

Diamond Information

Light Performance

Date May 12, 2026

Gemprint ID RDN1-4590

Reference No. P329861 / GIA1236473922

Shape Round

Weight 4.01 carat(s)

Measurements 10.11-10.17x6.33mm

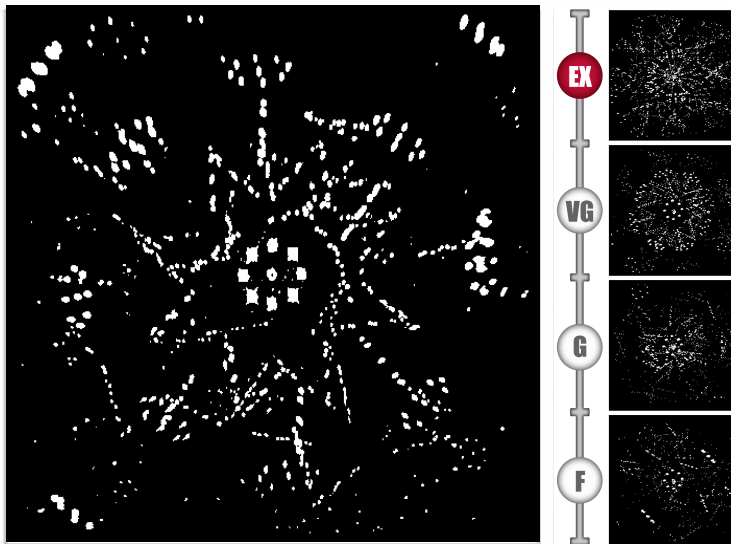
Light Return



Scintillation



Light Return



What is Light Return?

Light Return, also known as brilliance or total brightness, is the exceptional way diamonds reflect and refract light, creating a luminous display that has captivated viewers for centuries. Gemprint's Light Performance technology captures and measures the actual light output from a diamond. The Gemprint instrument shines a single red laser beam into a diamond and analyzes the emitted light. First, data is collected by directing the beam perpendicularly into the diamond. Then, the instrument tilts the diamond approximately 12-14 degrees in eight different directions to assess light return from various angles. The collected data is compiled, analyzed, and graded on a scale of Fair, Good, Very Good, and Excellent.



What is Scintillation?

Scintillation refers to the sparkling flashes of light observed when a diamond is moved. Since diamonds are rarely viewed from a single angle, scintillation evaluates the overall light return from the diamond as it is viewed from various perspectives. Gem print Light Performance captures the diamond's light return at nine distinct positions, represented by the nine images displayed in the "Scintillation" section of this report.



Gemprint® is the world's most sophisticated, non-invasive technology for positive diamond identification. It records the unique optical "fingerprint" of each diamond, much like a human fingerprint.

Gemprint® Light Performance technology assesses a diamond's actual light output by measuring its Light Return, Scintillation, and Optical Symmetry. The instrument shines a single beam of light into the diamond. As this light is reflected and refracted by every facet and internal characteristic, Gemprint® analyzes the light returning from the diamond. By collecting data from 9 different positions, Gemprint® provides a true analysis of a diamond's light handling ability, unlike other cut grading systems that rely on hypothetical models. Gemprint® Light Performance is the only system that allows you to easily verify that the reported light performance pertains to your specific diamond.



Scan to learn more about Gemprint® Light performance.