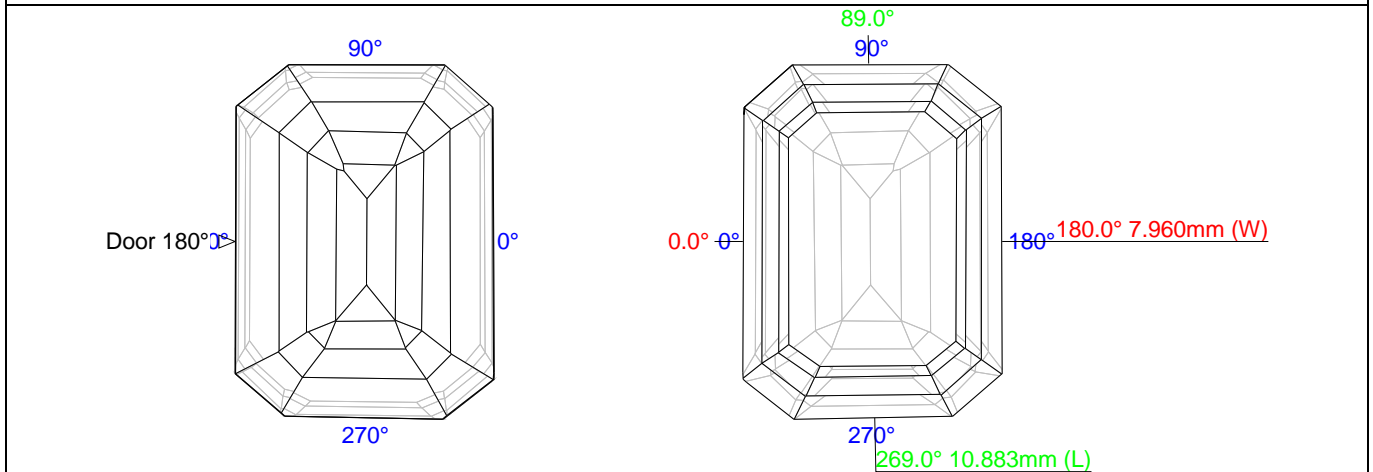
Offset		Distance	Width wise	Length wise
Culet-Table offset by table axis	%	1.27 ± 0.25	0.72	1.04
Culet-Table offset by table axis	mm	0.101 ± 0.020	0.057	0.083
Girdle-Culet offset by table axis	%	1.02 ± 0.24	0.66	0.77
Girdle-Culet offset by table axis	mm	0.081 ± 0.019	0.053	0.062
Girdle-Table offset by table axis	%	0.27 ± 0.22	0.06	0.27
Girdle-Table offset by table axis	mm	0.022 ± 0.017	0.005	0.021
Girdle to table-culet line offset	%	0.12		
Girdle to table-culet line offset	mm	0.009		

Culet shift ratio by width & length			
Width		7.960 mm, 100%	
Width-wise culet shift ratio		4.045 mm, 50.82 %	3.915 mm, 49.18 %
Length-wise culet shift ratio		5.450 mm, 68.47 %	5.441 mm, 68.36 %
Length		10.883 mm, 100%	
Length-wise culet shift ratio		5.450 mm, 50.08 %	5.441 mm, 50.00 %

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

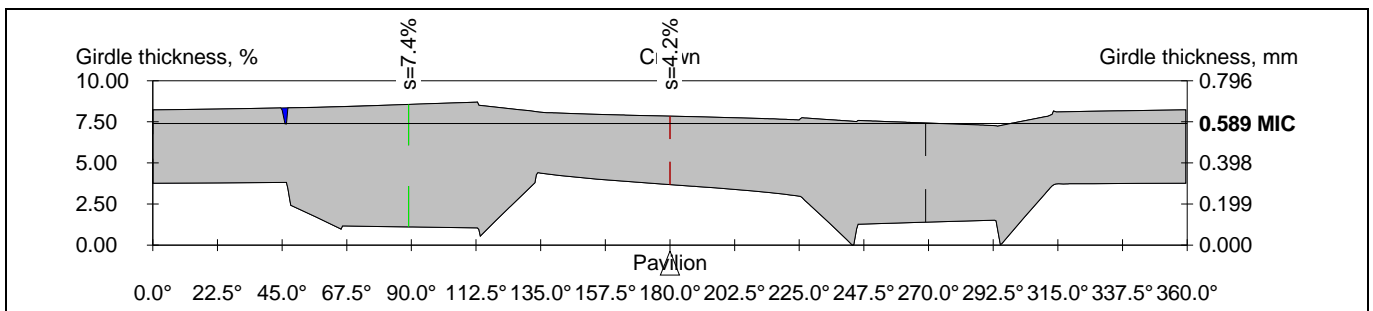


Invisible edges are hidden

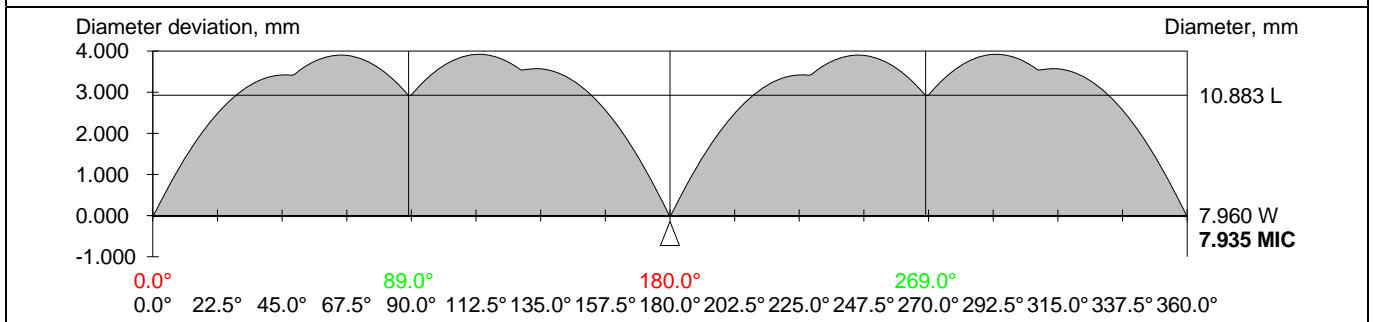


Invisible edges are drawn taking refraction into account

Plots

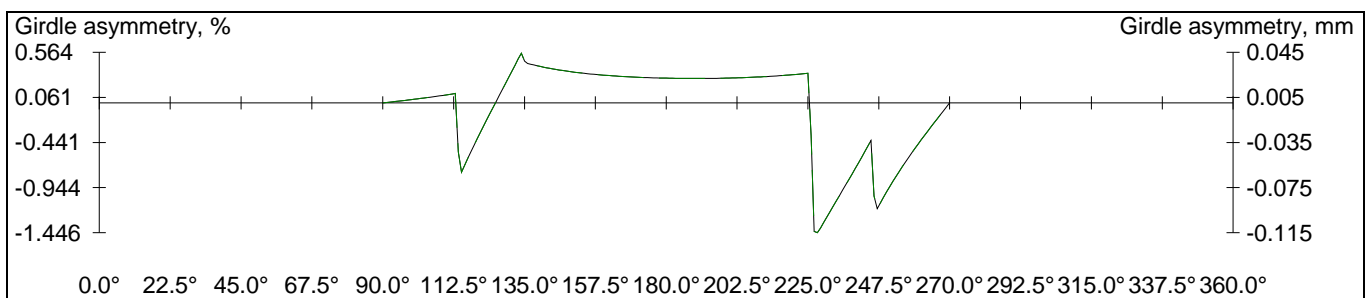
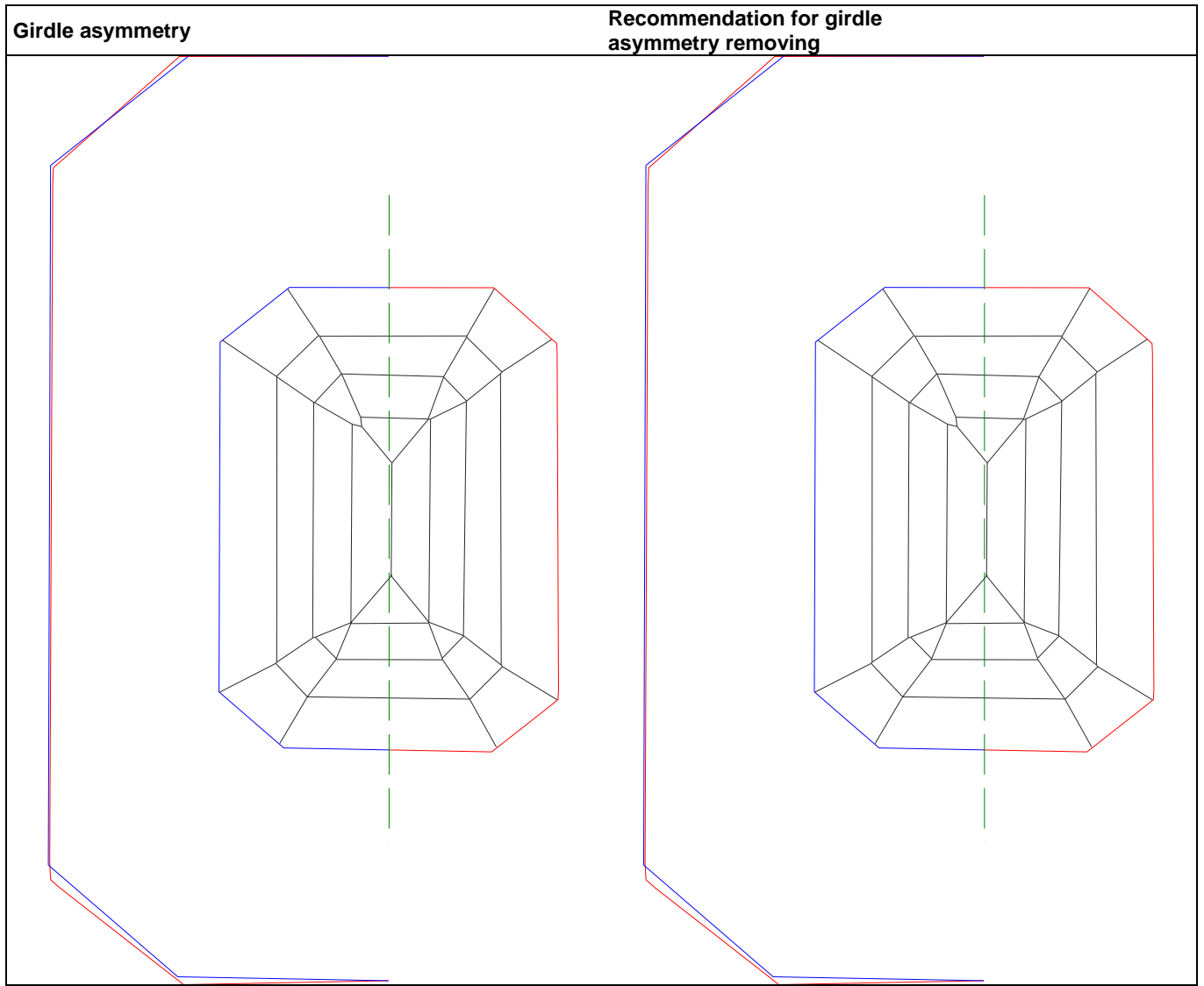


Girdle thickness plot

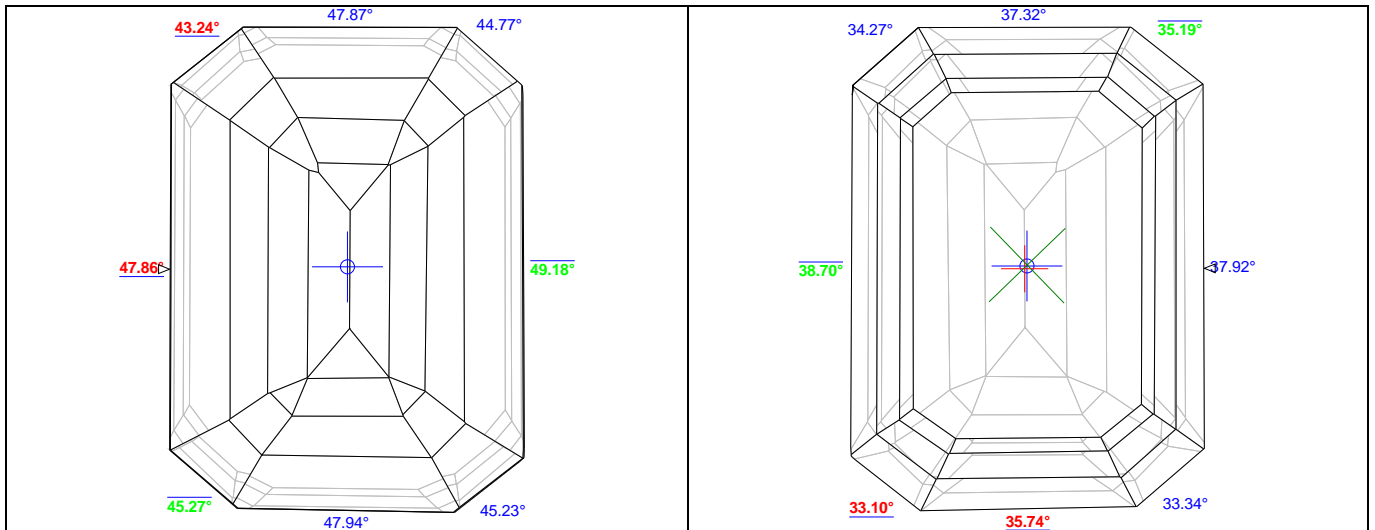


Diameter variation plot

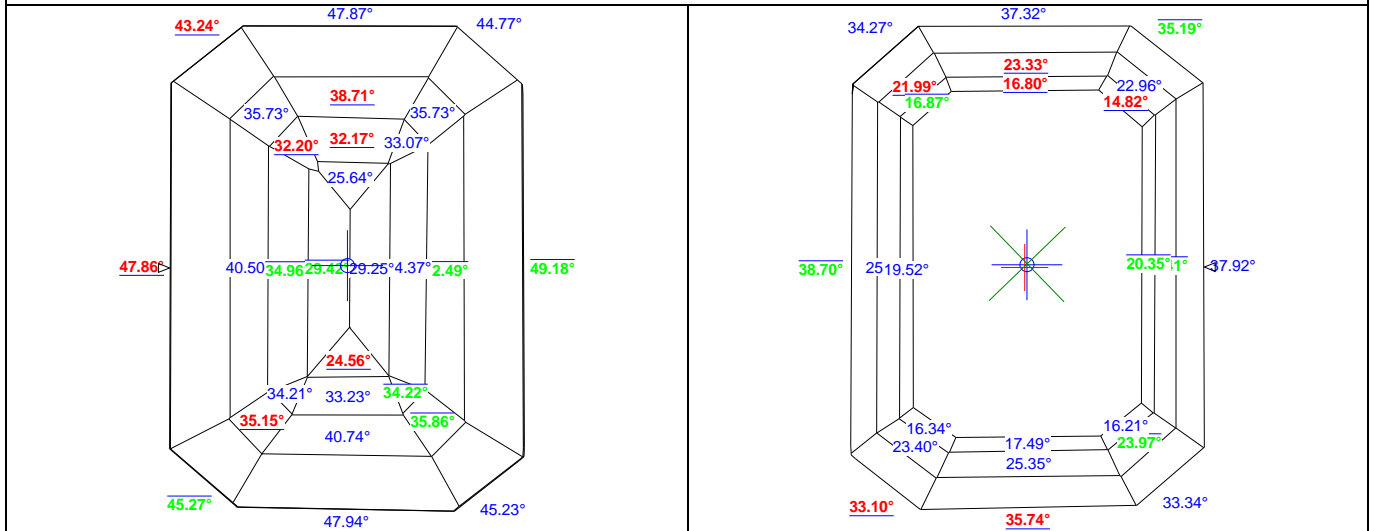
Girdle asymmetry



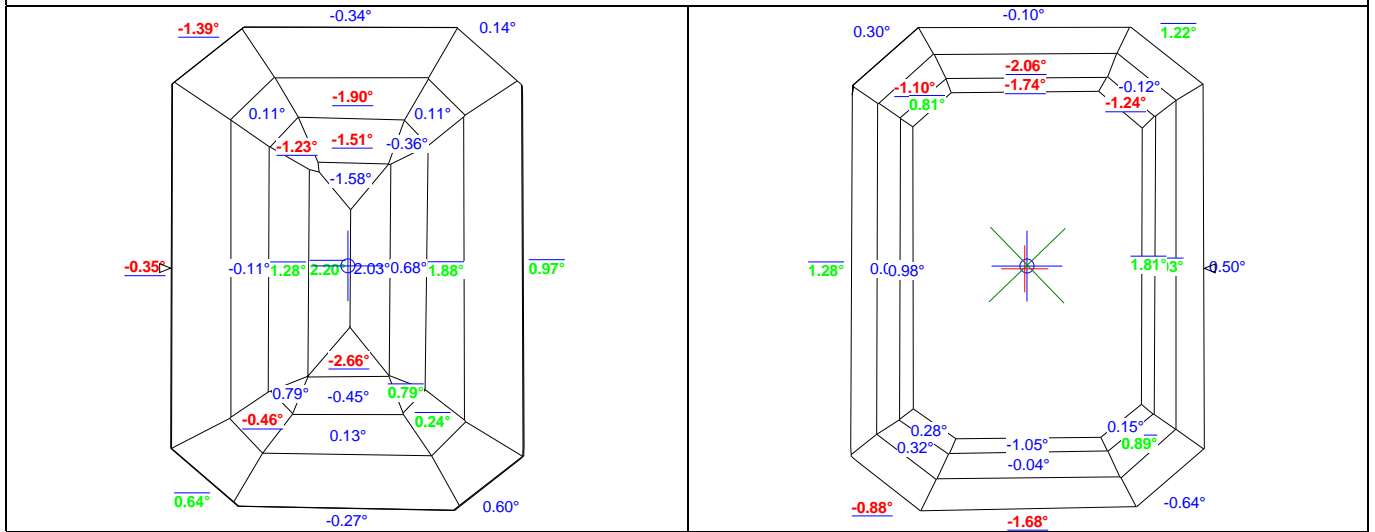
Facets' slope and azimuth angles



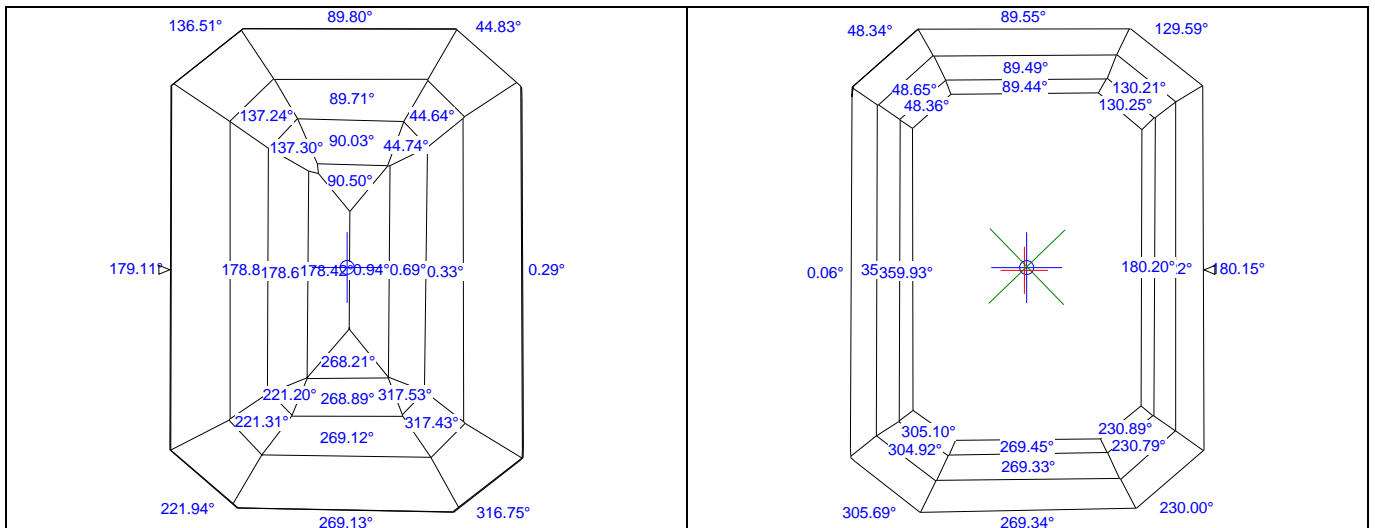
Pavilion and crown views of the diamond with indication of main facets' slope angles
Invisible edges are drawn taking refraction into account



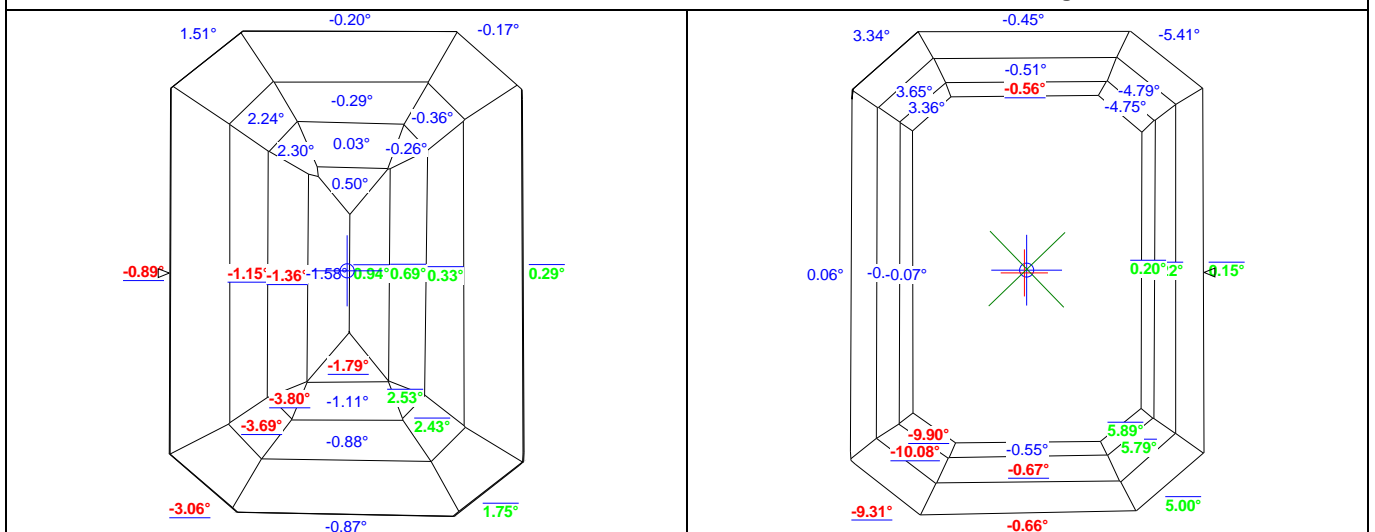
Pavilion and crown views of the diamond with indication of facets' slope angles



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

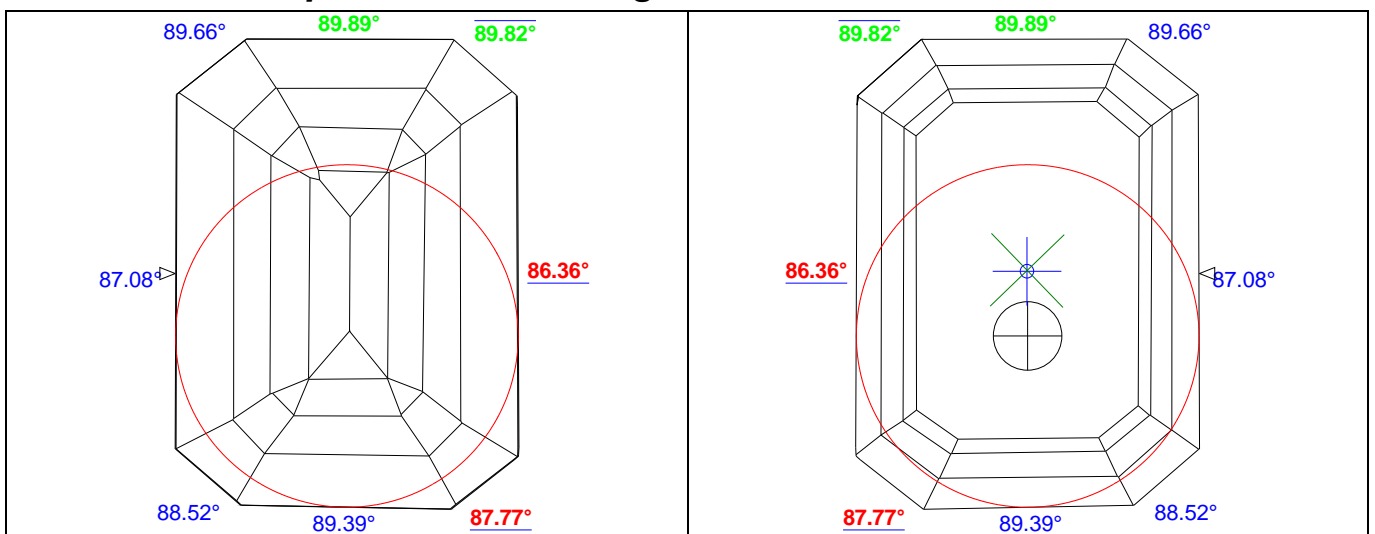


Pavilion and crown views of the diamond with indication of facets' azimuth angles

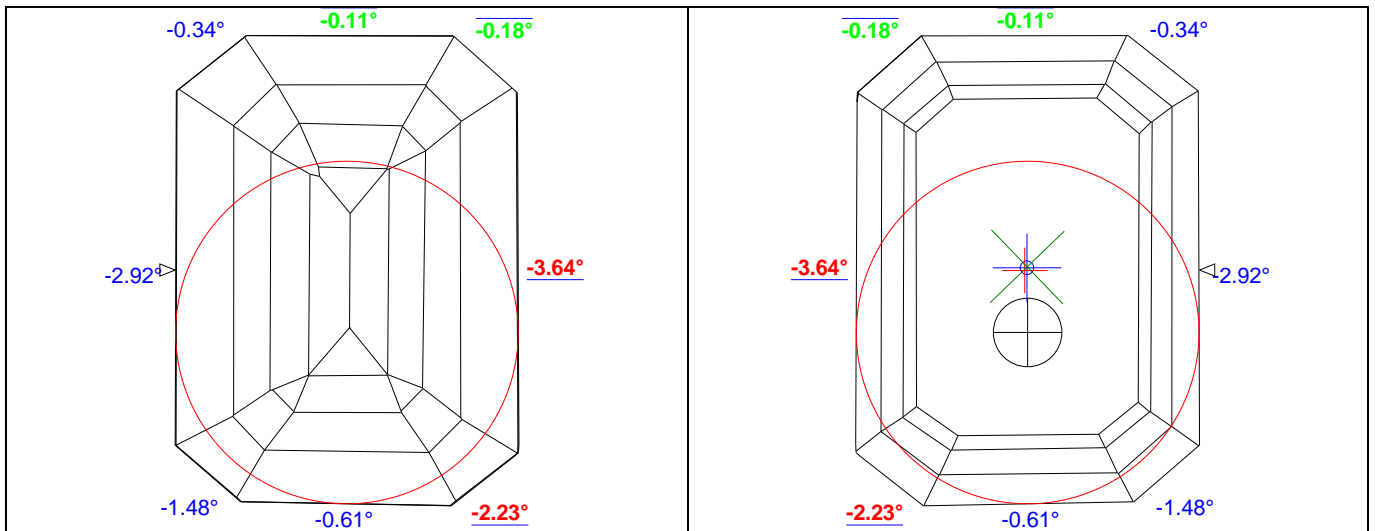


Pavilion and crown views of the diamond with indication of deviation of facets' azimuth angles from their ideal positions for the emerald.

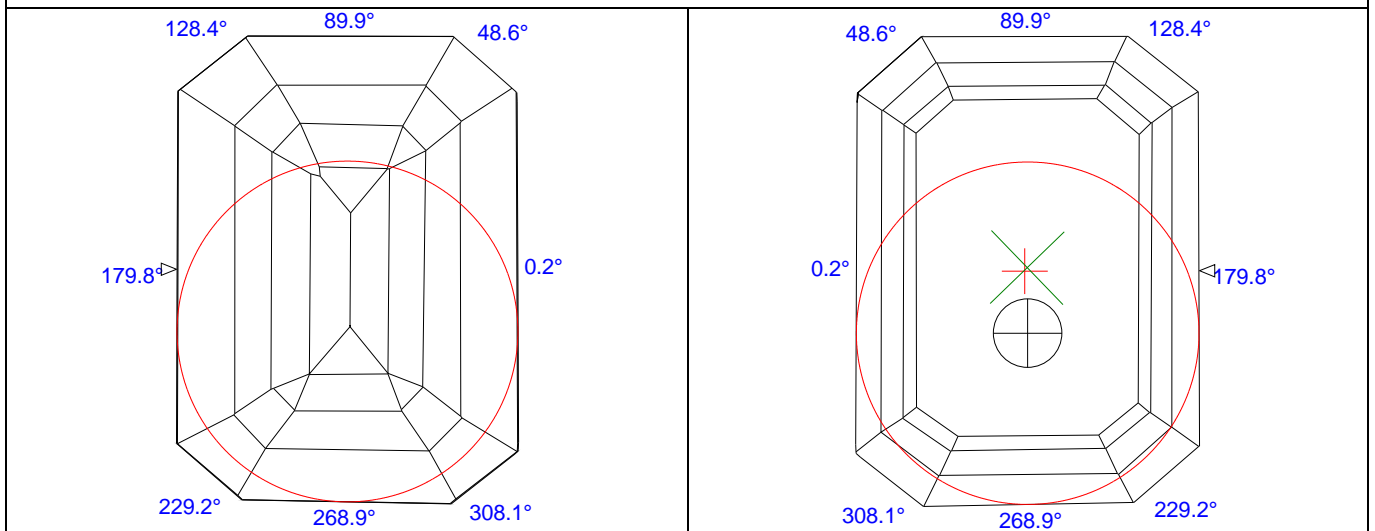
Girdle facets' slope and azimuth angles



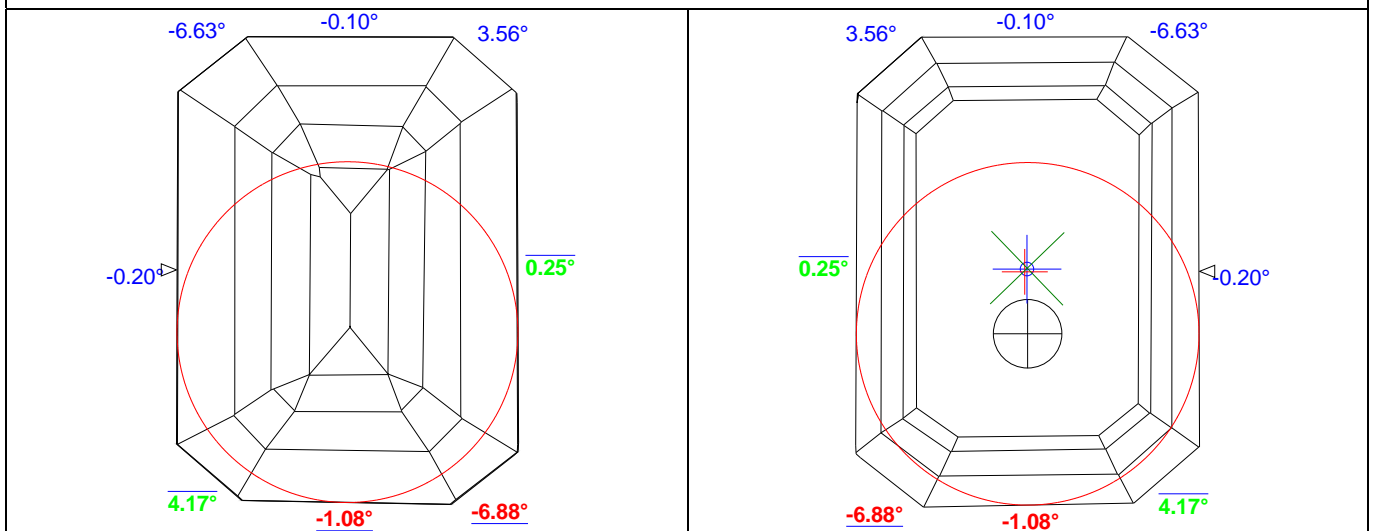
Pavilion and crown views of the diamond with indication of girdle facets' slope angles



Pavilion and crown views of the diamond with indication of deviation of girdle facets' slope angles from there ideal (90°)

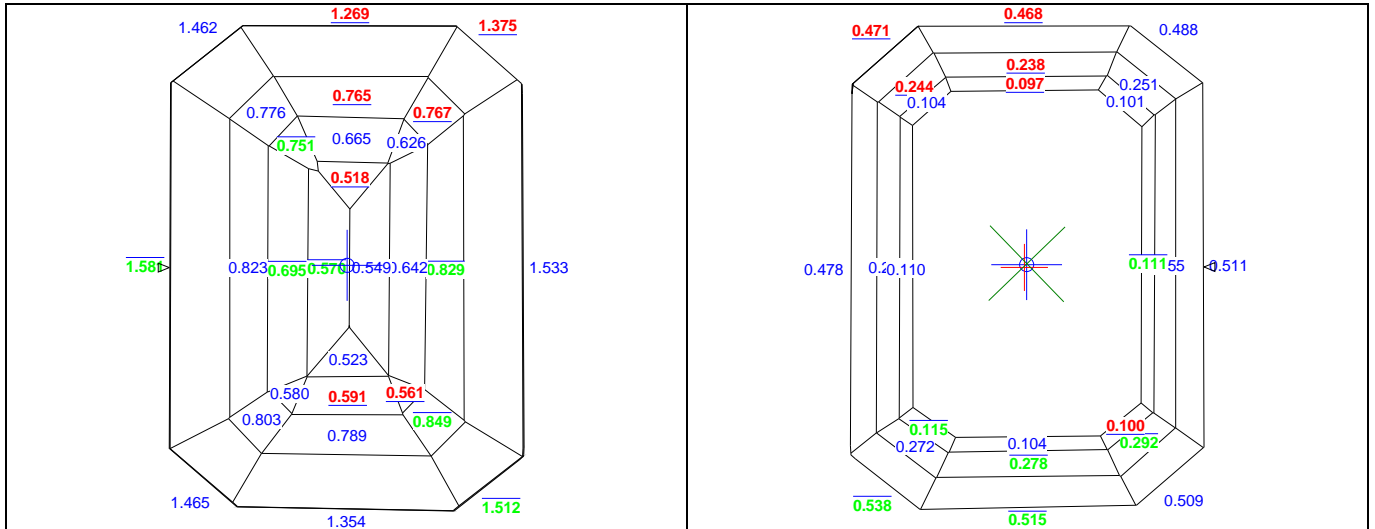


Pavilion and crown views of the diamond with indication of girdle facets' azimuth angles

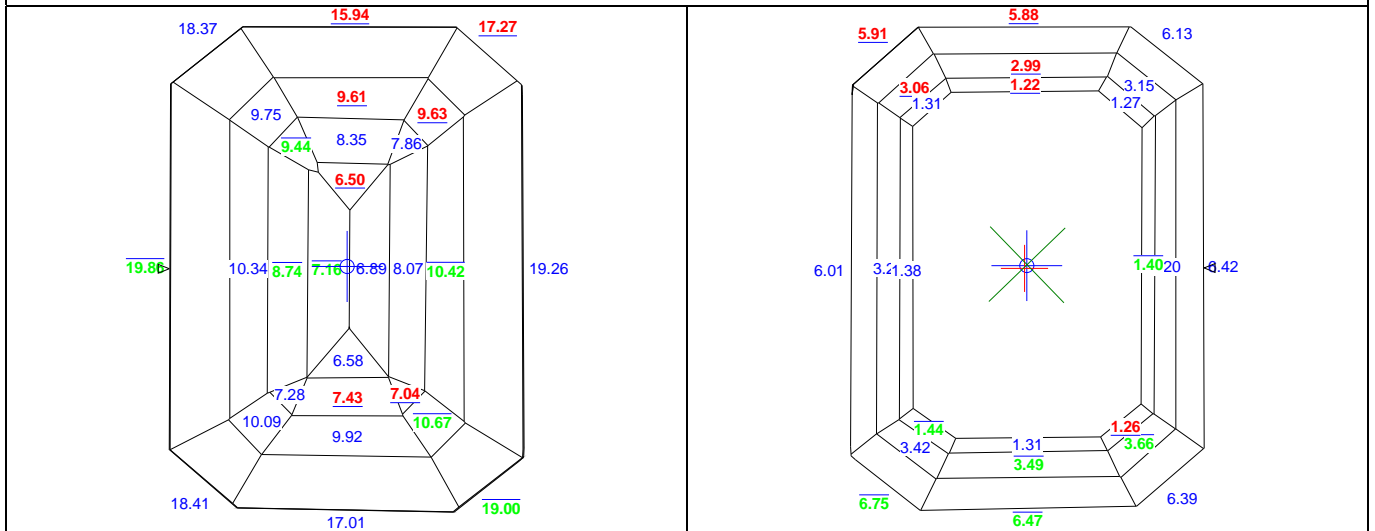


Pavilion and crown views of the diamond with indication of deviation of girdle facets' azimuth angles

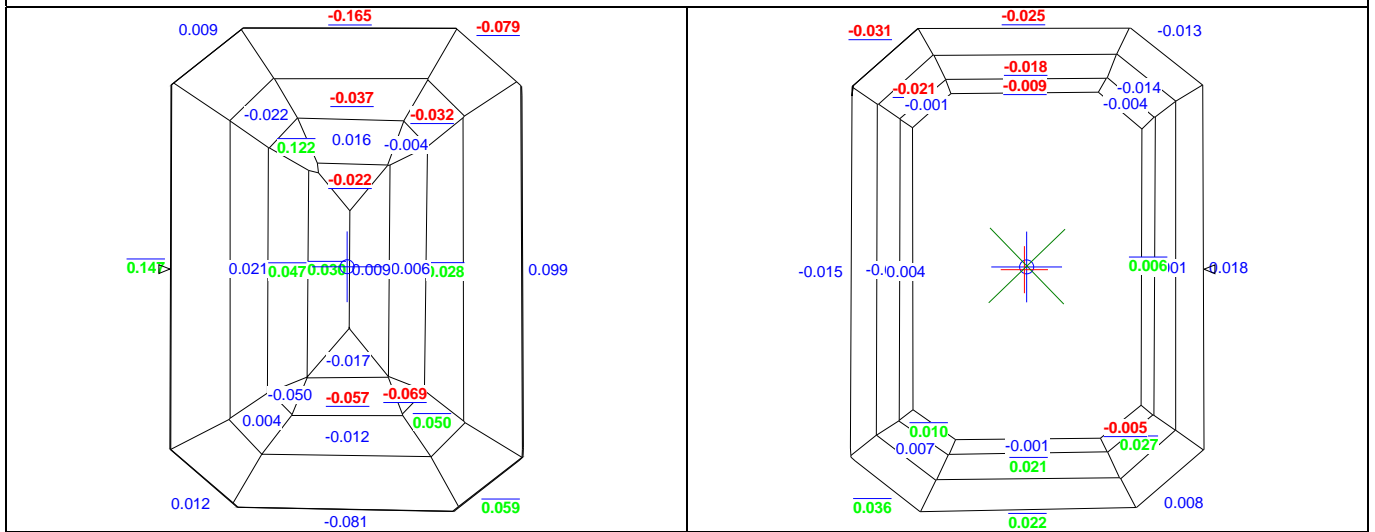
Facets' heights



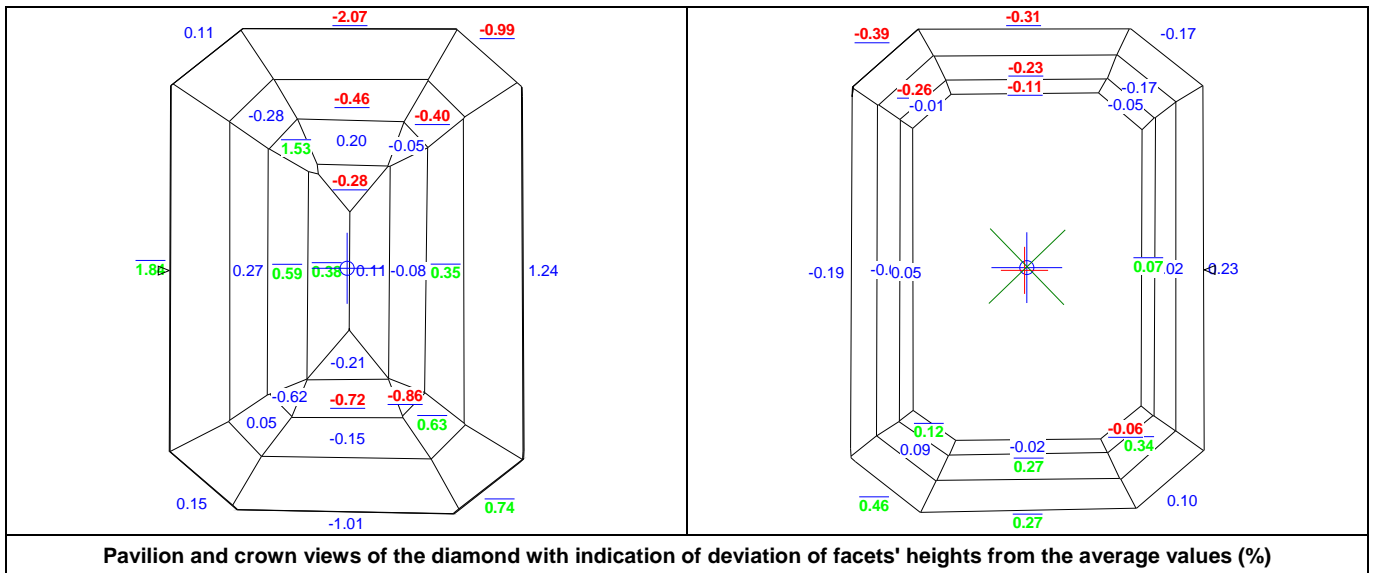
Pavilion and crown views of the diamond with indication of facets' heights (mm)



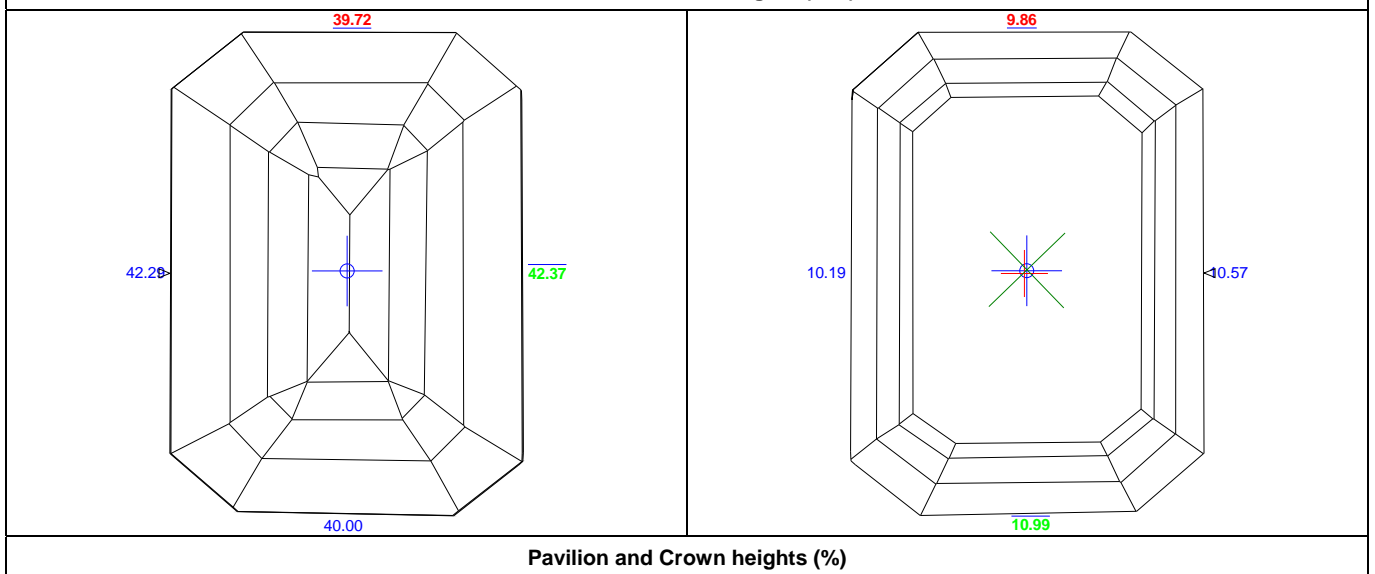
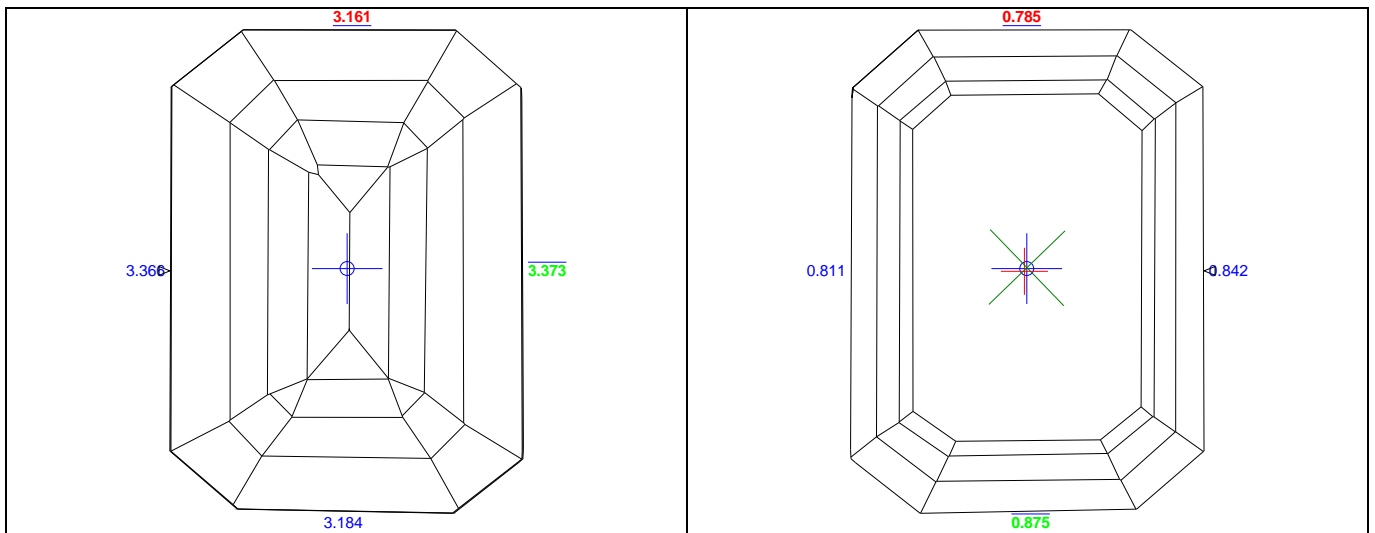
Pavilion and crown views of the diamond with indication of facets' heights (%)

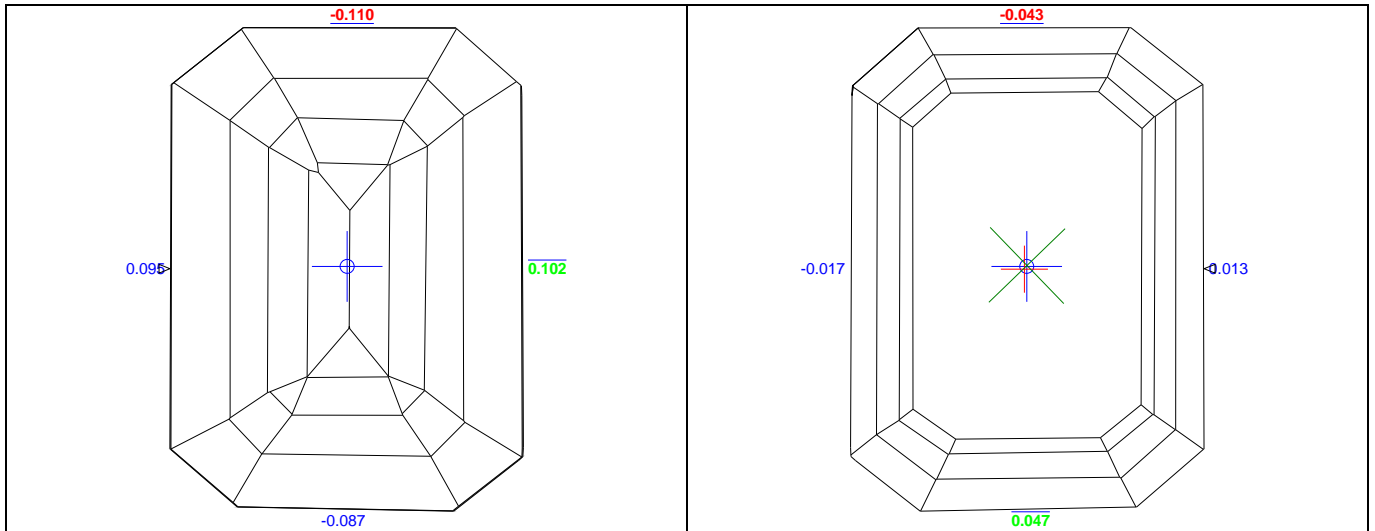


Pavilion and crown views of the diamond with indication of deviation of facets' heights from the average values (mm)

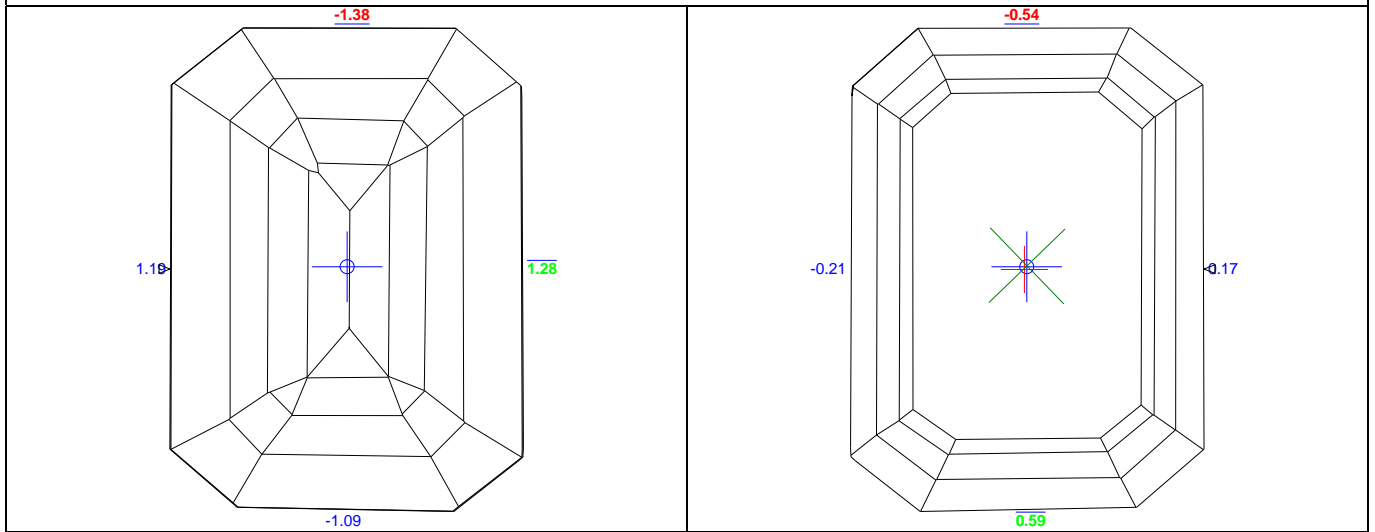


Pavilion and Crown heights



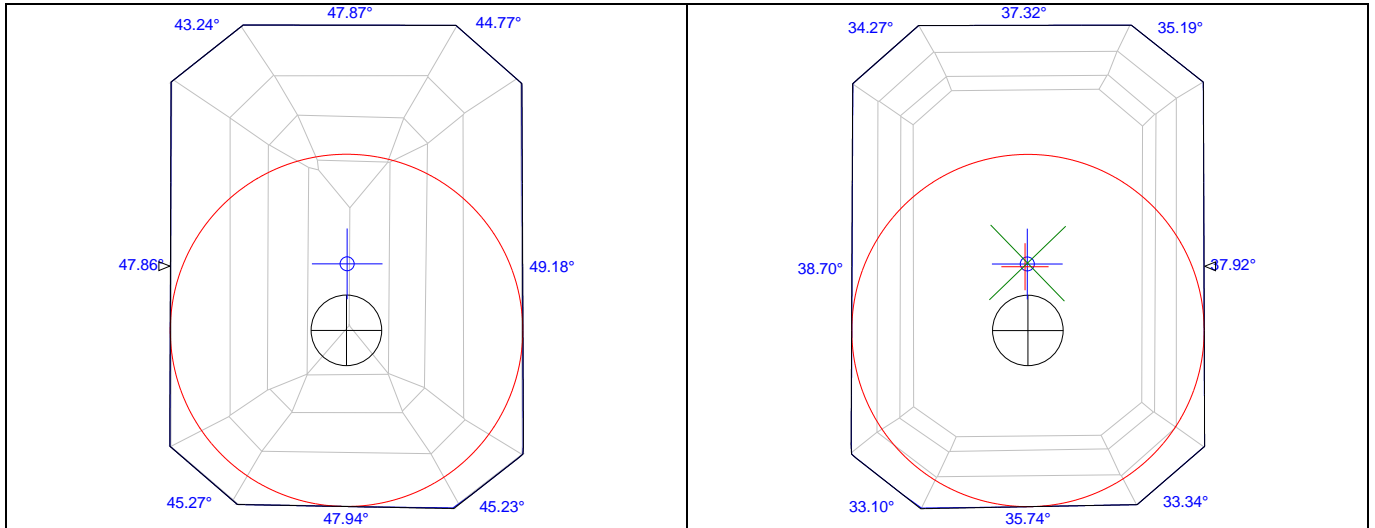


Deviations of Pavilion and Crown heights from the average values (mm)

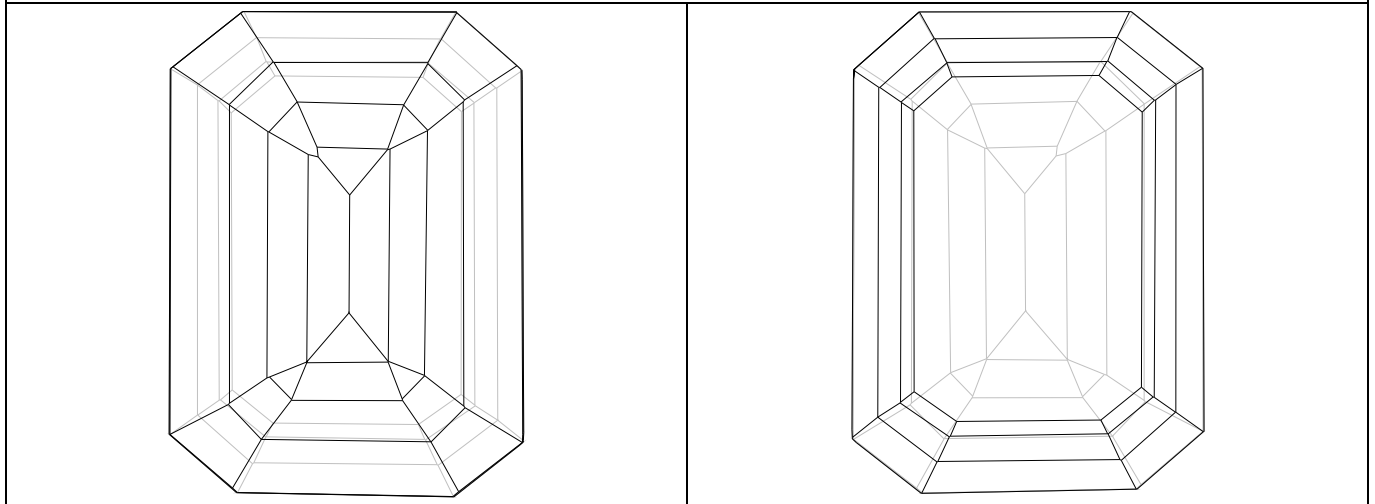


Deviations of Pavilion and Crown heights from the average values (%)

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	⊕	MIC center
---	---------------	---	--------------	---	--------------	---	------------