UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 6-K

Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16
under the Securities Exchange Act of 1934

For the month of November 2026

Commission file number: 001-41334

RAIL VISION LTD.
(Translation of registrant's name into English)

7 HaPnina St.
P.O. Box 2155
Ra'anana 4321547, Israel
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ☒ Form 40-F ☐

CONTENTS

Attached hereto and incorporated herein is the Registrant's press release issued on November 9, 2026, titled "Rail Vision's Quantum Platform Launches End-to-End Quantum Error Correction Program at the Israeli Quantum Computing Center."

The first seven paragraphs in the press release attached as Exhibit 99.1 are incorporated by reference into the Registrant's Registration Statements on F-3 (File Nos. 333-271068, 333-272933, 333-277963 and 333-278645) and Form S-8 (File Nos. 333-265968, 333-281329 and 333-286652), filed with the Securities and Exchange Commission, to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.

EXHIBIT INDEX

Exhibit No.	
99.1	Press release issued by Rail Vision Ltd. on November 9, 2026, titled "Rail Vision's Quantum Platform Launches End-to-End Quantum Error Correction Program at the Israeli Quantum Computing Center"

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Rail Vision Ltd.

Date: November 9, 2026

By: */s/ Ofer Naveh*
Name: Ofer Naveh
Title: Chief Financial Officer

Exhibit 99.1

Rail Vision's Quantum Platform Launches End-to-End Quantum Error Correction Program at the Israeli Quantum Computing Center

Ra'anana, Israel, November 9, 2026 (GLOBE NEWSWIRE) – Rail Vision Ltd. (Nasdaq: RVSN, FSE: C80) ("Rail Vision" or the "Company"), an early commercialization stage technology company transforming railway safety through advanced AI-integrated sensing systems, announces today, that its subsidiary Quantum Transportation Ltd. ("Quantum Transportation") launched an end-to-end Quantum Error Correction (QEC) program on the Arbel superconducting quantum processor at the Israeli Quantum Computing Center (IQCC).

The Company believes that this program represents an important technological milestone in Quantum Transportation's efforts to develop an integrated quantum error correction architecture designed to improve the reliability and scalability of quantum computing systems.

The initial experiments on the Arbel processor in this program establish a foundation for a unified workflow that connects quantum device characterization, circuit execution and error decoding. By bringing these capabilities together on actual quantum computing hardware, Quantum Transportation's aim is to advance beyond isolated error correction components toward a comprehensive system capable of identifying, processing and correcting quantum errors within a coordinated operational framework. The next phase will focus on incorporating Quantum Transportation's noise-aware decoder directly into the operational workflow.

Quantum error correction is widely regarded as one of the critical technological challenges facing the quantum computing industry. Quantum processors are inherently sensitive to environmental interference, imperfect operations and other sources of noise that can introduce errors during computations. Overcoming these limitations is essential to the development of reliable, fault-tolerant quantum computers capable of executing increasingly complex algorithms.

Quantum Transportation intends to further develop an end-to-end quantum error correction workflow in collaboration with control-system and accelerated-computing partners, with the objective of connecting quantum hardware operations and classical computational processing into a coordinated system.

This approach is intended to address one of the fundamental requirements of fault-tolerant quantum computing: the ability to process error information rapidly enough to support quantum operations as they occur.

The Company views the launch of experiments at IQCC as an important first step in this development effort. The initial stage does not constitute a demonstration of real-time quantum error correction or fault-tolerant quantum computation, both of which remain objectives of subsequent development phases.

About Rail Vision Ltd.

Rail Vision (Nasdaq: RVSN) is an early commercialization stage technology company transforming railway safety through advanced AI-integrated sensing systems. The Company develops and commercializes proprietary electro-optic platforms that provide extended-range situational awareness and real-time hazard detection. Using machine learning algorithms to identify and classify obstacles, Rail Vision's technology enhances safety, improves operational efficiency, and supports continuity across deployments.

The Company's cloud-based platform complements its products by transforming railway operational data into actionable insights that help optimize performance, reduce downtime, and improve safety. As the Company expands its global footprint, it delivers AI-driven perception that supports safer operations, reduces operational risk, and enables the transition to fully autonomous operations.

Rail Vision holds a 51% stake in Quantum Transportation, which has an exclusive sub-license for rail technologies, under an innovative pending patent application in quantum error correction owned by Ramot, the technology transfer company of Tel Aviv University.

For more information, please visit https://www.railvision.io/

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act and other securities laws. Forward-looking statements contained in this press release include, but are not limited to, statements regarding Rail Vision's and its subsidiary's strategic and business plans, technology, relationships, objectives and expectations for its business, growth, the impact of trends on and interest in its business, intellectual property, products and its future results, operations and financial performance and condition and may be identified by the use of words such as "may," "seek," "will," "consider," "likely," "assume," "estimate," "expect," "anticipate," "intend," "believe," "do not believe," "aim," "predict," "plan," "project," "continue," "potential," "guidance," "objective," "outlook," "trends," "future," "could," "would," "should," "target," "on track" or their negatives or variations, and similar terminology and words of similar import, generally involve future or forward-looking statements. For example, the Company is using forward-looking statements when it discusses Quantum Transportation's plans and efforts to develop an end-to-end quantum error correction workflow; the potential capabilities, benefits, reliability and scalability of its quantum error correction architecture; plans to incorporate its noise-aware decoder into the operational workflow; plans to collaborate with control-system and accelerated-computing partners; and its objectives of enabling real-time quantum error correction and fault-tolerant quantum computation. Forward-looking statements are not historical facts, and are based upon management's current expectations, beliefs and projections, many of which, by their nature, are inherently uncertain. Such expectations, beliefs and projections are expressed in good faith. However, there can be no assurance that management's expectations, beliefs and projections will be achieved, and actual results may differ materially from what is expressed in or indicated by the forward-looking statements. Forward-looking statements are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the forward-looking statements. For a more detailed description of the risks and uncertainties affecting the Company, reference is made to the Company's reports filed from time to time with the Securities and Exchange Commission ("SEC"), including, but not limited to, the risks detailed in the Company's annual report on Form 20-F, for the fiscal year ended December 31, 2025, filed with the SEC on March 31, 2026 and in subsequent filings with the SEC. Forward-looking statements speak only as of the date the statements are made. The Company assumes no obligation to update forward-looking statements to reflect actual results, subsequent events or circumstances, changes in assumptions or changes in other factors affecting forward-looking information except to the extent required by applicable securities laws. If the Company does update one or more forward-looking statements, no inference should be drawn that the Company will make additional updates with respect thereto or with respect to other forward-looking statements. References and links to websites have been provided as a convenience, and the information contained on such websites is not incorporated by reference into this press release. Rail Vision is not responsible for the contents of third-party websites.

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