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 May 2026

Commission file number: 001-41334

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

15 Ha'Tidhar St
Ra'anana, 4366517 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 June 3, 2026, titled "Rail Vision Technology Integrated into Railserve's Commercially Launched Industrial Railyard Safety System."

The first three paragraphs in the press release attached as Exhibit 99.1 are incorporated by reference into the Registrant's Registration Statements on Form 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and Exchange Commission, to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.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 June 3, 2026, titled "Rail Vision Technology Integrated into Railserve's Commercially Launched Industrial Railyard Safety System"

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: June 3, 2026

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

Exhibit 99.1

Rail Vision

Rail Vision Technology Integrated into Railserve's Commercially Launched Industrial Railyard Safety System

The technology is being showcased at Marmon Rail's booth at Railway Interchange 2026 as part of Railserve's exhibit

Ra'anana, Israel, June 3, 2026 (GLOBE NEWSWIRE) - Rail Vision Ltd. (Nasdaq: RVSN) ("Rail Vision" or the "Company"), an early commercialization stage technology company transforming railway safety through advanced AI-integrated sensing systems, announced today that its ShuntingYard system is now integrated into YardGUARD, Railserve's industrial railyard safety system, recently introduced for commercial deployment. The ShuntingYard system serves as a core technology within WatchGUARD, Railserve's situational awareness and obstacle detection solution, which is a component of its broader safety system. This follows the Company's non-binding MOU signing announcement of May 29, 2026, which established the framework for expanding the collaboration with Railserve, a Marmon Rail company.

Railserve's safety solution brings together several interconnected safety components into one safety system. It delivers real-time visibility and alerts across critical areas of the yard. The system integrates Rail Vision's proprietary perception technology to provide real-time situational awareness and obstacle detection, along with communications and cloud-based monitoring technologies, to deliver synchronized yard-side indications and in-cab alerts. The system also supports automatic braking functionality and more informed decision-making during active railcar moves.

Rail Vision's ShuntingYard system, an advanced AI-powered perception system designed to enhance rail yard continuity, operational efficiency and safety, is being showcased this week at Railway Interchange 2026 in Omaha, Nebraska. The system is also on display in real-world configuration at Marmon Rail's booth as part of Railserve's yard safety solution.

"We value the collaboration with Rail Vision and the inclusion of its perception technology as a core technology component within WatchGUARD, which is part of YardGUARD, our recently launched safety intelligence system," said Laurie Stiles, President of Railserve. "By combining complementary technologies into a unified platform, we believe the system can support safer rail yard operations while helping improve operational continuity and reduce downtime."

"We are proud to be part of Railserve's safety solution and to see our AI-powered perception technology deployed within this system," said David BenDavid, CEO of Rail Vision. "We believe this marks an important step in strengthening traction in the North American railyard market and supports our broader efforts to expand across the region, while contributing to improvements in safety, efficiency, and operational control."

About Railserve Inc.

Railserve is North America's leading on-site industrial rail services company, operating rail switching, material handling, track services, and locomotive repair services across 100+ locations. Backed by decades of experience and deep operational expertise, Railserve focuses on safety and pioneering innovation to help customers keep railyard operations safe, reliable, and running efficiently.

Railserve is a Marmon Rail company, a part of Marmon Holdings, a Berkshire Hathaway company.

www.Railserve.com

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, multi-spectral 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 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. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements. Such expectations, beliefs and projections are expressed in good faith. For example, Rail Vision is using forward-looking statements when it discusses strengthening traction in the North American railyard market and its broader expand across the region, while contributing to improvements in safety, efficiency, and operational control. 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. 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.

Investor Relations:

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