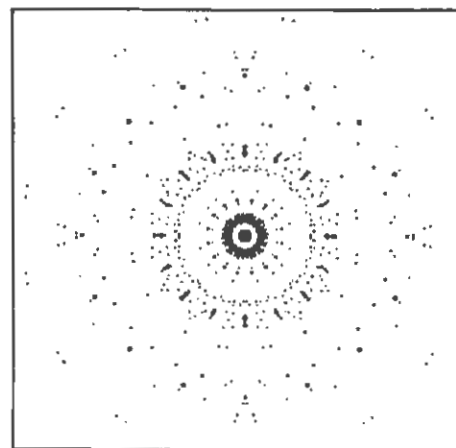


choice between a 50 or 60 percent Table. Diagrams appropriate for other RI materials are similar to RI=1.54, but differ in details of actual angle recommendations.

Design 1.028 PORTUGUESE CUT (for Corundum)

Figure 5 is a BRIGHTNESS CONTOUR diagram for Design 1.028 the PORTUGUESE CUT in RI=1.76 (Corundum). This is a much different diagram from the SRB 60% Table for Quartz we show in Figure 1. If we disregard the scale differences, we see the major difference is that the region supporting the highest brightness is in the upper left corner in Figure 1 and the lower left corner in Figure 5. This implies brightness tends to increase with SHALLOW PAVILIONS for the Portuguese Cut, (just the opposite for the SRB cut).

We do not show the BRIGHTNESS CONTOUR diagram for Quartz



REFLECTION PATTERN Design 1.028. Note very strong reflection points in the center and the circular rings.

with the Portuguese Cut, because it is totally unsuited for such low RI materials as Quartz, Beryl, and Topaz. Instead, Figure 5 is based on RI=1.76 (Corundum). The reason Quartz is not appropriate for this design is low brightness that results from loss of light thru the pavilion angles that are outside the "window" we discussed in the July SFD (PAVILION ANGLE LIMITS article). To get the higher BRIGHTNESS values it was

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