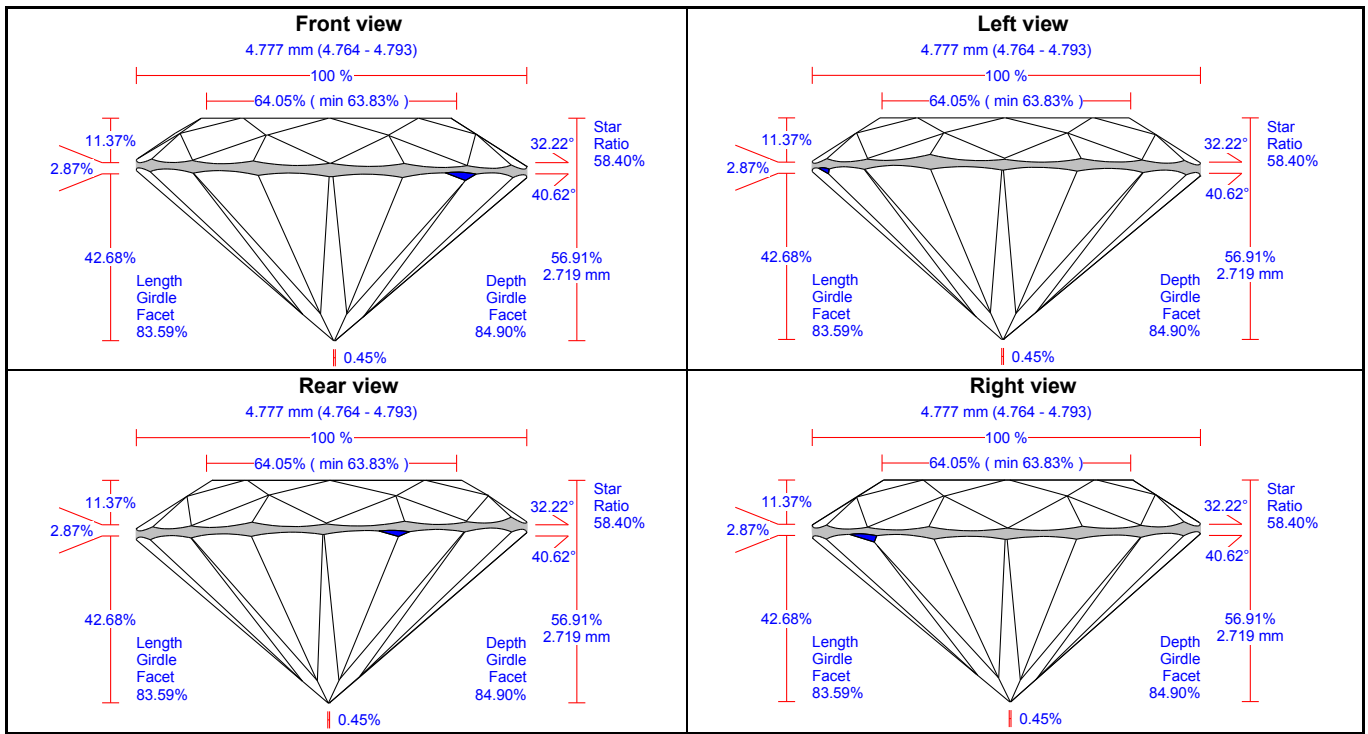


Full Report for Brilliant

General Information

Model	Simple	Extra Facet Girdle / Nat	Yes (2)
Expert name	N/A	Extra Facet Crown	No
Report date	04.09.2011	Extra Facet Pavilion	No
Real weight, ct		Appraiser title	N/A
Calculated weight, ct	0.37, 0.3749	Overall cut quality	N/A
Spread	0.03 ct, 6.98%	Symmetry appraiser title	Symmetry
AGS Spread	0.03 ct, 6.85%	Overall symmetry quality	FR

Main Views



Main Parameters

Width	Length	Ratio (L/W)	Diameter Average	Diameter Minimum	Diameter Maximum	Total height	MIC	Girdle to MIC
4.764 mm	4.793 mm	1.006	4.777 mm	4.764 mm	4.793 mm	2.719 mm	4.746 mm	0.018 mm

Parameter		Avg	Min	Max	Dev	Cut	Sym
Diameter	mm	4.777	4.764	4.793	0.62 %	N/A	VG
Radius	mm	2.388	2.373	2.408	0.035		
Radius	%	49.98	49.67	50.40	0.73		
Crown angle	°	32.22	31.04	32.54	1.50	N/A	GD
Crown height	%	11.37	10.64	12.35	1.71	N/A	GD
Crown height	mm	0.543	0.508	0.590	0.082		
Crown height bone	%	10.94	9.39	11.98	2.58		
Crown height bone	mm	0.523	0.449	0.572	0.123		
Crown height valley	%	11.96	10.93	13.04	2.11		
Crown height valley	mm	0.571	0.522	0.623	0.101	N/A	GD
Pavilion angle	°	40.62	39.63	41.46	1.83	N/A	GD
Pavilion height	%	42.68	41.68	43.74	2.06		
Pavilion height	mm	2.039	1.991	2.090	0.098		
Pavilion height bezel	%	42.68	41.68	43.74	2.06	N/A	GD
Pavilion height bezel	mm	2.039	1.991	2.090	0.098		
Pavilion height upper bone	%	42.56	41.73	43.74	2.01		
Pavilion height upper bone	mm	2.033	1.994	2.089	0.096		
Pavilion height bone	%	42.56	41.73	43.74	2.01		
Pavilion height bone	mm	2.033	1.994	2.089	0.096		

Parameter		Avg	Min	Max	Dev	Cut	Sym
Pavilion height valley	%	43.45	42.42	44.73	2.30	N/A	GD
Pavilion height valley	mm	2.075	2.027	2.137	0.110		
Pavilion height valley type 2	%	43.45	42.42	44.73	2.30	N/A	N/A
Pavilion height valley type 2	mm	2.075	2.027	2.137	0.110		
Upper girdle facets angle	°	39.92	38.85	41.09	2.24		VG
Upper girdle facets height	%	7.91	6.96	8.91	1.95		VG
Upper girdle facets height	mm	0.378	0.332	0.425	0.093		VG
Star facets angle	°	18.80	17.63	19.87	2.24		VG
Star : Upper ratio	%	58.40 :	53.99 :	63.17 :	9.19	N/A	FR
Lower girdle facets angle	°	41.53	40.54	42.44	1.90		VG
Lower girdle facets height	%	37.13	35.58	38.38	2.81	N/A	VG
Lower girdle facets height	mm	1.774	1.699	1.833	0.134		
Depth girdle facet	%	84.90	82.92	86.64	3.72		
Length girdle facet	%	83.59	81.72	85.29	3.57		
Total height	%	56.91					
Total height	mm	2.719				N/A	
Table	%	64.05	63.83	64.15	0.31	N/A	EX
Table	mm	3.060	3.049	3.064	0.015	N/A	EX
Culet	%	0.45	0.28	0.57	0.28	N/A	EX
Culet	mm	0.022	0.013	0.027	0.014		
Twist	°	1.42	0.03	3.96	3.93		FR
Girdle height bezel	%	2.87	2.52	3.38	0.87	N/A	VG
Girdle height bezel	mm	0.137	0.120	0.162	0.041		
Girdle height bone	%	3.42	3.10	3.78	0.69		EX
Girdle height bone	mm	0.163	0.148	0.181	0.033		EX
Girdle height valley	%	1.54	1.16	1.99	0.83	N/A	EX
Girdle height valley	mm	0.073	0.055	0.095	0.040		
Girdle height valley type 2	%	1.54	1.16	1.99	0.83	N/A	N/A
Girdle height valley type 2	mm	0.073	0.055	0.095	0.040		
Girdle height (Crown Mains)	%	2.84	2.40	3.41	1.01		
Girdle height (Crown Mains)	mm	0.135	0.115	0.163	0.048		
Girdle height (Pavilion Mains)	%	2.82	2.40	3.35	0.95		
Girdle height (Pavilion Mains)	mm	0.135	0.115	0.160	0.045		
Girdle height (Upper girdle facets)	%	1.58	1.16	1.99	0.83		
Girdle height (Upper girdle facets)	mm	0.075	0.055	0.095	0.040		
Girdle height (Lower girdle facets)	%	1.56	1.17	2.01	0.85		
Girdle height (Lower girdle facets)	mm	0.075	0.056	0.096	0.040		

Measurement as per OctoNus theory							
Crown angle	°	32.22	31.79	32.41	0.62		
Pavilion angle	°	40.62	40.52	40.82	0.30		
Culet through bezel	°	25.29				N/A	
Fish eye effect	°	3.36				N/A	

Table of Correspondence of New Parameters and Obsolete Parameters (from Old Full Report for Brilliant)

Obsolete parameter	New parameter		Avg	Min	Max	Dev
<i>Pavilion depth</i>	<i>Pavilion height bezel</i>	%	42.68	41.68	43.74	2.06
<i>Pavilion depth</i>	<i>Pavilion height bezel</i>	mm	2.039	1.991	2.090	0.098

Table of Obsolete Parameters (from Old Full Report for Brilliant)

Obsolete parameter		Avg	Min	Max	Dev
<i>Crown height at girdle minima</i>	%	11.96	10.93	13.04	2.11
<i>Crown height at girdle minima</i>	mm	0.571	0.522	0.623	0.101
<i>Pavilion depth bone</i>	%	42.56	41.73	43.74	2.01
<i>Pavilion depth bone</i>	mm	2.033	1.994	2.089	0.096
<i>Pavilion depth at girdle minima</i>	%	43.45	42.42	44.73	2.30
<i>Pavilion depth at girdle minima</i>	mm	2.075	2.027	2.137	0.110

Detailed Parameters

Parameter		1	2	3	4	5	6	7	8
Diameter	mm	4.783	4.772	4.775	4.775				
Radius	mm	2.397	2.380	2.374	2.374	2.385	2.392	2.400	2.400
Radius	%	50.19	49.82	49.70	49.69	49.94	50.08	50.24	50.25
Crown angle	°	32.41	32.52	32.12	31.04	32.41	32.22	32.50	32.54
Crown height	%	12.35	12.13	11.54	10.83	10.64	10.64	11.17	11.64
Crown height	mm	0.590	0.579	0.551	0.517	0.508	0.508	0.534	0.556
Crown height bone	%	11.98	11.61	10.97	10.46	9.39	10.50	10.72	11.88
Crown height bone	mm	0.572	0.555	0.524	0.500	0.449	0.501	0.512	0.568
Crown height valley	%	13.04	12.82	12.60	12.33	12.10	11.64	11.33	11.37
Crown height valley	mm	10.97	10.93	11.29	11.67	11.82	12.06	12.40	12.94
Crown height valley	mm	0.623	0.613	0.602	0.589	0.578	0.556	0.541	0.543
Crown height valley	mm	0.524	0.522	0.539	0.558	0.565	0.576	0.593	0.618
Crown azimuth	°	0.0	45.8	89.6	134.6	177.7	226.2	270.1	318.2
Crown azimuth deviation from ideal	°	0.03	0.79	-0.37	-0.43	-2.31	1.22	0.06	3.20
Pavilion angle	°	40.32	40.28	39.63	40.12	40.72	41.36	41.46	41.03
Pavilion height	%	41.68	42.27	41.99	42.89	43.55	43.74	43.08	42.20
Pavilion height	mm	1.991	2.019	2.006	2.049	2.081	2.090	2.058	2.016
Pavilion height bezel	%	41.68	42.27	41.99	42.89	43.55	43.74	43.08	42.20
Pavilion height bezel	mm	1.991	2.019	2.006	2.049	2.081	2.090	2.058	2.016
Pavilion height upper bone	%	41.73	41.77	42.31	43.25	43.74	43.32	42.61	41.74
Pavilion height upper bone	mm	1.994	1.996	2.021	2.066	2.089	2.069	2.035	1.994
Pavilion height bone	%	41.73	41.77	42.31	43.25	43.74	43.32	42.61	41.74
Pavilion height bone	mm	1.994	1.996	2.021	2.066	2.089	2.069	2.035	1.994
Pavilion height valley	%	42.46	42.93	42.93	42.60	42.90	43.51	43.93	44.21
Pavilion height valley	mm	44.40	44.73	44.37	44.08	43.66	43.23	42.78	42.42
Pavilion height valley	mm	2.028	2.051	2.051	2.035	2.049	2.079	2.099	2.112
Pavilion height valley type 2	%	2.121	2.137	2.120	2.106	2.086	2.065	2.044	2.027
Pavilion height valley type 2	mm	42.46	42.93	42.93	42.60	42.90	43.51	43.93	44.21
Pavilion height valley type 2	mm	44.40	44.73	44.37	44.08	43.66	43.23	42.78	42.42
Pavilion azimuth	°	0.0	45.1	90.1	136.6	181.7	225.3	270.2	315.0
Pavilion azimuth deviation from ideal	°	0.00	0.13	0.11	1.58	1.65	0.28	0.15	0.04
Upper girdle facets angle	°	39.56	39.28	39.62	40.39	40.17	39.69	39.34	40.01
Upper girdle facets angle	%	40.83	38.85	41.09	40.21	40.94	39.53	39.39	39.83
Upper girdle facets height	%	8.91	8.73	8.16	7.95	7.82	7.33	7.44	7.51
Upper girdle facets height	mm	7.15	6.96	7.40	7.69	8.06	8.30	8.31	8.86
Upper girdle facets height	mm	0.425	0.417	0.390	0.380	0.374	0.350	0.355	0.359
Upper girdle facets height	mm	0.341	0.332	0.354	0.368	0.385	0.396	0.397	0.423
Upper girdle facets azimuth	°	9.9	36.0	55.0	78.9	99.8	124.5	145.0	169.4
Upper girdle facets azimuth	°	187.5	219.2	236.7	261.7	281.0	308.8	327.7	349.2
Upper girdle facets azimuth deviation from ideal	°	-1.35	2.26	-1.27	0.10	-1.43	0.71	-1.26	0.62
Upper girdle facets azimuth deviation from ideal	°	-3.74	5.45	0.43	2.99	-0.26	5.05	1.49	0.45
Star facets angle	°	19.32	19.40	19.22	18.62	17.63	18.30	18.01	19.87
Star facets azimuth	°	21.5	65.9	112.2	155.6	202.6	248.9	293.4	339.0
Star facets azimuth deviation from ideal	°	-1.01	-1.65	-0.28	-1.94	0.12	1.44	0.87	1.55
Star : Upper ratio	%	54.63 : 45.37	58.01 : 41.99	60.57 : 39.43	58.80 : 41.20	63.17 : 36.83	60.19 : 39.81	57.86 : 42.14	53.99 : 46.01
Lower girdle facets angle	°	41.07	41.11	41.05	40.54	40.61	40.95	41.30	41.53
Lower girdle facets angle	%	41.78	42.23	42.40	42.44	42.23	42.03	41.79	41.34
Lower girdle facets height	%	36.47	36.73	36.25	35.58	36.09	36.53	37.23	37.56
Lower girdle facets height	mm	37.42	38.04	38.19	38.38	38.08	37.38	37.24	36.90
Lower girdle facets height	mm	1.742	1.754	1.732	1.699	1.724	1.745	1.779	1.794
Lower girdle facets height	mm	1.788	1.817	1.825	1.833	1.819	1.786	1.779	1.763
Lower girdle facets azimuth	°	11.1	35.9	55.0	79.6	102.3	125.6	148.2	170.4
Lower girdle facets azimuth	°	192.6	215.3	237.6	259.5	281.5	304.2	326.1	348.6
Lower girdle facets azimuth deviation from ideal	°	-0.14	2.18	-1.30	0.89	1.09	1.83	1.91	1.63
Lower girdle facets azimuth deviation from ideal	°	1.32	1.60	1.32	0.71	0.29	0.41	-0.12	-0.14
Depth girdle facet	%	85.39	84.88	83.76	82.92	83.66	83.24	84.28	84.38
Depth girdle facet	%	83.80	84.45	85.49	86.59	86.64	86.02	86.47	86.51
Length girdle facet	%	84.20	83.68	82.58	81.72	82.26	81.83	82.90	83.00
Length girdle facet	%	82.59	83.25	84.17	85.29	85.20	84.57	85.06	85.10
Table	%	64.06	64.15	64.14	63.83				
Table	mm	3.060	3.064	3.064	3.049				
Twist	°	0.03	0.66	0.48	2.01	3.96	0.94	0.09	3.15
Girdle height bezel	%	2.88	2.52	3.38	3.19	2.72	2.53	2.66	3.08
Girdle height bezel	mm	0.138	0.120	0.162	0.153	0.130	0.121	0.127	0.147
Girdle height bone	%	3.21	3.53	3.63	3.21	3.78	3.10	3.59	3.29
Girdle height bone	mm	0.153	0.168	0.174	0.153	0.181	0.148	0.172	0.157

Parameter		1	2	3	4	5	6	7	8
Girdle height valley	%	1.43	1.16	1.38	1.99	1.96	1.77	1.69	1.35
		1.65	1.32	1.25	1.19	1.44	1.72	1.74	1.55
Girdle height valley	mm	0.068	0.055	0.066	0.095	0.094	0.084	0.081	0.065
		0.079	0.063	0.060	0.057	0.069	0.082	0.083	0.074
Girdle height valley type 2	%	1.43	1.16	1.38	1.99	1.96	1.77	1.69	1.35
		1.65	1.32	1.25	1.19	1.44	1.72	1.74	1.55
Girdle height valley type 2	mm	0.068	0.055	0.066	0.095	0.094	0.084	0.081	0.065
		0.079	0.063	0.060	0.057	0.069	0.082	0.083	0.074
Girdle height (Crown Mains)	%	2.84	2.40	3.41	3.19	2.73	2.45	2.58	3.08
Girdle height (Crown Mains)	mm	0.136	0.115	0.163	0.153	0.130	0.117	0.123	0.147
Girdle height (Pavilion Mains)	%	2.80	2.40	3.35	3.19	2.63	2.47	2.61	3.08
Girdle height (Pavilion Mains)	mm	0.134	0.115	0.160	0.153	0.126	0.118	0.125	0.147
Girdle height (Upper girdle facets)	%	1.44	1.16	1.40	1.99	1.99	1.81	1.78	1.38
		1.86	1.37	1.26	1.22	1.47	1.78	1.74	1.56
Girdle height (Upper girdle facets)	mm	0.069	0.055	0.067	0.095	0.095	0.086	0.085	0.066
		0.089	0.065	0.060	0.058	0.070	0.085	0.083	0.075
Girdle height (Lower girdle facets)	%	1.44	1.17	1.38	2.01	1.98	1.77	1.76	1.39
		1.67	1.32	1.26	1.22	1.46	1.79	1.78	1.56
Girdle height (Lower girdle facets)	mm	0.069	0.056	0.066	0.096	0.095	0.084	0.084	0.066
		0.080	0.063	0.060	0.058	0.070	0.086	0.085	0.074

Measurement as per OctoNus theory									
Crown angle	°	32.41	32.37	32.31	31.79				
Pavilion angle	°	40.52	40.82	40.55	40.58				

Table of Correspondence of New Parameters and Obsolete Parameters (from Old Full Report for Brilliant)

Obsolete parameter	New parameter		1	2	3	4	5	6	7	8
Pavilion depth	Pavilion height bezel	%	41.68	42.27	41.99	42.89	43.55	43.74	43.08	42.20
Pavilion depth	Pavilion height bezel	mm	1.991	2.019	2.006	2.049	2.081	2.090	2.058	2.016

Table Correspondence of New Parameters and Obsolete Parameters (from Old Full Report for Semi-Polished Brilliant)

Obsolete parameter	New parameter		1	2	3	4	5	6	7	8
Crown height (Mains)	Crown height	%	12.35	12.13	11.54	10.83	10.64	10.64	11.17	11.64
Crown height (Mains)	Crown height	mm	0.590	0.579	0.551	0.517	0.508	0.508	0.534	0.556
Pavilion depth (Mains)	Pavilion height bezel	%	41.68	42.27	41.99	42.89	43.55	43.74	43.08	42.20
Pavilion depth (Mains)	Pavilion height bezel	mm	1.991	2.019	2.006	2.049	2.081	2.090	2.058	2.016

Table of Obsolete Parameters (from Old Full Report for Brilliant)

Obsolete parameter		1	2	3	4	5	6	7	8
Crown height at girdle minima	%	13.04	12.82	12.60	12.33	12.10	11.64	11.33	11.37
		10.97	10.93	11.29	11.67	11.82	12.06	12.40	12.94
Crown height at girdle minima	mm	0.623	0.613	0.602	0.589	0.578	0.556	0.541	0.543
		0.524	0.522	0.539	0.558	0.565	0.576	0.593	0.618
Pavilion depth bone	%	41.73	41.77	42.31	43.25	43.74	43.32	42.61	41.74
		1.994	1.996	2.021	2.066	2.089	2.069	2.035	1.994
Pavilion depth at girdle minima	%	42.46	42.93	42.93	42.60	42.90	43.51	43.93	44.21
		44.40	44.73	44.37	44.08	43.66	43.23	42.78	42.42
Pavilion depth at girdle minima	mm	2.028	2.051	2.051	2.035	2.049	2.079	2.099	2.112
		2.121	2.137	2.120	2.106	2.086	2.065	2.044	2.027

Table of Obsolete Parameters (from Old Full Report for Semi-Polished Brilliant)

Obsolete parameter		1	2	3	4	5	6	7	8
Crown height (Upper girdle facets)	%	13.04	12.82	12.60	12.33	12.09	11.64	11.33	11.37
		10.96	10.93	11.29	11.67	11.82	12.06	12.40	12.94
Crown height (Upper girdle facets)	mm	0.623	0.613	0.602	0.589	0.578	0.556	0.541	0.543
		0.524	0.522	0.539	0.558	0.565	0.576	0.592	0.618
Pavilion depth (Lower girdle facets)	%	42.46	42.93	42.93	42.60	42.90	43.51	43.93	44.21
		44.40	44.73	44.37	44.08	43.66	43.23	42.78	42.42
Pavilion depth (Lower girdle facets)	mm	2.028	2.051	2.051	2.035	2.049	2.079	2.099	2.112
		2.121	2.137	2.120	2.106	2.086	2.065	2.044	2.027

Paint / Dug		Avg	Type	Sym	Max	Dev	Sym
Crown	°	-1.56	Painting	EX	-4.23	3.90	EX
Crown	notches	0.4, Small			1.1	1.0	
Pavilion	°	-0.30		EX	-2.05	3.09	EX
Pavilion	notches	0.1, Negligible			0.5	0.8	

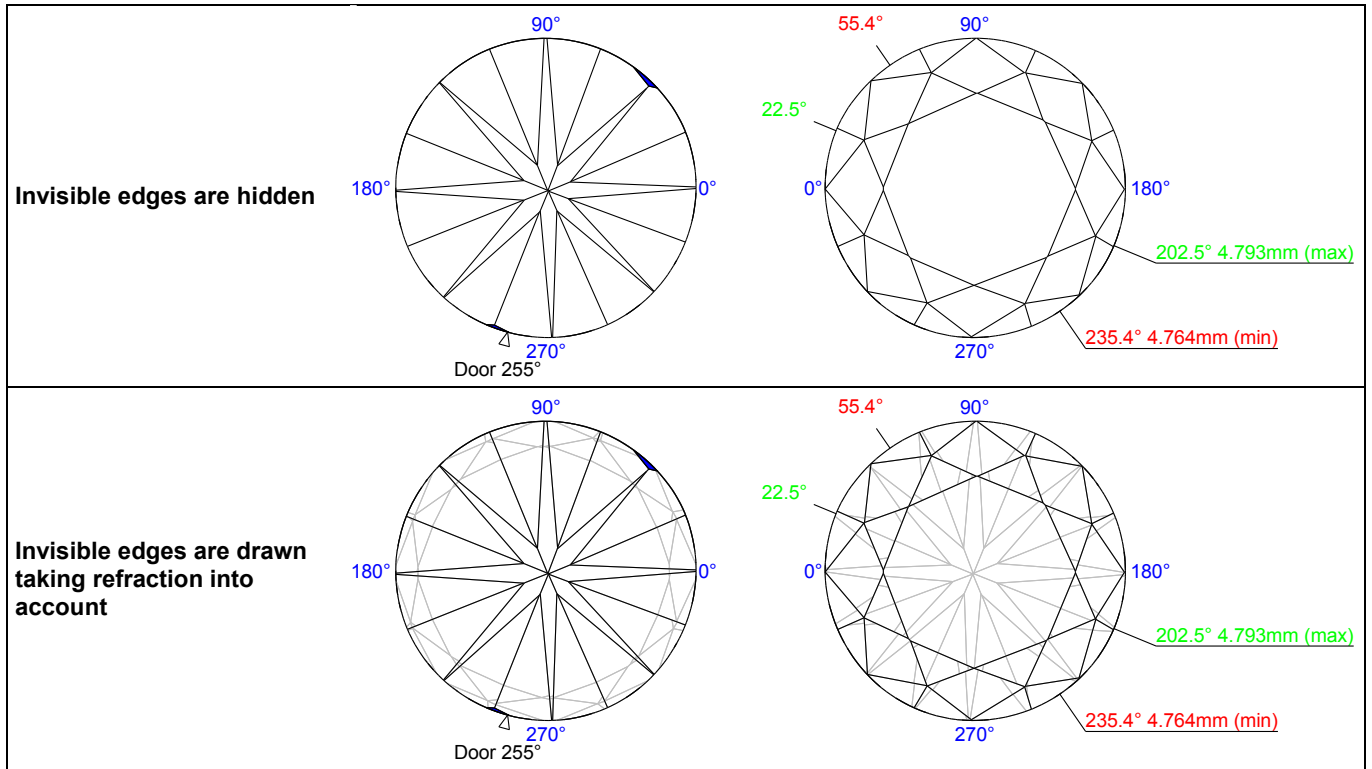
Paint / Dug		1	2	3	4	5	6	7	8
Crown painting	°	-1.38	-1.47	-2.06	-0.47	-1.06	-1.14	-0.83	-2.93
		-1.43	-4.23	-0.80	-2.92	-0.32	-1.85	-1.70	-0.42
Crown painting	notches	0.4	0.4	0.6	0.1	0.3	0.3	0.2	0.8
		0.4	1.1	0.2	0.8	0.1	0.5	0.5	0.1
Pavilion painting	°	-0.14	-2.05	-1.43	-0.78	0.98	-0.25	0.32	0.02
		-0.33	-1.32	1.04	-0.56	0.14	-0.37	-0.17	0.14
Pavilion painting	notches	0.0	0.5	0.4	0.2	0.3	0.1	0.1	0.0
		0.1	0.4	0.3	0.1	0.0	0.1	0.0	0.0

Offset	Distance, %	Distance, mm
Girdle-Culet offset by table axis	1.51 ± 0.26	0.060 ± 0.011
Girdle-Table offset by table axis	1.25 ± 0.23	0.072 ± 0.012
Culet-Table offset by table axis	1.83 ± 0.27	0.088 ± 0.013
Girdle to table-culet line offset	1.07	0.051

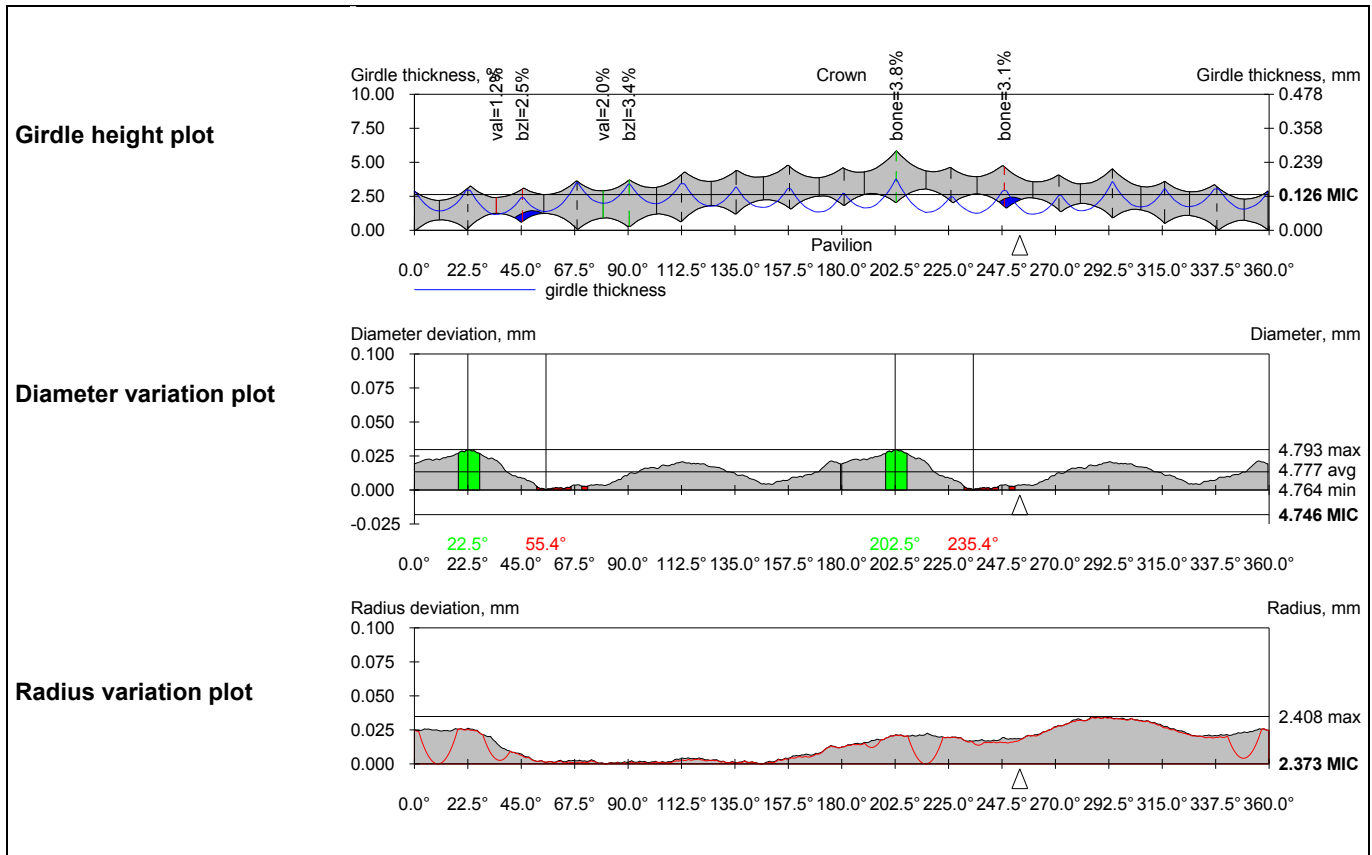
Culet shift ratio by main diameter	
Main diameter (avg)	4.777 mm, 100%
Width-wise culet shift ratio	2.427 mm, 50.80 %
Length-wise culet shift ratio	2.341 mm, 49.01 %

Model building info		1	2	3	4	5	6	7	8
The model is built correctly									
Girdle deviation / error	mkm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inner linear deviation / error	mkm	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
Average deviation / error	mkm	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.1
		small	small	small	small	small	small	small	small

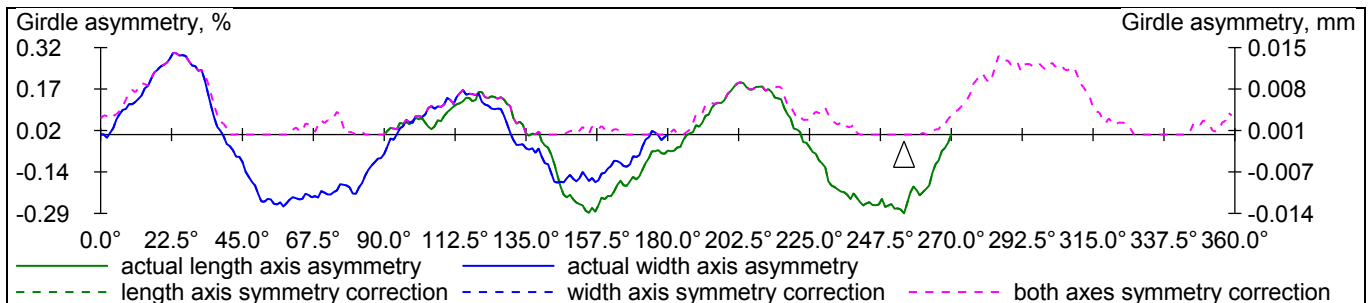
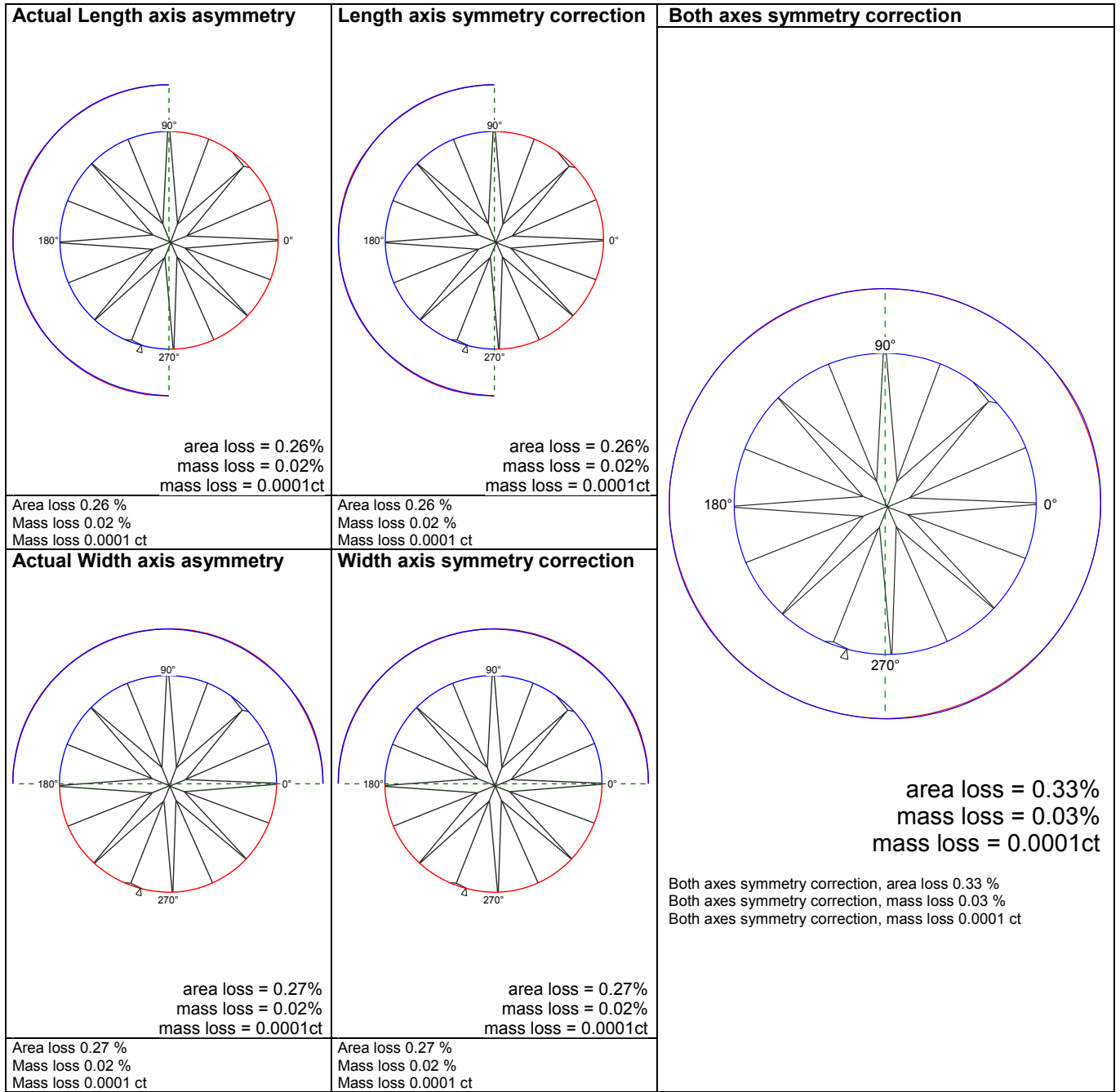
Crown and pavilion views with indication minimum and maximum



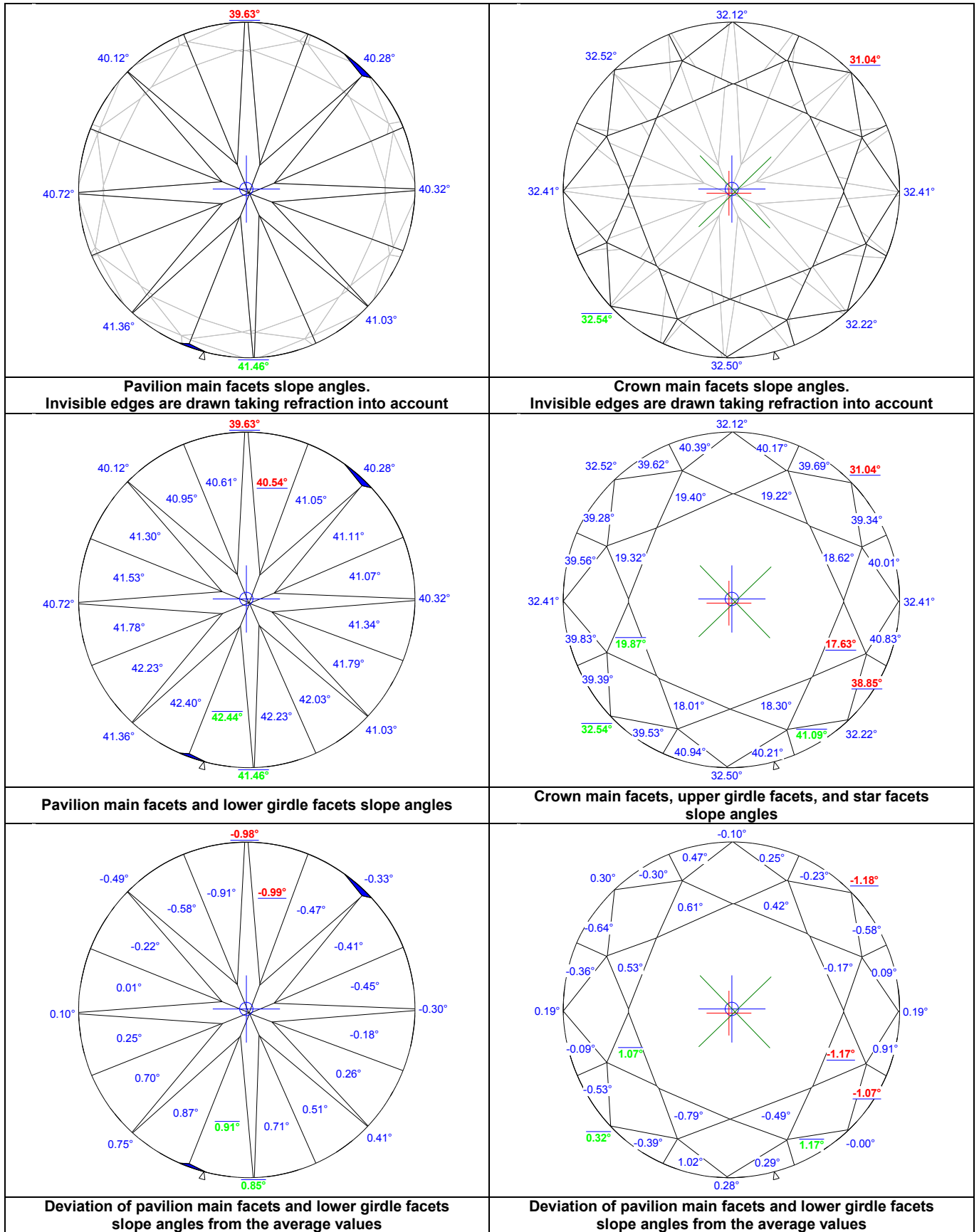
Plots

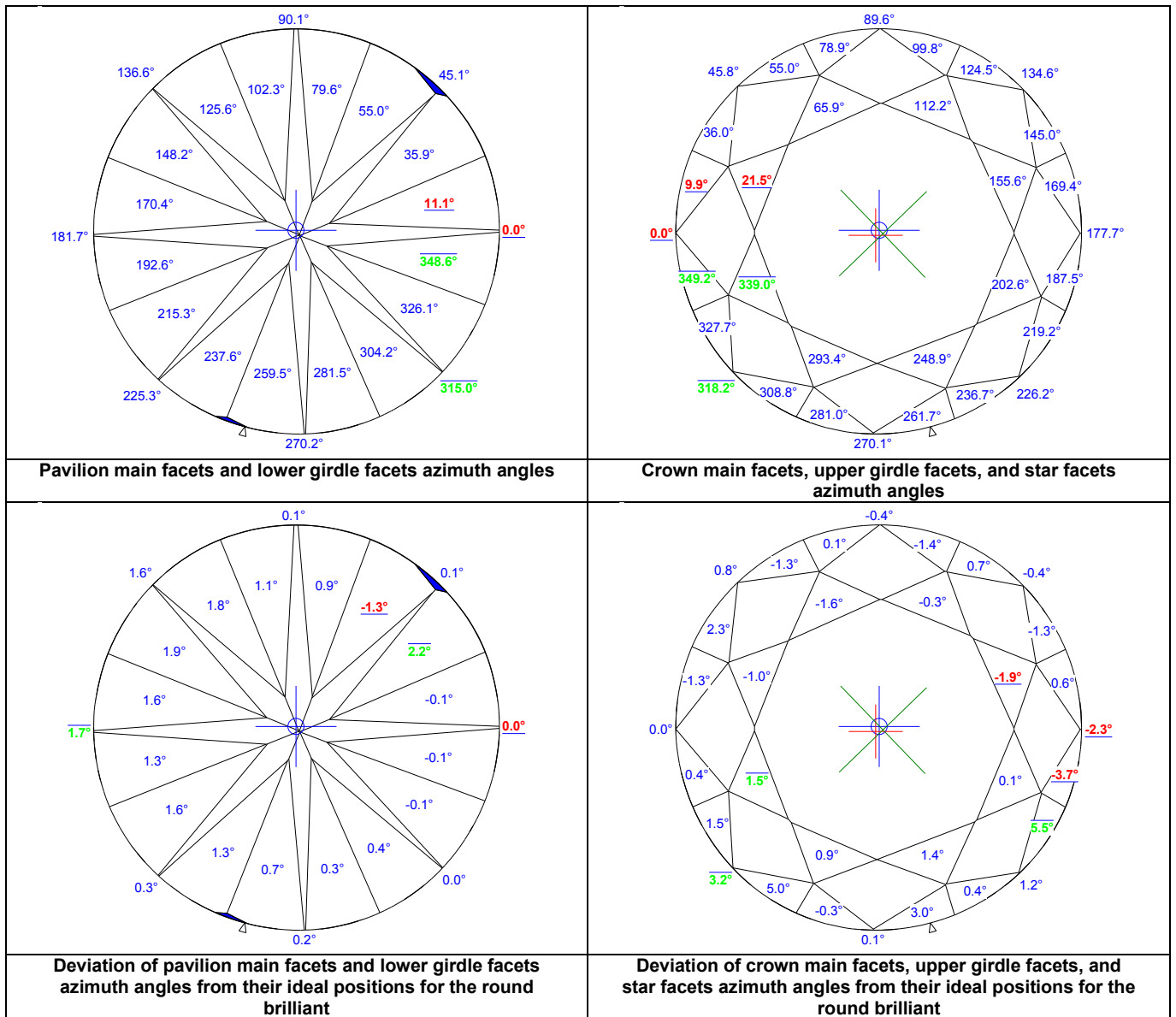


Girdle asymmetry

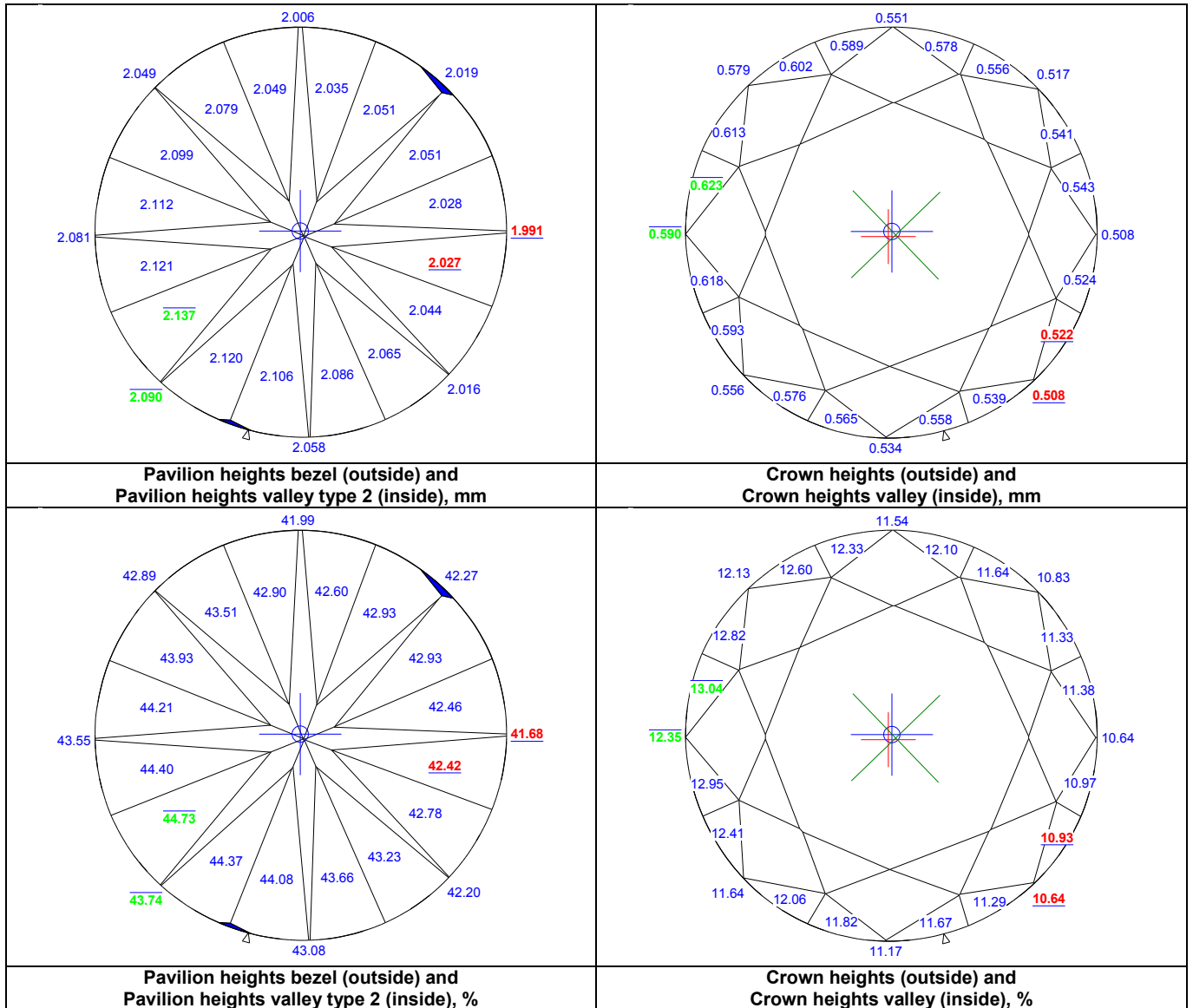


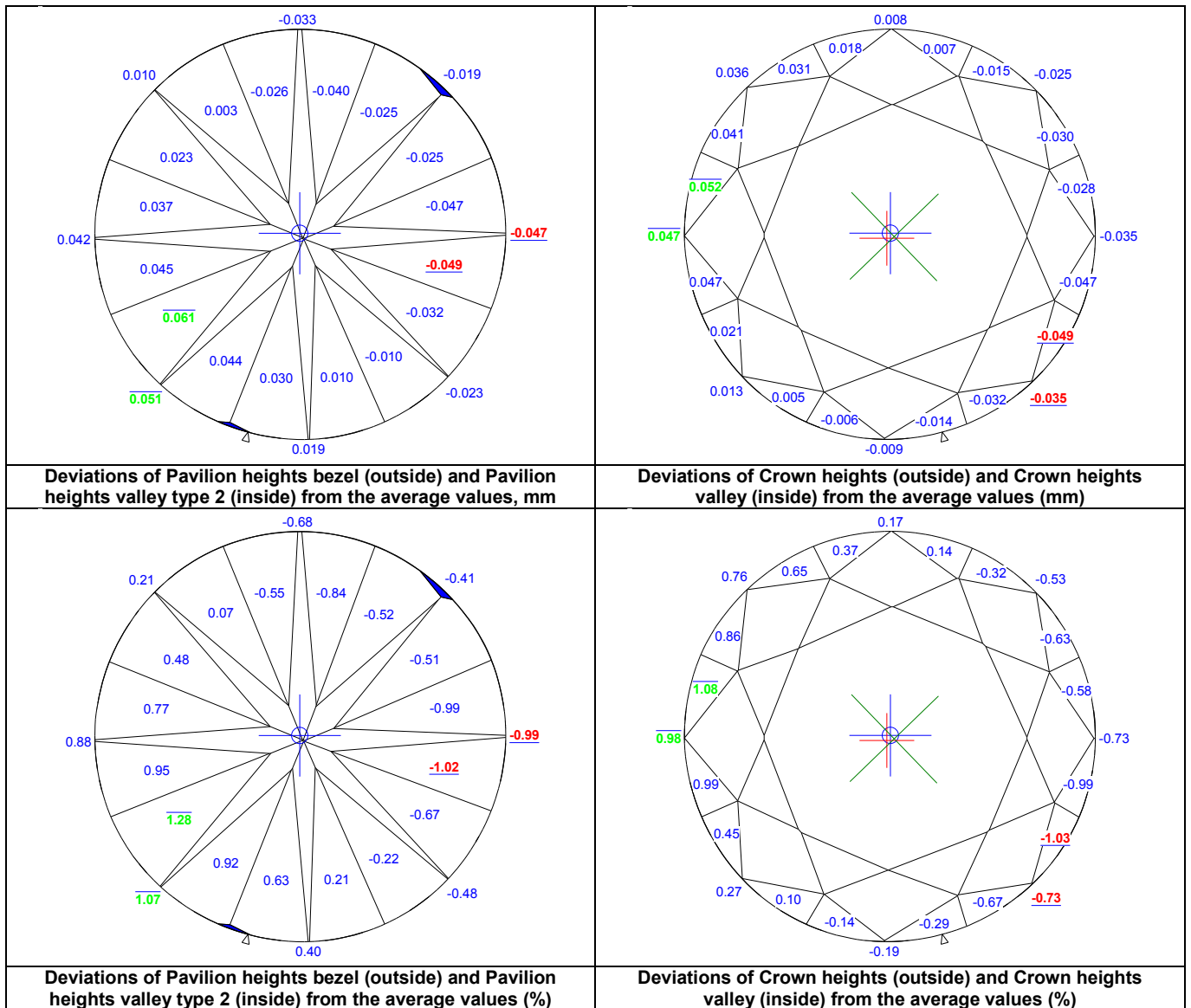
Facets slope and azimuth angles



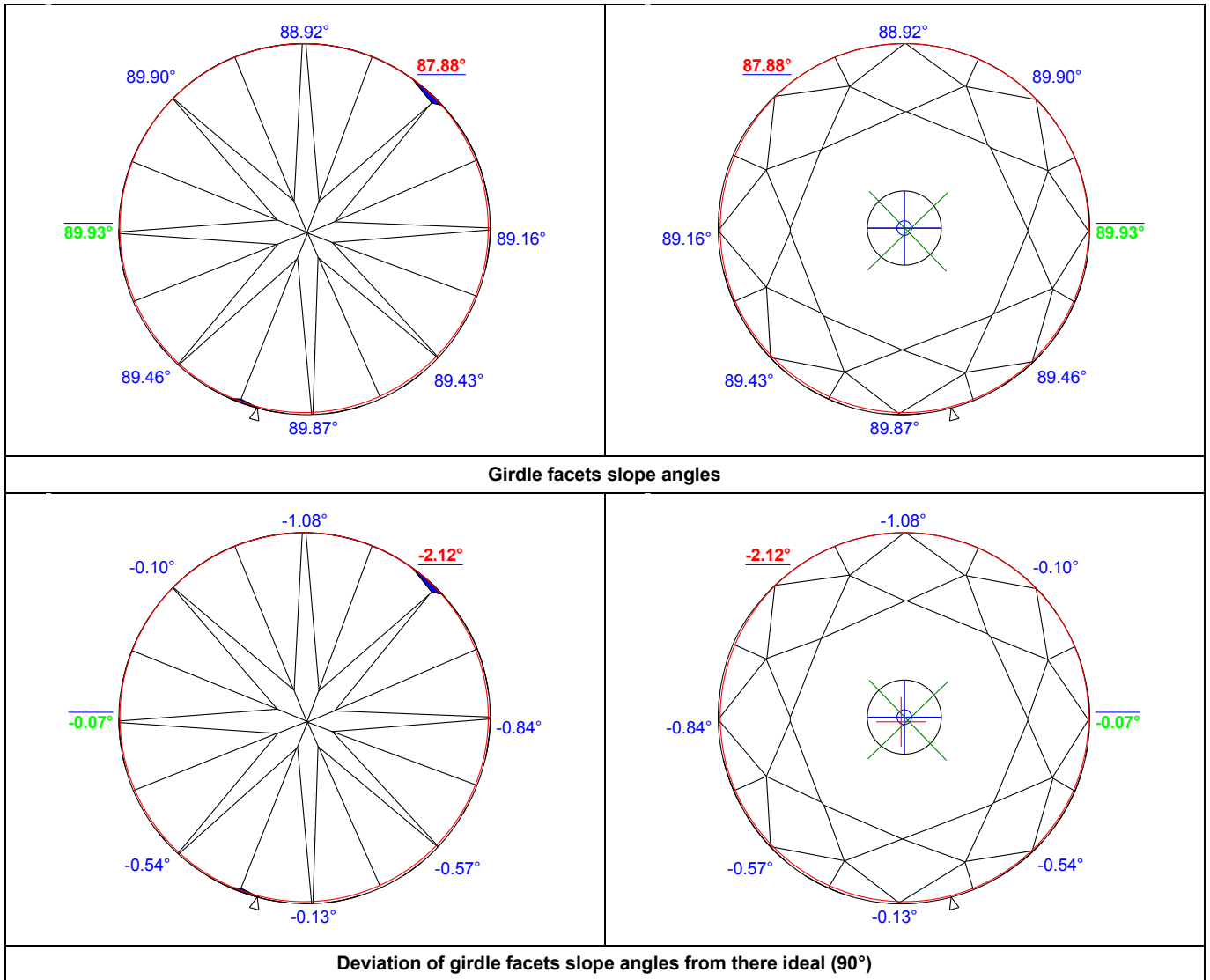


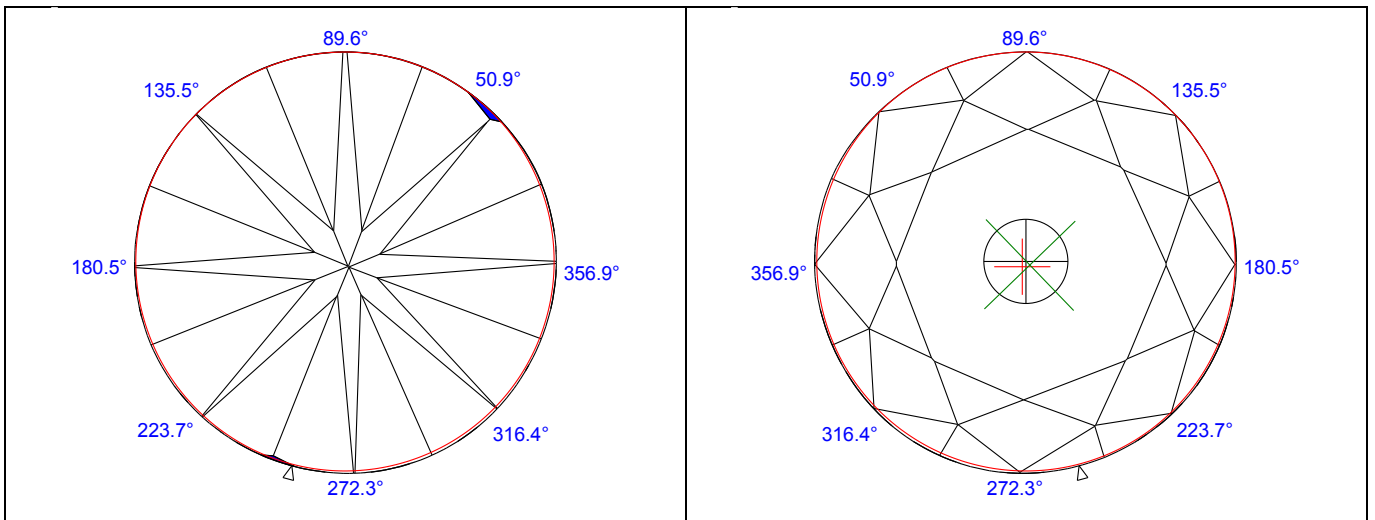
Pavilion and crown heights



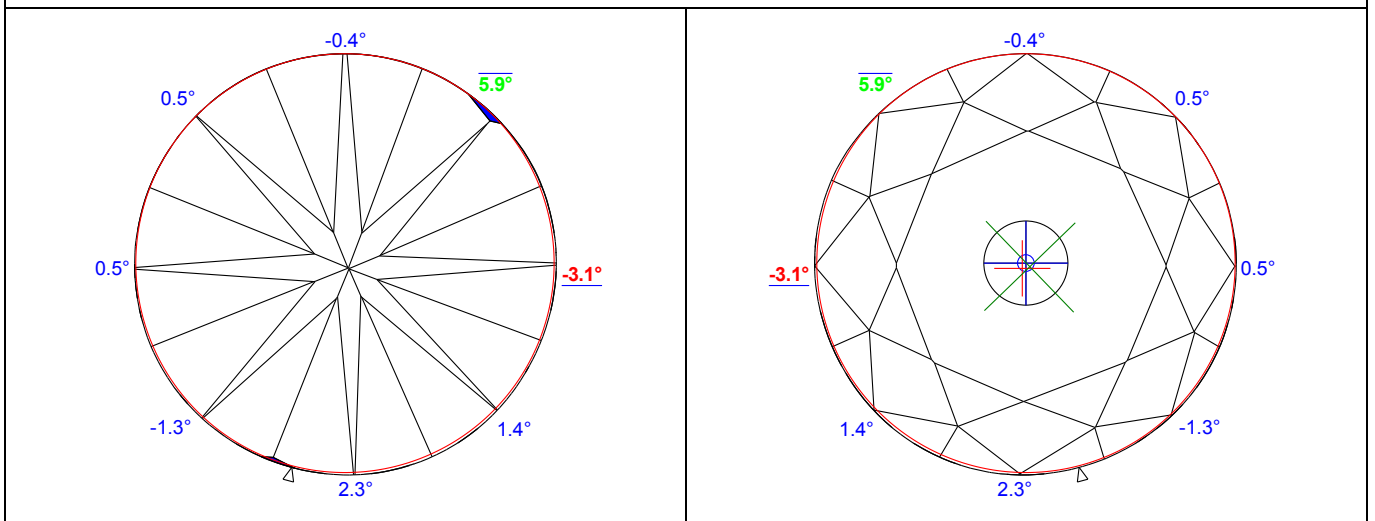


Girdle facets slope and azimuth angles



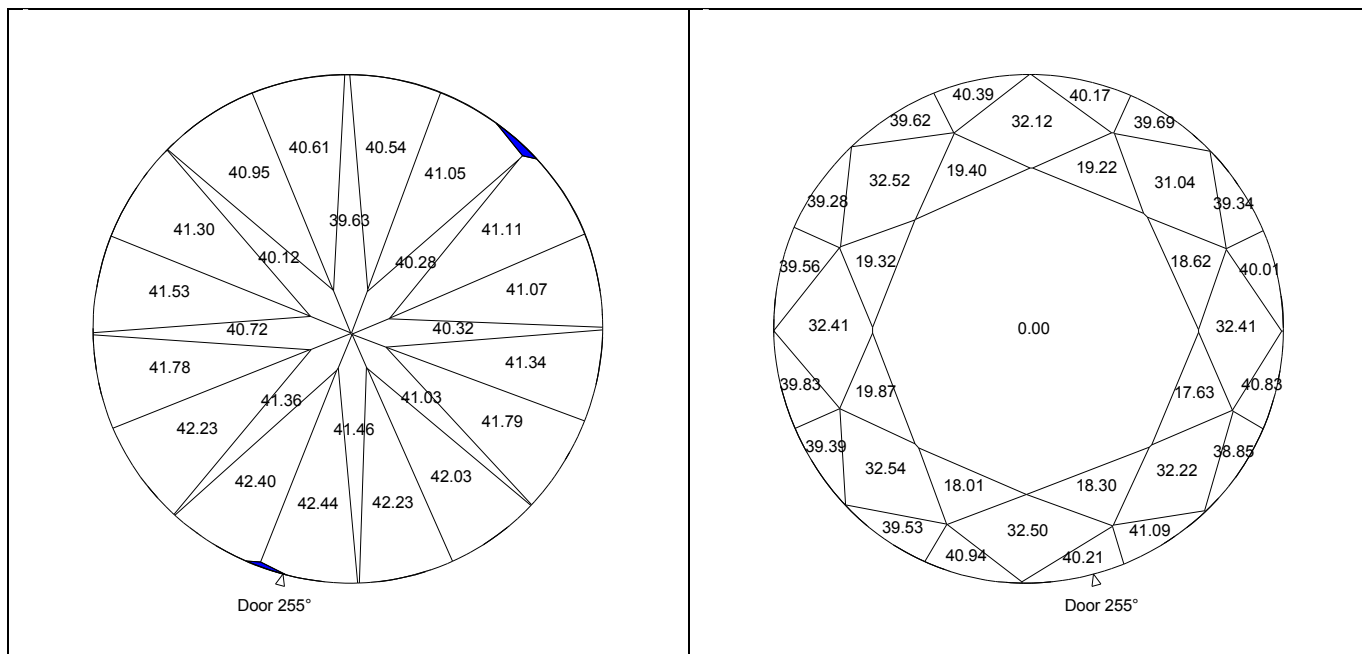


Girdle facets azimuth angles

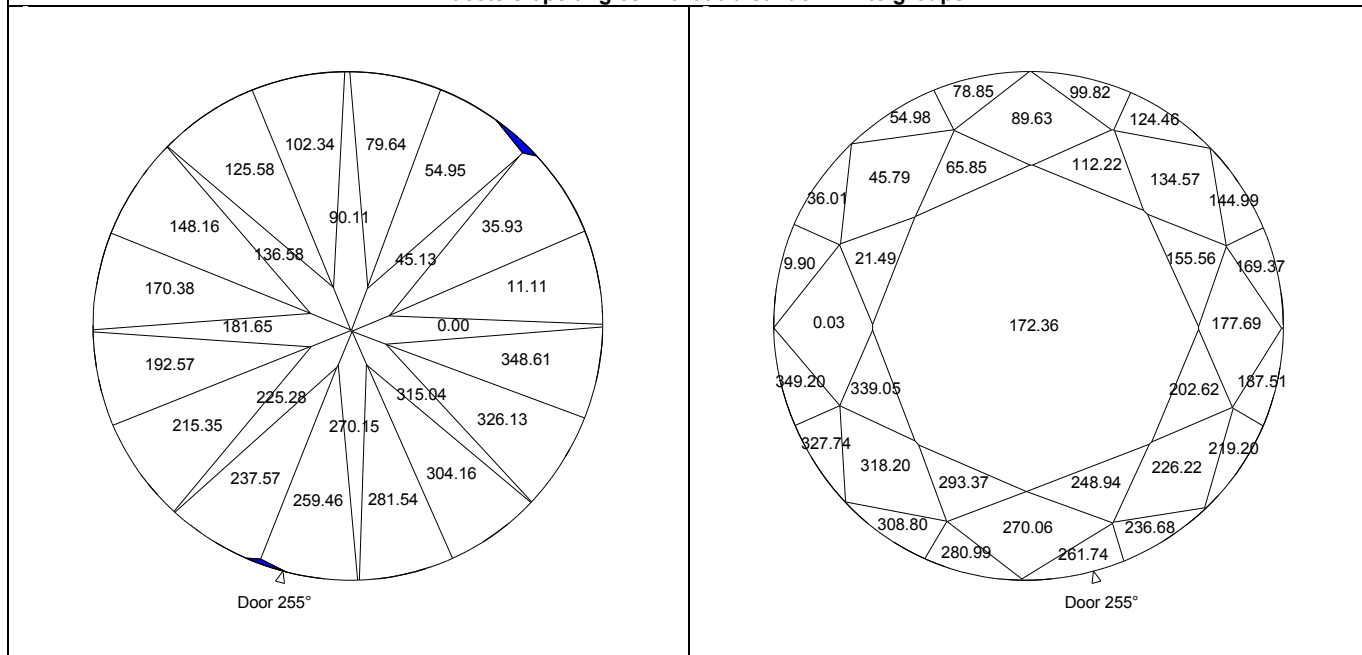


Deviation of girdle facets azimuth angles

All facets slope and azimuth angles without breakdown into groups

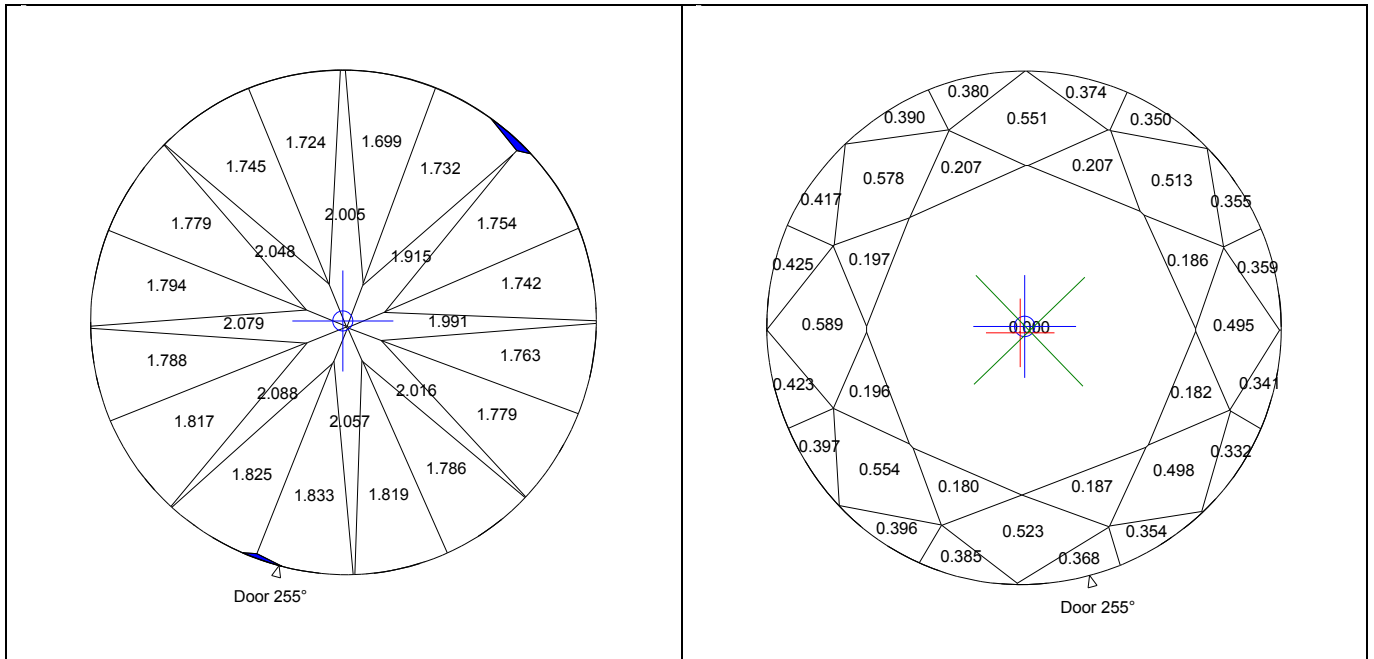


All facets slope angles without breakdown into groups

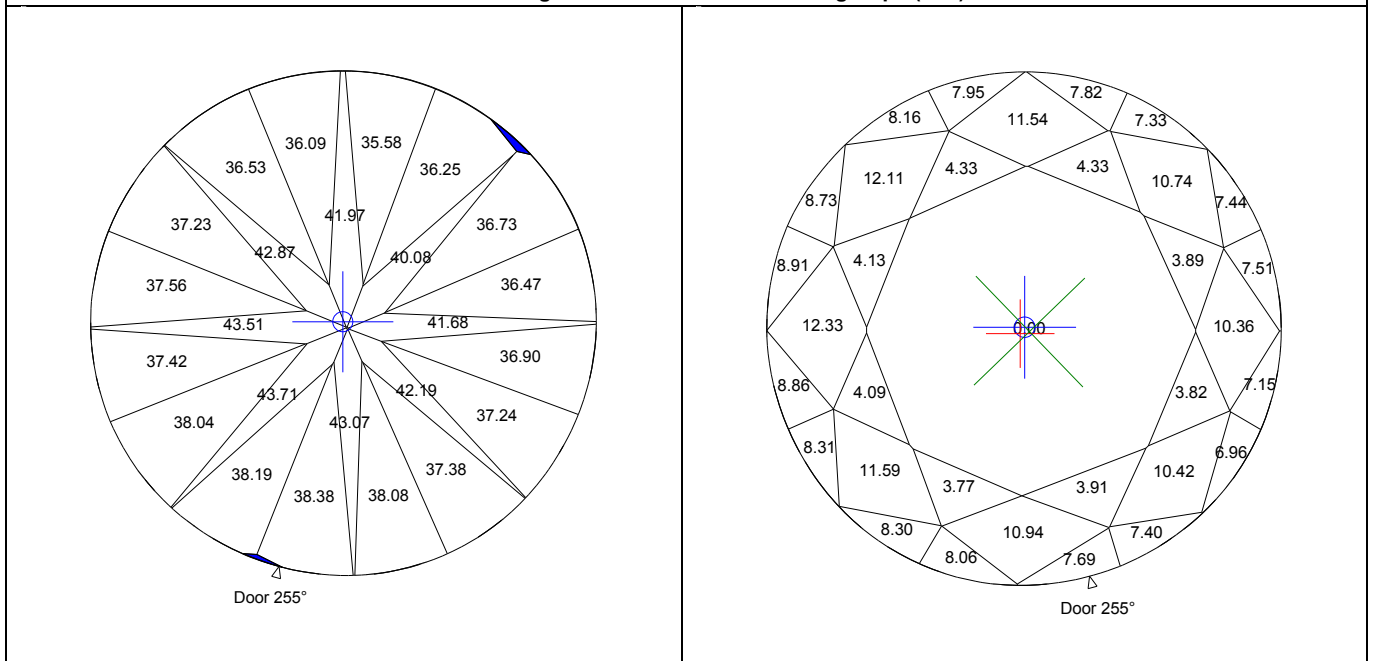


All facets azimuth angles without breakdown into groups

All facets heights without breakdown into groups

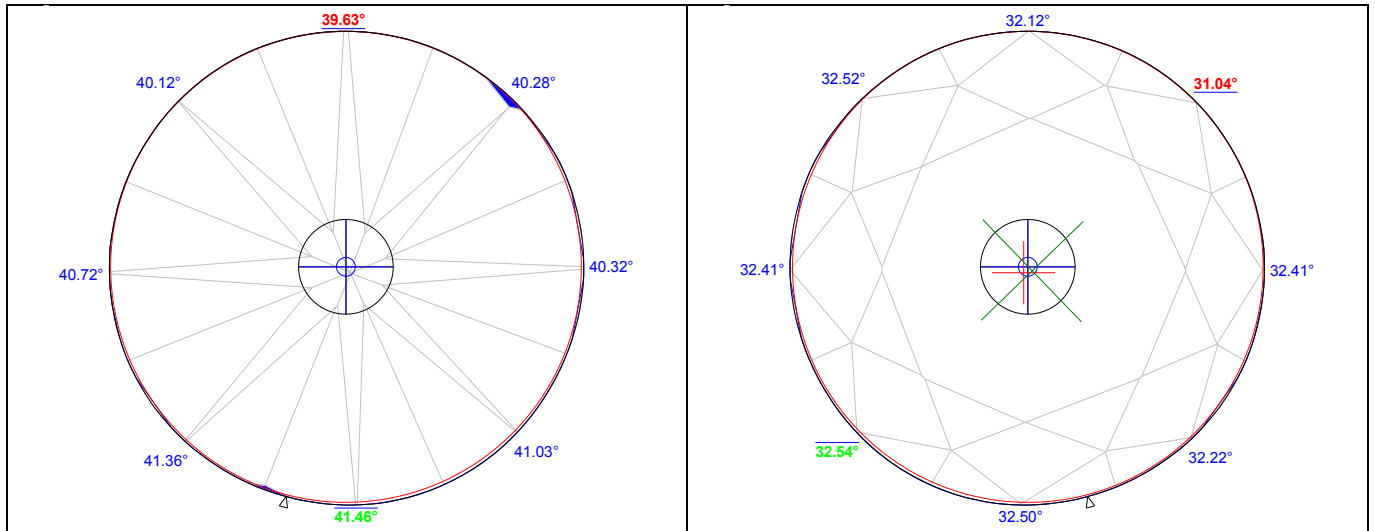


All facets heights without breakdown into groups (mm)

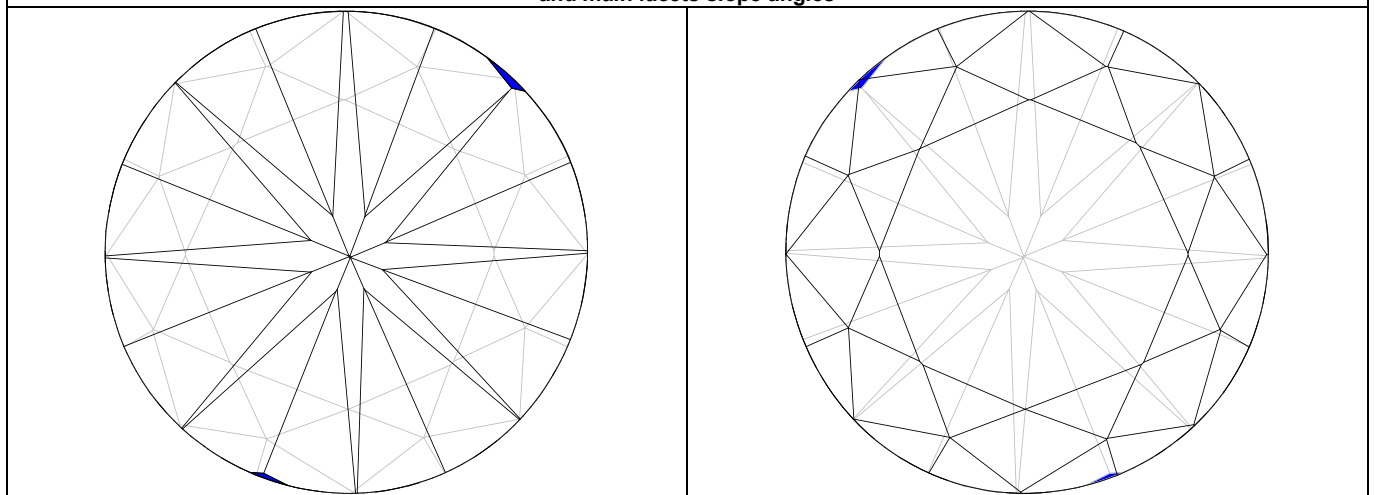


All facets heights without breakdown into groups (%)

Additional illustrations



Pavilion and crown views 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, and main facets slope angles



Pavilion and crown views with indication of invisible edges without refraction

⊕ Girdle center
 + Culet center
 × Table center
 ⊕ MIC center