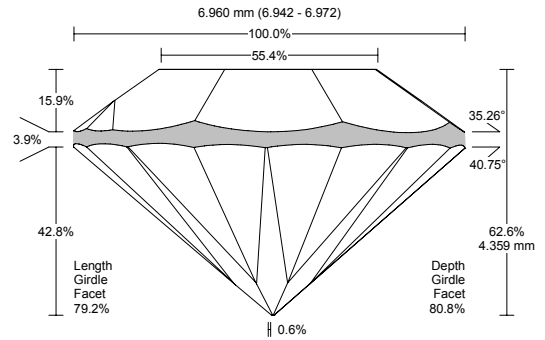


HELIUM FULL REPORT

Polished Brilliant

General information

Model Simple
 Expert name Makoed A.G.
 Report date 17.01.2007
 Real weight, ct 1.32, 1.3254
 Calculated weight, ct AGS_2005
 Appraiser title 1
 Overall cut quality Internal
 Symmetry appraiser title VG
 Overall symmetry quality
 Spread -0.07 ct, -5.68%
 Girdle to MIC 0.005 mm
 EF / Nat No



Main parameters

Parameter		Avg	Min	Max	Dev	Cut	Sym
Diameter	mm	6.960	6.942	6.972	0.43 %	N/A	EX
Crown angle	°	35.26	35.00	35.57	0.57	Grading	EX
Crown height	%	15.87	15.72	16.10	0.37	N/A	EX
Crown height	mm	1.105	1.094	1.120	0.026		
Crown height at girdle minima	%	N/A	N/A	N/A	N/A	N/A	N/A
Crown height at girdle minima	mm	N/A	N/A	N/A	N/A		
Pavilion angle	°	40.75	40.17	41.35	1.17	Grading	VG
Pavilion depth	%	42.79	42.54	43.03	0.48	N/A	EX
Pavilion depth	mm	2.978	2.961	2.995	0.034		
Pavilion depth at girdle minima	%	43.62	43.33	43.95	0.62	N/A	EX
Pavilion depth at girdle minima	mm	3.036	3.016	3.059	0.043		
Upper girdle facets angle	°	N/A	N/A	N/A	N/A	N/A	N/A
Upper girdle facets height	%	N/A	N/A	N/A	N/A		
Upper girdle facets height	mm	N/A	N/A	N/A	N/A		
Star facets angle	°	N/A	N/A	N/A	N/A	N/A	N/A
Star :	%	N/A :	N/A :	N/A :	N/A		
Upper ratio	%	N/A	N/A	N/A	N/A		
Lower girdle facets angle	°	41.82	41.24	42.47	1.23	N/A	EX
Lower girdle facets height	%	35.59	35.29	36.09	0.80		
Lower girdle facets height	mm	2.477	2.456	2.512	0.056		
Depth Girdle Facet	%	80.79	79.91	81.81	1.91	N/A	EX
Length Girdle Facet	%	79.21	78.30	80.25	1.96		
Total height	%	62.62				N/A	
Total height	mm	4.359					
Table	%	55.39	55.19	55.65	0.46	Grading	EX
Table	mm	3.855	3.841	3.873	0.032		
Culet	%	0.62	0.54	0.66	0.12	0	EX
Culet	mm	0.043	0.038	0.046	0.008		
Twist	°	0.74	0.36	1.23	0.88	0	EX
Girdle thickness: Bezel	%	3.89	3.58	4.12	0.53		
Girdle thickness: Bezel	mm	0.271	0.249	0.286	0.037	N/A	N/A
Girdle thickness: Bone	%	N/A	N/A	N/A	N/A		
Girdle thickness: Bone	mm	N/A	N/A	N/A	N/A	0	VG
Girdle thickness: Valley	%	3.61	2.73	4.23	1.49		
Girdle thickness: Valley	mm	0.251	0.190	0.294	0.104		
Measurement as per OctoNus theory:							
Crown angle	°	N/A	N/A	N/A	N/A		
Pavilion angle	°	N/A	N/A	N/A	N/A		
Culet through bezel	°	N/A				N/A	
Fish eye effect	°	N/A				N/A	

Paint / Dug		Avg	Type	Sym	Max	Dev	Sym
Crown	°	N/A	N/A	N/A	N/A	N/A	N/A
Crown	notches	N/A, N/A			N/A	N/A	
Pavilion	°	N/A	N/A	N/A	N/A	N/A	N/A
Pavilion	notches	N/A, N/A			N/A	N/A	

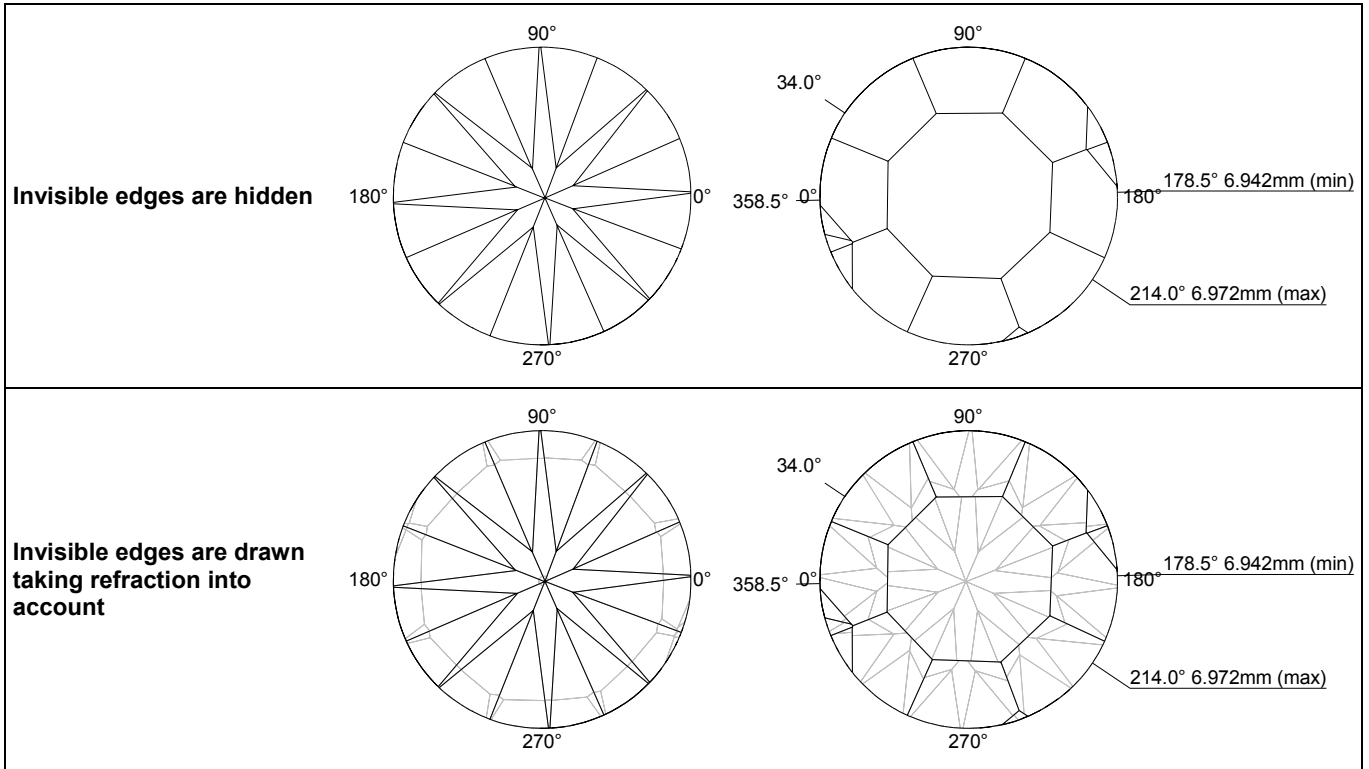
Detailed parameters

Parameter		1	2	3	4	5	6	7	8
Diameter	mm	6.943	6.966	6.966	6.956				
Crown angle	°	35.22	35.46	35.57	35.39	35.33	35.05	35.00	35.04
Crown height	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crown height	mm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crown height at girdle minima	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crown height at girdle minima	mm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crown azimuth	°	0.9	45.2	89.5	134.8	182.1	226.6	272.0	316.4
Crown azimuth deviation from ideal	°	0.87	0.23	-0.47	-0.17	2.13	1.60	2.02	1.42
Pavilion angle	°	41.18	40.78	40.30	40.17	40.30	40.72	41.19	41.35
Pavilion depth	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavilion depth	mm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavilion depth at girdle minima	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavilion depth at girdle minima	mm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavilion azimuth	°	0.0	45.9	90.4	136.1	181.5	227.5	271.6	316.8
Pavilion azimuth deviation from ideal	°	0.00	0.85	0.39	1.06	1.50	2.52	1.62	1.78
Upper girdle facets angle	°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper girdle facets height	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper girdle facets height	mm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper girdle facets azimuth	°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper girdle facets azimuth deviation from ideal	°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Star facets angle	°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Star facets azimuth	°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Star facets azimuth deviation from ideal	°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Star : Upper ratio	%	N/A :	N/A :	N/A :	N/A :	N/A :	N/A :	N/A :	N/A :
Lower girdle facets angle	°	42.13	41.99	41.78	41.49	41.24	41.31	41.26	41.36
		41.34	41.55	42.03	42.26	42.27	42.32	42.47	42.31
Lower girdle facets height	%	35.39	35.45	35.29	35.31	35.51	35.40	35.39	36.00
		35.72	36.09	35.72	35.75	35.58	35.76	35.70	35.43
Lower girdle facets height	mm	2.463	2.467	2.456	2.458	2.471	2.464	2.463	2.506
		2.486	2.512	2.486	2.488	2.476	2.489	2.485	2.466
Lower girdle facets azimuth	°	12.0	34.4	56.9	79.4	102.0	125.0	147.7	170.6
		193.1	215.8	238.4	260.7	283.0	305.2	327.6	349.8
Lower girdle facets azimuth deviation from ideal	°	0.73	0.61	0.66	0.66	0.80	1.23	1.44	1.82
		1.90	2.02	2.16	1.93	1.76	1.40	1.36	1.10
Depth Girdle Facet	%	80.90	80.55	80.18	80.28	80.86	79.91	80.21	81.58
		81.25	81.81	80.50	80.63	80.67	81.42	81.16	80.67
Length Girdle Facet	%	79.27	78.91	78.56	78.66	79.26	78.30	78.62	80.01
		79.67	80.25	78.87	79.00	79.15	79.92	79.68	79.19
Table	%	55.19	55.22	55.65	55.50				
Table	mm	3.841	3.843	3.873	3.863				
Twist	°	0.87	0.63	0.86	1.23	0.62	0.92	0.40	0.36
Girdle Bezel	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Girdle Bezel	mm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Girdle Bone	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Girdle Bone	mm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Girdle Valley	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Girdle Valley	mm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crown painting	°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crown painting	notches	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavilion painting	°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavilion painting	notches	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Measurement as per OctoNus theory:									
Crown angle	°	N/A	N/A	N/A	N/A				
Pavilion angle	°	N/A	N/A	N/A	N/A				

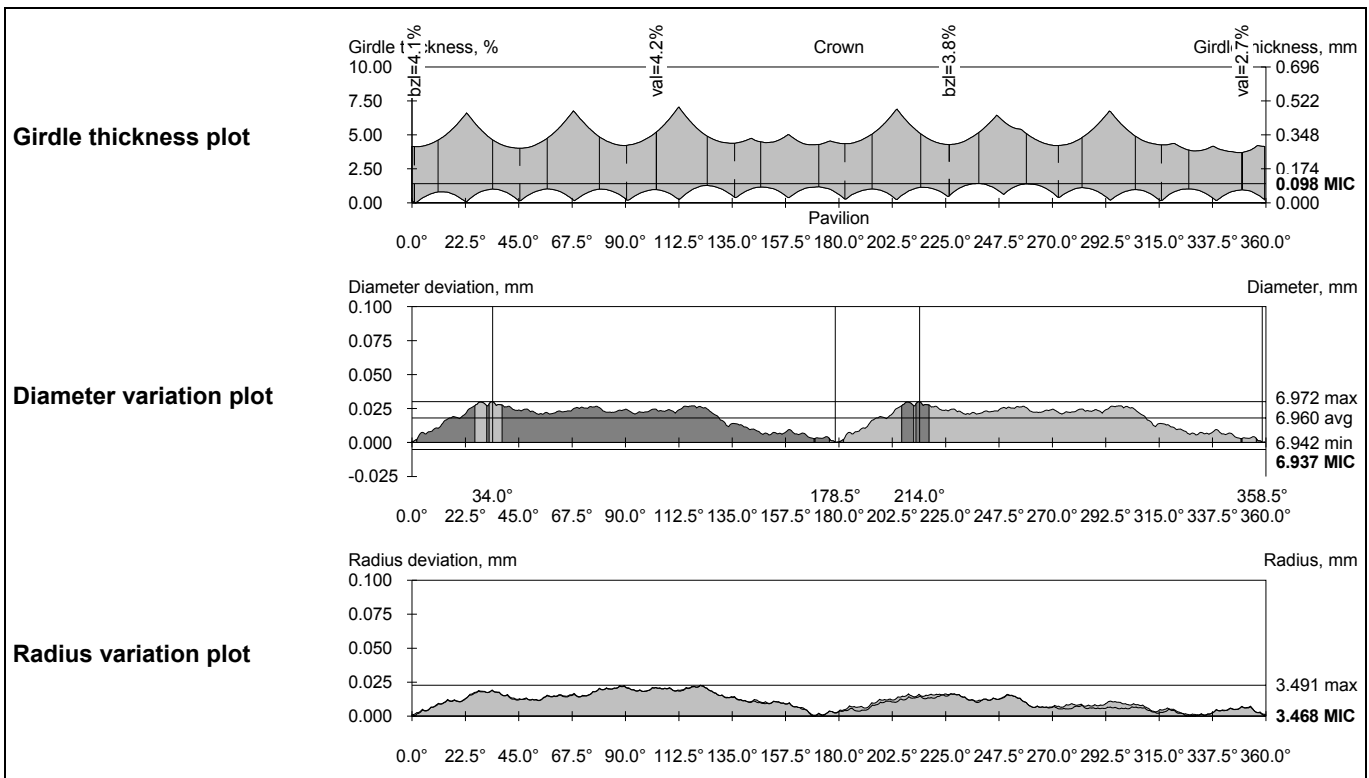
Offset	Distance, %	Distance, mm
Girdle-Culet offset by table axis	1.08 ± 0.92	0.026 ± 0.062
Girdle-Table offset by table axis	0.38 ± 0.90	0.075 ± 0.064
Culet-Table offset by table axis	1.46 ± 0.93	0.101 ± 0.065
Girdle to table-culet line offset	0.08	0.006

Culet shift ratio by main diameter		
Main diameter (avg)	6.960 mm, 100%	
Width-wise culet shift ratio	3.538 mm, 50.83 %	3.405 mm, 48.92 %
Length-wise culet shift ratio	3.438 mm, 49.39 %	3.529 mm, 50.70 %

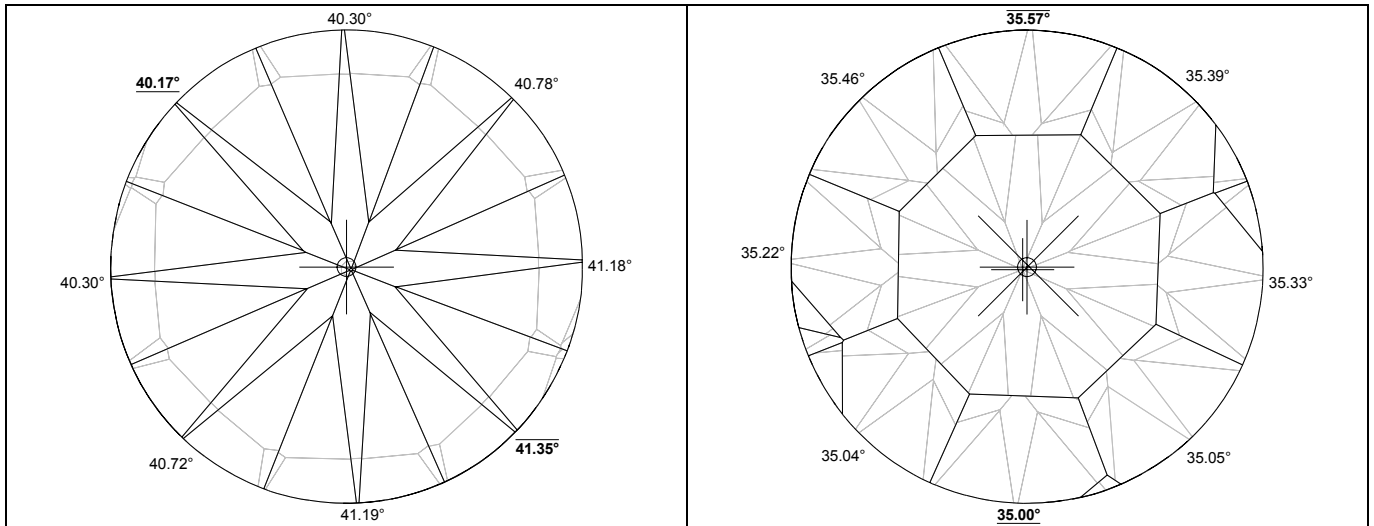
Crown and pavilion views of the diamond with indication of the diameter minimum and maximum



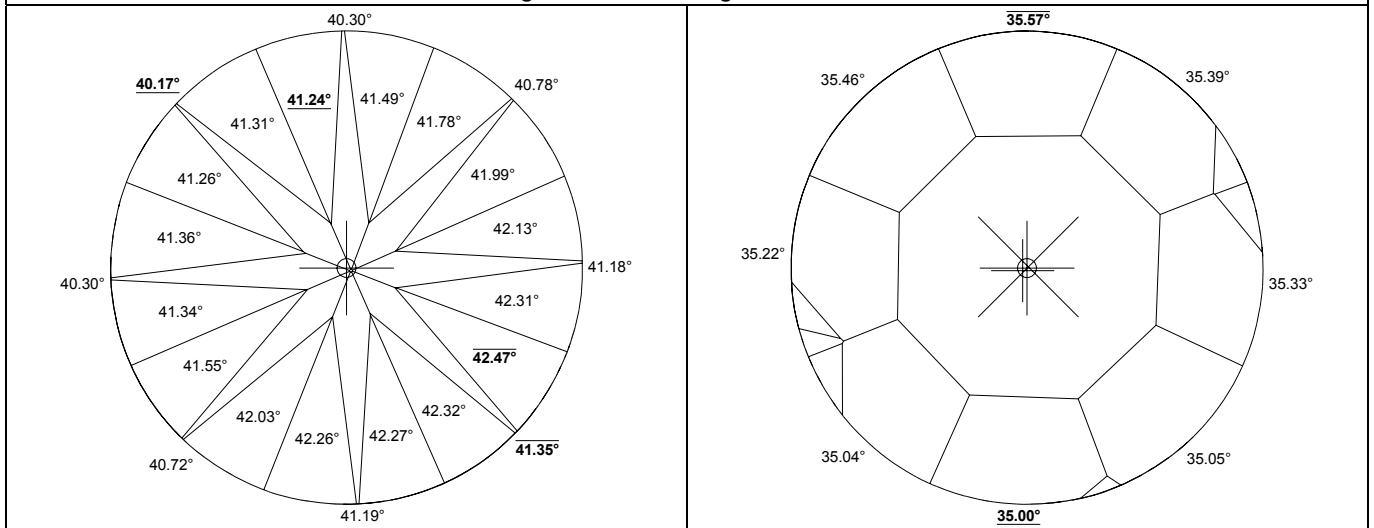
Plots



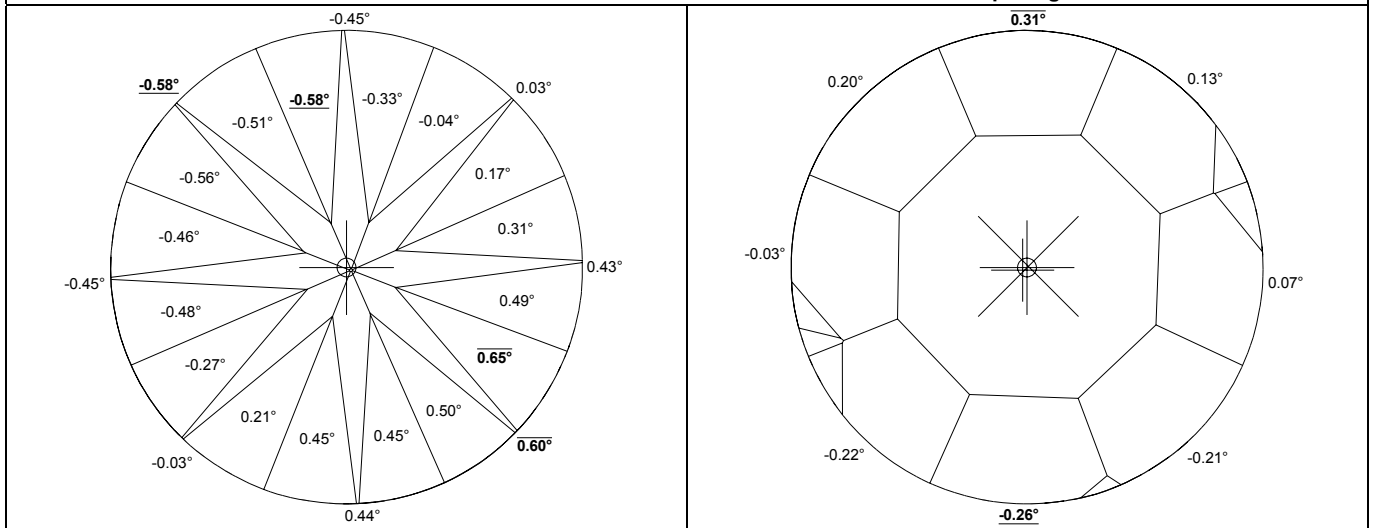
Facets' azimuth and slope angles



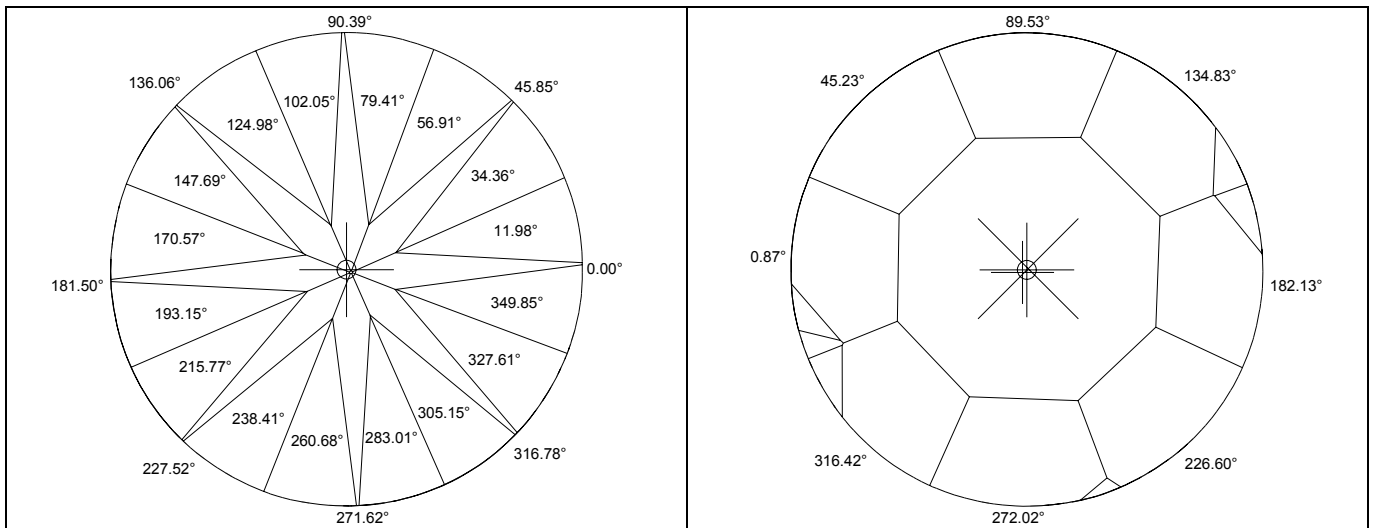
**Pavilion and crown views of the diamond with indication of main facets' slope angles
Invisible edges are drawn taking refraction into account**



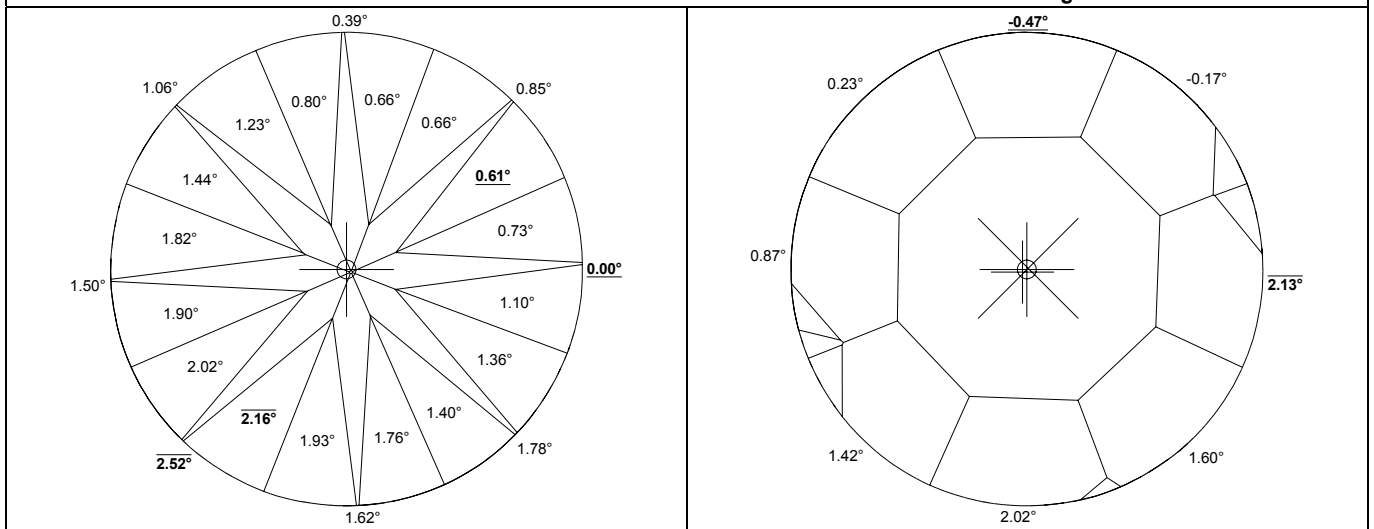
Pavilion and crown views of the diamond with indication of facets' slope angles



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

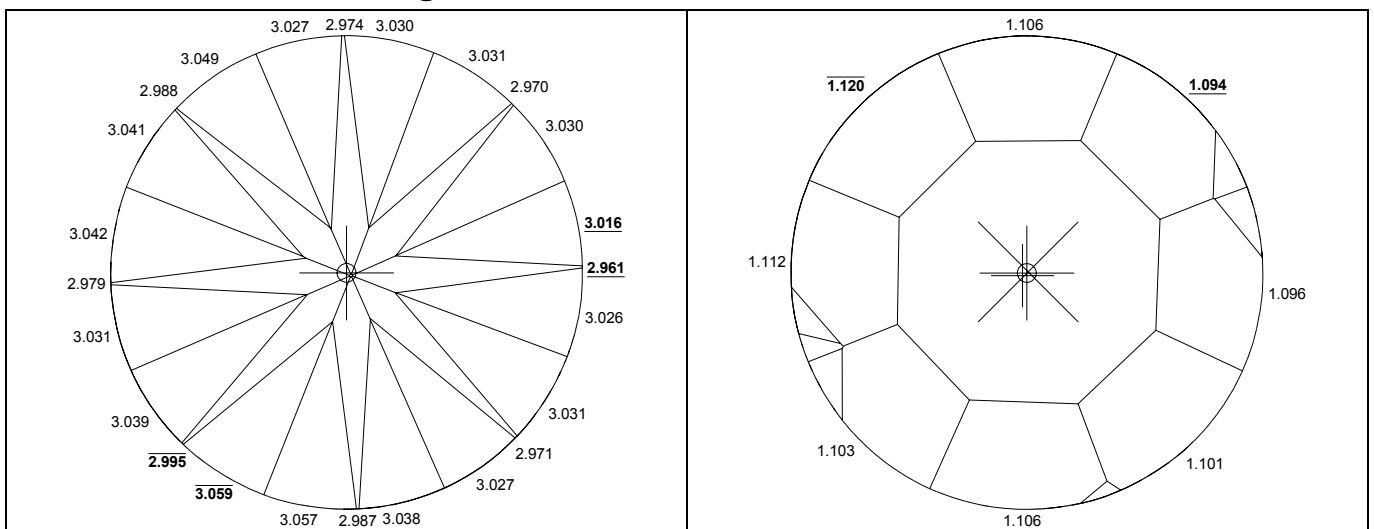


Pavilion and crown views of the diamond with indication of facets' azimuth angles

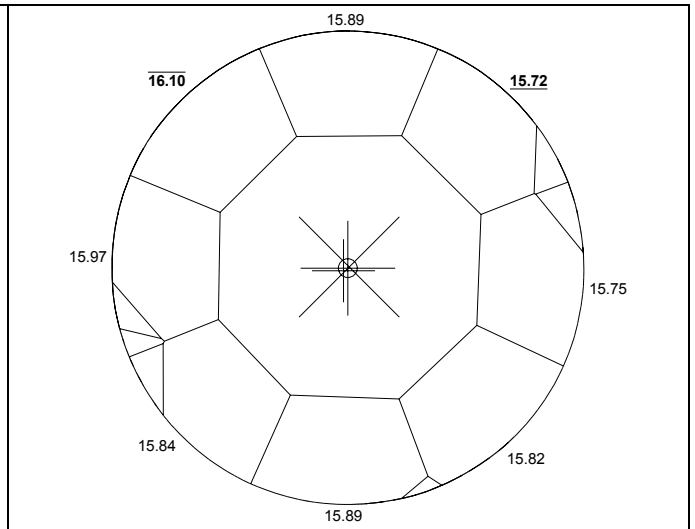
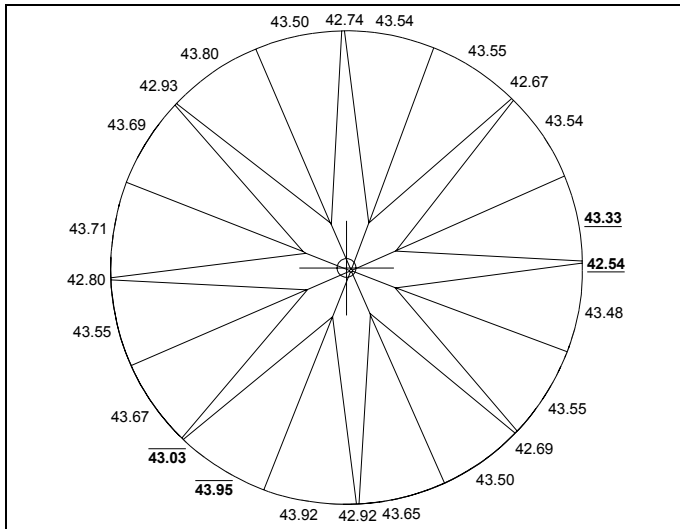


Pavilion and crown views of the diamond with indication of deviation of facets' azimuth angles from their ideal positions for the round brilliant

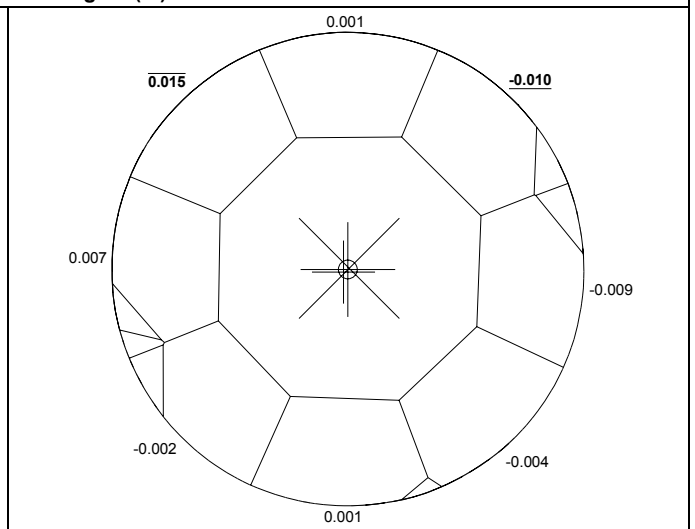
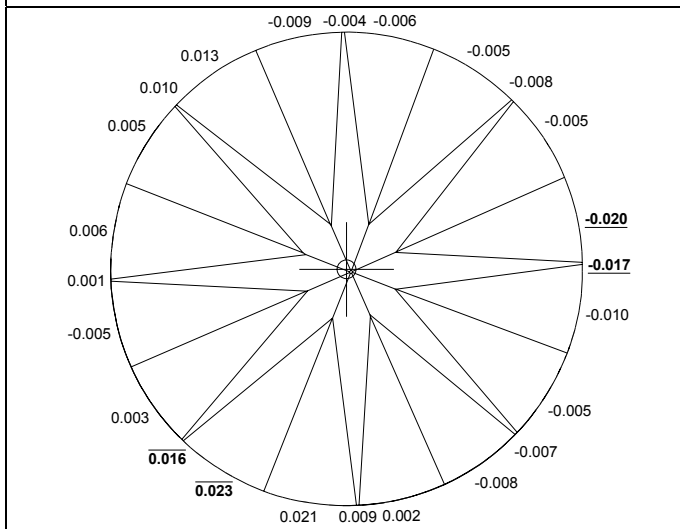
Pavilion and Crown heights



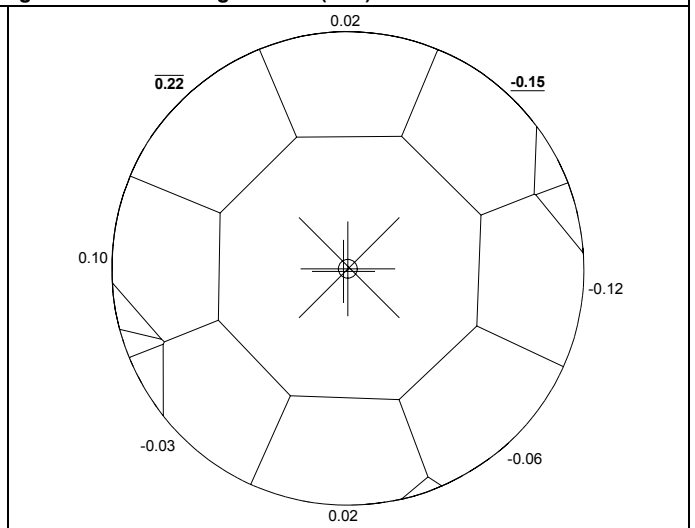
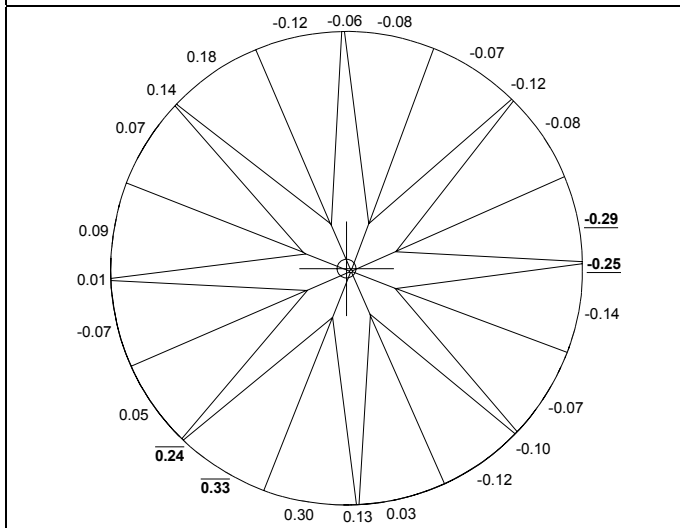
Pavilion and Crown heights (mm)



Pavilion and Crown heights (%)

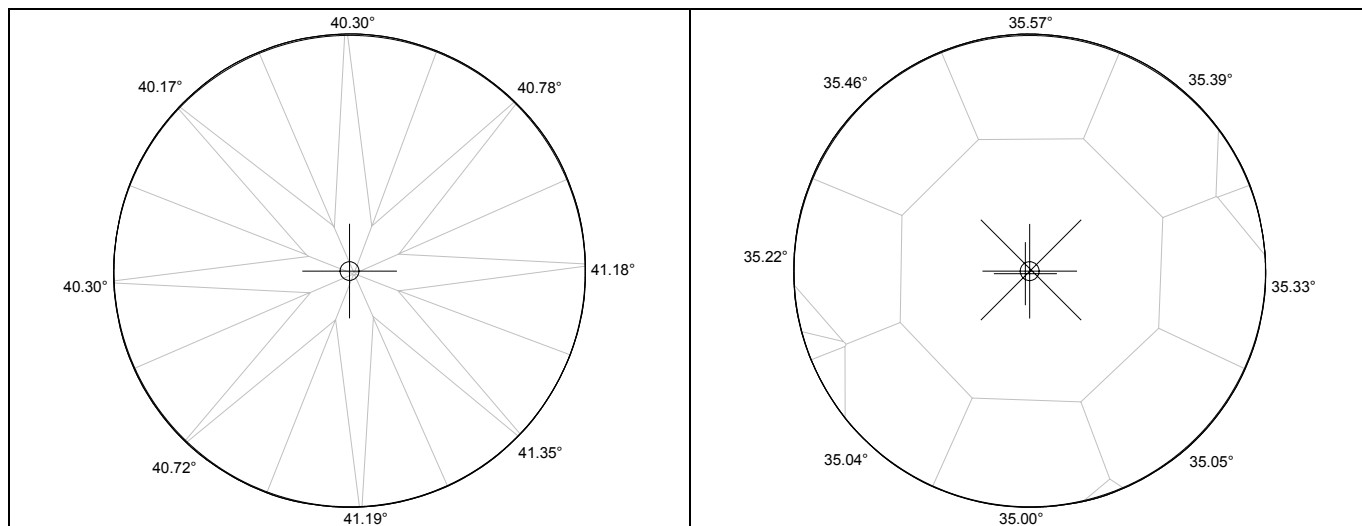


Deviations of Pavilion and Crown heights from the average values (mm)

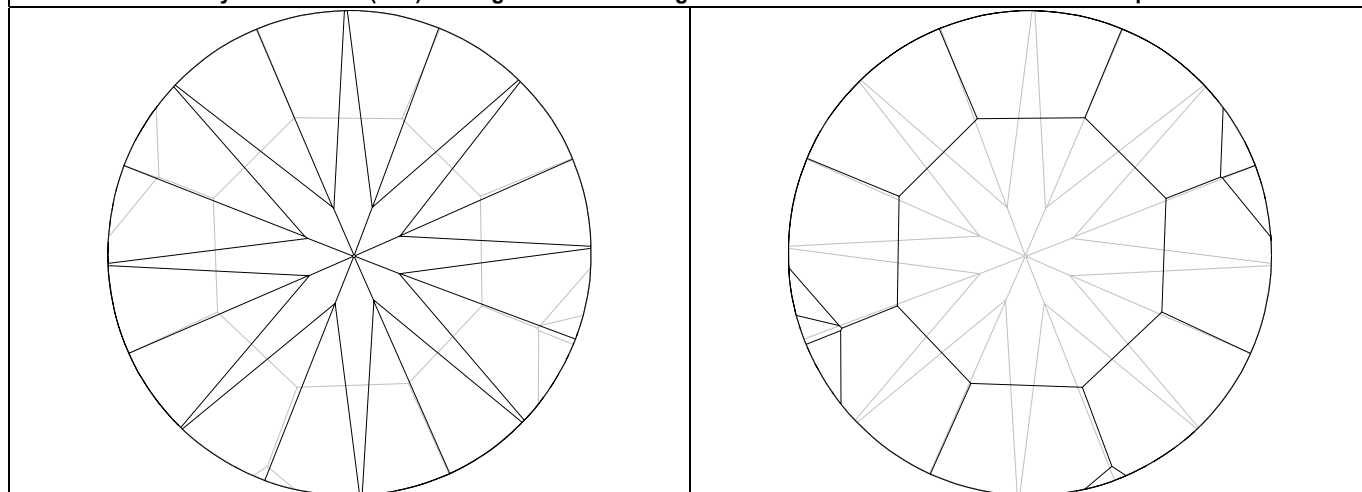


Deviations of Pavilion and Crown heights from the average values (%)

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
---	---------------	---	--------------	---	--------------