

American Gem Society™ PRINCESS CUT INFORMATION

PERFORMANCE CUT GRADE SUBCATEGORIES

CUMULATIVE	NET LOWERING
Brightness Dispersion Leakage Contrast Weight Ratio Durability	Girdle Culet Size Polish Symmetry

LIGHT PERFORMANCE SUBCATEGORIES

Light performance is composed of the cumulative subcategories of Brightness, Dispersion, Leakage, and Contrast. Light performance is calculated by raytracing software that uses a 3D model of the diamond.

WEIGHT RATIO GUIDELINES

Weight ratio is a diamond's face up size compared to its weight. This is also known as millimeter footprint versus weight. This formula normalizes the weight of the stone as if the stone had a 6 mm diameter.

NW = normalized weight
C = stone weight
L = length
W = width

$$NW = C * \left(\frac{6 \sqrt{LW}}{LW} \right)^3$$

Round NW to three decimal places.

NW >	NW <=	CUMULATIVE
0.000	1.450	0

DURABILITY GUIDELINES

If the crown angle is less than 30 degrees, then the overall cut grade will be effected.

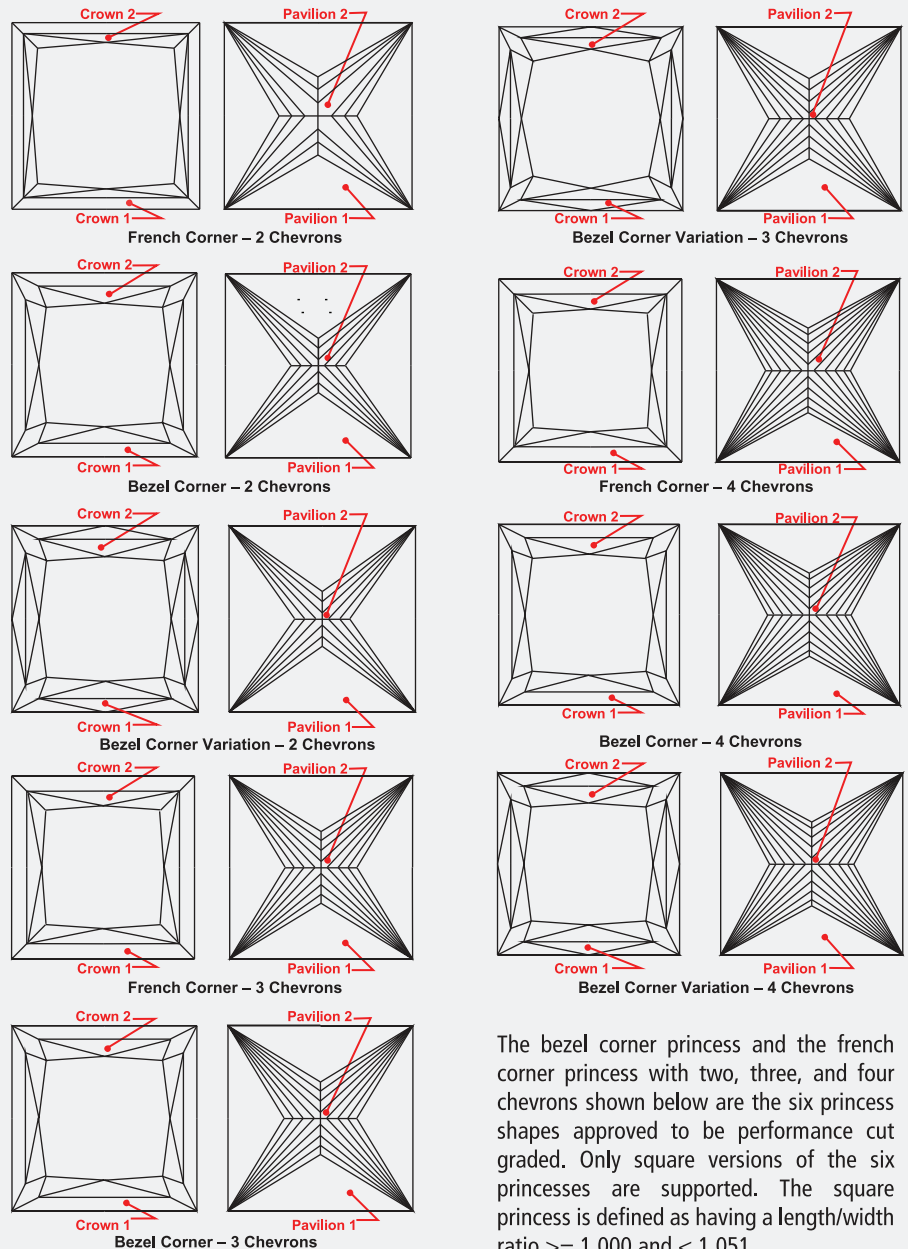
CULET SIZE GUIDELINES

DESCRIPTION	NET LOWERING
Pointed, Very Small, Small, Medium	0

POLISH AND SYMMETRY GUIDELINES

NET LOWERING	DESCRIPTION
Ideal	0 Extremely difficult to locate under 10x
Excellent	1 Very difficult to locate under 10x
Very Good	2 Difficult to locate under 10x
Good	3 Relatively easy to see under 10x, not visible to unaided eye
Good	4 Easy to see under 10x, extremely difficult to see with unaided eye
Fair	5 Very easy to see under 10x, very difficult to see with unaided eye
Fair	6 Obvious to see under 10x, difficult to see with unaided eye
Fair	7 Relatively easy to see with unaided eye
Poor	8 Easy to see with unaided eye
Poor	9 Obvious to see with unaided eye
Poor	10 Obvious to see with unaided eye

SUPPORTED PRINCESS GUIDELINES



The bezel corner princess and the french corner princess with two, three, and four chevrons shown below are the six princess shapes approved to be performance cut graded. Only square versions of the six princesses are supported. The square princess is defined as having a length/width ratio ≥ 1.000 and < 1.051 .

GIRDLE THICKNESS GUIDELINES

Record the minimum and maximum thickness of the girdle

NET LOWERING	DESCRIPTION	THICKNESS	MEASUREMENT USED
3	Extremely Thin	=0.0%	Thinnest @ any point
1	Very Thin	>0.0% AND <0.5%	Thinnest @ any point
0	Thin	>=0.5% AND <3.0%	Thinnest @ any point
0	Medium	>=3.0% AND <4.0%	Thickest @ any point
0	Slightly Thick	>=4.0% AND <5.0%	Thickest @ any point
3	Thick	>=5.0% AND <6.0%	Thickest @ any point
5	Very Thick	>=6.0% AND <7.0%	Thickest @ any point
7	Extremely Thick	>=7.0% AND <8.0%	Thickest @ any point
8	Extremely Thick	>=8.0% AND <9.0%	Thickest @ any point
9	Extremely Thick	>=9.0% AND <10.0%	Thickest @ any point
10	Extremely Thick	>=10.0%	Thickest @ any point