


Facets Azimuth Symm

- [Main Crown Facets Azimuth Symm](#)
- [Main Pavilion Facets Azimuth Symm](#)
- [Star Facets Azimuth Symm](#)

 These parameters are applicable only to Round brilliant cut.

Main Crown Facets Azimuth Symm

Main Crown Facets Azimuth (symmetry) is the deviation of azimuths of the normals to the main crown facets from the ideal values. As all symmetry parameters, it is an estimate of a deviation from perfect symmetry, and should be zero for an ideal stone.

Normal vectors to the main crown facets (bezel facets) are constructed, and their azimuth calculated. Then all pairwise differences of these azimuth are found, and their deviations from the ideal values are considered. The deviations for the adjacent and opposite facets are put in the Array A, the rest in the Array B. The final value is calculated as

Main Crown Facets Azimuth = $\max(\max(A_p), 1/2 \max(B_p))$

Reporting

The maximum values of arrays A and B are reported separately.

Reported in	Section	Values	Units	Bookmarks
Full Report for Brilliant	Main Parameters	Overall value	°	MAIN_CRN_FACET_AZIMUTH_SYM_DEG
		Max(Array A)	°	MAIN_CRN_FACET_AZIMUTH_SYM_DEG1
		Max(Array B)	°	MAIN_CRN_FACET_AZIMUTH_SYM_DEG2

Individual values of azimuth differences between particular facets are not reported.

Main Pavilion Facets Azimuth Symm

Main Pavilion Facets Azimuth (symmetry) is the deviation of azimuths of the normals to the pavilion facets from the ideal values. As all symmetry parameters, it is an estimate of a deviation from perfect symmetry, and should be zero for an ideal stone.

Normal vectors to the pavilion facets are constructed, and their azimuth calculated. Then all pairwise differences of these azimuth are found, and their deviations from the ideal values are considered. The deviations for the adjacent and opposite facets are put in the Array A, the rest in the Array B. The final value is calculated as

Main Crown Facets Azimuth = $\max(\max(A_p), 1/2 \max(B_p))$

Reporting

The maximum values of arrays A and B are reported separately.

Reported in	Section	Values	Units	Bookmarks
Full Report for Brilliant	Main Parameters	Overall value	°	MAIN_PAV_FACET_AZIMUTH_SYM_DEG
		Max(Array A)	°	MAIN_PAV_FACET_AZIMUTH_SYM_DEG1
		Max(Array A)	°	MAIN_PAV_FACET_AZIMUTH_SYM_DEG2

Individual values of azimuth differences between particular facets are not reported.

Star Facets Azimuth Symm

Star Facets Azimuth (symmetry) is the deviation of azimuths of the normals to the star facets from the ideal values. As all symmetry parameters, it is an estimate of a deviation from perfect symmetry, and should be zero for an ideal stone.

Normal vectors to the star facets are constructed, and their azimuth calculated. Then all pairwise differences of these azimuth are found, and their deviations from the ideal values are considered. The deviations for the adjacent and opposite facets are put in the Array A, the rest in the Array B. The final value is calculated as

Main Crown Facets Azimuth = $\max(\max(A_p), 1/2 \max(B_p))$

Reporting

The maximum values of arrays A and B are reported separately.

Reported in	Section	Values	Units	Bookmarks
Full Report for Brilliant	Main Parameters	Overall value	°	STAR_FACET_AZIMUTH_SYM_DEG
		Max(Array A)	°	STAR_FACET_AZIMUTH_SYM_DEG1
		Max(Array B)	°	STAR_FACET_AZIMUTH_SYM_DEG2

Individual values of azimuth differences between particular facets are not reported.